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Comparative Institutional Advantage in Corporate Governance and Managerial Hierarchies: The Case of European Airlines

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Presented by the author to INSEAD faculty in partial fulfillment of the requirements of the degree of Ph.D. in Management

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Abstract

This study applies the lens of comparative political economy to patterns of strategic decision making and economic performance in individual companies. The concept of "comparative institutional advantage" is developed to argue that national institutional patterns influence the decision routines that firms will rely upon to adjust to changes in their industry environment. The study shows how the macro national institutional context influenced the management styles of companies through the varying role and discretion of top management vis à vis lower levels of the managerial hierarchy.

The comparative institutional lens is applied to the European airline industry in a period of deregulation and rapid technological change. The ascendancy of British Airways in the 1980s contrasts with the relative decline of Lufthansa in that decade (and its turnaround in the 1990s) and with the disaster of Air France. Cross-border differences in corporate governance and managerial hierarchies help explain the different ways these companies adjusted to transformations in their industry, with British Airways building a 5-10 year lead in a series of important commercial innovations.. Two institutional factors in particular are highlighted: the degree of unilateral CEO control and the mobility of middle managers. Data collection drew on a wide variety of sources: company documents, industry studies, and extensive interviewing with airline managers, industry experts, and civil servants.

The top management of these companies, influenced by differing constellations of institutional resources and constraints, was found to develop widely varying styles in the way they orchestrated organizational processes to adjust to industry developments, with significant ramifications for performance and competitive advantage. The distinctive contribution of this research is in highlighting national sources of competitive advantage that reside not in characteristics of individuals, organizations, or industries, but in the institutionalized rules governing the relationship between social groups and roles within the complex business enterprise.

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CHAPTER ONE: TOWARDS A COMPARATIVE POLITICAL ECONOMY APPROACH TO STRATEGIC MANAGEMENT

1.1 The stakeholder-influence model

Beyond framing the empirical results of the author's research on European civil aviation, the present chapter has two objectives. First, this chapter reviews significant contributions in comparative political economy that are relevant to the core theoretical issues of strategic management. What follows is a synthesis of the comparative literature from the perspective of strategy. Second, this chapter extracts from this literature a set of analytical building blocks that can be used to examine the competitive dynamics of rivalry between firms situated in different national institutional contexts. Concepts like "industrial strategy," "strategic adjustment," and "comparative institutional advantage" arguably help to fill existing gaps in theories of strategic management. This chapter derives the definitions and connotations of these concepts from recent work in comparative political economy and argues for their relevance to the study of strategic competition between firms. These concepts constitute the lens with which post-liberalization competition between British Airways, Air France, and Lufthansa will be viewed in subsequent chapters.

A core issue of strategic management addressed by comparative political economy concerns *patterned institutional constraints and resources affecting the strategic choices faced by company management.* These institutional constraints and resources arise in large part from *the way stakeholder interests in the firm are organized and represented.* Loosely following Freeman (1984), stakeholders can be defined as "any group which can influence, or whose interests are affected by, the achievement of the firm's objectives." The firm's stakeholders include employees, owners, suppliers, customers, lenders, and government. The relative power and rights of stakeholders, while obviously varying considerably from one firm to another within a given country, also vary in patterned ways across national borders. Cross-national differences in industrial relations, financial systems, legal frameworks, industry coordination, elites, and the role of the state induce systematic variation in the relative power and prerogatives of firm stakeholders in different national settings. This variation, in turn, leads to cross-national variation in the constraints and resources weighing on the strategic choice sets of company managers.

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From the standpoint of comparative political economy, institutional "constraints" are seen as relative rather than absolute, that is, as significant for their presence in one country but for their absence in another. Comparativists often use the term "enabling condition" to denote simply the absence of certain institutional constraints on one or more firms in comparison with other firms, notably competitors, where such constraints are present. For example, Anglo-Saxon companies are sometimes said to suffer from the tyranny of "short-termism" arising from the power of financial stakeholders exercised through capital markets, thus limiting the ability of Anglo-Saxon managers to make long-term strategic commitments; relative to this institutional constraint on Anglo-Saxon companies, German and Japanese have access to "patient" or "dedicated" capital, an *enabling condition* permitting German and Japanese managers to pursue longer-term strategies than their Anglo-Saxon competitors.

The national institutional factors studied in this research form a subset of the locational advantages and disadvantages confronting companies which compete from different home-country bases.[1] Example of locational factors which are *not* institutional in nature include geography, exchange rates, the size of the domestic consumer market, and natural resources. In contrast, institutional locational factors like industrial relations, financial systems, and the role of the state tend to affect the relative power of different stakeholders in ways that narrow or widen the range of viable choices for company management. Obviously, the influence on company strategy of institutional factors is often indirect and difficult to assess empirically.

Although strategic management scholars are not oblivious to stakeholder influences on managerial action, in practice the mainstream of strategic management theory in the 1980s and 1990s has accorded short shrift to the institutional impediments and resources facing firm decision-makers. The ascendancy of micro-economic approaches to strategy (Rumelt, Schendel et al., 1991) is doubtless one reason for the marginalization of institutional factors. While the stakeholder approach to strategy has often had a rather prescriptive orientation (Ackoff, 1974; Freeman, 1984), the comparative political economy approach to strategy is empirical and theoretical. Cross-national differences in the way that stakeholder interests are organized and represented, far from being mere social curiosities, demonstrably affect the strategic choices of firms.

Prior comparative research suggests that they do so in patterned, predictable ways. The weight of empirical evidence so far fails to support the hypothesis of converging institutional practices across countries over time (Scharpf, 1989; Crouch, 1993; Berger and Dore, 1996). An alternative hypothesis, equally consistent with the evidence, is that institutional differences confer upon countries and their firms a set of comparative institutional

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[1] The same type of institutional analysis can also be conducted at the level of the *region* or of the *sector*. The reasons for the higher level of analysis chosen in this research are explained below.

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advantages and disadvantages that lead to specialization based on the match between a country's institutional framework and the industry-specific tasks which it must manage on the other (Kitschelt, 1991; Soskice, 1994a; Lehrer, 1997). This study develops the concept of "comparative institutional advantage" to suggest that national institutional patterns influence the decision routines that firms will rely upon to adjust to changes in their industry environment. Somewhat pointedly expressed, countries specialize not only in resources and industries, but also - without denying the significance of industry effects - in the decision-making processes of their firms.[2]

It behooves us to state clearly how the comparative political economy approach fits into the field of strategic management and what conceptual gap it can help to fill. In some ways, the comparative political economy approach to strategy, far from being alien to the field, is in reality a "road not taken," that is, a combination of central concepts of strategic management whose logical coherence was latent in earlier strategy work but never systematically developed. To take the stakeholder concept, for example, Freeman (1984: 33) points out the stakeholder approach was already sufficiently prominent in the 1960s that one of the founding texts of strategic management (Ansoff, 1965) felt compelled to argue against it. As far as political approaches to strategy and constraints on managerial action are concerned, these have generally remained segregated into a separate "process school" of strategy (Bower and Doz, 1979; Burgelman, 1983; Chakravarthy and Doz, 1992), as Prahalad and Hamel (1994:11) have regretfully noted.

As a first step in staking the claim of the comparative political economy approach to appurtenance within the strategy mainstream, the composite definition of strategy developed by Hofer and Schendel (1978) helps illuminate what the main approaches have been in recent years. Hofer and Schendel identified four principal components of strategic management:

(1) product/market scope

(2) resource deployments and distinctive competences

(3) competitive advantage

(4) synergy

Very generally, the dominant strategy approach of the late 1970s and early 1980s studied the relationship between firm profitability and the firm's position within its industry (Caves and Porter, 1977; Hatten and Schendel, 1977; Woo, 1981). This approach was rooted in the study of industrial organization and found its best-known exposition in Porter (1980). In terms of the Hofer and Schendel (1978) definition, the industrial organization or positional approach to

[2] As mentioned earlier, the same analysis can be applied to regions (Piore and Sabel, 1984) or to national sectors (Hollingsworth, Schmitter et al., 1994) within countries.

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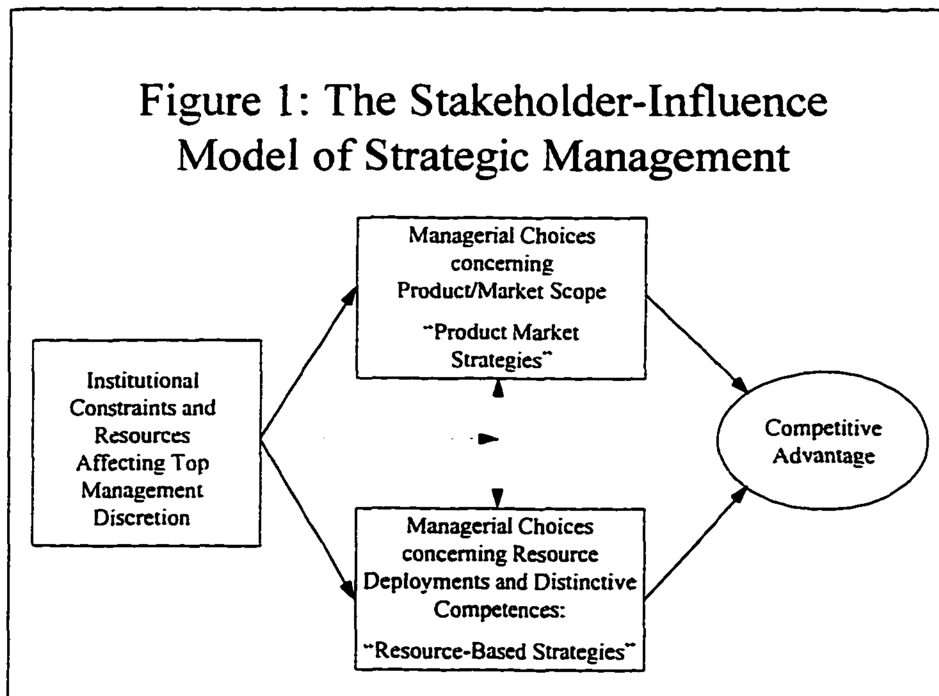
strategy can be roughly formalized as studying the effect of (1) product/market scope on (3) competitive advantage, i.e. (1) ==> (3).

Since the mid-1980s, however, an alternative paradigm has come to the forefront of strategic management, the resource-based view of the firm (Wernerfelt, 1984; Rumelt, 1987; Dierickx and Cool, 1989). Whereas the industrial organization view had emphasized oligopolistic *market power* and imperfections in *product* markets as critical determinants of competitive advantage, the resource-based view emphasizes *rents* from firm-specific resources (Rumelt, 1987) and imperfections in *factor* markets (Barney, 1986) as important sources of sustainable firm profitability. In terms of Hofer and Schendel's (1978) definition of strategy, the resource-based approach to strategy can be roughly formalized as studying the effect of (2) resource deployments and distinctive competences on (3) competitive advantage, i.e. (2) ==> (3).

The comparative political economy approach to strategic management is summarized in Figure 1. Expressed in Hofer and Schendel's terms, the particular set of institutional constraints and resources in which a firm is embedded affects company management's freedom of action and imposes particular institutional costs and benefits on the pursuit of certain firm choices concerning (1) product/market scope and (2) resource deployments and distinctive competence, thereby affecting the firm's (3) competitive *advantage*.



To bring the vocabulary of Schendel and Hofer (1978) into conformity with current usage, strategic firm actions which concern its product/market scope

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will henceforth be referred to as *product market strategies*; strategic firm actions which affect its resource deployments and distinctive competences will be termed simply *resource-based strategies*. In a nutshell, then, the comparative political economy approach to strategic management studies *patterned institutional constraints and resources that affect the relative costliness of pursuing alternative product market and resource-based strategies and thereby affect the firm's competitive advantage*. Institutional constraints and resources do not fully prohibit the management of firms from making certain strategic choices (constraints are rarely absolute), but they do affect the relative costliness of pursuing alternative strategies. The dotted lines in Figure 1 refer to the fact that certain contributions in comparative political economy have something to say about the *interdependence* between the firm's product/market scope on the one hand and its resource deployments on the other. The relevant literature is reviewed below under the rubric of "industrial strategy".

Clearly the competitive advantage a firm enjoys because of its institutional environment is relative to competitors based in differing institutional contexts. In this view, *competitive* institutional advantages accruing to firms in a particular industry result from *comparative* institutional advantages bestowed by the home-country institutional environment; the firm is, in a sense, the economic agent of its home country's institutionally-related comparative advantages.

A companion concept to the analysis of competitive advantage is "barriers to imitation" (Hatten and Hatten, 1987). A firm's competitive advantage is only sustainable to the extent that certain forces prevent the firm's competitors from adopting similar strategies and thereby eroding the basis of the firm's superior performance. In the industrial organization or positional view of strategy, the most familiar barriers to imitation are *entry and mobility barriers* inherent in the structure of the industry (Caves and Porter, 1977). In the resource-based view, *isolating mechanisms* (Rumelt, 1984) shield the firm's strategic rent-generating resources from easy imitation by other firms. As patents and trademarks are known to provide solid protection from imitation in only a limited number of industries, recent contributions to strategic management emphasize complexity and causal ambiguity as significant barriers to the imitation of best practice (Lippman and Rumelt, 1982; Reed and DeFillippi, 1990; Amit and Schoemaker, 1993). What makes many firm-specific resources and capabilities often resistant to simple imitation is their embeddedness in complex routines of interaction (Nelson, 1991; Winter, 1995), the fact that they are built on stocks of tacit rather than explicit knowledge (Kogut and Zander, 1992), and/or that they have to be accumulated slowly over a period of time on a history-dependent learning path (Dierickx and Cool, 1989; Teece, Rumelt et al., 1994).

The institutional factors studied by comparative political economy pertain to both types of barriers of imitation, i.e. entry and mobility barriers (consistent with the industrial organization or positional approach) as well as isolating

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mechanisms (consistent with the resource-based view). Concerning the first type of barrier to imitation, for instance, the distinction between low-cost, differentiation, and niche strategies (Porter, 1980) is fundamental to numerous comparative industry studies in political economy; as discussed in greater detail below, many contributions have argued that institutional factors propel Japanese, German, and other Northern European firms toward differentiation and niche strategies based on high wages and heavy investments in human capital, while Anglo-Saxon labor institutions condemn many (but by no means all) US and UK firms to low-cost, low-wage industry equilibria. Expressed in the language of strategic management, national institutional patterns in industrial relations and labor markets act as entry and mobility barriers by imposing differential institutional costs on management's choice of low-cost, differentiation, and niche strategies.

Concerning the second type of barrier, that is, barriers to the imitation of firm-specific resources, national institutional patterns limit the imitation of both readily observable competitive advantages and of those that are deeply embedded in complex, tacit, and/or path-dependent "routines" (Nelson and Winter, 1982). To take the more observable sources of competitive advantage, firms in Europe's Northern European "industry-coordinated" economies are institutionally able to produce collective goods in vocational training and technology sharing in ways that are not open to firms located in other institutional frameworks (Soskice, forthcoming). To take the more tacit and/or path-dependent "routines" upon which competitive advantage rests, Japanese and German institutions are claimed by many researchers to lay a basis for "high-trust" intra-company relations, thereby reducing monitoring and agency costs in ways that companies in "low-trust" institutional systems find difficult to emulate (Aoki, 1990; Streeck, 1992c).

The stakeholder-influence model of strategic management does not purport to capture the entire range of ways in which institutional variables affect the strategic choices of companies. In their parsimony, the definitions given above may appear to over-emphasize the limiting, negative side of institutional constraints. Institutional constraints can have positive as well as negative effects, however, and institutions that appear to be constraints in one context may appear to be strategically useful resources in others. For example, in countries where employees have a strong institutionalized voice in firm decision-making, top management's freedom to act may appear highly "constrained" under certain circumstances, but highly "enabled" by these arrangements in others through the promotion of richer communication flows between employees and management. Even where constraints have a highly restrictive character, they may have ultimately positive effects on firm performance by forcing management to develop innovative ways of doing things (Lehrer, 1994). Dore (1986) uses the term "flexible rigidities" to communicate the multi-faceted nature of institutions.

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As already emphasized, the institutionalist approach proposed here does not cover the entire spectrum of country-specific advantages accruing to firms engaged in international competition. Classic home country advantages like lower wages, favorable exchange rates, or large domestic markets do not really fall within the province of the political economy approach. Recent work on dynamic capabilities suggests, however, that static variables like these are increasingly less important in the pursuit of competitive advantage over the longer run than the "dynamic capability" of firms to re-configure their organizational skills and resources to adapt to the demands of a rapidly changing environment (Iansiti and Clark, 1995; Teece and Pisano, 1995). The *innovative* and *learning* capacity of firms in particular resides in high-performance adaptive routines within the firm ("dynamic capabilities") and/or in relations between the firm and key business partners. The inclusion of innovative and learning processes in the analysis implies that what matters is not just the static efficiency of the firm's resource combinations, but the "dynamic efficiency" (Ghemawat and Ricart i Costa, 1993) of the firm in generating new resource combinations in the face of changing environmental conditions. These themes figure in recent work on national systems of innovation (Lundvall, 1992; Nelson, 1993).

1.2 The impact of institutional factors on firm strategy: Examples from the literature

Before proceeding further with the theoretical exposition, a selected review of prior empirical findings helps to illustrate the interest of this research stream for strategic management. As few contributors to comparative political economy publish in management journals, a significant amount of research bearing on issues of strategic management remains largely unknown to strategy researchers. Although the following review is far from exhaustive, it provides a useful introduction to the comparative political economy literature from a strategy perspective.

For the sake of clarity, contributions are categorized according to a particular component of national institutions: the role of the state, finance, industrial relations, laws concerning corporate governance, elites, and industry coordination. In practice, however, most comparative political economists underline the interlocking nature and systemic interdependence of these different institutional factors. As explained later, these variables tend to cluster in mutually reinforcing ways that define distinctive institutional "models": the Anglo-Saxon model, the Northern European model, the Japanese model, etc. Hence the following overview of prior research according to particular institutional components is presented merely as a simplified "first pass" through the literature.

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The Role of the State. Strategic management tacitly assumes the relative autonomy of company management to formulate and implement strategy. Comparative political economy research on the role of the state, however, suggests that the strategic autonomy of large firms is more pronounced in Anglo-Saxon capitalist economies than in others. Some studies reveal state-company strategy coordination to be (or at least to have been) a systemic part of economic development in countries like France (Zysman, 1977; Cawson, Morgan et al., 1990) and Japan (Johnson, 1982). The general finding is that the state takes on a greater responsibility for economic development and coordination in nations that were late industrializers (Gerschenkron, 1962), a pattern still readily observable today in countries like Korea and Taiwan (Whitley, 1992).

In terms of the comparative institutional advantage generated by state involvement, the success of state-orchestrated strategy depends (among other factors) on the match between the particular task requirements of the industry targeted and the state's specific capabilities to respond adequately to these industry-specific tasks. A seminal study was conducted by Zysman (1977) on the distinctive capabilities of the post-war French state. The state proved successful in consolidating the French steel and oil industries where the industry's problems could be remedied by massive direct investment and the appropriate strategy selected by a centralized bureaucracy; yet state intervention was far less successful in the computer industry, which required the imposition of market discipline on individual firms and their integration into the international market - task requirements that the capabilities of the French state were poorly adapted to satisfy. Similarly, despite a few heralded successes in high-tech industries, Japan's state bureaucracy has tended to intervene much more heavily in mature industries than in burgeoning ones and its focus tends to be the coordination of industry restructuring (Calder, 1993).

State involvement in industry and company strategy falls under the general heading of "industrial policy." Although the rationale for an activist industrial policy has generally declined in recent years (Grant, 1989), a rekindling of the case for state intervention was provided in the 1980s by strategic trade theory, according to which certain oligopolistic global industries provide positive technological and economic externalities to the countries that obtain a first-mover advantage in dominating them (Spencer and Brander, 1983; Krugman, 1986). Some political economists urge (for example) the US government to match the strategic moves of the Japanese government in targeting strategic industries for state assistance to firms, claiming that government policies have engineered comparative and competitive advantages for Japanese firms (Zysman and Tyson, 1983). However, others emphasize the state's capacity to intervene strategically in markets and industries as constrained by a host of country-specific institutional factors that affect the extent to which firms can make strategic credible commitments to industries requiring various forms of state support (Murtha, Spencer et al., 1996).

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Finance. Critical stakeholders for firms are providers of finance, both lenders and owners. Nations vary fairly systematically in the way finance is allocated to firms. Countries like the US and UK rely heavily on capital markets to provide companies with finance, while many Asian and Continental European business systems depend much more heavily on banks (Vitols, 1996; Canals, 1997). Whereas firm management's decision-making autonomy has traditionally been high in economies dominated by capital markets,[3] in credit-based (i.e. bank-dominated) financial systems firm decision-locking is apt to be closely monitored by and coordinated with financial institutions like the German *Hausbank* or the Japanese *keiretsu* bank. The locus of strategic adjustment, it is argued, depends on the nature of the financial system. In Zysman's (1983: Chapter 2) typology of the link between financial system and the nature of company adjustment, the adjustment process is indeed led by the companies themselves in capital market-based systems. In the credit-based financial systems, however, other stakeholders (labor, employees, government banks) are likely to exercise greater "voice" in the strategic adjustment of companies.

The nature of a country's financial system is often argued to influence the *content* of company strategies as well. Managers in capital-market based financial systems have greater leeway to diversify than those of bank-based ones where banks develop expertise in their clients' business and cannot as effectively monitor the wisdom of investments outside the core business (Whitley, 1996: 55). Critics of capital market-based systems charge that these systems provide a disincentive for companies to invest in human capital formation and longer-term organizational learning processes (Lazonick, 1991; Lazonick and O'Sullivan, 1996); instead, companies in capital based-economies like the US and UK are compelled to manage "by the numbers" (Porter, 1992) with a ingrained short-term horizon (Jacobs, 1991). Benefiting from credit-based systems where shareholdings are more stable, Japanese and German managers enjoy greater leeway to emphasize long-run viability over short-term private returns and invest in organizational capabilities with a longer pay-back period (Porter, 1992; Vitols, 1996). Despite these impressions, the question as to whether fluid capital markets necessarily lead to short-termism in company strategy is still open; for example, Allen (1993) suggests that while bank-based finance generally induces better corporate performance in traditional industries where the consequences of managerial strategies are well-understood by incumbent managers and bank officers, US-type financial markets will encourage superior short- *and* long-term performance in more dynamic industries where there is no general consensus about the effects of various strategies and where therefore managerial action is best guided by an open equity market encompassing a diversity of investor views.

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[3] Although institutional shareholders in the US have begun exercising their ownership prerogatives in a more active way, the nature of influence is still based more on "exit" than on "voice."

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Industrial Relations. The representation of employee interests places powerful constraints on managerial autonomy in many countries. For example, with respect to the "process school of strategy" and its emphasis on the intra-organizational politics of building a common vision and consensus between departments and divisions (Bower, 1970; Bower and Doz, 1979), Child (1979: 173) noted that "in a European context, the analysis would require extension to include lower level employees." Perhaps the most direct impact of industrial relations constraints on firm strategies was observed in West Germany in the 1980s. The term "diversified quality production" was coined to describe strategic adjustments across a range of German manufacturing sectors (Sorge and Streeck, 1988; Streeck, 1992a). "Diversified" in this context means "customized." Sophisticated, high value-added product segments were targeted by German companies who in the 1980s installed micro-electronic technology to reconcile the revenue advantages of customized high-quality goods with the cost economies of high-volume throughput. With wage reduction and deskilling being unviable options given the nature of German labor institutions, specialization in upscale market segments was adopted as a product market strategy from the need to generate the revenue necessary to cover high German labor costs. Diversified quality production (DQP) was *facilitated* by technical change and German supply-side advantages in training and industrial relations, but it was also rendered *necessary* by institutional constraints on firms' ability to reduce wages or employment levels.

Porter's (1980) distinction between low-cost and differentiation strategies finds frequent application in cross-national studies of industrial relations. The fear of some scholars is that deregulated labor markets and unconstrained managerial prerogative may lead certain countries into a low-wage/low-skill equilibrium of low-cost producers, while companies in countries with the right mix of constraints on employment flexibility face a positive incentive to stake out the high-wage/high-skill equilibrium of quality- and niche-based production (Streeck, 1992a; Locke, Kochan et al., 1995: 154; Finegold and Soskice, 1996). Recent surveys point to a growing heterogeneity of labor practices and their complementary company strategies *within* countries. However, this inter-company heterogeneity of work systems and strategies appears to be greater in countries like the US where managerial prerogative is high than in countries like Germany where labor institutions promote more uniform work practices and adjustment strategies across firms within an industry (Berg, 1994).

Law and Corporate Governance. The effects on firm strategy of cross-national differences in legal institutions are rarely researched even though, as Casper (1995: 2) shows in his study of supplier relations, "legal frameworks create the parameters within which strategic choice occurs." A very obvious arena in which public law shapes the nature of constraints upon firm management's freedom to act is *corporate governance*. Laws concerning the appointments to and responsibilities of company *boards* directly affect the identity and rights of actors entitled to represent stakeholder interests. These

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laws are subject to substantial cross-national diversity, a fact which the so-called Cadbury report has called widespread corporate attention to in the UK (Charkham, 1994).

Germany represents an example of idiosyncratic corporate governance institutions induced by national company law. While in Britain, the US, and France board members are (in principle) charged with representing owner interests, German law prescribes a two-tier board system and division of labor between the *Vorstand* (Executive Board) and the *Aufsichtsrat* (Supervisory Board). In German joint stock companies having 2,000 or more employees, the Aufsichtsrat (which appoints Vorstand members) is composed equally of ten shareholder and ten employee representatives. Unlike an American or British CEO, a German company's top executive by law cannot sit on the top board (Aufsichtsrat), but instead chairs the Vorstand, which is responsible for executive decision-making within the company. A German CEO (who is not really a CEO in the Anglo-Saxon sense, but rather a Vorstand "chairman" or "speaker") therefore has to contend with employee interests represented not just in the Works Councils, but in the system of corporate governance as well. Needless to say, such a system encourages company management to elect strategies that improve performance without simply cutting wages or staffing levels; it is also fairly well-established that co-determination reinforces the proclivity of German firms to keep dividends low by international standards and build up hidden reserves using conservative accounting standards (Streeck, 1992b).

Elites. Nations vary in the systems that educate and select individuals for promotion to the elite circles of business and government. Many countries have Ivy-League or Oxbridge-type institutions of higher education, others (e.g. Germany) make do without them; in some countries the private-sector and government elites are largely separate communities, in others (e.g. France) a single, more homogeneous elite spans the public and private sectors. Elite structures matter for company strategy because of the varying way they distribute knowledge across public and private organizations; thus, for example, within the "mission-oriented" bias of the French elite Alcatel could more easily integrate critical knowledge resources into its strategy for developing the electronic telecom switch than its German rival Siemens, which lacked access to comparable knowledge resources within the German knowledge elite structure (Ziegler, 1995).

Elite systems affect company strategy via the educational and career paths of individuals favored by the system to rise to the top of managerial hierarchies. British and American managers, promoted more on the basis of "general management" skills, are apt to formulate strategy with an eye to "making money" using the latest management techniques; in contrast, managers in Germany rarely have MBAs (general management education is little developed

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in Germany), are promoted much more on the basis of technical expertise, approach business problems from more of an engineering and production angle, and indeed the strategy of German companies is more likely to be dominated by the technical department (*Technik*) than in their Anglo-American counterparts (Lawrence, 1980; Lane, 1989: Chap. 4). In France, top managers in sectors colonized by the *grands corps* elite rotate frequently among top-level positions in government and industry and hence tend to lack detailed knowledge of their companies' operations and of their firms' particular strengths and weaknesses (Cohen and Bauer, 1980). Strategic initiatives therefore tend to rely less on organic growth than on financial operations to consolidate their firms' market position by using elite links within the state administration and the financial system to acquire competitors (Bauer and Bertin-Mourot, 1995).

Industry Coordination. Countries vary in the degree to which firms are permitted or able to coordinate important activities within their industry. While domestic rivalry is certainly a key feature of competitive industries in many countries (Porter, 1990), some firms in the "industry-coordinated" countries of Northern Europe appear to prosper by systematically eschewing domestic rivalry and collaborating to create public goods that provide firms in these industries with strategic advantages for competing on world markets (Soskice, forthcoming). Patterns of industry "self-governance" and "organized capitalism" (Streeck and Schmitter, 1985; Parnell, 1994) create both different strategic opportunities and different constraints for company managers than prevail in industries without such coordinating mechanisms. For example, the specifications for Germany's legendary vocational training program are formulated by the firms themselves on the basis of a historically inherited capacity for sectoral self-governance which many other countries have little hope of emulating (Maurice, Sellier et al., 1982; Soskice, 1994b).

Yet the strategic implications of industry coordination extend even further. Herrigel (1993) has observed how Baden-Wurttemberg machine tool companies not only carefully avoid predation on each other's niches, but actually share the risks of niche specialization by assisting companies who happen to land in unprofitable segments. Strategies of high human-capital investment are facilitated by industry associations which prevent firms from poaching one another's workers; in the absence of such associations, employers who invest in worker training face a free-rider problem (Finegold and Soskice, 1996).

Other Institutional Factors Not Covered Above. A stakeholder-influence approach to strategy is adopted here for the sake of clarity and simplicity. The role of the state, finance, industrial relations, law and corporate governance, elites, and industry coordination are sets of national institutional factors that shape the influence of stakeholder interests on firm management in patterned ways. Government, investors and lenders, employees, board members, and

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other firms in the industry are readily identifiable stakeholders whose voice in firm decision-making varies consistently across national borders. Elite systems, for their part, influence the profile of top managers who negotiate with these stakeholders in deciding business policy. This list of factors is not exhaustive. Other sets of national institutional factors affecting the formulation and implementation of firm strategy but not covered above should be briefly noted.

For example, nations have inherited differing *traditions of work organization*, with ramifications for the basic models of management espoused and implemented (Maurice, Sellier et al., 1982; Kogut, 1993; Guillén, 1994). Countries also vary considerably in the *training, educational, and research institutions* (e.g. universities) that supply firms with critical supplementary resources and affect their strategies for innovation. Comparativist students of national economic policies frequently note cross-national variation in the *independence of the central bank*, with substantial implications for the behavior of industry (Hall, 1986). These factors, too, may have an impact on the constellation of stakeholder interests in companies.

Why insist on a stakeholder-influence approach to strategy? The focus of the present study is truly on *managerial action* as a source of competitive advantage. In international competition, a myriad of economic, geographic, and institutional factors clearly affect the distribution of resources with which firms from different countries compete. The particular objective of this research is not an exhaustive treatment of locational advantages and disadvantages, but the comparative scope for managerial action to alter the competitive position of firms. Therefore the model to be "tested" in the empirical part of this research pertains to institutional factors acting directly upon the strategic choices of top managers.

Beyond Institutions Considered in Isolation: National Institutional Frameworks. Although the foregoing review treats the role of the state, finance, industrial relations, and so forth as separate sets of institutional factors, in reality these patterns are interdependent and stabilize around mutually reinforcing states. Institutional patterns interlock with one another to form internally consistent systems or "institutional frameworks." The interlocking, systemic character of national institutions explains the persistence of distinct national systems in the face of economic and technical pressures for institutional convergence. By cohering in stable, self-reinforcing ways, institutional patterns give rise to different varieties of capitalism, of which the difference between Anglo-Saxon and "Rhineland" capitalism has received the most attention in both the popular and academic press (Albert, 1991; Hodges and Woolcock, 1993). For example, Soskice (1997) summarizes the deregulated institutional framework of the US and US and the industry-coordinated framework of Northern Europe (Germany, Sweden, Switzerland) as follows:

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Table 1: Comparative Institutional Frameworks		
	US /UK	**Northern Europe**
Labor market Rules	Deregulated	Works councils, comprehensive industry-level wage bargaining
Vocational training rules	College-based, with minimal industry links	Industry-based, run by employer associations and unions
Financial rules	Dispersed shareholder system, public event monitoring of companies	Stable shareholder system, monitoring of companies through inside information
Inter-company relations rules	Strong competition policy, modest industry coordination	Weak competition policy, industry coordination on many substantive issues

Given systemic interdependencies among these sets of relationships, we should not be surprised to observe significant "collinearity" among institutional variables, thus reinforcing national particularities in the institutional constraints and resources confronting firm managers.

The sustained prosperity and dynamism of countries like Germany and Japan until the 1990s gave credence to the idea of stable economic alternatives to the deregulated market economies of neoclassical theory and American practice. An ascendant theory is that industrialized countries evidence different varieties of capitalism in which ongoing processes of both convergence and divergence can be observed over time (Boyer, 1996a; Hall and Soskice, forthcoming). The evolution of country institutions over time is not logically inconsistent with the persistence of national specificities; national institutions can be thought of as evolving along separate "trajectories" of development rooted in the legacy of their political, social, and industrial history (Zysman, 1994).

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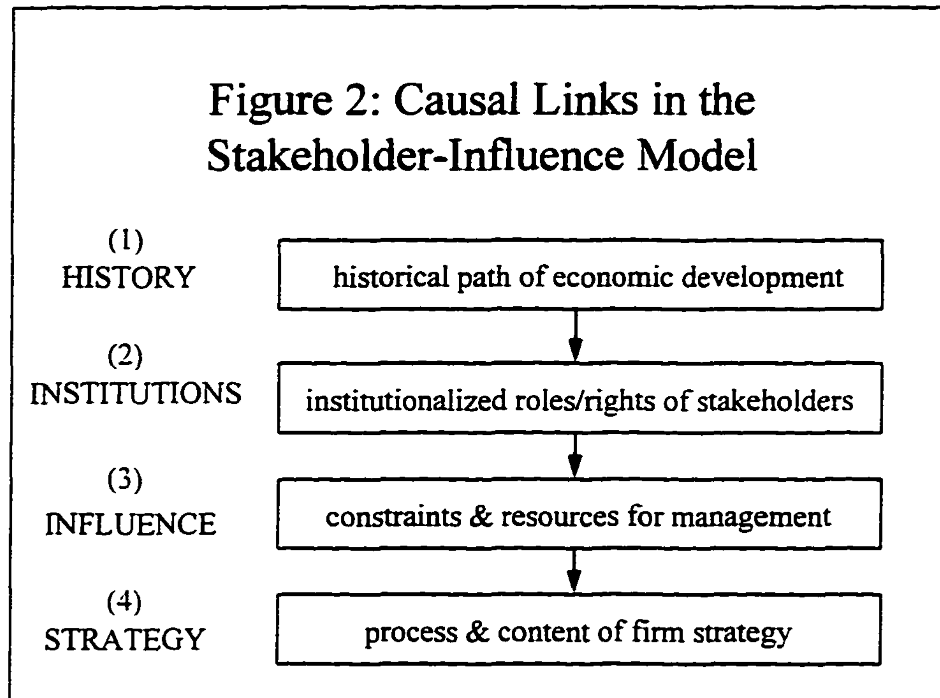
1.3 Microfoundations of the stakeholder-influence model

The theoretical assumptions underlying the stakeholder-influence model are embodied in the following diagram:



Each of the links may be briefly discussed in turn:

(1)=>(2): Cross-national variation in institutional patterns is induced by differences in paths of historical development, depending on such factors as early or late industrialization (Gerschenkron, 1962), the traditional centrality of the state in society (Katzenstein, 1978; Dyson, 1980), and occasional wholesale reforms of social institutions in the wake of national crises (Dore, 1973; Lehrer, 1994). The effects of national institutional patterns on stakeholder rights are of course not uniform across companies and industries, but must be assessed empirically in a given industrial context.

(2)=>(3): Whether substantial or minimal in their impact, the institutionalized rights of stakeholders generally represent *de facto* constraints on the discretion of firm managers.[4] Although they may limit the strategic choices of firms, such constraints do not have exclusively negative consequences for the performance of companies. For example, constraints on employment practices may have the effect of promoting the formation of social capital

[4] Although the discussion centers on the national level, I emphasize once again that the same type of analysis has been applied to institutional variation at the level of regions (Piore and Sabel, 1984) and of national sectors (Hollingsworth, Schmitter et al., 1994).

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(trust) in labor-management relations (Streeck, 1992a); institutionalized obligations to contribute to the country's vocational training program appear to result in substantial human capital externalities benefiting all German firms. More generally, institutions that appear to cause rigidities in some contexts may provide a stock of flexibility in others (Dore, 1986; Thelen, 1991), though unfortunately the opposite can also arise (Herrigel, 1995). Finally, creative strategic behavior by managers may on occasion transform an institutional constraint into a resource.

(3)=>(4): As the literature review of the previous section indicates, institutional constraints circumscribe the choice sets open to firm strategy-makers and affect the relative costliness of strategic alternatives. They provide incentives for managers to attend to the demands of stakeholders whose interests are particularly well represented. Institutionally well-represented stakeholders may have sufficient influence, for example, to tip the balance between low-cost or differentiation strategies or between low- and high-human capital strategies.

With these causal links articulated, it is possible to specify the type of institutionalist research guiding the present research. In essence, the first two links in Figure 2, (1)=>(2) and (2)=>(3), are derived from historical institutionalism in political science, described below; in the final link, (3)=>(4), the stakeholder-influence model leaves open the theory needed to explain managerial action.

In terms of its theoretical underpinnings, this research falls broadly within the orbit of the "new institutionalism" (March and Olsen, 1984). Underneath this umbrella category a number of sub-fields exist and it is worthwhile to explain briefly what currents of new institutionalist theory are drawn on here. It is helpful to distinguish between new institutionalism in: (1) sociology, (2) economics, and (3) political science. Each of these disciplines has generated its own theoretical microfoundations, even if comparative political economists, in practice, almost invariably mix and match insights from all three disciplines.

(1) *New Institutionalist Sociology.* Foci like institutional isomorphism (DiMaggio and Powell, 1983), myths and ceremony in formal organizational structure (Meyer and Rowan, 1977), and the self-reproducing "structuration" of social life (Giddens, 1984) translate an essentially *mimetic* conception of human behavior. In regarding behavior as largely imitative and taken-for-granted rather than based on discrete self-interest calculations (Zucker, 1987; DiMaggio and Powell, 1991), new institutionalists in the sociological tradition set themselves apart from the postulates of methodological individualism. That is, instead of seeing collective outcomes as the aggregation of atomized actors each pursuing their own separate self-interest, institutionalist sociologists argue that human actions are most often than not "embedded" in pre-existing institutionalized collective patterns of behavior. The concept of "embeddedness" (Granovetter, 1985)

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is the sociologists' response to the hyper-rational suppositions of rational actor theory.

(2) *New Institutionalist Economics.* New institutionalist economists generally endeavor to uphold the rational actor model of behavior by taking explicitly into account human knowledge limitations. Information asymmetries and bounded rationality are tenets common to a variety of research currents that explore the ramifications of different organizational settings on economic behavior. Major currents of new institutionalist economics include transaction costs economics (Williamson, 1975; 1985), agency theory (Jensen and Meckling, 1976; Jensen and Ruback, 1983), historical processes of institutional change (North, 1981; 1990), and a rapidly expanding literature on the micro-economics of organization (Milgrom and Roberts, 1992). Very broadly speaking, contributors in these areas compare markets, organizations, and other institutions as different ways of coordinating economic exchange among individuals and groups; the firm is not just a neo-classical production function, but an institutional alternative ("nexus of contracts") to the market for accomplishing collective economic tasks. New institutionalist economists examine processes of market failure and/or organizational failure that arise from the information and incentive misalignments emanating from various organizational alternatives. From a management perspective, as Miller's (1992) synthesis of this literature emphasizes, no amount of organizational design can produce a perfect incentive system; "individuals in hierarchies inevitably find themselves in situations in which their own self-interest is clearly in conflict with organizational efficiency" (232).

(3) *New Institutionalist Political Science.* Quite clearly, the conceptual vocabulary of "constraints" and "enabling conditions" betrays a political science orientation. New institutionalist contributions to political science generally fall into one of two major currents: rational-choice approaches on the one hand and historical institutionalism on the other (Thelen and Steinmo, 1992). The major foci of the rational-choice approach have been public-choice models of domestic political outcomes (Shepsle and Weingast, 1981; Shepsle, 1987) and theories of cooperation in international regimes (Krasner, 1983; Axelrod and Keohane, 1985). A major focus of historical institutionalism, in contrast, has been cross-country comparisons of how national institutions respond to a common economic challenge (Katzenstein, 1978; Zysman, 1983; Hall, 1986; Crouch, 1993). The independent variables of national institutional specificities are seen to arise from cross-national variation in the historical course of economic and political development. As mentioned earlier, recent contributions in this vein emphasize the co-existence of multiple "varieties of capitalism" sustained by differing national institutional frameworks.

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The stakeholder-influence model developed here has its roots in the historical current of institutionalist political science. As mentioned, historical institutionalism is implicit in causal links (1)=>(2) and (2)=>(3) of the model (Figure 2). As for the strategic choices made by firm management, link (3)=>(4), the appropriate theory needs to be left open. For example, it may appear tempting to assume that firm managers are highly rational agents and to therefore assume the economic, rational actor view to provide a good predictor of how firm management will react to institutionalized constraints; yet there is also abundant evidence that managers behave in highly mimetic ways as well, imitating the latest "management fashions" (Abrahamson, 1996), implementing "industry recipes" (Spender, 1989), or adopting the role behavior consistent with their elite peer group (Cohen and Bauer, 1980). In actual practice, it may be difficult to distinguish "rational" from "mimetic" behavior, and of course other perspectives for analyzing link (3)=>(4) are imaginable (e.g. cognitive approaches).

1.4 "Industrial strategy" and "adjustment": Building blocks for empirical analysis

Having clarified the particular vein of institutionalism on which the stakeholder-influence model is based, it is possible to derive from literature in this vein two analytic concepts which will be used in the empirical chapters of this research. The first is "industrial strategy"; the second is "adjustment." Although inspired by the comparative political economy literature, the definitions assigned to these terms are specific to this research. Previous treatments of "industrial strategy" (or "industrial policy") and "adjustment" refer to processes within *countries*; the novelty of the present approach is that it extends these terms to the study of strategic management and the conduct of *individual firms*.

Industrial Strategy. "Industrial strategy" as defined here draws its inspiration from production regimes representing an alternative to Taylorist or Fordist mass production. Terms like flexible specialization (Piore and Sabel, 1984), post-Fordist industrial models (Boyer and Freyssenet, 1996b), and lean production (Womack, Jones et al., 1991) all designate ways of organizing production that break with the seemingly inexorable trend toward ever greater work specialization and segmentation of processes on the production floor.

Alternatives to mass production have been facilitated by recent developments in product markets and technology which had the effect of expanding the range of companies' strategic choices. The globalization and ever greater sophistication of markets increased the number of market niches that companies could choose to serve. On the production side, technological advances resulted in a proliferation of possible approaches to the organization

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of work. New micro-electronic and information technology permitted greater flexibility in the structuring of work processes. It widened the range of managerial choice or, in other words, it increased the indeterminacy of the impact of technological change on the organization of production (Dankbaar, 1988; Sorge and Streeck, 1988: 23). Under conditions of diminishing technological determinism, national (and regional) institutional patterns led to increased variety in the way production was organized (Piore and Sabel, 1984). For example, researchers observed systematic variation in the way production techniques like CNC were incorporated by German and British firms due to institutionalized differences in organizational patterns, worker training, and industrial relations inherited from the two countries' social history (Sorge and Warner, 1986: Chap. 13).

"Industrial strategy" at the company level may be defined as *a strategy which links a choice of product market with a choice of production regime* (Vitols, 1995; Lehrer, 1997). The most significant example of an industrial strategy in the comparative political economy literature is "diversified quality production," discussed earlier. The orientation of the German manufacturing sector toward diversified quality production (DQP) rests on a constellation of labor, banking, vocational training, and corporate governance institutions favorable to specialization in the upscale segments of global markets for manufactured goods (Vitols, 1995). Streeck (1992a) speaks of "productive constraints" in which institutional restrictions on managerial prerogative forced management across a range of German industries to pursue only those strategies amenable to both the interests of capital and labor. Because the widespread adoption of DQP in the 1980s resulted from a complex array of institutionally produced public goods, inter-organizational coordination possibilities, and key constraints on certain types of managerial action, Streeck (1992a: 10) concludes that "a regime of free markets and private hierarchies is not enough to generate and support a pattern of diversified quality production."

DQP therefore constitutes one type of "industrial strategy" linking a choice of product market with a choice of production regime. In terms of Figure 1, industrial strategies concern both the product/market scope ("product market strategies") and resource deployments ("resource-based strategies") of firms. Industrial strategies, as defined here, point up the interdependence of a firm's product market and resource-based strategies. The concept is likely to be especially applicable in situations where firms face institutional restrictions on the use of resources and where they thus target market segments and organize production so as to leverage as fully as possible these "sticky" resources. Of course, an industrial strategy is also appropriate for firms which are themselves *less* constrained in the deployment of certain resources than their competitors are and therefore seek ways to exploit these institutional "enabling conditions" and capitalize on the relative resource immobility of their competitors.

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Adjustment. Classic approaches to strategic management endeavor to assess the impact on firm performance of generic strategies like the building of market share (Gale, 1972; Woo, 1983), first-mover advantage (Lieberman and Montgomery, 1988; Mitchell, 1989), or the accumulation of firm-specific resources. In contrast, evolutionary approaches to strategy emphasizing organizational "routines" (Nelson, 1991) or "dynamic capabilities" (Teece and Pisano, 1995) draw attention to the path dependencies of company development on the one hand and to the difficulties firms have in adapting to dynamically changing environmental conditions on the other. From an evolutionary standpoint, one major source of competitive advantage lies in flexibility and adaptability to changing circumstances, while a major cause of competitive disadvantage is inertia. The stakeholder-influence model, obviously, illuminates institutional sources of firm inertia, although there exist many other sources of inertia as well (Rumelt, 1995).

The evolutionary point of view is implicit in empirical research in comparative political economy. Many contributions to this field compare and contrast the ways different national political-economic systems react to a common exogenous shock, revealing how inert or adaptable these systems are to a change in external global conditions. Indeed, a certain renaissance of comparative political economy followed the challenge of the 1970s oil crisis. Whereas in preceding decades political pluralism and economic Keynesianism had appeared to provide a universally valid recipe for capitalist development, pronounced disparity in economic policies and performance among developed countries in the 1970s seemed difficult to account for on the basis of fiscal and monetary policy alone. Instead, the specific institutions linking government, industry, labor, and finance appeared to matter in explaining cross-national variations in adaptability and economic performance (Katzenstein, 1978; Scharpf, 1984). In particular, countries with "corporatist" institutional structures appeared to perform better (Schmidt, 1982; Cameron, 1984).

The study of adaptation to evolving economic conditions can also be conducted at the industry level. Zysman (1983) developed the term "adjustment" to denote the process by which national institutions accommodate changes in the evolution of industries. The firm's challenge is "to stay abreast of the evolution of the industry" (Zysman, 1983: 43). Just who will lead the adjustment of firms depends in part on the nature of national institutions; whereas adjustment is company-led in the liberal market economies of the US and UK, a pattern of "negotiated adjustment" (Thelen, 1991) is more likely to prevail in countries like Germany where highly organized industry unions and company-level works council ensure employees' representatives a strong voice in company decision-making.

Many recent contributions to comparative political economy study how well different countries fare *in specific industries and sectors subject to sector-*

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specific institutions (Wilks and Wright, 1987; Grant, 1989; Hollingsworth, Schmitter et al., 1994). That is, the level of analysis is lowered from the national to the sectoral level. From this it is but a small step to extend the analysis to the adjustment of individual firms competing from different home-country institutional environments. For a political economy approach to strategic management, then, the dependent variable is *the comparative strategic adjustment of firms to evolving industry conditions.*

The ideal research sample for studying comparative patterns of strategic adjustment satisfies two conditions. First, the firms studied form a matched sample, comparable along a number of dimensions (size, markets segments served, degree of vertical integration, etc.) as exemplified by Dore (1973) and Maurice et al. (1982). Second, a change in competitive parameters like technological change or market deregulation creates the conditions for comparing the "strategic adjustment" of firms in the sample. Analogous to comparative political studies of adjustment at the national or sectoral level, a comparativist study of firm strategy examines differences in adjustment patterns and performance and analyzes the way this variance is affected by institutional factors. Whether the relevant explanatory variables are nation-, region- or sector-specific is a purely empirical question and will vary from one sample to another.

1.5 The research sample and overall findings

The setting for this comparative study of strategic adjustment was provided by changes in the European civil aviation industry of the 1980s. As set out in Chapter 2, changes in regulation, technology, and global industry structure confronted Europe's flag carriers with novel commercial challenges. British Airways, Air France, and Lufthansa were the three airlines studied in the context of their home-country institutions. Despite their similarity along a number of dimensions (turnover, size of domestic market, heritage as national carriers of the largest three EC countries), empirical research disclosed highly differential rates of commercial innovation.

The commercial innovation in question can be termed a change in industrial strategy, that is, innovation in the airlines' approach to product markets combined with appropriate modifications in the production regime needed to support this market product strategy. The old industrial strategy could be termed "route-based," while the new industrial strategy adopted by the three airlines could be termed "network-based." Although a fuller exposition of the route-based and network-based industrial strategies is presented in the following chapter, Table 2 presents an overview of the differences between the two industrial strategies:

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System Affected	Route-Based Industrial Strategy	Network-Based Industrial Strategy
View of market	Separate markets to and from home country	Home-country hub serving global market
Customer base	Home country of loyal nationals	Any passengers who fly in, to, or over Europe
Scheduling, pricing, selling	Separate, sequential tasks in different departments	Tight integration and control by the marketing department
Optimization of schedule and prices	On route by route by route basis	On O&D basis (Origin and Destination of passengers)
Sales organization	Decentralized	Centralized coordination using IT tools
Information technology	Supporting technology	Core technology for competitive advantage

Table 2: Industrial Strategies in European Civil Aviation

The old and new industrial strategies in European civil aviation corresponded only partly to the shift from point-to-point to hub-and-spokes configurations in the US. While the new industrial strategies adopted by these airlines in the 1908s and 1990s did indeed mean intensifying the strategic centrality of the hub airports at London, Paris, and Frankfurt, they also required a number of other adjustments which were not entirely obvious merely from observing the behavior of US carriers. These included overhauling information systems so as to better optimize pricing ('revenue management'), transferring control over the planning functions to the marketing department, and centralizing the sales organization so that sellers optimize revenue across the airline's whole route network rather than just in their own geographical area.

Collectively, these changes served the purpose of "optimizing the network," which became a battle cry of airline managers when they realized the need to do so. However, none of the changes made much sense in isolation, requiring as they did a wholesale change in industrial strategy. Rather, to "optimize the network" the whole set of airline systems had to be changed in step. The following table summarizes the timing of the three airlines in adopting the network-based industrial strategy:

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Airline	Year in which the need to adopt the network-based industrial strategy was clearly recognized	Years of critical organizational reforms enabling implementation of the new industrial strategy
British Airways	1984	1983-86
Lufthansa	1992	1992-95
Air France	1994	1994-97

Table 3: Differential Rates of Strategic Adjustment

As these figures suggest, by the mid-1980s British Airways had built up a 5-10 year lead over its rivals in the areas of information systems, organizational structure, hub planning, flight scheduling, and global selling across its network.

That BA's early adoption of the network-based industrial strategy was a source of true competitive advantage and not merely an adaptation to BA-specific circumstances is amply documented by Air France's and Lufthansa's estimate of what tardy adoption of the network-based strategy cost them: about $500 million yearly in foregone revenues (Chapters 4 and 5).

Beyond reaping the financial reward of earlier commercial innovation, British Airways implemented the network-based strategy in a qualitatively different manner. BA engaged in substantial organizational change and experimentation in the 1980s, during which the network-based industrial strategy was essentially formulated in-house with a few cues from KLM. As the above table indicates, the year in which BA recognized the need to adopt the network-based industrial strategy came *after* critical organizational reforms facilitating its implementation were already under way. In contrast, by the time Lufthansa (in 1992) and Air France (in 1994) clearly recognized the necessity of moving to a network-based strategy, the adjustment path followed was largely emulation of what BA had done, obviating the need to go through much of the trial-and-error learning that BA had engaged in some years earlier. Thus, the analysis in this research attempts not just to account for the reasons for the differential rates of commercial innovation, but for the qualitatively different ways in which the network-based industrial strategy was adopted: through self-initiated innovation at BA, through emulation and catch-up at Lufthansa and Air France. In other words, Lufthansa and Air France were not really innovating at all, but just catching up with British Airways.

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The conceptual lens adopted in this study for analyzing these differential rates of strategic adjustment is "comparative institutional advantage" (Soskice, 1994a; Lehrer, 1997). Without denying the impact of firm- and sector-specific factors, the analysis in the following chapters examines the way British, French, and German institutional patterns moderated the capacity of national flag carriers to adjust to changes in the airline industry. Special emphasis is placed on the type of strategic adjustment that was required by the evolution of the industry in the 1980s. The argument is not that British economic institutions facilitate commercial innovation generally more than French or German institutions do, but rather that the peculiar characteristics of the innovation involved in shifting from a route-based to a network-based industrial strategy happened to favor British institutional patterns.

The innovation involved in moving from a route-based to network-based industrial strategy was: 1) radical and discontinuous, 2) situated in the airlines' commercial systems rather than in their aviation systems, 3) concerned activities run by managers much more than the line-and-file, i.e. this was not a "shop floor" innovation. Under these conditions, British institutional patterns were observed to provide an advantage. In some ways, this result is unsurprising. A "stylized fact" that emerges from various studies is that firms in Anglo-Saxon countries have a comparative advantage in radical innovation while firms in Germany and Japan excel more in incremental innovation (Kagono, Nonaka et al., 1985; Hollingsworth, 1991; Soskice, 1994a). Although the UK and US have lost ground in many shop floor industries, they have been able to maintain their innovative capacities in industries like pharmaceuticals and chemicals where learning and innovative strategies relied on the managerial structure alone (Lazonick and West, 1995).

Market and technological developments in the 1980s called for a more commercial orientation within airlines. A reputation for safety and reliability was no longer a sufficient strategic asset; innovative marketing and selling practices called for a shift of power and resources from the technical to the commercial side of airlines. Under these circumstances, it may come as hardly surprise that German attachment to *Technik* (Lawrence, 1980) and the French elite of engineering/administrative *grands corps* (Thoenig, 1987) were more of an institutional handicap than an asset to the German and French flag carriers.

Yet beyond just altering the relevant knowledge requirements, the shift from a route-based to a network-based industrial strategy required an institutional capacity to shift power around within the organization. One useful instrument for accomplishing this is high unilateral CEO discretion, a condition met by British and French institutional patterns but not by the consensus-based corporate governance system of Germany. Lufthansa was indeed found to be doubly handicapped by German institutional patterns: first, by its technical bias, and second, by consensus-based decision-making systems. As Chapter 5

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explains more fully, the German two-tiered board system and the principle of majority-voting in the Vorstand (Executive Board) limit the scope of CEO discretion. Chief executives of British and French firms in general and of BA and Air France in particular are subject to less stringent institutional constraints in corporate governance.

Although unilateral CEO discretion is a useful enabling condition for facilitating intra-organization power shifts, its presence does not guarantee such change will actually happen. What use the CEO will make of his or her authority depends on a host of other factors. While the CEOs of both British Airways and Air France could and did exercise considerable unilateral authority, in one area the Air France manager exercised this authority far less than his British Airways counterpart: in the hiring and firing of managers. Whereas British Airways renewed its managerial ranks in the 1980s through extensive dismissals, fast-track promotions, and fresh hires, Air France trudged along with little renewal of its top personnel. Managerial mobility was low, and thus unsurprisingly there were strong forces of inertia within the Air France organization acting to prolong the traditional route-based industrial strategy. Table 4 summarizes some of the differences between the three airlines that help explain the differential rates with which the network-based industrial strategy was adopted:

Table 4: Patterned Differences between the Airlines Studied

	High managerial mobility; Generalist managers	Low managerial mobility; Specialist managers
High CEO discretion; Generalist CEO	**British Airways**	**Air France**
Limited CEO discretion; Executive board of specialists		**Lufthansa**

British Airways was in many ways a classic Anglo-Saxon company, with an institutionally strong CEO and with high mobility, turnover, and a generalist

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orientation common among all levels of the managerial ranks. Lufthansa was the polar opposite in the years observed (1983-1995): the managerial ranks were filled with specialists all the way up to the Vorstand, whose chairman (the closest German equivalent to a CEO) had only one vote in the collegial executive board. Lifetime employment at Lufthansa was the norm for most managers. At Air France, the generalist CEOs drawn from France's *grands corps* contrasted with the low inter- and intra-organizational mobility of other Air France managers.

Although the above table represents CEO discretion, generalist/specialist orientation, and managerial mobility as non-collinear, "orthogonal" variables, in reality these factors interact in ways that reflect the overall social system of which they are a part. To take a simple example, the very fact that French firms are so heavily manned with narrowly trained specialists is precisely the condition that creates the demand for *grands corps* generalists (Cohen and Bauer, 1980). Thus, an Air France CEO is not a generalist top manager in the same way as a British Airways CEO. An objective of the individual case-study chapters is to portray in a more fine-grained way the social systems of which the above table gives but a highly abbreviated representation.

It is fairly well-established from prior research that the indicated airline characteristics in corporate governance (Charkham, 1994) and managerial hierarchies (Lane, 1989) correspond to widespread patterns of firms in these airlines' home countries. Yet given the small sample size and the wide variance of company arrangements possible within national institutional systems, why does the present research insist on the country-specificity of these characteristics rather than their firm- or sector-specificity? A finding of research was that the three flag carriers were in many ways *ideal types* and *unintended caricatures* of the national business systems to which they belonged.

To say that British Airways, Air France, and Lufthansa were ideal types or caricatures does not imply that they were "typical" or "average" British, French, or German firms. Most UK companies have performed less well that British Airways and most French companies better than Air France. An ideal type is not the same as an average type. *An ideal type of company is one which stretches certain (but not all) characteristics of its national context to its limits and thereby brings the effects and significance of these characteristics into relief.* As such, multiple ideal types are possible for a given national business system. For example, British decision-making is often identified with "disjointed incrementalism" (Braybrooke and Lindblom, 1963), and no doubt some firms in the UK embody this principle to a sensational extent. Within the present sample, however, British Airways from 1983 on embodied a different ideal type possible within the British institutional framework: the "professionally managed" Anglo-Saxon firm based on a strong CEO, low employment security

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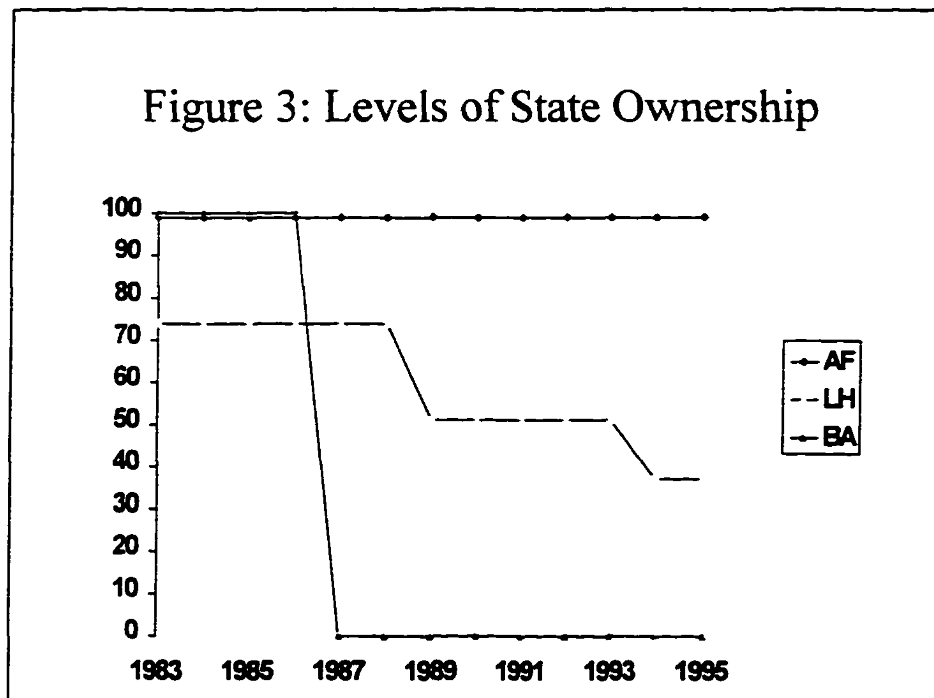
for managers, and high-powered incentives. Lufthansa, in contrast, constituted an ideal type of the technically oriented, consensus-based company which is conceivable in any country but particularly likely to emerge in the German industrial and institutional landscape. Finally, Air France embodied the systemic weaknesses of France's public-sector companies administered by political appointees: as a consequence of imprudent investments and institutional rigidities, Air France, Crédit Lyonnais, and the GAN insurance company all required public bail-outs of billions of francs in the 1990s.

Mention of the public sector immediately raises the question of whether the characteristics of corporate governance and managerial hierarchies mentioned above are as explanatory factors nearly so important as the comparative pace of airline privatization. After 1987, certainly, the correlation between private ownership and timing of introduction of the network-based industrial strategy appears strong:



Nonetheless, the privatization explanation in its simplest form is insufficient, for British Airways adopted the network-based industrial strategy in 1983-86 while the airline was 100% state-owned.

With some modification, however, the privatization explanation can be made consistent with the observed variation in pace of commercial innovation. For although British Airways was not actually privatized until 1987, the run-up to privatization began shortly after Margaret Thatcher's election victory in 1979. Key events in the run-up were the appointment of industrialist John King to chairman of the BA board in 1980 (he took office in 1981), followed by the

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appointment of a seasoned service-industry manager, Colin Marshall, to CEO in 1983. Marshall was very much King's hand-picked choice, as King had been Thatcher's. As detailed in Chapter 3, the critical change process leading to the early adoption by BA of the network-based paradigm stemmed directly from the leadership of Marshall. Under the altered social context of Thatcherism and the expressed governmental will to privatize BA, Marshall could run British Airways largely like a private company even prior to privatization.

In contrast, French governments prior to 1993 showed little interest in privatizing Air France, while in Germany the opposition to the privatization of Lufthansa by the CSU (Bavaria's conservative party, and part of Kohl's governing coalition since 1982) ensured majority ownership of Lufthansa by the state throughout the 1980s. Nonetheless, Lufthansa's shares were traded on the stock exchange and thus the company was subject to closer external scrutiny than Air France. Moreover, the debate over privatization of the national flag carrier began earlier in the Federal Republic than in France, with the Chancellor and Finance Minister advocating privatization of Lufthansa from 1984 on. A clear government resolve to privatize the national carrier emerged shortly after the German elections of 1990 while the issue was still taboo in Socialist-governed France.

Without question, the *politics* of privatization are an important part of any serious explanation for disparities in performance and innovation among the three carriers. The critically important line of strong delegation Thatcher-King-Marshall at BA was scarcely thinkable in the absence of a political sea change in the UK, just as the continued appointment of Air France CEOs with little business experience reflected French political hesitations about privatizing Air France. In the case of Lufthansa, the effects of state ownership are less easy to reconstruct; though a political appointee, Lufthansa's CEO Heinz Ruhnau (from 1982 to 1991) clearly worked hard to debureaucratize and reorganize Lufthansa but faced - as documented in Chapter 5 - heavy institutional obstacles rooted in the German system of corporate governance.

Although privatization politics clearly did have an effect on the innovativeness and performance of the studied airlines, this effect was *indirect*. In contrast, the corporate governance and managerial hierarchy factors listed earlier were found to have a quite direct effect on the adoption of the network-based industrial strategy. In fact, *variation in privatization politics simply magnified the earlier cited differences in corporate governance and managerial hierarchies*. For example, the UK's early moves towards privatization of British Airways undoubtedly enhanced the CEO's discretion (with the line of delegation Thatcher-King-Marshall channeling the government's will to create a more market-driven airline), while state ownership of Air France resulted in public-sector human resource policies and hence even lower managerial mobility than in France's private sector. *Thus, privatization politics are not an alternative*

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explanation to the factors in Table 3, but a historical source of variance among these factors. Privatization politics acted in this sample as a magnifier of cross-national institutional differences.

1.6 Methodology

Established research paradigms in management bifurcate into deductive and inductive approaches. Deductive approaches emphasize the testing of theoretical propositions through quantitative large-sample methods. Inductive approaches develop "grounded theory" through the analysis of more qualitative data. Attempts at building theories of the middle range from case studies (Eisenhardt, 1989) are comparatively rare. Yet whatever the method, established research methods in management accord unquestioned primacy to theory-building.

The Methods of Comparative Social Science. Research in the tradition of comparative political economy does not fit comfortably into the inductive/deductive dichotomy. The specificities of the comparative method in cross-national studies, as admirably summarized by Ragin (1987), are briefly restated here. Established practice in comparative social science violates the tenets of traditional management research in three important, related ways.

First, as a comparativist I am principally interested in investigating *similarities and differences among macrosocial units*: British, French, and German business systems, in the present instance. The study of the three airlines is subordinated to this superior broader objective and is intended to complement the efforts of other comparativists in management and political economy more than of those who study airline management or airline economics.

Second, the unit of analysis is willfully dualistic. In empirical comparative research, there is almost invariably *a disjuncture between the level of empirical observation and the level of theoretical explanation* (Ragin, 1987: 8). While data observation usually proceeds at the sectoral, organizational, or individual level, the explanation is usually couched at a higher level, usually the macrosocial level. Thus, although the data sample in the present study consists of airlines (the *observational* unit of analysis), the explanation will frequently evoke national contexts (the *explanatory* unit of analysis) rather than those at a sectoral or organizational level.

Third, the use of attributes of macrosocial units in explanation means that comparative social research is inevitably *interpretive* in addition to being analytic. Whereas orthodox management studies confine analysis to attributes

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observable within the analyzed data sample, comparativists often assert that variations observed within their particular data samples reflect or emanate from broader societal differences not directly inferable from the sample or from any statistical logic. To strengthen the case that their data sets are actually microcosms of macrosocial similarities and differences, comparativists frequently cite previous studies and other external evidence in support of such contentions.

These characteristics of comparative social science depart substantially from the deductive principles of mainstream (statistical) social science, but also from the inductive approach of grounded theory. Macrosocial categories, dual levels of analysis, and interpretive elements of explanation conflict with the rigorous norms of experimental and statistical control. Under what conditions are they justified?

Mainstream statistical methods disaggregate cases into variables and distributions prior to data analysis. Statistical control provides a means for analyzing the correlation and presumed causal connection between particular aspects of cases ("variables") by assuming the cases to emanate from a larger "population" of similarly distributed phenomena. Statistical methods involve the following drawbacks: they require sufficiently large samples to overcome the degrees-of-freedom constraint; model specifications generally assume additive "piecemeal" effects of independent variables, with rather limited ability to study complex interactive effects among them; and statistical methods are largely unable to cope with the phenomenon of "functional equivalence" so often observed in social science, that is, the ability of very different combinations of conditions to produce the same outcome. Nonetheless, statistical methods represent the best methodology for studying covariation between generic social phenomena that can be codified in categorical or numerical variables.

Comparative qualitative methods, in contrast, are preferable in instances where an interest in historically significant phenomena restrict the relevant sample size to a small number of observations; where explanatory conditions interact in complex, configurational ways rather than separately and additively; where several different combinations of conditions may produce the same emergent outcomes ("multiple conjunctural causation"); and where certain combinations of causal conditions are complex and unique enough that statistical techniques are unable to test them against logical alternative models of causation (Ragin, 1987). Despite these differences, case-oriented comparative research shares with statistical methods a central interest in explaining differences in some outcome (dependent variable) with reference to some set of causal conditions (independent variables); in this it differs from inductive theory- or process-construction using case studies.

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The liberalization of EC air transport by the European Commission from 1987 on constituted a significant event in European economic affairs. It placed hitherto protected companies into direct competition with one another and created clear winners (British Airways, continuously profitable after 1983), losers (Air France required a FF 20bn bail-out by the French state), and survivors (Lufthansa staged a surprising turnaround after its financial health plummeted in the earlier 1990s). As documented in Chapter 2, air transport was targeted by the European Commission as a politically significant sector for demonstrating to consumers the merits of European economic integration. Given the sector's high visibility to the public, to managers, and to public policy-makers, the varying fate of British Airways, Air France, and Lufthansa has a concrete historical significance extending beyond being statistical observations in any abstract "population" of airlines. Although the present research findings do not lend themselves to conclusions claiming a high degree of generality, the overall nature of competition between different institutional systems as evidenced in the airline industry is of interest to those who study or who are affected by processes of "Europeanization" and "globalization" in business. Whereas from an orthodox social science standpoint, the flag carriers of Britain, France, and Germany are simply three random "observations" drawn from a larger population of organizations, an undeniable social fact is that they are not seen this way by many comparativists, public-policy makers, and managers.

The Research Question. For many comparativists, public-policy makers, and managers, a question of considerable interest is whether the astounding variation of performance between the three carriers derives exclusively from privatization-induced processes. A general question raised by competition in European civil aviation is: "What does competition between Western Europe's three largest flag carriers tell us about the comparative institutional advantages and disadvantages of the three countries they represent?" This is the central research question addressed by this project. The findings suggest that cross-national institutional differences played a role in the differential rates of adoption of the network-based industrial strategy, which was demonstrably one factor (of many) influencing the airlines' bottom-line performance.

This study sheds light on a number of theoretical issues as well. At the broadest level, the study suggests an institutionalist explanation for cross-national differences in industry specialization and comparative advantage; whereas Porter's (1990) volume brilliantly summarizes economic explanations for these differences, the present study is a contribution to a supplementary explanation rooted in the historical institutionalism of political economy (Kitschelt, 1991; Soskice, 1994a; Lehrer, 1997). At a narrower level, the study presents cases of interest to those who examine issues of radical versus incremental innovation, cross-national variation in elite systems, and the exercise of managerial discretion.

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Methods of Data Collection. A case study on Lufthansa's turnaround in the 1990s (INSEAD, 1995), written by the author prior to beginning the present research, provided initial familiarity with the airline industry. A sectoral approach, emphasizing differences between the British, French, and German regulation of the civil aviation industry, was initially adopted at the outset of this research, spurred by recent comparative work on national sectors (Wilks and Wright, 1987; Grant, 1989; Hollingsworth, Schmitter et al., 1994). A sectoral approach also seemed reasonable on the basis of regulatory issues discussed widely in the press; in particular, the exceptional profitability of British Airways was attributed by many industry observers to the airline's comfortable position at slot-constrained Heathrow airport, while many of Air France's problems were blamed on national regulatory restrictions that forced the company to fragment its route network in unprofitable ways across the two Paris airports CDG-Roissy (for international flights) and Orly (domestic and DOM-TOM flights).

A first set of interviews (February 1995) was conducted in Brussels with officials of the European Commission and airline lobbying groups (especially the Association of European Airlines, or AEA). This was done in order to gain a broader perspective on regulatory issues in European civil aviation. In the following months (March-July 1995), two tracks of data collection were pursued simultaneously. On the one hand, interviews were conducted with civil aviation officials in the three countries and with the government affairs departments of the three airlines, again with a focus on regulatory issues and the way these constrained the strategic choices of airlines. On the other hand, the author collected archival data on the three national airline sectors and the three airlines from books, industry magazines, government reports, and from the company newspapers of the three airlines since the early 1980s.

Based on experience gained from writing the Lufthansa case, it was deemed necessary to make maximum use of archival sources prior to conducting interviews with airline managers in the operational areas of the airlines. Experience had shown the utility of conducting interviews on highly specific questions with the individual managers personally involved with the issues of concern. Copious photocopies of the airlines' company newspapers proved to be a key source of information about how the airlines perceived the strategic issues facing them over time and about which individuals within the airlines were best qualified to address their airlines' handling of these issues.

By the Fall of 1995, the mass of accumulated archival material and interview information had reached many thousands of pages. To process the collected information, three months (September-November 1995) were spent preparing chronologies of the three sectors and flag carriers from the early 1980s to mid-1995. These chronologies included regulatory and political events affecting the airlines, major strategic and organizational decisions within the companies themselves, and significant quotes by airline managers and

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other civil aviation actors. The chronologies encompassed about 1200 events and statements:

Table 5: Chronologies of November, 1995

National Airline Sector (Carrier)	Pages	Events	Words
UK (British Airways)	37	502	20,827
France (Air France)	33	287	18,198
Germany (Lufthansa)	33	407	16,794
Total	100	1196	55,819

From analysis of this chronology it became clear that the three airlines, while similar in many ways, had recognized the strategic importance of their hub airport and of "sixth-freedom" traffic (the term is explained in Chapter 2) at very different times, and that this belated recognition had resulted in substantial lost revenue opportunities to Air France and Lufthansa while greatly enhancing BA's profitability and competitive advantage. It had also become clear by this point that civil aviation officials in all three countries were generally oblivious to concerns of airlines' route-based or network-based industrial strategies: BA's early recognition as well as the tardiness of Lufthansa and Air France were largely internal company matters of business strategy. In other words, the initially adopted sectoral approach appeared increasingly irrelevant in terms of explaining the commercial innovation of the airlines.

This led to a re-assessment of the airport problem mentioned earlier (BA's position at Heathrow versus Air France's fragmentation between CDG-Roissy and Orly). The key factors seen driving the differential rates of adoption of the network-based industrial strategy, instead of being conditioned by regulatory and other *sectoral* differences, were due to the companies' individual strategic choices, the exact nature and rationale of which was still unknown.

In 1996, follow-up interviews were sought with operational managers in the three airlines whose jobs touched on the adoption or non-adoption of the new industrial strategy. Because of the disgrace into which Air France had fallen after 1993, Air France and ex-Air France managers proved to be far more reluctant to grant interviews than their counterparts at the other two airlines. In all, 71 individuals in civil aviation (totaling 94 total hours of interviews) granted me interviews. Five BA or ex-BA managers were interviewed by phone, the

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rest were interviewed in person. Where possible, conversations were taped, and when the information appeared sufficiently complex to justify the time investment, a word-for-word typed transcript of the interview was prepared; otherwise just a handwritten summary was produced from the tape. The following table includes interviews with 14 Lufthansa managers who had already been interviewed in 1995 for the aforementioned case study (INSEAD, 1995); two of these interviews were conducted and preserved on a typed transcript by Heinz Thanheiser of INSEAD:

Table 6: Interview Source Material

National Airline Sector (Carrier)	Persons Interviewed	Hours of Interview	Hours Taped	Typed Transcripts
British Airways	18	24	20	11
British Civil Aviation	3	4	3	1
Air France	7	10	8	2
French Civil Aviation	3	7	2	2
Lufthansa	26	33	13	7
German Civil Aviation	5	5	2	1
Total	**71**	**94**	**56**	**30**

Although the low number of Air France interviews was a disappointment, other information-rich sources of information were found: a 1991 French Senate report on Air France, a set of three highly detailed company studies authored by the head of the pilots' association of Air France, and a published book by Bernard Attali, the CEO of Air France from 1988 to 1993.

Data Analysis. Analysis of the data entailed three critical steps: 1) identification of the relevant outcome variable; 2) at the observational unit of analysis, identification of *configurations* of firm-specific variables responsible for this outcome; and 3) at the explanatory level of analysis, attribution of these configurations to larger patterns of macrosocial variation. Each of these steps is treated in turn.

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1) Identification of the relevant outcome variable. In strategic management, the dependent variable of interest is generally firm performance. Longitudinal study of the three airlines led to the conclusion that the timing of adoption of the network-based industrial strategy was a significant indicator of company innovativeness (i.e. British Airways' early adoption of the new industrial strategy correlated with innovation in other areas as well) as well as an important factor in bottom-line financial results. The fact that there was significant variation in this outcome made it a natural choice for focusing the analysis.

2) *Identification of configurations of firm-specific variables responsible for this outcome.* With the final round of interviews clearly focused on circumstances facilitating or delaying adoption of the network-based industrial strategy, distinct patterns of causation among the independent variables began to emerge. An advantage of comparative case-oriented methods is the focus they allow on problems of *human agency,* as opposed to just statistical covariation. While the small sample size and fieldwork methodology of this research do not permit rigorous testing of the relationships detected, they did lend themselves to a closer inspection of the actual causal mechanics involved in the variable speed of commercial innovation.

It became clear in the case of BA that unilateral CEO control and the ability to hire and fire were important enabling conditions in the learning and innovation processes leading to adoption of the network-based industrial strategy. "Unilateral CEO control" is not the same as "unilateral CEO-driven strategy," it should be noted. None of the airlines' CEOs masterminded the implementation of the network-based industrial strategy. Rather, unilateral CEO control was simply a condition that made it possible - an "enabling condition" - for certain key organizational processes within BA to be set in motion which led to this outcome. These organizational processes might be termed a "shake-up of the managerial hierarchy."

The CEO of Air France was observed to enjoy significant discretion. Yet this discretion was exercised in very different ways than at BA. Air France's CEO of the post-liberalization years centralized in his own person a great deal of decision-making in investment, acquisitions, alliances, and political lobbying. Yet he did not shake up the managerial hierarchy in efforts to promote change. This type of approach was observed to retard commercial experimentation and learning. Ironically, Air France's CEO in the late 1980s talked a great deal about the need to construct a hub at Paris and acquired the domestic carrier Air Inter with the expressed intent of building a hub. Nonetheless, the network-based industrial strategy was not understood or implemented until much later. Air France's consistent failure to implement or even really understand the new industrial strategy were seen to derive from a fateful pattern of "top-down strategizing."

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In direct contrast to BA, lesser unilateral CEO control at Lufthansa made it difficult for Lufthansa's CEO in the 1980s to foster a more market-driven orientation which he clearly recognized to be necessary. Majority voting and a specialist orientation in the Vorstand made it difficult for Lufthansa's CEO to match many moves of his counterpart at BA, particularly moves to strengthen and upgrade the commercial side of the airline. Demonstrably, however, he endeavored to do so. An interesting twist on Lufthansa's strategic adjustment was its conscious attempt to emulate the strategies of German car manufacturers, at least in its general strategic thinking: maintaining the quality image and differentiation strategy needed to charge the fares sufficient to cover high German wage costs. This generic German strategy was not adapted to the specific requirements of the industry, however. One might call this pattern of firm adjustment "BMW emulation."

The shake-up of the managerial hierarchy (British Airways), top-down strategizing (Air France), and the BMW emulation (Lufthansa) are short-hand labels adopted here to denote the complex interaction of the company-specific factors mentioned in Table 4 (CEO discretion, managerial mobility, etc.). They summarize *configurations of conditions* described in greater detail in the individual case chapters. It is precisely to such configurations of conditions that the comparative method attends in data analysis (Ragin, 1987).

3) *Attribution of these configurations to larger patterns of macrosocial variation.* Multiple interpretations of these three patterns of company behavior are possible. Micro-economic interpretations, for instance, might emphasize monetary and career incentives for top managers; one might argue, for example, that as head of a company headed for privatization, British Airways' CEO had clear incentives like stock market constraints and prospective post-privatization leaps in executive compensation to encourage undertaking risky actions such as shaking up the managerial ranks.

As earlier mentioned, comparative social science has a preferred bias towards macrosocial levels of explanation. Originally, the macrosocial level of explanation envisioned for the present research was sectoral rather than national. The final section of Chapter 6 examines the sectoral characteristics of British, French, and German scheduled air transport and relates these to the overall findings. Admittedly, the three national sectors manifest curious parallels to their flag carriers in the 1980s: British civil aviation has been highly "market-oriented" and "innovative" in its forms of regulation, just as BA's adjustment strategy in the 1980s was market-oriented and innovative; the regulatory stasis of French civil aviation parallels the commercial stasis of Air France; Bonn's civil servants in the early 1990s turned their backs on favoritism for Lufthansa at just the time that Lufthansa managers advocated "mental change" within the airline and a break with accustomed company practices.

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Intriguing though the parallels at the sectoral level are, they did not withstand critical scrutiny: in terms of causation, they turned out to be largely coincidental. Extensive analysis of firm-level phenomena leading to early or tardy adoption of the network-based industrial strategy made the link with sectoral characteristics appear tenuous. Instead, managerial and organizational processes within the airlines revealed themselves to be more significant.

With the sector ruled out as the proper level of macrosocial explanation, consultation of prior comparative research and conversations with colleagues provided plausibility to national-level explanations. For example, previous literature on "diversified quality production" provided a national-level viewpoint on "BMW emulation" at Lufthansa. Various studies of the French elite shed light on what would otherwise seem to be personal eccentricities in the behavior of Air France's CEO in the years 1988-93. Recent publications on the distinctiveness of "Anglo-Saxon" capitalism help place the organizational revolution at British Airways within a larger context than a purely inductive analysis of managerial actions within BA.

Thus, one macrosocial explanation that emerged in the course of this research is that the managerial shake-up of British Airways represents the ideal-typical management system of Anglo-Saxon companies with their traditionally strong CEOs and low job security for managers. Similarly, it is argued that the top-down strategizing of Air France's CEO reflects patterns of conduct associated with France's elite system of *grands corps* generalists. Finally, BMW emulation at Lufthansa is portrayed as a typical national response across a range of industries to the particular institutional constraints and resources facing German companies.

These broader macrosocial explanations serve the function of illuminating key aspects of the cases whose import can be generalized beyond the realm of European civil aviation. Though the cases are too few and the constituent explanatory variable too numerous to permit generalizations of a statistical nature, the cases emerge as embodying certain ideal-typical characteristics that may provide a helpful baseline of comparison for comparativists and management scholars who study processes of international competition between firms. In other words, the national-level explanations offered in the present research are unapologetically interpretations, whose actual generalizability and pertinence will be "tested" by the research of other scholars.

At the same time, a central objective of analysis is the very opposite of arguing for generalizability. The following chapters attempt to isolate the boundary conditions under which British, French, and German institutions generated competitive advantages for the three airlines. The analysis aims at

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identifying the critical intersection between the nature of civil aviation in the 1980s and particular characteristics of the three national business systems which together explain the observed variation in timing of commercial innovation. The present study departs from many previous studies of industry specialization by nations in that it implicitly questions the hypothesis of comparative institutional advantages in civil aviation *per se*; instead, the hypothesis is that comparative institutional advantages in the 1980s were due to historically unique conditions and one-time changes in the industry during the period studied.

A hypothesis implied in the present work is that the comparative industry advantages of countries will shift in a sort of random walk as technology and market change drive the evolution of the industry in unforeseen ways. An objective of analysis, then, is not just to generalize the findings through appeal to national-level attributes, but also to pin down the conditions under which comparative institutional advantages arose by identifying the particularities of the industry during the period of study.

1.7 Presentation of findings

In order to identify the particularities of the commercial innovation studied in this research, Chapter 2 outlines in some detail the background for the change in industrial strategy by European airlines. Three areas of change in European civil aviation in the 1980s altered the competitive parameters of the industry: market liberalization, technology, and global industry structure. The chapter describes these changes in markets and technology which created opportunities for airlines to break with traditional ways of organizing their operations, and it shows in greater detail the variable rapidity with which British Airways, Air France, and Lufthansa seized these opportunities. This chapter points out that differences in the airlines' industrial strategy cannot really be ascribed to economic factors; indeed, as this chapter shows, a characteristic of European civil aviation in the 1980s was that industry economics became vastly more complex and uncertain.

Chapters 3 (British Airways), 4 (Air France), and 5 (Lufthansa) present longitudinal case studies of strategic adjustment by the three airlines in response to changing industry conditions in the 1980s and 1990s. Each chapter prefaces the case study with an exposition of institutional characteristics for the home country in question (Britain, France, or Germany) which appear relevant to the case: the primacy of managerial prerogative in Britain, the nature of the elite system in France, "diversified quality production" in Germany. Analysis of the adjustment process in the three companies reveals how differently these airlines and their top managers went about

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reorganizing their commercial activities, and how these differences reflected patterned configurations of institutional factors conditioned by their national context. Analysis focuses on factors influencing the relative speed with which the network-based industrial strategy was recognized as necessary and then implemented. By way of conclusion, each of these chapters constructs a contingency model of national comparative institutional advantages based on the case study and previous literature.

Chapter 6 (Conclusion) pulls together the threads of the empirical findings of Chapters 3 to 5. It summarizes the link between the individual management style of firms and the "variety of capitalism" in which firms are embedded. Beyond just the issue of *variation*, the case studies shed light on the *persistence* of differing management styles. Chapter 6 explains why national institutional factors constitute not only political barriers to imitation, but cognitive barriers to imitation as well. This chapter reviews recent strategy work on organizational "routines" and "capabilities" to explain why sources of competitive advantage generated by the "higher-order" routines of British Airways were scarcely observable to competitors because of the hierarchical nesting of organizational activities. Reformulating the findings of this research, national institutional factors of corporate governance and managerial hierarchies clearly affected the "higher-order" routines of leadership and power relations in the airlines studied. This leads to an exploration of top management's need to coordinate processes of technical reform (or revolution) with processes of political reform (or revolution). Chapter 6 departs briefly from the comparative focus adopted in this research to consider the broader issues of "managing managers" in complex, rapidly changing environments.

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CHAPTER TWO: INDUSTRY CHANGE IN EUROPEAN CIVIL AVIATION

2.1 Overview of the industry: Changes in European civil aviation

The purpose of the present chapter is to provide the reader with sufficient background knowledge about change in European civil aviation in the 1980s to place the individual company studies (Chapters 3, 4, and 5) within their broader industry context. Space restrictions preclude a global overview of the industry and the complex economics of civil aviation; the focus is on certain key factors in European aviation in the 1980s which rendered the competitive environment far more complex, altered the economics of the sector, and indeed made it extremely difficult for European carriers to understand what the economics of the altered sector actually were. Under conditions of vastly increased uncertainty and complexity, airline organizations able to orchestrate experimentation and learning processes were quicker to make the needed adjustments. The focus of the chapter is on the rapidly increasing environmental change and uncertainty to which European carriers were exposed and to which they adjusted in different ways and at different rates. British Airways was a first-mover in adopting the network-based industrial strategy in the configuration of its operations (albeit a second-mover in some ways if one were to add KLM to the sample); Lufthansa and Air France did eventually follow British Airways in making the same adjustments, but with a 5-10 year lag. While Chapters 3, 4, and 5 will examine the airline-specific reasons for the variation in the timing which with the new strategy was recognized as necessary and implemented, the present chapter sheds light on the industry conditions behind such lags and headstarts.

Competitive conditions in European civil aviation changed dramatically during the 1980s. Deregulation in the US (enacted in 1978 by the Carter administration), market liberalization in the EC (phased in gradually between 1987 and 1993 through three "Packages" of measures), developments in aircraft and information technology, product innovation, infrastructure bottlenecks, and the emergence of new consumer demands created a host of competitive challenges for European carriers. Although the European Commission's liberalization of air transport contributed to the intensification of market pressures on Europe's airlines, in retrospect market liberalization was embedded within a myriad of environmental changes.

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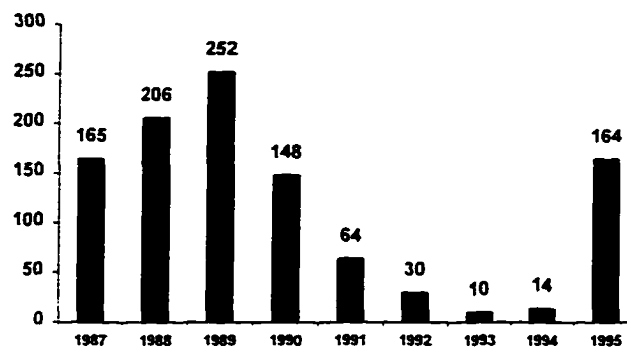
The Commission's first two "Packages" of measures (approved by the EC Council in 1987 and 1990) had only a limited impact on fares and market access. It was only after the collapse of demand following the Gulf War of 1991 and the passage of the decisive Third Package in 1992 that Europe's flag carriers felt the full brunt of market competition, with far less protection from government-regulated fares and capacities. In the five years preceding the Gulf War, a surge in demand fueled by prospects of European economic unification had allowed even the most inefficient carriers to make money. The following graph shows the boom-and-bust cycle of aircraft orders by member carriers of the Association of European Airlines (AEA), the flag carriers' lobbying organization in Brussels:

New Aircraft Orders by AEA Airlines



Source: AEA Yearbook 1996.

Even after the end of the Gulf War, demand was slow to return to normal. Businesses began to economize on air travel and the proportion of lower-yield leisure travelers began to rise. Unfortunately, Western airlines had made heavy purchases of aircraft, many of which they had to park in the Arizona desert for a time. The early 1990s were a crisis period for the airline industry worldwide, with most American and European airlines posting heavy losses. Not until 1995 were AEA carriers again profitable on average:

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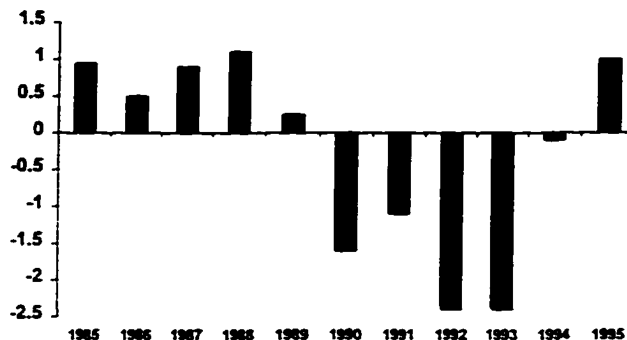
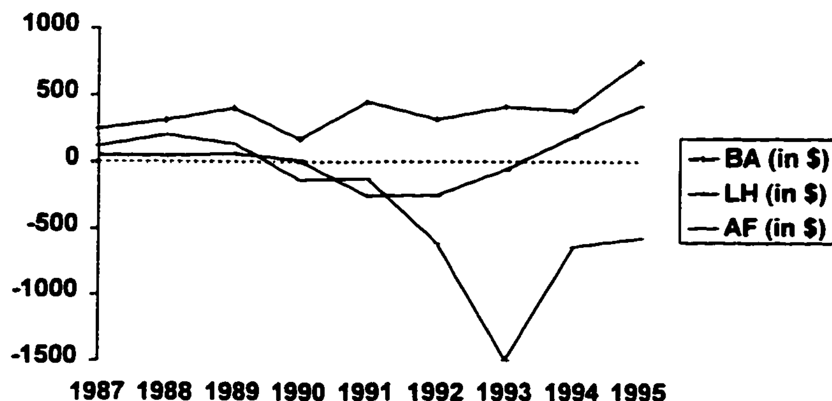
AEA Airlines' Operating Result



Net profit/loss in US $ (billions). Source: AEA Yearbook 1996.

Within the cohort of European carriers belonging to the AEA, there were significant performance disparities among carriers. This was especially true of the three carriers studied here. British Airways remained profitable throughout the crisis period. Lufthansa posted heavy losses for 1991 and 1992, but managed to return to profitability by early 1994 and remained profitable thereafter. Air France's losses deepened until the end of 1993, when a wave of social unrest by employees led to the resignation of its CEO and major government intervention to rescue the company from bankruptcy. Even with a complete change of the top management team, substantial employee concessions, and state aid of FF 20bn, Air France posted heavy losses throughout the first half of the 1990s. The three carriers exhibited the following variation in profit performance:

Post-tax profits (for Group)



Source: Annual Reports, Int'l Financial Stats Yearbook

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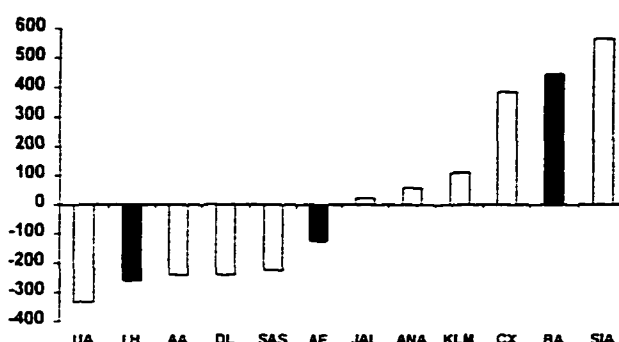
In the above graph, results have been converted in US dollars based on average exchange rates for the respective years.[1]

To the pattern of heavy industry losses in the 1990s there was one major European exception: British Airways. In 1991, British Airways was still profitable while virtually all other major airlines were in the red and was second in posted profits only to Singapore Airlines:

Airline Profitability in 1991



Net profit or loss in US $ (millions). Source: INSEAD (1995).

In 1995, BA even managed to surpass Singapore Airlines in net posted profits.

Perhaps the central question of European commercial aviation in the 1990s was: "Why is British Airways making so much money?" CEOs of many flag carriers had simple stock answers to this question. One was the lower wages of BA employees. Another was lower social security charges in the UK. For example, the CEO of Sabena justified his transfer of 480 pilots to Luxembourg (to lower social security costs) with a letter showing that if UK social security costs were applied to Sabena and if Belgian social security charges were applied to BA, Sabena would show a profit and BA a loss (*The Financial Times*, 2 February 1995). Such calculations have long been common in European aviation; the CEOs of Lufthansa and Air France had already performed similar arithmetic exercises with BA's social charges in earlier years. Another stock explanation was Heathrow. BA held about 40% of the runway

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[1] Performance statistics of the airline's group - with subsidiaries - are presented because British Airways reports only group performance statistics; in addition, the legal details of Air France's merger with UTA in 1992 led to major accounting discontinuities, with the result that Air France's individual company results are not available for all years. Subsidiaries of the three airline groups generally included a charter airline, catering services, travel agencies, hotels, etc. However, the predominant source of profits and losses was the scheduled airline. In both the Air France and Lufthansa groups, where subsidiary results are published separately, the subsidiaries consistently showed a modest profit.

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slots at the airport preferred by business travelers to and from London. Both slot congestion at Heathrow and the restrictive US-UK bilateral agreement on air services from 1977 ("Bermuda 2") shield BA somewhat from the onslaught of US mega-carriers (American, United, Delta, Continental) who began rapidly building capacity over the North Atlantic in the 1980s.

Single variable explanations of this type abound in civil aviation. They are constantly used to justify demands for changes in bilateral air service agreements (commonly known simply as "bilaterals") or for regulatory reform. Often they are an alibi for mismanagement. They must be regarded with profound suspicion in a European context, and all the more given their intuitive cogency. The problem with single variable explanations is that Europe's airlines differ along so many dimensions that one can always isolate one single factor and claim that performance outcomes would be reversed if only the home country positions were. The sources of performance variation among European airlines are so numerous that no analysis of performance differentials can be more than partial. Differences in markets served, route structure, local costs, wages, union flexibility, domestic competition, fleets, degree of vertical integration (e.g. degree of in-house maintenance), degree of diversification, currency fluctuations, airport infrastructure, accounting methods, and terms of bilateral air service agreements preclude simple accounts of performance differentials.

Though the multiplicity of causal factors precludes clear-cut explanations of performance differences, it does shed light on the evident headstarts and lags in the adoption of new competitive practices among the airlines studied in the sample. It will be seen that British Airways was the systematic leader and Air France the systematic trailer in the adoption of these practices. So long as managers in the trailing airlines could account for performance differences with reference to Heathrow or lower UK social charges, the intensity of the search for deeper sources of competitive advantages enjoyed by British Airways was dulled and their imitation retarded. In the following chapters, the adoption of new competitive practices is viewed in terms of "strategic adjustment" to industry evolution, following (as reviewed in the previous chapter) treatments of industrial adjustment in comparative political economy. To place these strategic adjustments in the broader context of the European aviation market, however, it is first necessary to review the changing nature of the industry and three new competitive parameters faced by European carriers in the 1980s: market liberalization, technological change, and global industry structure.

2.1.1 The European civil aviation market and liberalization

Liberalization was only one of the parameters affecting competitive outcomes in the sector. Indeed, as Chapters 4 and 5 reveal, Air France and Lufthansa

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evidently overemphasized *de jure* EC liberalization by basing their strategies on the premise of a completely open market on 1 January 1993, when the Third Package of measures took effect. In doing so, they may have underestimated the impact of other industry factors leading to *de facto* liberalization prior to 1993 and independently of the European Commission's actions. Nonetheless, the regulatory process of European liberalization merits discussion here and affords insight into the nature of European aviation markets and into the changing strategies of Europe's flag carriers.

The process of liberalization

Since the Chicago conference of 1944, international air transport has been governed by bilateral agreements ("bilaterals") between nations. While many countries have more or less liberalized charter services, scheduled air services between many countries remain subject to joint government regulation of capacities and fares. In the classic old-style bilateral, capacity was split 50:50 between the two flag carriers of the respective countries, fares were subject to prior approval by each government, and there were often provisions for revenue sharing (pooling). In the late 1970s, the US government began a worldwide campaign to loosen these restrictions in its bilaterals. Some European countries like West Germany willingly went along with more liberal provisions, for their flag carriers could hope to gain market share at the expense of the not-so-formidable US international carriers Pan Am and TWA.

In Europe, the UK and the Netherlands began advocating greater liberality of traffic rights and fares in the early 1980s. The European Commission seized on air transport as an arena in which it could play a more active role in Community affairs. The Commission's Transport Directorate (DG-7) had made various proposals since the 1970s, but it was the intervention of the Competition Directorate (DG-4) in 1985 that actually got the process moving. The threat of applying the competition rules of the Treaty of Rome to air transport - a threat to be enforced, if necessary, by the European Court of Justice - induced the European flag carriers and their national governments to cooperate with the Commission in fashioning a gradual phase-in of a liberalized single European market in scheduled air services.

Given the bilateral system, the military significance of aviation, and the high prestige of the industry, it is not surprising that European flag carriers maintained close links with government. Most were state-owned and many were administered by political appointees with little experience in industry. Costs could be automatically passed onto consumers using government-approved fares. This system had numerous consequences. Capacity was rationed, European carriers were generally quite inefficient, and ticket prices were high. Scheduled air transport in Europe had an aura of exclusivity and of existing for the rich (in contrast to the more proletarian charter business).

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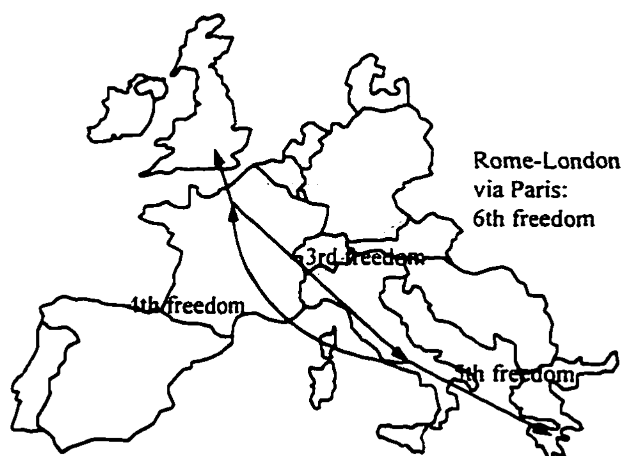
Commission officials targeted scheduled air transport as a policy area in which to demonstrate the merits of a single European market to consumers. Not surprisingly also, the majority of flag carriers and their national governments opposed the Commission's proposals for extending the Single Market to commercial aviation.

The three "Packages" of regulations and directives encompassed licensing of entrant carriers, traffic rights, airport slots, and many other aviation matters. An overview of the three packages is shown in Appendix 1. From the strategic viewpoint of airlines, the most salient provision concerned the loosening of pricing and capacity restrictions on services between EC member states: where 50:50 agreements were still in force, these had to be reduced to at least 55:45 by January 1988, 60:40 by October 1989, and abolished altogether by 1 January 1993. Similar provisions held on pricing. DG-4 Commissioner Peter Sutherland was especially proud of the so-called "fifth freedoms" provisions contained already in the First Package. As this study will have much to say about these "freedoms of the air," a small digression about these freedoms is in order here.

The first and second freedoms of the air defined in the 1944 Chicago Convention concern merely flyover privileges and technical stops. The most important freedoms stipulated in bilateral agreements concern third and fourth freedoms: the right to transport passengers to and from the signatory countries. In the figure below, Air France can transport passengers from Paris to Rome under third freedom rights and back again under fourth freedom rights. Some bilaterals provide fifth freedom privileges: the right, for example, of Air France to transport passengers from Rome on to Athens:



Air France's Freedoms of the Air

Such a right would of course require the consent of the Greek government in addition to that of the French and Italian governments. Though the

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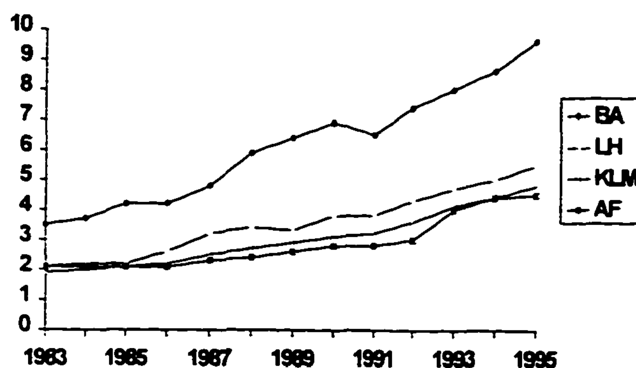
Commission's three Packages pried open third and fourth freedoms only very gradually between 1987 and 1993, they did grant EC airlines fifth freedom privileges since 1 January 1988 and allowed them to fill up to 50% of a plane's capacity with passengers embarking in one foreign EC country and flying onto another EC country. Sutherland believed that the fifth freedom would have a major liberating effect on the air transport market and that "tomorrow, in 1993, the old structures will have broken up and we will no longer recognize the landscape that decades of government control and protectionism have accustomed us to" (Sutherland, 1988: 122). A major surprise for the regulators, however, was the extremely sparse use made of the fifth freedom privilege; a mere dozen or so fifth freedom routes were actually set up and have played a negligible role in post-liberalization EC air transport. As for the overall market structure of European civil aviation, this has remained largely unchanged, as state aids have buffered inefficient flag carriers from the necessity of exit.

Of greater strategic importance has been a freedom of the air *not* stipulated in bilateral agreements: the sixth freedom. As will be seen in the following chapters, the sixth freedom was a central strategic consideration of European airlines. In the above figure, Air France can transport passengers between London and Rome by having them fly through Paris. The London-Paris and Paris-Rome legs are governed by existing third and fourth freedom rights, and therefore air transport between the UK and Italy via Paris does not require explicit additional traffic rights. The sixth freedom can be seen as commercial aviation "piracy": using the airport hub of the home country to transport passengers between two destinations outside the home country. Some countries, within and outside Europe, have tried to limit sixth freedom piracy by restricting capacity to countries that tried to attract sixth freedom traffic. The most notable "pirate" is KLM, which transports more international passengers than Air France:

Intercontinental Passengers (Mio.)



Source: AEA Yearbooks & Stat. Appendices, 1983-96

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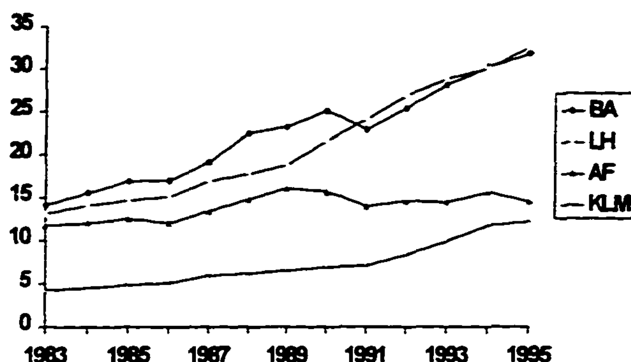
- despite the fact that it has a small domestic market than Air France and flies fewer passenger overall:



Source: AEA Yearbooks & Stat. Appendices, 1983-96

(The Air France statistics do not include the contribution of Air Inter, acquired by Air France in 1990.) As KLM has a far smaller domestic market than Air France and yet transports more long-haul passengers, it obviously has long tapped the customer base of other European countries and used its Schipol airport as an international hub. France could and to some extent did try to control this leakage by limiting the amount of capacity between France and Schipol in the France-Holland bilateral.[2] Though the three Packages were not conceived with the idea of intensifying sixth freedom competition, they had this unforeseen consequence insofar as they curtailed the ability of governments to limit this form of competition through capacity restrictions.

The effects of liberalization

A fundamental principle of airline economics is that little competition takes place on routes served by a monopoly or duopoly, but competition becomes more intense as soon as there are three or more carriers on a route. Thus, Air France, British Airways, and Lufthansa have little to gain by competing head-on over passengers traveling between France, the UK, and Germany. However, the situation is very different for long-haul routes to America, Africa, and Asia. To fill their long-haul planes, European carriers could siphon off passengers from neighboring countries and use their European routes as feeders to their long-haul routes. By reducing regulatory barriers to sixth-freedom competition between carriers, European liberalization had the paradoxical effect of raising

[2] Similarly, the UK has had constant aeropolitical quarrels over capacity with Southeast Asian countries like Singapore, fearing that Southeast Asian carriers would use their geographic positions to intercept traffic on UK-Asia/Pacific routes served by British carriers.

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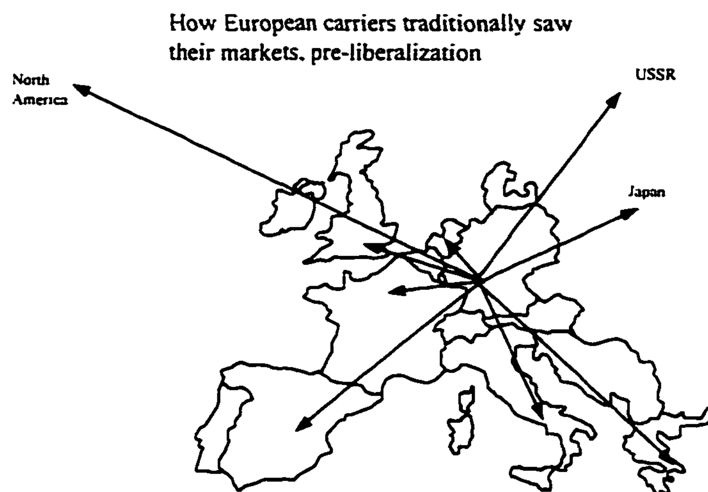
the level of competition in many intercontinental markets more than on intra-European services. Thus, a paradoxical finding of the UK's Civil Aviation Authority was that liberalization of the air transport market had intensified price competition on long-haul routes, but had only a minor impact on fares within Europe except where national authorities had placed a third carrier such as British Midland on intra-Community routes (CAA, 1993).

Though the European flag carriers in this sample had an obvious market opportunity to use their (liberalized) European networks as feeders to their long-haul routes, a major finding of this research was the extraordinarily variable speed with which they did so. Traditional segmentation of the market by geography (and the commercial orthodoxy that passengers only want direct flights) meant that the airline managers in charge of long-haul operations concentrated largely on the profitability on their individual routes while the managers of short-haul services did the same. The bilateral system explains this in part. The internal organization of European flag carriers had historically mirrored the organization of civil aviation into a set of country pairs, with the traffic between each pair of countries constituting the subject of a separate bilateral agreement and therefore constituting a separate market. Thus, Germany-Italy, Germany-US, Germany-Holland, and Germany-Spain each constituted a different market in the eyes of Lufthansa managers in the 1980s:



Historically, moreover, each flag carrier had viewed itself as entitled to 50% of the market, namely its own nationals flying on the route. Frenchmen were supposed to fly Air France, Germans Lufthansa, etc. Up to a point, this is what they did. The airline business was comfortable enough for flag carriers to turn a blind eye to sixth freedom specialists like Swissair or KLM who made incursions into other markets by offering either better service (Swissair) and/or lower prices (KLM).

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A natural market for sixth freedom competition is the North Atlantic. Competition is fairly deregulated, hence European carriers have both the means and the incentive to fill planes by feeding their transatlantic flights with passengers from other EC countries. In other words, Lufthansa's competitors over the North Atlantic are not merely the American mega-carriers. It is also in the interest of Air France and especially of KLM and British Airways to lure away Lufthansa's passengers by channeling them through their Paris, Schipol, or Heathrow hubs. This is classic sixth freedom competition, as shown below:

It should be clear from this map that British Airways is geographically well positioned to swipe transatlantic passengers from continental carriers, which it learned to do quite effectively. Of course, this "theft" pre-supposes building the proper pricing systems, hub connections, and scheduling capabilities, as discussed in the next section.

This leads to an important question. Was British Airways' headstart in adopting the network-based paradigm the result of simple economics and geography? It carried a larger number of intercontinental passengers than either Air France or Lufthansa (see graph above), and it was geographically well-positioned to feed its transatlantic routes with European ones. Regarding geography, most aviation observers consider Paris to be even better positioned than London for constructing a hub, and indeed Air France's implementation of the sixth-freedom hub concept in the 1990s coincided with a significant economic recovery. Frankfurt's more Eastern location was slightly less attractive for sixth-freedom purposes until 1989 (it became quite attractive thereafter with Lufthansa's excellent Eastern European network), yet Frankfurt hardly lies farther East than KLM's sixth-freedom hub at Amsterdam and was always well-positioned to feed European traffic into longer-haul flights to the Middle East and Asia.

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In economic terms, Lufthansa had in some ways a *greater* incentive than British Airways or Air France to build a sixth-freedom hub: like KLM, its main international airport had three runways (rather than just two at Heathrow and Roissy-CDG), thus allowing a greater density of interconnections. A true hub-and-spokes airport requires many runways so that landings and take-offs in the schedule are clustered at certain points of the day. Indeed, Lufthansa, quite unlike either Air France or British Airways, already had a hub-and-spokes system at its main airport in the 1980s - but mainly for connecting domestic (not European) routes to international ones. Even as late as 1994, because of the way they could schedule arrivals and departure times to cluster at certain times of the day, KLM and Lufthansa had a greater percentage of feasible interconnections between total flights than either Air France or BA at their main airports: 8.6% for KLM and 8.3% for Lufthansa, versus 5.5% for BA and 5.3% for Air France (Bordes-Pagès, 1994c: 30). Indeed, as countless BA and ex-BA managers have pointed out, Heathrow is not a real hub airport at all, as arrivals and departures are spread out uniformly throughout the day; thus, British Airways' implementation of the hub concept is largely as a provider of precious marginal revenue to fill empty seats not sold to direct-flight passengers. One of the arguments within Air France against constructing a hub at Roissy-CDG had been that the airport had only two runways and was therefore unsuitable for transformation into a hub (Bordes-Pagès, 1994c).

The logistical superiority of Frankfurt (and Schipol) over Heathrow and Roissy-CDG for constructing a hub is shown in Appendix 2. This appendix shows the number of aircraft movements by the respective flag carriers on 9 September 1994. Whereas at Heathrow and Roissy-CDG the number of arrivals and departures are uncorrelated throughout the day, KLM and Lufthansa, with their extra runway, are able to stagger their arrivals at certain times of the day just prior to clusters of departures. Thus it is not surprising that, as the chapter on British Airways shows, the manager put in charge of exploring the hub concept in the 1980s did not believe it could ever work.

One barrier to sixth-freedom competition was mental: it meant European flag carriers giving up their comfortable customer base within their home country. What undoubtedly did dull the interest of Air France and Lufthansa in pursuing sixth-freedom traffic in the 1980s was their hope of upholding a status quo of non-aggression pacts between European carriers who each concentrated on serving domestic customers. Unrealistic from the start, the hope of retaining their traditional hold over the national customer base proved definitively utopic in the 1990s. One indication is the following statistic: Lufthansa's share of intercontinental trips sold within German borders declined from 49% in 1986 to 43% in 1988 to 28% in 1993 (INSEAD, 1995).

The phenomenon that stands behind these figures was not specific to Lufthansa. European liberalization, sixth freedom competition, the emergence

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of American mega-carriers, the increasing cost sensitivity of customers, and computer reservation systems providing far more information to customers on the range of possible itineraries and carriers for reaching their destinations all contributed to this trend. An obvious strategic response to this was alliances and mergers within Europe. The European continent is overpopulated by national flag carriers from an industry structure point of view, and this was recognized in the 1980s. The takeover of British Caledonian by British Airways in 1987 was widely seen as the beginning of a concentration process in Europe similar to the US post-deregulation experience. These changes in industry structure are considered in greater detail below.

2.1.2 Technology

The economics of air transport are highly complex. The effects of deregulation in the US were vastly different from what economists had predicted on the basis of prior experience with competitive air transport markets in Texas and California (Levine, 1987). A major factor behind these economic surprises lay in the effects of technological change. Technological evolution during the first three post-1945 decades had most strongly impacted industry economics by delivering improved designs of aircraft, with each generation vastly more economical to operate than the preceding. However, economies of aircraft size effectively reached their peak with the introduction of the Boeing 747 in the 1970s. Subsequent aircraft designs offered greater fuel efficiency and smaller cockpits (dispensing with the flight engineer) but nothing like the leaps in operating efficiency brought about through earlier new generations of aircraft. In the 1980s, *information systems* arguably replaced aircraft as a central locus of change in the economics of the industry. Of course, not all airlines realized this immediately and some remained wedded to strategies and organizational structures predicated on the primacy of aircraft procurement and operation.

A universal experience of European carriers in the 1980s was the need to shift from an operations-driven culture dominated by engineers (emphasizing rational planning, safety and reliability) to a marketing-driven culture driven by sales and marketing people (emphasizing brand equity, customer responsiveness, and price). Customer service and marketing skills become more differentiating factors of airline performance in a deregulated environment. But there were also important technological drivers behind the required shifts in emphasis from Operations to Sales and Marketing in European airlines. Vital airline applications of information technology - computer reservation systems, frequent flyer programs, automated scheduling, and revenue management systems - made it vital for Sales and Marketing departments to master vastly more technical tools in the 1980s than they had ever handled in the past; in the operations-driven airline organizations of previous decades, in contrast, sales and marketing managers were often

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looked down upon as lowly hawkers by the engineers and pilots who occupied the higher status ranks of airlines.

At Lufthansa's General Shareholders' Meeting (*Hauptversammlung*) in July 1985, CEO Heinz Ruhnau reported with horror: "Pricing in the US is almost chaotic. Every week there are 60,000 price changes. How the consumer is supposed to figure out what's going on is not really clear" (source: Lufthansa mimeograph). The basis for this "chaos" was not only regulatory, but also technological. High-powered computer reservation systems (CRSs)[3] developed by the leading US airlines and installed in travel agencies made it possible for travel agents and customers to compare airlines' prices at a glance and for airlines to alter their ticket prices on a constant basis. This facilitated price comparisons by customers and led to substantial first-mover advantages for airlines developing the leading systems, which were Sabre (developed by American Airlines) and Apollo (developed by United). Sabre and Apollo were highly profitable for their developers - more so even than flying in many years - and furthermore posed the threat of information biases favoring the carrier that built them. When Sabre and Apollo began to expand into Europe, the AEA urged its members to counter by developing their own systems, which they did: Galileo (headed by BA and KLM) and Amadeus (headed by Air France and Lufthansa) began development in 1987 and came on-line in the early 1990s.

The perishable nature of airlines seats (subjecting the potential value of an empty seat to strong fluctuations over time prior to take-off) in combination with the advent of high-powered CRSs results in pricing decisions within airlines being very complex. Optimality in pricing requires accurate forecasts of how future bookings on the airline's different flights will develop over time prior to take-off, knowledge of the different categories of passengers likely to book, and of course real-time reactions to the pricing moves of competitors. In contrast to the price rigidity of air transport in earlier days, pricing in a deregulated airline environment is a "real-time" affair. The proliferation of CRSs in the 1980s subjected European airlines to ever greater price competition and was a major factor in causing them to lose control over their distribution channels. The challenge for European carriers was therefore not merely to build up their own CRSs and avoid dependency on the CRSs of American carriers. Even more so they had to develop the internal information-processing tools in "revenue management" (also known as "yield management") needed to determine and post the optimal prices on their flights.

A couple of historical examples illustrate just how high the stakes were. In 1989, Lufthansa's regional manager for the British Isles noted: "The absence of

[3] Technically, the proper term for systems like Sabre and Apollo is Global Distribution System (GDS), since CRS can refer either to these distribution systems or to the internal inventory system of airlines which feed information to distribution systems like Sabre, Apollo, or Amadeus. However, the term CRS is used in its more colloquial usage here.

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an effective yield management system is costing Lufthansa half a million Marks daily, in terms of lost revenue" (*Der Lufthanseat*, 9 Feb 1989). More than three-and-a-half years later, the problem was still not resolved, and when CEO Weber was asked at a Lufthansa "town meeting" in Frankfurt, "What does BA do differently to make profits?" he replied that there were three reasons:

1. BA long possesses a sophisticated yield management system with 20 booking classes, giving BA a seat-load factor (i.e. percentage of the plane filled) of 14% higher than Lufthansa.
2. BA's centralized hub structure in London, whereas decentralized services are becoming less profitable.
3. Profitable North Atlantic operations, thanks to the UK-US bilateral, much more favorable than the Germany-US bilateral (*Der Lufthanseat*, 16 Oct 1992).

The difficulties of Lufthansa and other carriers to stay abreast of developments in revenue management were partly due to the fact that they were chasing a moving technological target. To enable airlines to maximize potential revenues, no less than four generations of revenue management have been developed over the past fifteen years.

What revenue management systems do, very basically, is assign and re-assign categories to airline seats in the company's inventory. The basic motivation for doing this is to control and guide the selling of available capacity over time. Inventories for each flight are monitored and compared against forecast demand; as actual bookings exceed or fall short of forecast bookings, categories assigned to available seats are adjusted so as to indicate to the sellers that remaining capacity can be sold at higher or lower prices. This allows the sales organization to obtain an optimal price or "yield" on each seat. The more sophisticated the ability of the revenue management system is, the more finely selling practices can be optimized to maximize total revenue. Reduced to very simplified terms, the four basic generations systems of revenue management systems that airlines have developed over the past fifteen years are:

First Generation: Overbooking	Airlines compile historical records of flight cancellation patterns so as to forecast the number of seats that will ultimately be occupied on each flight. This enables them to estimate the number of extra tickets they need to sell on each flight in order to minimize empty seats.
Second Generation: Use of Fictitious Classes	There may be different booking classes within the same cabin of the aircraft and hence different prices for seats. Airlines make use of so-called "fictitious" booking classes to practice price discrimination, even among passengers who purchase the same service. For example, it may be profitable to charge different prices according to how far in advance the reservation is being made, the cost of cancellation, or the historical loyalty of the individual customer.

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Third Generation: Virtual Nesting	First- and second-generation revenue management systems operate on a flight-by-flight basis, without taking into account the O&D (origin and destination) of individual passengers. For example, on a London-to-Frankfurt flight, earlier inventory systems were unable to discriminate between passengers flying only to Frankfurt and those flying on to Moscow, Athens, or New York. A third-generation revenue management system reassigns booking classes into so-called "buckets" according to the overall revenue contribution made by a passenger's total itinerary. The implementation of such a system is expensive and time-consuming because of the complexity involved. For example, each of the company's city-pairs must be catalogued as a separate market. In the case of Air France, the number of O&D combinations exceeds 16,000 (Bordes-Pagès, 1994b: 40).
Fourth Generation: Bid Pricing	Bid pricing represents a technical refinement of virtual nesting which dispenses with "buckets" and prices all routes on an O&D basis. This was the system that British Airways, Lufthansa and Air France were racing to implement in 1996. Lufthansa had implemented virtual nesting (third generation) a couple of years prior, whereas Air France had been unable to move beyond its first-generation revenue management system through 1994. Both companies had contracted with American Airline's SDT for a system update Source: Bordes-Pagès(1994b).

It will be seen from this review that technology in this area was continually developing. Lufthansa and Air France were stymied by the fact that just as its IT people were sorting out the architectural and logistical problems of installing one generation of revenue management, the company became aware of a new generation of the technology requiring new investments. It can also be seen that beginning with the third generation, the geographical dimension of pricing and revenue management becomes prominent. The algorithmic problems of optimal pricing increase vastly in complexity as soon as an airline tries to optimize its revenue across all possible itineraries (by O&D) covered by its route structure rather than merely optimizing ticket prices on each route separately.

Under the route-based paradigm, an airline's markets were roughly equivalent in number to the number of destinations it served: about 100-200 for the major European carriers. But under the network-based paradigm, the number of markets increased to 10,000 to 20,000 (the number of total city-pairs in the network), and moreover all of these markets are interdependent: a seat on a London-Paris flight, for example, can be allocated to a passenger flying from London to Paris only or, alternatively, to passengers flying on from Paris to any other destination in the route network. The allocation process for maximizing revenue therefore requires highly sophisticated information tools. The economics of the network-based strategy and of an industry of network-based competitors is far more complex than in an industry of route-based

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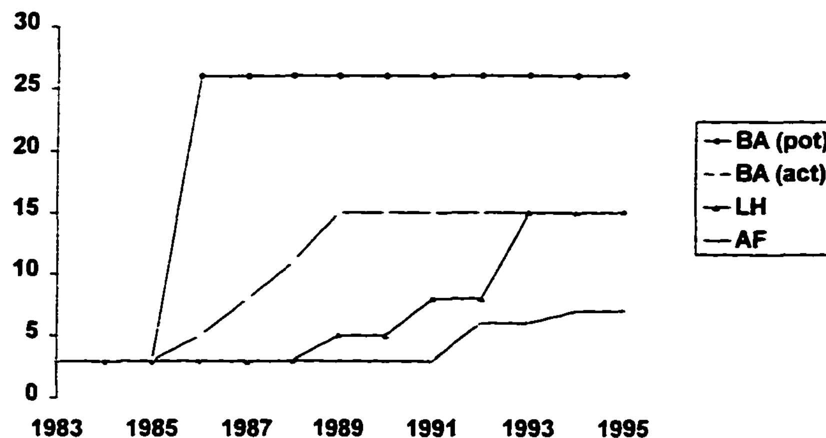
competitors; the ability to process information becomes a key factor in competitive survival.

As some airlines have discovered to their great pain, a revenue management system cannot simply be bought off the shelf. To function properly, an entire architecture must be conceived around the existing airline systems and specific needs of the company. Investments in computerized systems are not discrete activities that can be managed separately from other organizational processes, for implementing a new generation of revenue management requires wide-reaching complementary changes in organization, training, incentive systems, and company culture. This will be amply seen in the individual company chapters. For now it suffices to show that the airlines in our sample varied considerably in their revenue management capacities. A first glimpse of this can be gleaned from a comparison of the number of booking classes each of the airlines had incorporated into its revenue management architecture:



Sources: For BA: *British Airways News*, 13 Sept 1985 and interviews; for AF: Bordes-Pagès (1994b); for LH: *Fremdenverkehrswirtschaft Intern*, 4 July 1989; *Der Lufthanseat*, 19 June 1992 and 22 Jan 1993

The existence of two graphs for British Airways reflects the difference between the number of booking classes technically possible ("potential") on its system and the number actually used in practice ("actual"). A booking class refers only to categorical classifications in the information systems, and not to the number of actual fares used; indeed, one problem that Air France had with its limited number of booking classes is that fares proliferated for lack of central tools to control selling practices. Booking classes are one measure of the degree of central guidance and control that can be exercised over eager sellers; the more booking classes, the finer the granularity of control.

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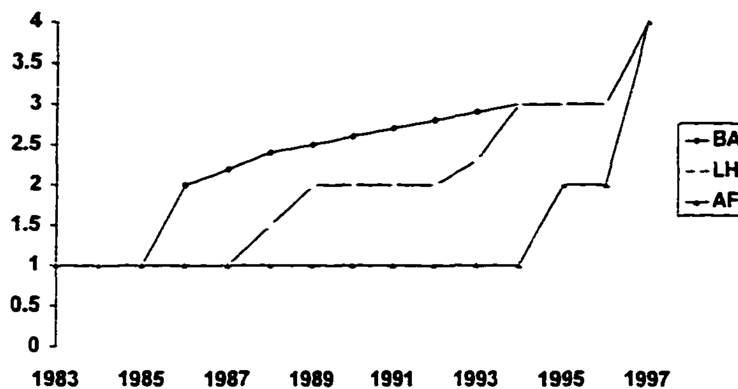
An obvious jump occurred in the case of British Airways in 1986. As discussed in the next chapter, this was due to the cutting over of a highly advanced reservation system (RS-13) in that year. This architecture provided the airline with such granularity that BA actually dispensed with the third generation of revenue management systems ("virtual nesting") and jumped directly from the second to the fourth, using the excellent capabilities of its 26 booking classes to replicate those of a third-generation revenue management system (Source: interviews). The following chart, which combines historical data with a degree of intuitive assessment based on interviews, gives an approximate comparison of the airlines' revenue management capabilities over time:



Sources: Bordes-Pagès (1994b) and company interviews

These graphs provide only a very rough comparison of these airlines' capabilities. Airlines' revenue management systems are composed of multiple organizational and data-processing subsystems that cannot easily be compared in a simple overall way. As airline managers emphasized in interviews, these computer systems are really aids in decision-making; a vital pre-requisite to all revenue optimization is an experienced and well-organized sales organization. At BA, the sophistication of the sales and marketing organization drove the development of the information-processing tools as much as the reverse (Chapter 3). Nevertheless, as a general statement, it can be said that British Airways in the late 1980s managed to build up a five-year lead over Lufthansa in the revenue management area and about a ten-year lead over Air France.

Two further applications of information technology can briefly be mentioned. First, in the early 1990s, most European carriers reluctantly instituted frequent flyer programs (FFPs) of the kind common in the US.

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Among the carriers in this study, BA introduced its FFP in 1991, Air France in 1992, and Lufthansa at the beginning of 1993. Their existence provides a motivation for international alliances, in which companies' FFPs can be merged to increase their value to customers: the value of a FFP to customers increases with the size of the airline's overall route network, for a larger network makes it easier for a customer to accumulate mileage and more likely the bonuses can be cashed in on the customers' preferred routes.

Second, information technology is also a useful tool for the operational scheduling of flights and crews. One of the most important annual tasks that an airline must perform each year is establish a timetable for the following year (more precisely, a winter and a summer timetable). The timetable represents a fundamental commitment of resources by the airline and determines two intersecting sets of constraints: technical and commercial. On the technical side, the timetable determines how aircraft and crew will be deployed. Poor timetable planning on the technical side causes airline resources to be used inefficiently through the immobilization of aircraft and crews. Poor timetable planning on the commercial side causes markets of lesser profitability to be served with a resultant squandering of revenue opportunities. The operational and commercial managers of an airline invariably quarrel over the often conflicting imperatives of technical efficiency and market opportunity. The ability or non-ability of the airlines studied in this research to reconcile these imperatives using the adapted organizational structures and information tools had economic consequences in the magnitude of hundreds of millions of dollars annually (Chapters 4 and 5).

2.1.3 Global Industry Structure

European carriers monitored the American experiment in deregulated airline competition with growing concern. After an initial spurt of new entries, the American airline industry consolidated back to its pre-deregulation level of concentration by the 1990s. A deregulated industry appeared to leave room only for mega-carriers enjoying hub airport fortresses and scale-based rents[4] alongside niche carriers offering regional services too thin to attract further competition (Bailey and Williams, 1988). Worried about being "caught in the middle" between viable airline sizes, some European carriers took comfort in the fact that they were to some extent already configured as hub-and-spokes networks: they had a single main international airport (the capital city, or

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[4] Empirically, many studies have shown a general absence of economies of scale on the cost side of the airline industry. Scale-based advantages show up in terms of economies of *scope* in constructing hubs (making the joint cost of serving routes through hub airports less expensive than serving the routes separately through direct flights), in economies of *density* (attracting customers by having frequent flights), and in size-related advantages on the marketing side (FFPs, brand equity, information systems, etc.).

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Frankfurt in the German case) with radial feeder connections from regional airports within the home country. Exceptions to this rule were carriers like Sabena and KLM with minuscule home-country networks, and also Air France, which until 1990 operated separately from the French domestic carrier Air Inter. By saturating their home airports with additional capacity in the late 1980s, many flag carriers ostensibly hoped to maintain the status quo of European aviation and prevent the incursion of new entrants into their traditional home markets.

The takeover of British Caledonian by British Airways in 1987 was widely interpreted by European carriers as the beginning of a concentration process akin to the US industry experience. If the prediction of Jan Carlzon (CEO of SAS) that a liberalized aviation market would only leave room for "four or five" European carriers was not universally shared, it was certainly universally cited. In order to take shelter, virtually all European carriers began exploring alliances in the late 1980s, either among one another or with non-Community carriers. For example, British Airways and KLM went so far as to take a joint stake in Sabena, and subsequently they even held talks on a full-fledged Anglo-Dutch merger. A strategic alliance announced between Lufthansa and Air France in late 1989 was widely interpreted as a kind of non-aggression pact and rebuff of the European Commission. Impending liberalization also motivated attempts by flag carriers to consolidate their holds over the national domestic market. For example, Lufthansa actively sought to acquire shares in travel agencies and tour operators in Germany, while Air France conducted a successful takeover of the other two major French carriers, UTA and Air Inter, in 1990.

A separate development of paramount strategic importance to European carriers was the expansion of US carriers over the North Atlantic from the late 1980s on. During the period of industry consolidation in the US, most energies of American carriers fighting for survival were devoted to the US market. But once the consolidation process was largely complete, the survivors began to export their competitive struggle to foreign shores in the late 1980s. US carriers built capacity on North Atlantic routes at a rapid rate, often adding 40% or more capacity in a single year at airports like Frankfurt, Paris, and Madrid (access to London was much more limited by bilateral and slot restrictions). Beyond just total capacity was the proliferation in the sheer number of US carriers that European carriers were suddenly confronted with; Air France's US competitors over the North Atlantic grew in number from two in 1980 to seven in 1990.

The assault of the US carriers affected the sampled firms differentially, as the following graph shows:

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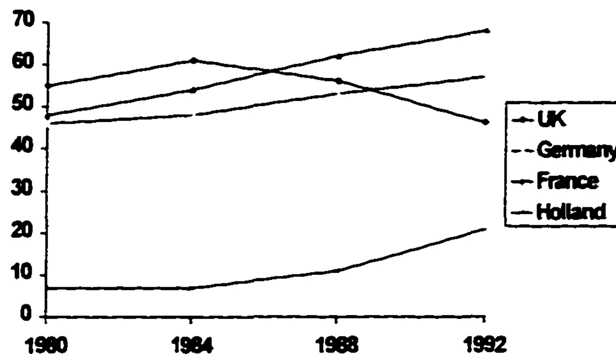
US Airlines' Share of US-Europe Traffic



Source: CAA, 1994: 96

The UK's premier international airport at London-Heathrow was slightly better protected by the UK-US bilateral (Bermuda 2) which limited US carriers to two and placed ceilings on their capacity. Yet even British Airways' good contacts to 10 Downing Street could not prevent the British government from allowing the TWA and Pan Am operations at Heathrow to be bought out and taken over in 1991 by American and United Airlines, incomparably fiercer competitors.

Solving the North Atlantic dilemma became a primary strategic necessity for European airlines by the early 1990s. One temptation was to demand greater restrictions on the access of American carriers to the European country in question. The other solution was to seek a strategic partner with a US domestic route network which could be interconnected with the European carrier's network, especially with code-sharing, which solved the CRS problem just mentioned.[5] In practice, European carriers often pursued both the protectionist and cooperative approach side-by-side in a game of aeropolitical poker.

What ultimately emerged from this dilemma, however, was a recognition that the North Atlantic did not represent an idiosyncratic geographical problem, but reflected the inevitable transformation of civil aviation into an oligopolistic global industry. The 1994 triadic alliance of Lufthansa, United, and Thai Airways marked a cornerstone in the globalizing trend. Oligopolistic groupings like Lufthansa-United-Thai or Delta-Singapore Airlines-Swissair-Sabena were

[5] Code-sharing is the practice of listing partner's flights under one's own flight number - and thereby rising to the top of the hierarchy in the display on computer reservation systems. (Hypothetical example: Lufthansa flies LH 3000 from Munich to Chicago, its partner United flies UA 1234 from Chicago to Denver, but Lufthansa is allowed to market the route Munich-Denver as flight LH 3020 and thus show up on the critical first page of CRS video displays of routing possibilities between Munich and Denver.)

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composed of strategically allied airlines who merged their route networks so as to provide encompassing coverage of all major world markets.

2.2 Shift in the industrial strategy of European carriers

The comparative analysis contained in the following chapters does not purport to provide an exhaustive understanding of performance differences between the three airlines. Differences in markets served, local costs, wages, union flexibility, fleets, currency fluctuations, airport infrastructure, accounting methods, social security charges, and terms of bilateral air service agreements preclude such an analysis.[6] Nonetheless, it is possible to present some comparisons of how these airlines fared in making certain *strategic adjustments* which according to the airlines themselves had a substantial impact on their profitability. As mentioned already in Chapter 1, comparative study of the three carriers identified a shift in industrial strategy which the carriers adopted at different rates:

Differential Rates of Strategic Adjustment

Airline	Year in which the need to adopt the network-based industrial strategy was clearly recognized	Years of critical organizational reforms enabling implementation of the new industrial strategy
British Airways	1984	1983-86
Lufthansa	1992	1992-95
Air France	1994	1994-97

The old industrial strategy is referred to as the *route-based* strategy; the new industrial strategy is referred to as the *network-based* strategy. The previous

[6] Many crucial differentiating factors affecting the performance of the three airlines cannot be accurately quantified. The most blatant problem, to the frustration of all airline researchers, is the near-total absence of information on the fares European airlines receive. (In contrast, US airlines must publicly disclose the origin, destination, and fare of every tenth ticket, making estimations of this kind possible.) Despite some attempts by the British CAA to estimate fare comparisons, the fact is that only the airlines know what they receive from each ticket. Interviews revealed that European airlines themselves are hampered by very limited data about their markets. Given these missing data, it is virtually impossible to quantify the inherent value of the traffic rights enjoyed and the market served by the different airlines.

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sections provided a certain amount of insight into the industry changes that paved the way for the network-based strategy. With these general principles in mind, it is possible to summarize the strategic adjustment that occurred among the three carriers.

To a certain extent the difference between the old and new strategies in European civil aviation corresponds to the distinction between point-to-point and hub-and-spokes configurations. The new strategy adopted by British Airways, Lufthansa, and Air France at different rates did indeed mean intensifying the strategic centrality of their hub airports at London, Frankfurt, and Paris. Yet it also required a number of other adjustments as well which were not entirely obvious from casual observation of US carriers. These adjustments are summarized below:

Industrial Strategies in European Civil Aviation

System Affected	Route-Based Industrial Strategy	Network-Based Industrial Strategy
View of market	Separate markets to and from home country	Home-country hub serving global market
Customer base	Home country of loyal nationals	Any passengers who fly in, to, or over Europe
Scheduling, pricing, selling	Separate, sequential tasks in different departments	Tight integration and control by the marketing department
Optimization of schedule and prices	On route by route by route basis	On O&D basis (Origin and Destination of passengers)
Sales organization	Decentralized	Centralized coordination using IT tools
Information technology	Supporting technology	Core technology for competitive advantage

Successfully competing in a liberalized European and global marketplace meant adopting a range of linked new practices in the airline's technical and organizational systems. Taken together, these changes amount to a fairly radical innovation in the airlines' commercial systems.

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This commercial innovation in European civil aviation is reminiscent in some ways of the shift from mass to lean production in automobile production (Womack, Jones et al., 1991). Not only did, in both cases, a shift across many interdependent components of the producer's strategy, systems, and organization reflect a fundamentally different logic in the mode of operation. There is a deeper parallel as well in the fact that in both automobile companies and airlines the strategy shift entailed managing a greater degree of personal and organizational *interdependence*: in automobiles, from a system of separate "mass" production units buffered from one another by countless stockpiles of spare parts to a "lean" system of just-in-time delivery and installation of components; in airlines, from a system of selling in separate geographic markets to one of selling optimally across all possible markets served by the overall route network. This interdependence among systems - the fact that they had to be orchestrated simultaneously to be effective - helps explain the rather surprising variation in the speed with which the network-based strategy was adopted.

Taken individually, ideas such as improved hub connections, increased sixth-freedom traffic, more homogeneous fleets, new revenue management tools, and tighter coordination between Operations and Sales/Marketing (hereafter referred to simply as Marketing) were merely good ideas, to be implemented where convenient and possible as enhancements of the existing configuration. Considered merely as independent measures, these ideas tended to be pursued by airlines to the extent allowed by the existing organizational divisions of power, funding priorities, and focus of top management. In contrast, when considered as indispensable components of a wholesale change in the airline's mode of operation, implementation of these ideas invariably entailed considerable discontinuities within the company: in the power structure, in decision routines, and in the communications channels of the company. The following sections analyze the fundamental differences of managerial philosophy underlying these two different industrial strategies.

View of the Market and Customer Base

In the route-based strategy, the key home-country asset is a customer base which is more or less loyal to the national flag carrier, either through patriotism, habit, convenience of schedule, and/or preference for airline personnel speaking the customers' native language. The network-based strategy, in contrast, expects customers to "defect" from their loyalty to the national flag carrier. The key strategic asset is no longer the "hostage" home customer base, but rather the major hub airport(s). A good hub airport serves at least three good purposes. First, premium direct traffic to and from the hub airport's city can be captured at peak times. Second, at non-peak times or other times of excess capacity, the hub's flight connections can be used to attract sixth-freedom traffic so as to extract marginal revenue for seats which would otherwise be empty. (When I mentioned this to a top BA marketing executive, I

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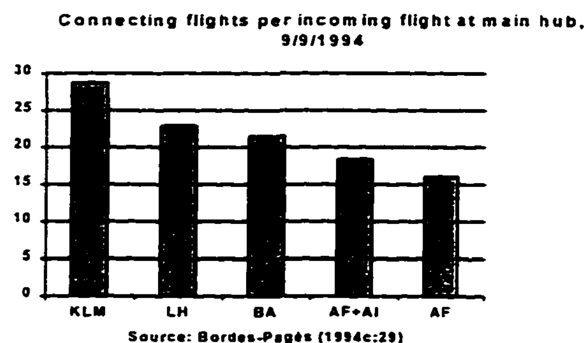
was told: "You've just described the entire principle of European civil aviation.") Third, if enough capacity is added the hub airport can become saturated enough to prevent new entrants from finding sufficient slots to compete against the incumbents. This notably happened at Heathrow and Frankfurt by the end of the 1980s.

Although deregulation in the US had dramatically illustrated the importance of hub-and-spokes systems, some European carriers were slow to explore their viability. Beyond just the problem of runway constraints, these carriers may have concluded from the American experience that hubs were mainly defensive assets - entry-deterring fortresses to guard against competition rather than connection-enabling tools to enlarge their share of the European marketplace. Some carriers may also have engaged in tacit non-aggression pacts and prolonged taboos about competing with one another over sixth-freedom traffic; although my interviews did not reveal this point as salient, the strategic alliance announced by Air France and Lufthansa in September 1989 may have dulled certain competitive drives in these airlines.

In any case, the following statistics give some insight into the comparative intensity with which European flag carriers utilized their hubs in 1994. Because Air Inter, despite its acquisition by Air France in 1990, continued to be run as a separate and largely uncoordinated entity, the following statistics consider Air France both separately at its Roissy-CDG hub and together with the flights of Air Inter to this airport:

Use of major hub



Although these statistics appear to reflect superior hub use of Lufthansa over British Airways in 1994, Heathrow airport has fewer runways than the Frankfurt airport does, as explained earlier.

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Organization of the "network" functions: Scheduling, pricing, capacity management

We can think of an airline's set of scheduled flights as a network. Not a lattice of lines on a map is meant, but rather the scheduled deployment of aircraft between specific destinations at specific times. Twice a year airlines issue a timetable specifying the routes, the times of its flights, and also the types of aircraft they plan to use, which more or less fixes the seating capacity available on each flight. Once the timetable is finalized, airlines can make only very modest changes given logistical constraints arising from their portfolio of airport slots, commitments to customers, the specialization of cockpit crew, etc. With the timetable fixed, it becomes the job of the airline's sales and marketing department to obtain the maximum revenue possible with the seats available through pricing, capacity management, advertising, and sales distribution.

The planning and selling of the airline's network result from a set of decision-making tasks. Among the most important network tasks are:

1. **Fleet planning**: decisions about what types of aircraft to buy or lease.

2. **Flight scheduling**: decisions about which routes to serve and with which aircraft in the fleet.

3. **Pricing**: decisions about price levels for different categories of seats on each flight. There may be different booking classes and hence different prices for seats even within the same cabin of the aircraft. As described earlier, airlines make use of so-called "fictitious" booking classes to practice systematic price discrimination among customers.

4. **Capacity management**: decisions about how many seats to allocate to each booking class. If equipped with the proper capacity management tools, capacity managers will continually reallocate the capacities among booking classes on each flight (according to how quickly or slowly various sections of the flight are filling up) as well as continually re-estimate the optimal level of over-booking.

A moment of reflection will reveal that these network tasks constitute a hierarchy of choice sets: choices in fleet planning determine which planes are available for the timetable, scheduling choices determine which seats can be priced, and pricing choices set the parameters within which capacity managers overbook and allocate seats among booking classes. This hierarchy is set out below:

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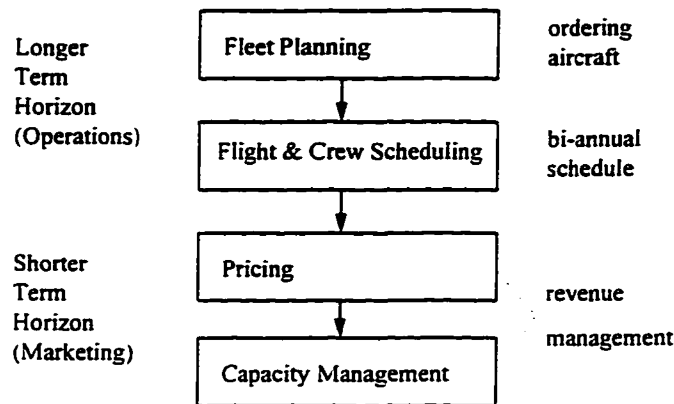
Hierarchy of Network Tasks



Pricing and capacity capabilities are together are known as "revenue management" (or yield management), the function that became an increasingly vital component of airline strategy in the 1980s.

Traditionally, pricing and capacity decisions were the province of marketing managers, whereas flight planning was conducted by the operations side of the airline. The timetable was generally set in more or less the following manner. Marketing managers responsible for the various geographical markets (Europe, North Atlantic, Asia, etc.) drew up wish lists of the services they wanted to offer and passed these on to the flight planners. The flight planners then accommodated these requests as best they could given available means (aircraft, airport slots, crews, etc.). Striking the right balance between what was commercially desirable (offering the flights at the right time), cost-efficient (utilizing crews and planes to their full capacity), and legally permitted (access to airports at the desired times) was always an inexact science. To this day no airline possesses a mastermind computer program able to generate the optimal timetable across all the parameters of choices and constraints. Well into the 1980s, for example, Lufthansa's timetable was constructed out of the head of a single flight planner with a prodigious memory.

Market liberalization and the expanding frontier in information technology fundamentally altered the organization and strategic importance of these network tasks. Under a regime of regulated bilateral agreements, prices were fixed and the practice of revenue management was more or less limited to a few advance purchase fares, service differentiation between first and second class, the illicit sale of tickets to discount travel agencies ("bucket shops"), and a modicum of capacity management. In a liberalized market, on the other hand, the ability to utilize network assets efficiently and charge optimal prices

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for the available seat capacity became a key factor in gaining competitive advantage. A finding in this research was the considerable variance - and heavy financial consequences - in the capacity of the airlines studied to develop the requisite scheduling and revenue management capabilities. One reason for this was the expensive and uncertain nature of investment in the required information technology tools; the information processing requirements for scheduling or capacity optimization often exceeded the capabilities of airlines to develop the systems in-house, while the high company-specificity of the airlines' own information and reservations systems meant that adapting a purchased software package inevitably required years. Another was the fact that information tools for sixth-freedom selling were only useful when the airline's sales force was strategically reoriented and trained to make use of them.

Managing the transition invariably involved greater central coordination of the network planning functions by the Marketing Department. In other words, Operations inevitably ceded control over key planning functions to the airline's commercial managers; Marketing gains the opportunity and the obligation to subordinate technical constraints on improving the timetable (not to mention improving ground service, cabin service, etc.) to commercial objectives. In fact, all three airlines had set up "network" departments by the mid 1990s to act as a central brain of the airline, albeit not simultaneously:[7]

Establishment of a Network Department

Whereas in the route-based strategy the function of Marketing was often simply to package and sell the airline's network capacity that was decreed by Operations, under the new strategy the function of Marketing involves actively planning this network in the first place.

To summarize, a carrier moving to the network-based strategy is obliged to develop sophisticated planning and revenue management capabilities permitting *optimization of the overall route network*. On the technical side, the

[7] These network departments did not include the fleet planning function in all cases.

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accounting, flight planning, and revenue management systems have to take advantage of the expanding frontier in information technology. On the organizational side, managerial responsibilities within the airline are reorganized in tandem so that managers are not working to maximize the profit figures of their own geographic area or functional department at the expense of the global optimum.

Optimization of the schedule and prices

In a highly regulated aviation industry, demand exceeded supply and airlines had the luxury of rationing supply so as to "skim" the market. An observable heritage of rationed supply was that many European airlines in the 1980s continued to see demand as fixed. Large aircraft would be placed on routes and at times when demand for transport between the two cities was believed heavy, smaller aircraft on routes and at times when demand was believed light.

A series of developments called these habits into question. First, airlines began to discover that high-yield business passengers preferred to do business with airlines who flew their preferred routes every day of the week and/or many times a day, thereby sparing them the need to constantly consult the airline schedule. Aviation economists have confirmed the existence of "economies of density" that accrue to airlines able to charge a price premium and build customer loyalty by serving major routes with a heavy density of regular flights (Caves, Christensen et al., 1984). High flight densities also result in significant cost economies, as aircraft and crews can be used more intensively and economically. Furthermore, the development of new revenue management tools made it possible to exploit more fully the highly elastic nature of demand for air services and drop prices at times of low demand to keep load factors high. Finally, the advent of hubbing and sixth freedom competition increased the pool of potential customers for any given flight.

By the 1990s, the dominant pattern in airline marketing had reversed to viewing demand as elastic and malleable through revenue management tools and sixth-freedom selling campaigns rather than as fixed. Besides enhancing the centrality of revenue management (or "yield management"), this strategy also favors a sufficiently homogeneous fleet to use resources efficiently and offer the requisite densities. A trap that many airlines fell into during the 1980s was that of being seduced by new variants of aircraft types and cabin configurations offered by the manufacturers. The following statistics collected by an Air France report of 1994 bear this out:

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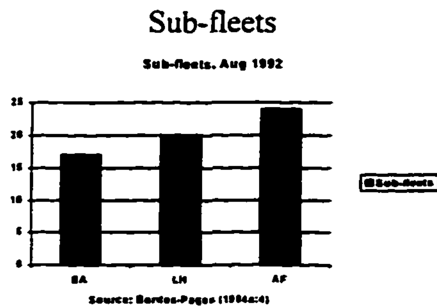
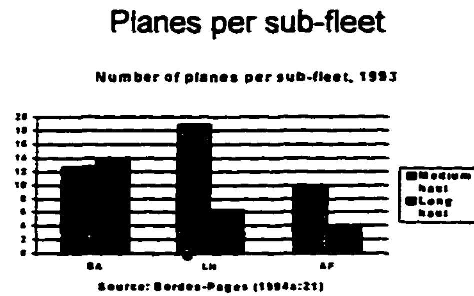
Sub-fleets

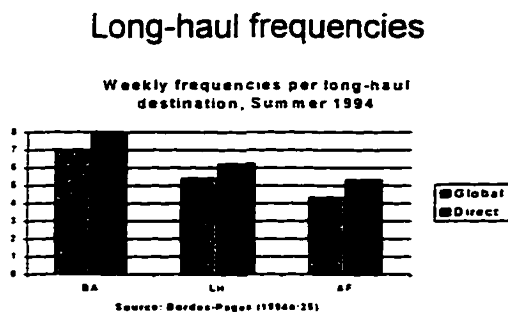


Planes per sub-fleet

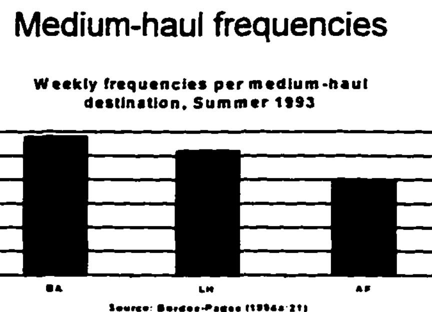


Although such variants might look attractive according to the revenue calculations of a certain marketing manager, these variants often entailed hidden "complexity costs," that is, the costs of imposing yet further constraints on the overall network planning. With the airline's proliferating sub-fleets highly configured to specific routes, an airline loses flexibility in its use of assets and especially cockpit crew, who have to be certified for each type of aircraft they fly. Thus, as Chapters 4 and 5 will show, Lufthansa and Air France awoke in the 1990s to high costs imposed by excessive sub-fleet heterogeneity. This trend went hand in hand with poorer frequencies:

Long-haul frequencies



Medium-haul frequencies



To summarize briefly the effect of these changes on the network functions, the logic of overall network optimization compelled airlines to move in the following directions:

Fleet planning: Move towards greater fleet homogeneity

Flight scheduling: Move towards full utilization of the firm's flying assets (planes, crews) with a timetable also designed to maximize revenues; greater use of computerized information tools.

Pricing and capacity management: Attempt to offer the prices that maximize revenue accruing to the full network rather than just to the local optimum on each route taken separately; centralized pricing and capacity decisions using high-powered information technology.

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Regarding this last point, prices maximizing the value of a seat to the overall network are calculated on the basis of O&D (Origin and Destination) of the passenger's total itinerary, that is, in terms of the overall impact of the passenger's ticket on the airline's total revenue. This was extraordinarily difficult for airlines to manage under this old strategy, and this for two reasons. First, the revenue management tools to calculate the various trade-offs did not really exist. Second, the sales force did not have the necessary incentives to sell in a way that would optimize the total network. This problem is discussed next.

Sales Organization and Information Technology

Under the route-based strategy, sales managers specialize on their own geographical routes and receive incentives to do so. To take a hypothetical example, Lufthansa's sales force in the US would sell the US-Germany route, its sales force in the UK would sell UK-Germany tickets, and the sales force in Japan would cater almost exclusively to passengers traveling between Japan and Germany. Typically, the UK sales agent would have little incentive to sell a UK-Germany-Japan ticket because he or she would only be credited with the sale on the UK-Germany section of the ticket. In other words, under the route-based strategy the network is divided into separate commercial territories, each controlled by its own route and sub-route managers.

Oddly enough, the initial reflex of the airlines studied was actually to *reinforce* decentralized selling and marketing in the face of a liberalized market. Given the need to become more competitive, European carriers were tempted to create geographic profit centers and empower each regional operation with separate responsibility for product planning, operations, marketing, and profitability on its bundle of routes. British Airways did this in 1983, Lufthansa in 1987 (and yet again with a different geography-based organization in 1991), and Air France in 1994. Yet as a result of taking this step, all three airlines ultimately were forced to realize that the geographic markets were in fact interdependent, with flight planning, pricing, and sales decisions in one geographical area having a significant impact on the profitability of other geographical areas. In other words, the shortcomings of a decentralized sales organization helped all three of these airlines to stumble onto the need to optimize the overall network - especially when (as in the case of Air France and Lufthansa) they found themselves confronting competitors like British Airways with the capability of doing so.

The new strategy requires centralizing the selling activity of the airline. It was the timing of this particular reform which revealed the greatest variation among the airlines:

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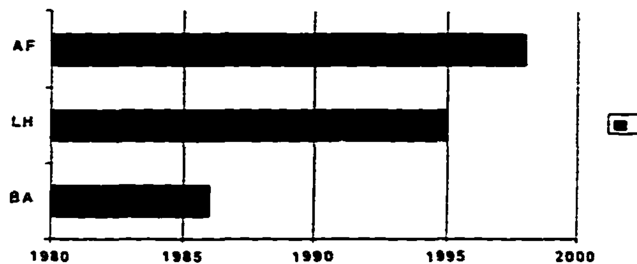
Recentralization of Sales Organization



The date given for Air France reflects the fact that the company still had not centralized its sales force by 1996. Perhaps the most curious finding is that Air France and Lufthansa decentralized their sales organizations *after* British Airways had elected to *centralize* its selling activities:

Airline	Year in which geographical markets were set up as profit centers	Year the need to adopt the network-based industrial strategy was clearly recognized	Years of critical organizational reforms enabling implementation of this strategy
British Airways	1983	1984	**1986**
Lufthansa[8]	**1987/1991**	1992	1993-95
Air France	**1994**	1994	1994-

Thus, the three airlines progressed through the three stages of functional organization, geographical profit center organization, and network optimization, and did so at the rates indicated in the above chart. Not only did all three airlines hit upon the network-based strategy through somewhat independent processes of trial-and-error learning,[9] they all did so in a way strikingly oblivious to what the other airlines were doing. Since they were competing against dozens of airlines flying in and out of their home country, this is perhaps not so surprising.

In any case, the observed evolution in airline organization structures suggest very strongly that simple economic factors were *not* the reason for BA's earlier adoption of the network-based strategy. The observed evolution is evidence much more of a complex industry environment only poorly

[8] Lufthansa's system of decentralized "route managers" in 1987 was replaced in 1991 by geographic "Areas" (Americans, Africa/ Asia Pacific, Europe).
[9] A slight exception was Air France, which learned from the examples of BA and Lufthansa - but not until after it had decentralized its operations in a rather hasty step in early 1994.

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understood by the airlines and necessitating trial-and-error experimentation. The sequence of decentralization and later recentralization in all three airlines supports the view that BA's earlier adoption of the network-based industrial strategy was due to the fact that it moved down the learning curve more quickly by experimenting with its organizational structure.

Managing interdependence

Both the process of discovering the need to alter the airline's configuration and the implementation of this reconfiguration required managers capable of bridging the gap between Operations and Marketing. Operations and Marketing were (and still are) notoriously distinct sub-cultures within most airlines. The network-based strategy, however, demands tight coordination between managers of Marketing, Operations, and Information Technology, not just on a one-time, but on a permanent basis. Interviews within the companies clearly indicated that a greater *generalist* orientation was sought of airline managers.

Network optimization did of course create a need to hire some new specialists, such as systems analysts able to design and manage new tools in flight scheduling or revenue management. But the general management challenge for airlines in the post-liberalization era was one of organizing coordination and the joint search for solutions across functional areas within the company. With organizational interdependence being a central trait of the network-based strategy, a change in company culture and cooperation invariably proved indispensable. Whether the specific instruments used by management to accomplish this were workshops, company-wide seminars, task forces, or rotation of upper-level managers, and regardless of whether or not it was the human resource function that guided the use of these instruments, the strategic adaptations required of the flag carriers under study clearly imposed a new set of human resource requirements. Accomplishing "mental change" (the slogan within Lufthansa's managerial ranks in the year 1992, but equally the task faced by British Airways in the early 1980s and by Air France in the mid 1990s) meant creating new and different forums for managers to coordinate activities and for information to cross hitherto impermeable organizational boundaries.

2.3 National styles of air transport regulation

One final point requires discussion. Why has the macrosocial perspective adopted in this research bypassed the sectoral level of analysis? Against the national level of interpretation adopted here, one current of comparative political economy emphasizes the sectoral variation of social and economic institutions *within* countries. Empirical contributions to this current compare

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how firms from different countries perform in specific industries and sectors *subject to sector-specific institutions in these countries* (Wilks and Wright, 1987; Grant, 1989; Hollingsworth, Schmitter et al., 1994). That is, the level of analysis is lowered from the national to the sectoral level. In fact, a sectoral approach, emphasizing differences between the British, French, and German regulation of the civil aviation industry, was initially adopted at the outset of this research. A sectoral approach seemed appropriate given the issues widely discussed in the business press. For example, British Airways' exceptional profitability was often attributed to the airline's comfortable position at slot-constrained Heathrow airport, while many of Air France's problems were blamed on the distribution of traffic in French civil aviation that forced the company to fragment its route network in unprofitable ways between the two Paris airports CDG-Roissy and Orly.

Indeed, the British, French, and German institutions of air transport regulation were observed to vary considerably. In order to evaluate the relevance of sector-specific institutions in the three national air transport systems, a brief review of the regulatory regimes in each country is in order. This review is historical and discusses the basic approach adopted by each of these countries to regulation of civil aviation since World War Two.

British civil aviation

Having Europe's largest aviation market, the UK had always favored a degree of competition among its airlines, despite the historical preponderance of British European Airlines (BEA) on continental routes and British Overseas Airways Corporation (BOAC) on intercontinental ones. It had also experimented with a large variety of regulatory regimes since the 1930s (Baldwin, 1985). Indeed, it was the failure of these regulatory regimes to produce a coherent and consistent policy pattern that led to the formation of the Edwards Committee in 1967, a watershed in UK aviation policy. This Committee issued a report in May 1969 clearly embracing the principle of consumer choice and recommending a far-reaching reform of the sector.

In place of the existing Air Traffic Licensing Board (ATLB), whose decisions on the awarding of rights to serve new routes ("licensing," in UK aviation terminology) had been consistently appealed and overturned by ministers, the Edwards Committee recommended the formation of a Civil Aviation Authority (CAA). As opposed to the tribunal-like ATLB, the CAA was envisioned as an independent regulatory commission endowed with sufficient expertise and authority to regulate the sector with a minimum of ministerial intervention. The Edwards Committee also recommended placing BEA and BOAC under a common holding company. Finally, the Edwards Committee advocated allowing certain British independents to form a "second force" scheduled airline with both short-haul and long-haul routes.

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The committee's recommendations were enacted. In 1970 British Caledonian became Britain's "second force" airline. The CAA was formed in 1972. In that year BEA and BOAC were placed under a common holding company. In 1974 British Airways was born from the formal merger of the two companies. In reality, the BOAC and BEA sides of the airline continued to subsist as two largely separate organizations for at least a decade, posing a managerial challenge that confronted Marshall when he arrived in 1983. Nonetheless, the reforms of the 1970s left BA with the invaluable legacy of control over a domestic, short-haul European, and long-haul network.

The new regulatory agency, the CAA, maintained a highly pro-competition stance and has consistently favored the growth of smaller and new carriers, often to the dismay of ministers and government departments more sympathetic to the needs of British Airways. Applications for route licenses and airport slots by Freddie Laker's Skytrain in the 1970s, by British Caledonian in the early 1980s, and by Virgin Atlantic in the 1990s received favorable consideration from the CAA - and usually against the wishes of BA, whose dominant position the CAA has consistently attempted to erode by recommending greater competition on UK and foreign routes.[10]

British Airways has faced domestic competition on both UK and international routes. Within the UK, its market share has remained constant at around 50% over time. Its most important competitor has been British Midland Airways (BMA). Just after Marshall's arrival at BA, BMA began offering hot meals and a bar on its Heathrow-Glasgow and Heathrow-Edinburgh shuttles, puncturing BA's near-monopoly and snatching about 30% of the market by May 1983. This inspired BA to announce Super Shuttle in July (with hot meals and a bar). BMA later became an increasingly significant competitor on European routes as EC liberalization removed bilateral obstacles to intra-Community competition.

On long-haul routes, BA faced some competition from British Caledonian in the 1980s, though the extent of route overlap was modest. In the wake of BCal's financial difficulties, BA acquired this rival in late 1987. Thereafter, BA faced a new British competitor in Virgin Atlantic, whose overlap on routes to the US, Japan, South Africa, and Hong Kong is extensive. Lord King's excellent contacts to Margaret Thatcher notwithstanding, the CAA and British government have maintained an explicit multi-airline policy. The government has negotiated with countries to obtain traffic rights for Virgin Atlantic and in

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[10] The CAA holds open public hearings on route licensing and votes on airline applications to serve new routes. In the case of international routes, allowing a second UK carrier usually involves negotiations with the authorities of the country concerned, necessitating coordinated action with the Department of Transport which is responsible for bilateral negotiations in aviation. In the case of UK domestic routes, the CAA can license a carrier to serve a route; however, the Secretary of State for Transport has the authority to review and reverse CAA decisions, as happens in a small number of cases.

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1991 it changed the traffic distribution rules to allow Virgin Atlantic (and other carriers) to acquire Heathrow slots. This important policy change reversed a 1977 freeze on Heathrow access which had aimed at promoting the commercially less attractive London airport at Gatwick.

French civil aviation

French civil aviation regulation was paradoxical. The government had virtually unlimited legal discretion to intervene in principle, but little propensity to do so in practice. Legally, the Transport Minister[11] had virtually unlimited authority to accord traffic rights. Other than contractual exclusivity agreements (such as occasional agreements signed voluntarily by the state with Air Inter), the only institutional obstacle was the legal requirement in a 1953 law for the Minister to obtain the opinion of a purely advisory body, the *Conseil Supérieur de l'Aviation Marchande* (CSAM), before authorizing new services.[12] In practice, France's Transport Ministers have relied heavily for advice on top officials of the DGAC (*Direction Générale de l'Aviation Civile*), the French regulatory agency of civil aviation.

Interviewees have emphasized the "village"-like nature of French civil aviation. A former airport director explained that the principal method for resolving conflicts in the sector was by simple phone call between the heads of the organizations involved, without so much as a paper trace; taking matters to court was frowned upon and could only harm one's reputation in the "village" in the longer run. Informal agreements were facilitated by the frequent movement of senior civil servants between top posts at the DGAC, the airports, and the airlines. In principle, any carrier could apply directly to the Minister for permission to offer commercial air services (Espérou, 1982). But the village was a closed community. At times the top managers of Air France and UTA might be at each other's throats, requiring the DGAC to mediate and propose an honorable compromise; at other times, the top managers of Air France and UTA could come to a private agreement, as they did in the 1970s, on how to redistribute traffic in the Pacific and propose the matter to an accommodating DGAC, which was content not to have to play referee.

The basic policy of French civil aviation since 1963 was "one company per route" ("une ligne, une compagnie"). "The funny thing is that although this rule was practiced, it was never actually codified in any written text," a French senior official explained. Indeed, the only formal trace of this policy is

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[11] More exactly, the minister in charge of commercial aviation. He is referred to here as the Transport Minister, although the title has changed with periodic reshufflings of ministerial jurisdictions.

[12] The CSAM, which remains to this day the forum at which policy decisions in air transport are announced, has consisted of a rather docile mixture of politicians, civil servants, transport experts, and other industry representatives (with weak representation of users); in any event its view is non-binding.

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contained in the texts of speeches given by successive Transport Ministers to the CSAM in which the phrase of "une ligne, une compagnie" is cited like an ancient wisdom. One is tempted to speak of an "oral tradition" in the formulation of French civil aviation policy.

The policy of "une ligne, une compagnie" emerged incrementally after World War II. While post-1945 UK (and US) civil aviation tended increasingly toward market liberalism and competition, French civil aviation policy evolved in precisely the opposite direction. Espérou (1982) describes the market order of French long-haul carriers as passing through three stages, from "wild competition" (1945-54) to "ordered competition" (1954-63) to a "simple juxtaposition of two non-competing networks connected outside of France only in two points, Los Angeles and Tokyo" (1963-mid 1980s).

This final configuration, which confronted Air France's President Bernard Attali and the Transport Minister Michel Delebarre in 1988, was the inheritance of a French-French policy "Yalta" of 1963. In that year, the Transport Minister decided to put a definitive end to conflicts between France's two remaining long-haul carriers, the state-owned Air France (formed in 1933) and the privately owned airline UTA (formed from a merger in 1962). This was done by redistributing the route networks so that there would be no more overlap, and hence no more conflicts, between the two carriers. UTA was given exclusive traffic routes to the Pacific and to southern and western Africa; Air France became France's sole carrier to other points. Even thirty years later, Attali (1994: 22) would write that the 1963 decision was "highly political," a "victory" for UTA's owner, and a "trauma" for Air France that "many in the company consider, still today, has not been adequately answered for." What Attali's assertion unintentionally communicates, of course, is not so much the favoritism of the policy-makers in 1963 as the continuity of thinking and personnel within the sector. A very kind long-time official of the DGAC, eager to demonstrate that the DGAC did not, God forbid, ever deviate from the sacrosanct rule of impartiality in its 1963 decision, furnished me with the following handwritten statistics showing that UTA's market share had been held constant through the route redistribution of 1963. They are worth reproducing because they also demonstrate UTA's relative decline of business in the 1980s (especially in Africa), which led the private carrier to campaign vociferously for new traffic rights:

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Relative shares in French long-haul (in millions of ton-kilometers)

	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
AF	623	683	760	882	988	980	1242	1366	1409	1762	2018	2236	2443	2772
%	85	86	85	84	84	80	82	81	81	82	82	81	81	80
UTA	111	113	134	169	192	244	280	314	329	375	454	518	577	678
%	15	14	15	16	16	20	18	19	19	18	18	19	19	20
Total	734	796	894	1051	1180	1224	1522	1680	1738	2137	2472	2754	3020	3450
%	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
AF	3123	3485	3858	3966	4179	4257	4615	4956	5078	5253	5886	6347	6697	6884
%	79	79	80	86	81	81	82	84	84	85	85	86	86	86
UTA	810	948	966	914	963	1002	1004	960	969	957	978	1029	1048	1144
%	21	21	20	14	19	19	18	16	16	15	15	14	14	14
Total	3933	4433	4824	4580	5142	5259	5619	5916	6048	6210	6864	7326	7745	8028
%	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Source: Statistics of the DGAC

The foregoing sectoral portrait reveals few traits of a "strategic state" in French air transport policy. The French government's policy-making in the sector was consistently reactive and lacking a long-term perspective. In 1988, however, the government did make the strategic decision to assist Air France in the takeover of UTA and Air Inter with a view to improving Air France's competitive position internationally. Yet the form and effects of government intervention in civil aviation, as was seen, were unable to escape the policy pattern of a French "fire-fighter state" (Cohen, 1989) not only fundamentally unable to reverse the dynamics of industrial decline in international competition, but unwittingly accelerating them.

German civil aviation

In principle, air transport in the Federal Republic of Germany (FRG) was open to competition. In practice, the FRG's civil aviation laws gave the Federal Transport Ministry in Bonn considerable discretion over whether or not to license new carriers. The administrative departments responsible for regulation of civil aviation are housed directly in the Transport Ministry. For a few reasons, the Transport Ministry was content to keep scheduled services (both international and domestic) a virtual Lufthansa monopoly.

First, as interviewed Bonn officials point out, having a single national flag carrier to designate in bilateral agreements was common practice in smaller countries and prior to reunification the FRG was compelled to behave like a small country. Second, Lufthansa had always worked well in practice and as long as scheduled services were for the rich (the others could use liberalized charter services), Lufthansa's high fares did not seem to pose excessively negative welfare implications. But third, interviewed officials readily admit, the

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fact that a secretary of state[13] from the Transport Ministry sat on the Aufsichtsrat of Lufthansa tended to mitigate against unilateral liberalization. Indeed, it was the Transport Ministry which proposed to the Cabinet (the ministers of the federal government) a list of individuals to represent the state as main shareholder on the Aufsichtsrat of Lufthansa. Although the highly independent Federal Cartel Office could and did intervene to prevent Lufthansa from gaining a dominant position over non-transport parts of the business like travel agencies, international air transport is exempted from Germany's anti-trust laws.

An odd aspect of the FRG was its limited sovereignty over German air space. Lufthansa did not take to the skies after World War Two until 1955 because of the Allies' concerns. Furthermore, only carriers of the occupying Allies in West Berlin, but not Lufthansa, were allowed to fly to West Berlin. In the 1980s, only Pan Am and British Airways flew inner-German services to Berlin until 1988; Air France had earlier withdrawn from Berlin for economic reasons. The status quo in Berlin could only be changed with the approval of the three Western allies and the Soviet Union. With the occupation of Berlin by the Allies a seemingly unalterable political fact, the chief concern of the FRG in air transport, as in many other sensitive policy areas, was to avoid making waves and simply ensure a properly functioning system.

In the late 1980s, the regulatory thinking of the Transport Ministry began to evolve as deregulation made headway in the EC. Transport Ministry officials granted some domestic traffic rights to German Wings in competition with Lufthansa in 1988, and in the early 1990s they announced that they would gradually take a more independent stance in bilateral negotiations so that German carriers other than Lufthansa would be allowed to fly on international routes. According to several interviews, this initiative emerged from quiet discussions at lower administrative levels of the Ministry, not from the political level. The first formal expression of a liberal aviation policy, signed by the Transport Minister, was a policy paper of 1994.

Analysis

It is certainly possible to draw parallels between sectoral characteristics of the national civil aviation institutions just described and the management styles of their respective national flag carriers in the wake of European market liberalization. British Airways' success in international competition was seemingly abetted by a degree of domestic competition in British aviation markets, whereas Air France and Lufthansa were spoiled by monopolistic privileges. Air France's over-reliance on political stratagems (as opposed to

[13]The *Staatssekretär*, of which there are three in this ministry, reports directly to the minister and is a political appointee. Officials of the various departments reporting to the minister and secretaries of state are civil servants (*Beamte*).

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commercial ones) reflected the political (as opposed to economic) thinking that prevailed in the regulation of French civil aviation. The strategic inertia of Lufthansa mirrored the regulatory stasis that existed in German scheduled services until the late 1980s.

Tempting though such parallels may seem, they do not lead very far in explaining differences in commercial innovation. Domestic competition in British civil aviation did not begin in 1983, the year BA began its transformation process, but long before. Prior competition from competitors like Skytrain had not prevented BA from standing for "Bloody Awful" in the early 1980s. Meanwhile, despite its monopoly privileges, Lufthansa had earned a reputation for being one of Europe's best carriers. Even as a German monopoly, Lufthansa took pride in its engineering excellence, a superior image, and the latest aviation technology, none of which prevented Lufthansa in the 1980s from falling behind other industry leaders in a series of commercial systems.

Field research disclosed that the early or belated adoption of the network-based industrial strategy was due much more to the management initiatives of the airlines in the 1980s, which in turn were influenced by national patterns of corporate governance and managerial hierarchies. *Sectoral factors did matter, but they were not really institutional in nature.* The 1974 merger of BOAC and BEA giving birth to a British Airways with both a long-haul and short-haul network was obviously a felicitous historical event in allowing BA to adopt the network-based strategy; but it was not really conditioned by the nature of British regulatory institutions. By the same token, the separation of Air France from Air Inter was also due largely to historical chance. The construction of the French domestic network by a separate airline Air Inter did not result out of any conscious policy design, but because Air France had declined to take an interest in developing domestic services itself in the 1950s; hence a separate carrier was founded. And while sector-specific institutions did act to perpetuate the separation of Air Inter and Air France, this was no impediment to Air France developing a sixth-freedom hub at Roissy-CDG and switching to the network-based strategy in the absence of a domestic feeder network.

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APPENDIX 1:
THE THREE PACKAGES OF EC AIR TRANSPORT LIBERALIZATION

The Three Intra-EC Air Transport Policy Packages in Summary

SCOPE	1st PACKAGE From 01JAN88 International scheduled passenger transport	2nd PACKAGE From 01NOV90 International scheduled passenger transport	3rd PACKAGE From 01JAN93 International & domestic, scheduled & charter, passenger & freight transport
FARES	Fare type / % of ref. Fare / Fares approved by State Discount / 60-90 / Automatically Deep Dis. / 45-65 / Automatically All Other / / If dbl approval	Fare type / % of ref. fare / Fares approved by States Fully flexible / 106- / Unless dbl disap. Normal eco / 95-105 / Automatically Discount / 80-94 / Automatically Deep Dis. / 30-79 / Automatically All Other / / If dbl approv.	Free pricing • However, provisions made for State and/or the Commission to intervene against : - Excessive normal economy fares - Fare dumping
MARKET ACCESS	Country to Country • Multiple designation by a State is allowed • Capacity shares between States 45/55 % (from 1/88) 40/60 % (from 10/89) City to City • 5th freedom traffic allowed up to 30% of capacity • Multiple designation by a State allowed if: - 250,000 pass (1st year after notification) - 200,000 pass or 1.200 rt flights (2nd yr) - 180,000 pass or 1.000 rt flights (3rd yr)	Country to Country • Multiple designation by a State is allowed • Capacity shares of a State of up to 60% • Capacity share can be incr. by 7.5%-points/year City to City • 5th freedom traffic allowed up to 50% of capacity • Multiple designation by a State allowed if: - 14,000 pass or 800 rt flight (from 1/91) - 1000,000 pass or 600 rt flight (from 1/92) • Public service obligations and certain protection for new regional routes • A service can be matched by an airline from the other State	Full access to routes • Full access makes it for instance possible to operate routes between countries other than that of the air carrier • Cabotage (operation of a domestic route in another country) - is allowed up to 50% of capacity if the domestic sector is combined with a route to the home country - is completely free from Apr 97 • More developed public service obligations and certain protection for new regional routes
COMPETITIO N RULES	Group exemptions regarding • Some capacity coordinations • Tariff consultations • Slot allocation at airports • Common computer reservation systems • Ground handling of aircraft, freight, passengers and inflight catering • Some sharing of pool revenues	Group exemptions regarding • Some capacity coordinations • Tariff consultations • Slot allocation at airports • Common computer reservation systems • Ground handling of aircraft, freight, passengers and inflight catering	Group exemptions regarding (review June 93) • Some schedule coordinations • Tariff consultations • Slot allocation at airports • Common computer reservation systems • Joint operation of new less busy routes
LICENSING OF AIR CARRIERS	Not provided for in the 1st and 2nd packages		Full freedom to start an airline • If community ownership • If financially sound operations • If safety requirements are met

Source: AEA (Association of European Airlines)

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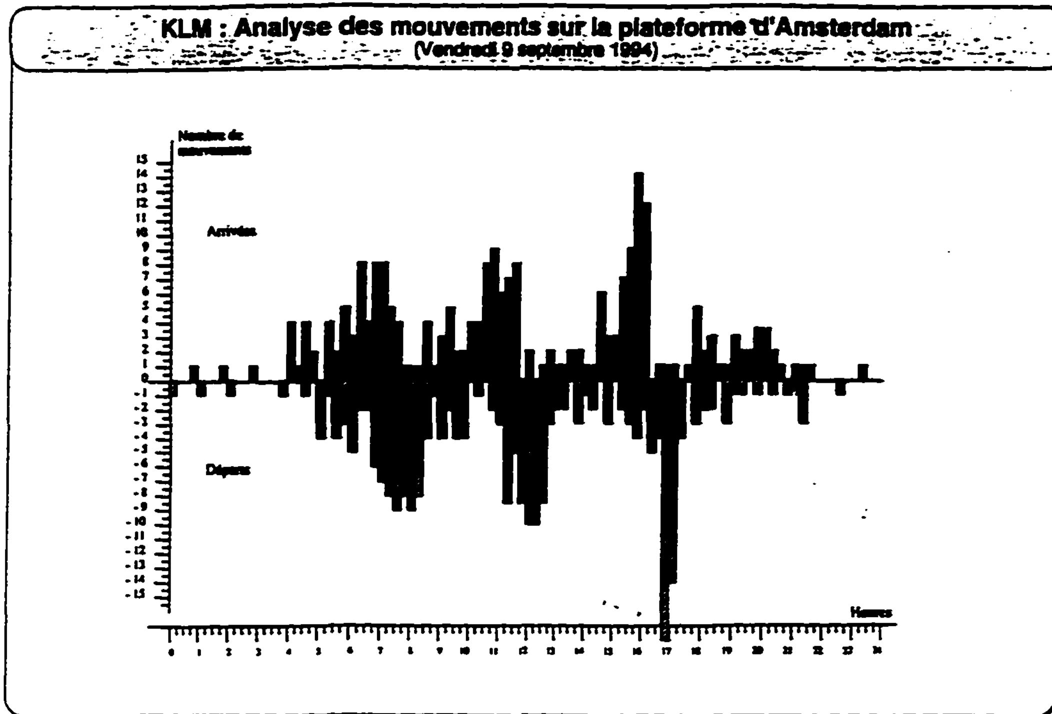
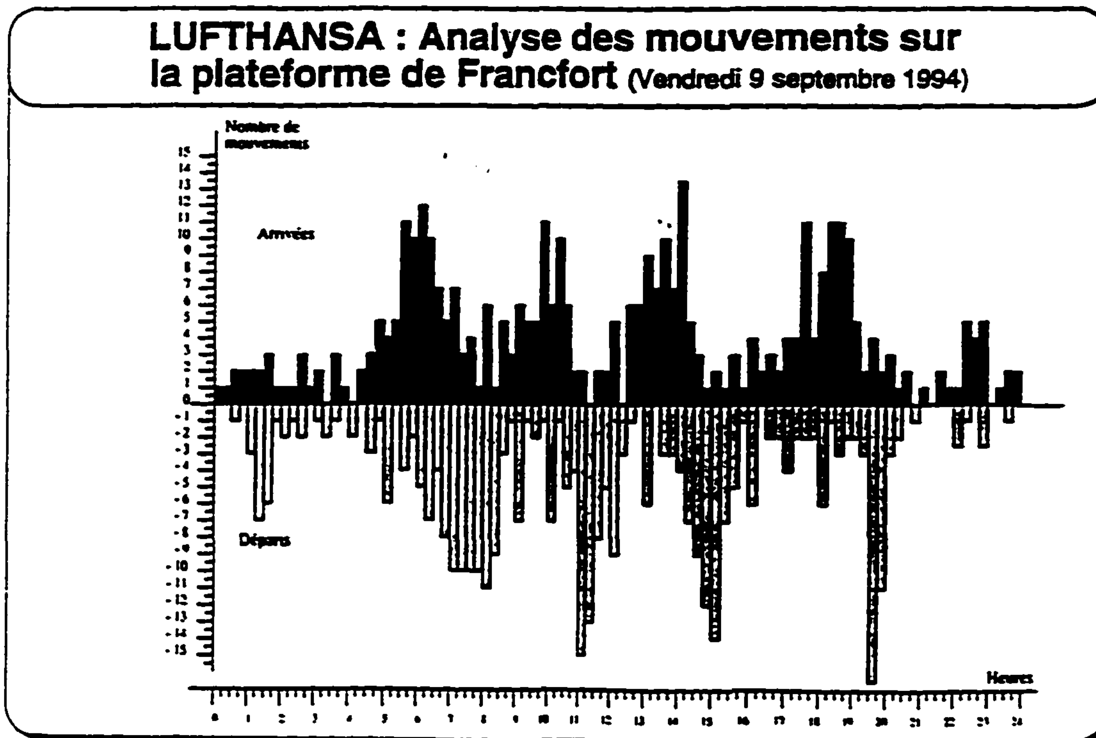
APPENDIX 2:
ARRIVALS AND DEPARTURES AT HUB AIRPORTS OF
KLM, LUFTHANSA, AIR FRANCE, BA (Source: Bordes-Pagès, 1994c)





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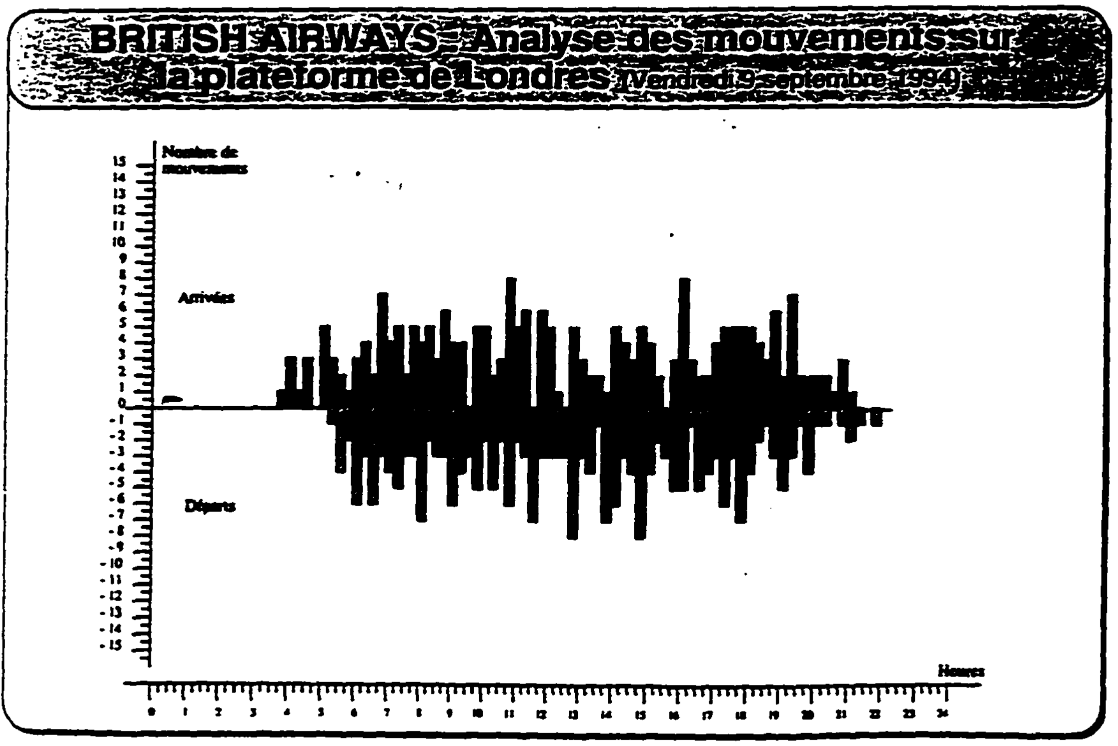

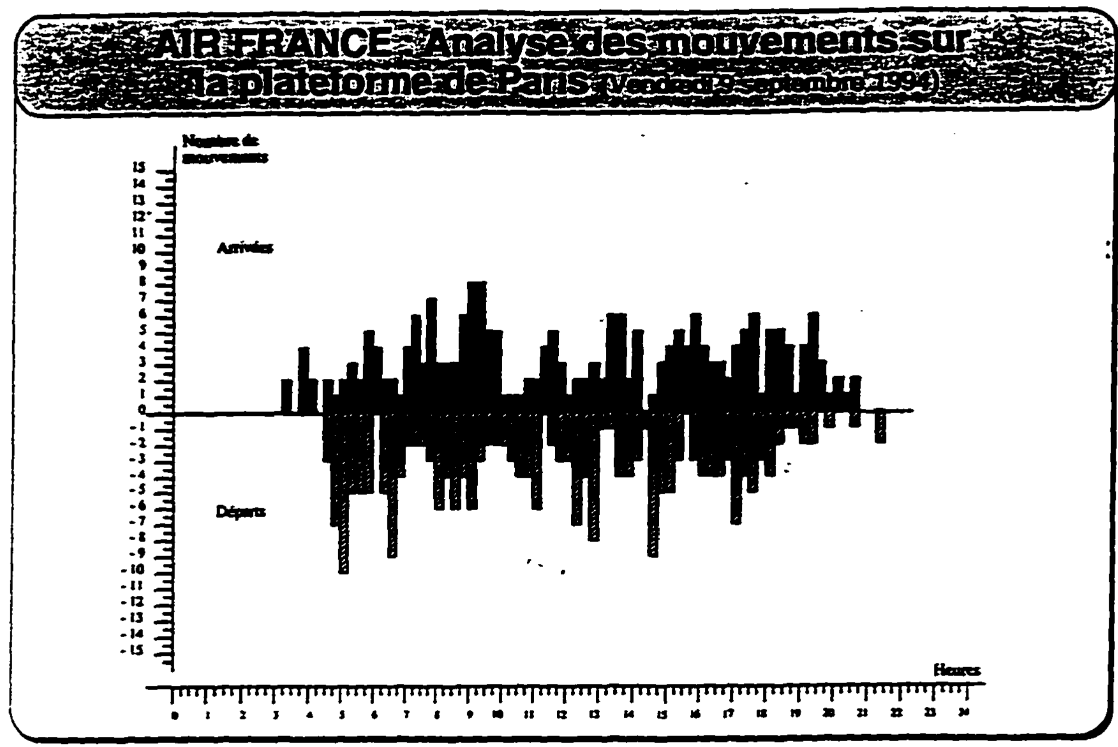

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CHAPTER THREE: BRITISH AIRWAYS AND SHAKE-UP OF THE MANAGERIAL HIERARCHY

3.1 Introduction

In 1995, the last year of Sir Colin Marshall's tenure as CEO, British Airways was not only the most profitable airline in Europe, but in the world, surpassing even Singapore International Airlines in total profits. After becoming CEO in 1983, Marshall took the company through extensive culture change exercises, into privatization in 1987, and through the Gulf War without a loss-making year, in contrast to the heavy losses posted by most airlines. Notwithstanding a streak of bad publicity in the early 1990s over competitive tactics employed against Virgin Atlantic, BA remains a textbook case of radically improved competitiveness. The following analysis cannot possibly encompass the entire arsenal of managerial actions and circumstantial factors that account for BA's dramatic performance improvement. It focuses instead on a specific series of performance-enhancing innovations that significantly boosted BA's competitive position and proved difficult for competitors like Lufthansa and Air France to detect and emulate.

Chapters 4 and 5 will show how the adoption of the network-based industrial strategy by Lufthansa and Air France was triggered by dire financial crisis and the crisis-driven search for alternative ways of doing things. What this chapter shows and tries to explain is how BA, in the absence of an external crisis, adopted the network-based industrial strategy through an internally initiated learning process. The basic finding is that BA, building on a few pre-existing strengths, underwent a "radical learning phase" in the years 1983-86 (prior to privatization) and thereby built up a headstart of 5-10 years over the other studied airlines in several key areas. This chapter focuses on this "radical learning phase."

The driver of this radical learning appears to have been the unusually detailed information-gathering and decision-making performed through the direct managerial fiat of the chief executive. The exceptional informational and discretionary coverage by the CEO's office, it will be seen, was the condition *sine qua non* for the early adoption by BA of the network-based industrial strategy. The single causative factor that best accounts for why this airline was able to adopt the new production regime 8-10 years ahead of the other studied competitors was that the office of the CEO possessed the informational

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capacity to mastermind the evolution of the firm's industrial strategy (as defined in Chapter 1) from a central location; the critical institutional enabling condition was the CEO's legal authority to implement it unilaterally. The distinction between *causes* and *enabling conditions* is critical to the following analysis. The particular actions of the CEO's office appear to have been the *cause* of proactive organizational innovation; British institutional patterns of corporate governance and managerial hierarchies were critical *enabling conditions* for the CEO's office to impose major changes through unilateral fiat. Historical investigation of the genesis of BA's industrial strategy reveals that key decisions regarding personnel appointment, information-gathering exercises, and organizational restructuring were all driven by the office of the chief executive.

3.2 Corporate governance and managerial hierarchies at British Airways

It is customary to associate the ascendancy of British Airways with the nomination of Lord John King to Chairman of the Board (taking office on 1 February 1981) and the subsequent appointment of Colin Marshall to Chief Executive (taking office on 1 February 1983). It was these men who took the company through privatization and imbued the BA organization with an ethos of business professionalism and profit orientation. In contrast, BA's radical head-count reduction in the years 1980-1983 was begun prior to King's arrival and completed at about the time Marshall arrived.

Beginning with King and Marshall, the present chapter will have a great deal to say about individuals, far more than in most scientific accounts of company behavior and adjustment. This emphasis on individuals is not just due to the author's particular data sources, but is embedded in the way British companies are run. As Charkham, in his brilliant international comparison of governance styles, puts it:

> The UK prefers individual leadership, with personal responsibility, risks, and rewards. Annual reports often look like a CEO's scrap-book: I counted thirteen photographs of the CEO in one! The media thrive on this cult of the individual on which they can build drama and romance; CEOs enjoy the limelight and are sometimes corrupted by it, gradually getting to believe the hyperbole of their public relations department. (Charkham, 1994: 265)

This cult of individual leadership is nowhere anchored in UK company law. The UK Company Act of 1985 merely requires UK companies to have at least two directors, while containing no specific stipulations about chairmen, boards, or distinctions between executive and non-executive directors (Charkham, 1994: 262). British companies are not even obliged to have a CEO at all and some do not. Companies in the UK thus enjoy significant discretion in how they wish

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to design their instruments of corporate governance. Whether the *de facto* preference of British industry for readily identifiable leaders with personalized responsibility and accountability is due more to inherited cultural traits, as Charkham implies, or more to environmental selection of this particular form of firm governance over time, as Williamson (1975) argues, must be left for others to debate.

Just as UK company law does not actually require PLCs to have a chief executive, it does not oblige them to have a board either - nor a board chairman. As Charkham (1994: 266) puts it:

> In law there is no such post as chairman of the company. There is no requirement in law to have a board, so it follows that there can be no requirement to have a chairman of the board, let alone a chairman of the company ... It may hurt their vanity to say so, but chairmen have no authority in law save what they derive from the support of their colleagues.

In fact, Charkham's argument can be turned on its head: there are no legal requirements *limiting* the discretion of the board chairman, either. Whereas a German Supervisory Board chairman must contend with a board composed half of employees' representatives, a UK board chairman faces no real legal obstacles to stacking the board to fit his or her conception of proper representation of viewpoints. The power wielded by the board chairman, from tradition and from the fact that he or her sets the agenda of board meetings, is generally very great (Charkam, 1994).

In the case of BA, the board chairman derived substantial power and authority from his personality, celebrity status as a knighted industrialist, and excellent personal relations with the Prime Minister Margaret Thatcher. It was frequently said in interviews that King could obtain an interview at 10 Downing Street whenever he wished. In negotiations with government or in regulatory disputes with the Civil Aviation Authority (CAA), it was King who intervened high-handedly on behalf of BA, both through direct high-level contacts and through aggressive press campaigns. His status in the UK industrial community and bold manners made him a figure to be feared, as demonstrated most memorably by an embarrassing government back-down in 1984 from a CAA proposition to redistribute traffic rights between British Airways and British Caledonian after King had managed to mobilize public opinion against the plan.

King was installed to chair the BA board by Prime Minister Thatcher with the clear brief to prepare the airline for privatization. Although King initially found the board to be one of those "parking lots for people like trade union leaders and economists" that were typical of state-owned companies (Reed, 1990: 40), he set out to change this. Rather quickly he began to install his own people, beginning with like-minded cronies from the business establishment. For two key executive board positions, however, he conducted careful talent

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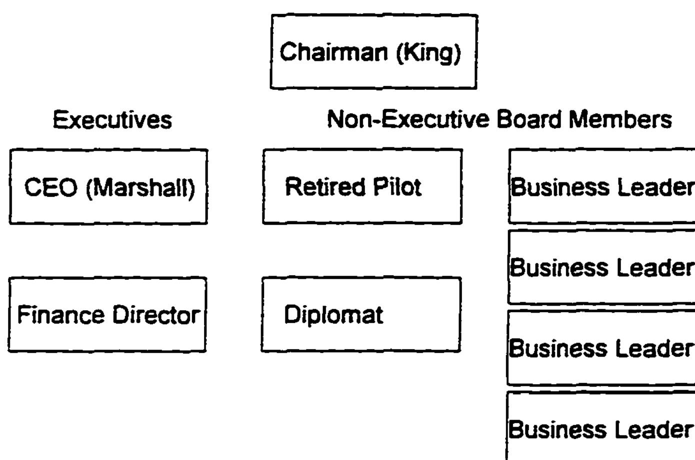
searches, leading to two universally applauded appointments: Gordon Dunlop as financial director in June 1982, and Colin Marshall as chief executive in February 1983.[1] Board appointments were only for three years, so already by the mid 1980s the BA board was truly a Lord King board and it attained the following composition that remained constant with minor modifications until King stepped down as chairman in 1993:

Corporate Governance at BA: Board Composition



By comparison with the Lufthansa Supervisory board, the absence of not only employee representatives (except for the pilots) but also of banks is noteworthy. The structure suggests that the CEO and chief financial officer (as the only two executive directors) are the privileged authorities of firm decision-making (a view substantiated by interviews), while the non-executive board members exercise a largely consultative function and were overshadowed by the chairman King. So far as can be concluded from available sources of information, the oversight exercised by the board was mainly exercised by King himself. Conflicts between CEO Marshall and the board as such are unknown, whereas Marshall and King clearly did disagree personally over various issues (such as BA's planned stake in United Airlines).[2] To say that King personified the BA board as a whole is neither a secret nor an understatement.

Yet nor is it an understatement to say that Marshall personified the day-to-day management of the airline. It was King's principal to select good managers and then provide them with substantial latitude to do the job. Aside from very major policy decisions, it was not King's way to interfere in normal

[1] These two individuals were not given board seats immediately as a ploy to sidestep government regulations that would have otherwise prevented them from being paid at the going rate for outside industry (Reed, 1990: 39).
[2] Public statements by these gentlemen denying such rifts are a tribute to their professionalism and awareness of common interests.

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executive decision-making; according to interviews, this was true even in the pre-Marshall era. From Thatcher to King to Marshall, there is therefore a pattern of *strong vertical delegation of authority to carefully selected individuals.* Interestingly, the chain of delegation did not end with Marshall; Marshall delegated very substantial authority and autonomy to a high-powered consultant and change agent named Michael Levin, about whom more will be said later.

From Thatcher to King to Marshall to Levin runs the line of strong vertical delegation of centralized, personalized authority. The following sections will show that this was the locus of BA's change processes in the 1980s. A major instrument for engineering change in the hands of BA's leaders was of course the ability to appoint and dismiss. This was not a function of private ownership. In the Night of the Long Knives (11 July 1983, recounted below) Marshall dismissed 161 executives in a 24-hour period, long prior to BA's privatization in 1987.

Under the wide-ranging powers enjoyed by a British chief executive in principle and because of the way these powers were exercised by CEO Marshall in practice, not just sudden dismissals, but also extremely rapid promotions were possible. Three prominent examples are Peter Owen, Robert Ayling, and Denis Tunnicliffe. Owen rose from obscurity as the Commercial Manager at Manchester in 1983 to become, via events recounted below, head of Operations by 1986. One can only speculate what other managers in Operations must have thought of this blazing fast-tracker from the marketing side of BA, who already in 1985 as deputy director of Operations had pinpointed the following five crucial traits in improving productivity at BA's second annual Operations Conference:

- Ingenuity
- Innovation
- Confidence
- Willpower
- Enthusiasm (*BA News*, 9 May 1986).

As for Robert Ayling, he joined the airline as a lawyer in 1985 and rose to become Company Secretary (1987), Director of Human Resources (1988), Managing Director (1993) and finally CEO (1996). Finally, Denis Tunnicliffe, a pilot-turned-negotiator and manager, had represented first the unions and later management in negotiations over the use of cockpit and cabin crew. He was therefore uniquely acquainted with BA's various planning units and, as will be seen, was promoted literally overnight to a top position in the hierarchy in 1983.

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In addition to vertical mobility, these examples also illustrate the extensive horizontal mobility of managers across functions at BA. Although part of the rotation across functions is attributable to orchestrated power shifts and the systematic promotion of marketing managers during Marshall's tenure, career moves across departments were not uncommon even before then, a notable example being the ex-pilot Denis Tunnicliffe. Reflecting the "generalist" orientation of BA's management, a typical qualification for joining the managerial ranks was simply a university degree. To consider but two further examples of horizontal mobility in BA's management ranks, John Watson served not only as head of the IT (Information Technology) department in the 1980s,[3] he also led a Margin Improvement Program in 1990, later became director of Human Resources (1991), then director of Regions and Sales (1993), and finally the coordinator for the alliance with US Air (1995). As a further example, David Jones was the IT strategy director from 1986 to 1990, but had formerly worked in several back-room marketing functions (tariffs, yield, distribution, market research) and on cabin design (for the famous World Club launch), and after leaving the IT department he became BA's head of Corporate Strategy in 1989.

3.3 Comparative institutional advantage and the "autarchy" of British firm-level adjustment

To speak of comparative institutional *advantage* at all in the case of Britain is something of an anomaly, for a far greater body of literature in political economy concerns itself with the comparative industrial *decline* of Britain rather than with any supposed advantages. The decades-long decline of British industry casts a pale over the UK's dominant position in finance, frequently regarded as having been obtained by sacrificing the needs of industry to those of sterling in monetary policy; UK patterns of industrial relations and the low prestige of industry among the English middle classes figure as common explanations of industrial decline in treatments of Britain's economic woes. In short, there is precious little literature on specific UK comparative institutional advantages.

In comparative political economy it is fashionable to distinguish the institutional framework surrounding British business from Continental European frameworks by the 'richness' of their respective institutional contexts. Continental economies are characterized as offering a dense pattern of networks between firms, industry associations, unions, banks, and government that provided frameworks for collective thinking and planning. By contrast,

[3] The department was actually IM (Information Management) for a time at BA, but has here been changed to IT to avoid confusion, as the more common term "IT" was used in many interviews, some of which are quoted in this chapter.

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more decentralized economic organization in the UK has entailed a greater reliance on market signals and the sacrosanct principle of autonomous decision-making by firms (Dyson, 1985; Grant, 1989; Sally, 1994). In terms of supporting institutions for business, Britain does possess highly developed capital markets and relatively strong universities and laboratories for basic scientific research (despite low funding levels), but a poor infrastructure for the development of craft and engineering skills (Walker, 1993: 182).

Comparisons with continental countries consistently reveal the persistent individualism of British firms and their managers; in countless political economy studies prior to the 1990s it was common for such individualism to be branded parochialism and considered a symptom and cause of Britain's industrial decline. Nonetheless, the policy choice of the Thatcher government was to accentuate this individualism. The prevailing opinion in Britain in the 1980s was that the economy had suffered rather too much than too little overall coordination, and consequently the government acted to enhance the managerial autonomy of firms, particularly by curbing the power of unions. The success of many British privatizations, including British Telecom and British Airways, have bolstered the UK's reliance on deregulated markets and firm autonomy as the basis for improving the competitiveness of its industry.

Given the profoundly deregulatory impetus given to British economic institutions and policies in the 1980s, it is now customary to see the UK as adhering to an "Anglo-Saxon" model of capitalism, that is, a "liberal market economy" along with the US, English-speaking Canada, Ireland, etc. (Soskice, forthcoming). As mentioned in Chapter 1, the Anglo-Saxon institutional framework is often thought to provide companies with advantages in implementing radical (as opposed to incremental) innovation (Kitschelt, 1991; Soskice, 1994a). In such settings, the attested institutional feature of British firms and managers - their insistence on autonomy, without interference in decision-making from banks, government, industry associations, unions, or other groups - is arguably advantageous.

Based partly on the present research, Lehrer and Darbishire (forthcoming) have argued that the strategic importance of being able to innovate radically (as opposed to incrementally) varies over time within a given industry as dictated by technological and market changes. In civil aviation (and similarly telecommunications), the critical change during the 1980s was a new industry environment that rewarded rapid innovation, experimentation, and a reconfiguration of organizational structures emphasizing cross-functional working and the development of new (individual and organizational) skill sets.

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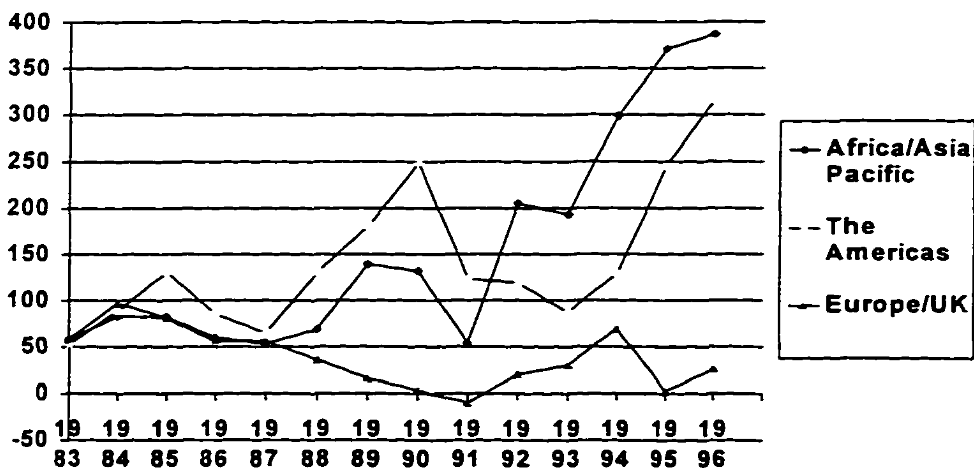
3.4 An overview and periodization of British Airways' industrial strategy

Present and former British Airways senior managers pinpointed a series of product/service and techno-organizational improvements in the mid 1980s as critical drivers behind the company's extraordinary profitability of recent years.[4] A watershed year in the building of BA's competitive advantage was 1986. In that year, a set of radical organizational changes were implemented to optimize the network, promote sixth-freedom selling, and leverage BA's capacities in revenue management. The reorganization of 1986 marked a sudden departure from the route-based industrial strategy and the strategic adoption of the network-based strategy. Although no figures exist to quantify the exact impact of these changes, British Airways' region-by-region operating profits (in millions of pounds) provide insight into the effects of the company's altered industrial strategy:

BA's operating profit by region



Source: BA Annual Reports (fiscal years)

The three regions contribute roughly the same share toward total revenue, with Europe/UK contributing the most (about 40% over time). The graph shows that up through the fiscal year ending 31 March 1987 (shown as 1987), the profit contributions of these three regions were roughly proportional to their turnover. Given the organizational structure in place during the period 1983-86, this could be expected: the commercial operations of British Airways were geographically decentralized, with each geographical region responsible for its own profit and loss. Thus, an organization of geographic profit centers resulted in roughly equal margins on BA's different route bundles.

[4] In all, 18 former or current high-ranking BA managers were interviewed; three civil servants from the CAA and the UK's Transport Department were likewise interviewed (see Chapter 1).

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In 1986, however, BA restructured its operations around the network-based industrial strategy. This enabled the airline to coordinate its short-haul routes more easily with its long-haul operations and compete for sixth-freedom traffic. The dramatic increase in the profitability of the long-haul operations reflects the implemented strategy of global sixth-freedom selling, with short-haul routes strategically reconfigured to feed the profitable long-haul routes.[5] The dip in profitability over the Atlantic in the early 1990s is no doubt due to both the Gulf War and to the arrival at Heathrow in 1991 of American and United who wasted little time in starting price wars - to which BA retaliated and actually obliged the aggressors to retreat (*Financial Times*, 13 Nov 1991).

Chapter 1 defined "industrial strategy" as the match between a firm's chosen product market strategy and the way it organizes its productive activities (Lehrer, 1997). Although this chapter reserves a special focus for the period 1983-86 when British Airways engaged in substantial organizational experimentation and "learning" leading to full adoption of the network-based strategy by 1986, an overview over the company's evolution since the late 1970's helps to place this period in context. Four distinct periods from 1980 to 1995 are discernible:

Years	*Phase*	*CEO*
1980-83	Downsizing	Watts
1983-86	Radical learning	Marshall
1986-90	Mastering the network-based strategy	Marshall
1990-95	Efficiency and globalization	Marshall

BA's history in these years is consistent with punctuated equilibrium views of organizational evolution (Miller and Friesen, 1984; Tushman and Romanelli, 1985). In this view, organizations alternate between stable periods of incremental change and relatively short periods of discontinuous change where strategy, structure, and power are fundamentally realigned. Whereas middle management can make modest adjustments in structures and systems during stable periods, discontinuous change requires the active mediation of executive leadership.[6]

[5] The persistent low profitability on European routes in recent years partly reflects the effects of EC liberalization. Even allowing for the global sales strategy, BA's European routes since the mid 1980s have been less profitable than BA's management has wished.

[6] One reason for this is interdependence across organizational subunits, which acts as an inducement for subunits to resist change so as to maintain their prior networks of commitments and relationships (Tushman and Romanelli, 1985; Tushman and Romanelli, 1994). Another

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And indeed, each of the listed periods at BA featured relatively stable coaligned structures and strategies;[7] transitions from one period to another were marked by BA's top management decreeing a change in structure and in the fundamental reorientation of the company. What characterized each of these periods was, in sum, the particular coalignment of organizational structures (including power structures), systems and strategies which all changed in the turning point years of 1983, 1986, and 1990.

For the reader to be able to follow the analysis of this chapter, gaining a bird's-eye view of BA's organizational evolution is essential. The following analysis provides not just a contrast of BA to Lufthansa and Air France, but a longitudinal comparison of different phases in BA's history as well. The basic finding is this: *Anglo-Saxon company patterns (strong generalist CEO, high mobility of generalist managers), exemplified by BA's management style during the Marshall years, proved to be unambiguous institutional assets during the "radical learning phase" of 1983-86, but were less clearly so during the other phases.* To some extent, they may even have been a liability during subsequent phases when radical innovation was no longer required of BA. The following overview of the four periods helps in understanding the logical sequencing of BA's organizational evolution:

> *1980-83: Downsizing phase.* It was clear already in the 1970s that BA was overstaffed. The so-called Watts plan of 1978-79 counted on a growth strategy to absorb the excess personnel and bring unit costs down. While staffing levels were capped, new aircraft with greater fuel efficiency were ordered. But the recession of 1980-81 sparked spectacular losses and nullified the growth strategy. For a period in the early 1980s the company had negative equity and downsizing became imperative. The company sold assets and set aside funds to offer severance packages for voluntary departures. Staff numbers fell from a high of 58,000 in September 1979 to a low of 37,000 in February 1983, just when Marshall took over as chief executive (Reed, 1990:28). In the summer of 1982, the airline restructured, following the recommendation of Price Waterhouse. Three operating divisions were created: Intercontinental, European, and Gatwick.
>
> *1983-86: Radical learning phase.* This phase is bounded by audacious structural reforms of the airline in 1983 and 1986, each involving major shifts in operating logic and in the distribution of power. Notwithstanding the reorganization of mid-1982, BA reorganized again in July 1983, five months after Marshall's arrival. The principle was one of radical *decentralization*: eleven profit centers were created (eight geographic "market centers" for passenger operations, plus cargo, charter, and package tours). In September 1986 BA announced a new reorganization, this time conceived around the need to *centralize* control over sales, product development, and service standards. A centralized, functionally organized management structure replaced a geographically decentralized one.

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reason is the uncertainty about the redistribution of costs and benefits among departments and top managers in the event of a major change, a rational-choice argument used to explain the persistence of institutions generally (Eggertsson, 1990: 72).

[7] Aside from one additional change in structure in 1982, mentioned below.

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In the years 1983-86, BA's management launched a number of initiatives: a program for customer-facing staff called Putting People First; a training workshop for managers called Managing People First; a new advertising campaign orchestrated by Saatchi & Saatchi; experimentation with the hub concept and redesign of the new Terminal 4 at Heathrow around a concept of capturing sixth-freedom traffic; and finally the move-in to Terminal 4 in April 1986.

1986-90: Mastering the network-based strategy. A central objective of the 1986 reorganization was to create a new unit, World Sales, with central control over the sales force and over the supporting yield management systems so as to optimize revenue across the airline's network. The technical and organizational challenges involved in this are substantial, however, and it took time to develop and refine the procedures needed to capture the full revenue gains rendered possible by the creation of World Sales. BA's network-based strategy had basically been designed on the blackboard; actually operationalizing the needed changes in technical systems and selling practices required substantial investments in time, money, and learning-by-doing.

The 1986 reorganization also created an opportunity to unify product standards in a way that was not possible under the decentralized market center structure of 1983-86. The ultimate manifestation of this was the BA-specific concept of *branding*. Each class of service (long-haul first, long-haul business, short-haul business, etc.) was conceived of as a brand and marketed as a "seamless" experience, with everything from the color scheme of the seats to the silverware of the meal trays harmonized around an overarching concept masterminded by brand managers recruited from fmcg (fast moving consumer goods) companies. Major launches were Club World in January 1988 (long-haul business class), a revamped First Class and Super Shuttle in 1989, and World Traveler and Euro Traveler in January 1991. Many BA managers cited the first branded product, Club World, as a major commercial breakthrough in both the method of its development and in its bottom-line effects. The notion of branding along fmcg lines was actually conceived during the radical learning phase of 1983-86, however.

1990-95: Efficiency and globalization phase. The year 1995 is taken as the endpoint for purposes of the study because it was Marshall's last year as CEO. Foreseeing declining yields in the industry, the company made constant cost-reduction a paramount strategic goal along with the globalization of its business through alliances and acquisitions. BA mounted concerted drives to streamline the cost structure of its operations, imposed variable wage scales across different parts of the airline, and promoted outsourcing and franchising as means of lowering costs. In terms of globalization, BA has formed a global network of alliances with US Air, Qantas, Deutsche BA, TAT, and most recently American Airlines.

With these periods in mind, it is possible to place the "radical learning" phase of 1983-86 into context. Both the Watts plan of 1978-79 and the downsizing phase of 1980-83 left intact the operations-driven culture of BA with which Marshall had to contend when he took over. Instilling a "market-led" approach to the business, with much more active scanning of the company's commercial opportunities and internal human resources, was a priority he attacked from his very first day in office, as will be seen. The years 1983-86,

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the period of BA's "radical learning," witnessed major power shifts and the establishment of numerous innovative units and initiatives, all driven in a fairly direct way by two men, Marshall and his personal assistant Michael Levin. The cumulative result of these new scanning efforts and organizational initiatives was the full adoption of the network-based industrial strategy by 1986.

While this chapter will attempt to give as broad an understanding of the underlying change processes as possible, *a core finding is that highly centralized information-gathering and decision-making by the office of the CEO (i.e. Marshall and Levin) underlay the radical learning phase of 1983-86.* In contrast, once the new organizational structure of 1986 was in place, the airline did not require nearly the same degree of centralized control but could be managed through a more traditional division of labor within the managerial ranks in the years 1986-95.

In focusing on the issue of BA's network-based strategy, the following analysis does not purport to present a complete picture of how BA was managed in the years 1983-95. Nor is it the theoretical ambition of the present chapter to argue that any one perspective on British Airways' innovative and commercial success is superior to any other. Generating the single best theory of BA's ascendancy is not the objective of this chapter. What the analysis will show, however, is that the BA case is consistent with the theses outlined earlier in this chapter and in Chapter 1: that Anglo-Saxon firm governance characteristics (strong CEO) and fluid firm-internal labor markets for managers (high mobility of generalists moving between functions) were invaluable institutional "tool kits" in enabling British Airways to engage in radical learning and innovation in the years 1983-86.

To restate the central finding of this research, technological and market changes in the 1980s increased the uncertainty surrounding the optimal strategy for earning money in the industry, that is, cause-effect relations in the airline environment became more complex. This in turn created an opportunity for British Airways to exploit a comparative institutional advantage deriving from Anglo-Saxon firm characteristics. The following narrative illustrates how the exercise of central CEO control, combined with a managerial system of highly mobile generalists, was able to capitalize on a window of strategic opportunity. This window was opened by the felicitous match between the complex nature of British Airways' competitive environment and the company's Anglo-Saxon institutional advantage in coping with such an environment.

To make this assessment is not to deny the role of unique individuals at BA nor the centrality of causal processes that might explain BA's transformation more powerfully than just the enabling conditions of national institutions. *The institutional framework illuminates enabling conditions, but not root causes.* The institutional variables highlighted here pertain to the pre-

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conditions that allowed individuals to take the actions they did but not the motivations, the company-specific context, or human capacities that account for their doing so. Institutional analysis cannot illuminate the source of inspiration for the actions taken by specific individuals, but it can illuminate industry contexts in which, for example, high-powered change agents acting as the right arm of the CEO are apt to provide competitive advantages and others where they are less likely to do so. In particular, the following analysis suggests that the enabling conditions of Anglo-Saxon institutions appeared to be more critical in the "radical learning" phase of 1983-86 than in the later periods.

Similarly, institutional analysis cannot explain the timing of Sir John King (later Lord King) in appointing Marshall at just the moment he did, crucial though this timing in retrospect may appear. It merely highlights once again the exceptional influence that single individuals are allowed to wield: not the CEO in this case, but the board chairman, who in UK companies enjoys far-reaching powers in practice, the extent of which is often more dependent on issues of personality than of formal rules and regulations (Charkham, 1994: 267). In short, although this study's institutional approach cannot explain the emergence of individual or collective talent *per se* in any profound way, it can illuminate the scope of power that this talent, where it did emerge, was allowed to exercise and under what conditions the exercise of power provided competitive advantages or disadvantages.

3.5. BA's radical learning phase, 1983-86: The adoption of the network-based industrial strategy

The strategic shift made by BA in the years 1983-86 and culminating in the 1986 reorganization can be retroactively seen as being driven by two guiding principles: *the revenue efficiency of network operations* and *an all-segment product market strategy.* These two principles are the two faces of "industrial strategy" as defined in Chapter 1: the all-segment focus refers to BA's product market strategy, and the revenue efficiency of network operations refers to the organization of production activities so as to fit this product market strategy. These principles drove a series of techno-organizational improvements which together comprise a set of four central pillars in BA's learning phase: a global hub at Heathrow, globally optimized flight scheduling, globally optimized yield and capacity management, and branding. The branding concept is not part of the network-based industrial strategy *per se,* but it was part and parcel of BA's implementation of the new strategy and is therefore included in the analysis. These relationships are depicted in the following overview:

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THE RADICAL LEARNING PHASE OF BRITISH AIRWAYS, 1983-86

	ACTIVITIES	**"PILLARS"**	ACTIVITIES	
	Sixth-freedom hub conceived (1984-85)	**Heathrow as global hub**		
PRINCIPLE:	Logistics (1983): integrate planning and marketing	**Organizationally and IT optimized flight scheduling**	Redesigned capacity management unit (1986)	**PRINCIPLE:**
REVENUE EFFICIENCY OF NETWORK OPERATIONS	O&D coupon analysis (1983-)		26-class reservation system (1985)	**ALL-SEGMENT PRODUCT MARKET STRATEGY**
	Tactics (1986): optimize trade-offs on network capacity	**Yield, capacity management tools**	Creation of World Sales (1986)	
		Brands (product differentiation)	Centralized product and brand development (1986)	

The activities listed on the left-hand side can be seen as driven by the principle of achieving higher revenue efficiency in network operations. In an operations-driven airline, the deployments of aircraft and crews are apt to be planned according to technical criteria, but not necessarily so as to generate the most revenue. A marketing-driven airline, in contrast, will aim to maximize the profitability of the network by searching for the optimal trade-off between revenue efficiency and technical efficiency in network operations. Activities that help enhance the revenue efficiency of the network include: transforming the major airports into hubs and increasing the intensity of flight interconnections in the schedule; organizational innovations like the "logistics" and "tactics" teams at BA (discussed later) to improve the communication between the marketing and planning side of the airline; and analyzing O&D (Origin and Destination) data from ticket sales to better understand the markets served by the airline.

The activities on the right-hand side convey the principle of pursuing the full range of revenue sources in the route network, rather than focusing on a specific market segment. An all-segment product market strategy contrasts with the alternative of "skimming the market" and concentrating on high-yield

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traffic. The all-segment strategy has both a product and a geographical component. On the one hand, BA strove to attract both high-yield and low-yield customers: means to do this include strong differentiation between passenger classes using branding techniques as well as yield and capacity management tools. On the other hand, BA also strove to attract fifth- and sixth-freedom traffic in addition to its bread-and-butter third- and fourth-freedom customers. Given the complex nature of the pricing decisions involved, maximizing sales revenue across the network requires both a global sales organization and the capacity and yield management tools needed to calculate the maximum revenue achievable on the airline's available capacity.

Although these techno-organizational improvements may seem perfectly straight-forward in retrospect, their implementation required continual shifts in the existing power structure of the airline. In the absence of a dire crisis, strong executive leadership was required to push these changes through. Yet Marshall, a former top executive of Hertz and Avis, had no experience in running an airline and was therefore far from omniscient in his understanding of airline organization. In explaining how under the new leadership BA nonetheless succeeded in initiating a bold set of techno-organizational innovations that assured it a substantial competitive advantage for years to come, there is no alternative to a step-by-step narrative of how this learning phase was engineered. It began with the Marketing Policy Group.

3.5.1 The Marketing Policy Group

When Marshall took over on 1 February 1983, he inherited an operations-oriented company which had been demoralized by years of staff reduction and cost-saving measures. Productivity had improved, but there was no strategic focus to speak of beyond solvency and the government-issued objective of privatization. In not just Marshall's view, the airline did not have any marketing organization to speak of, just sales with a bit of advertising. On his first day in office, he summoned Jim Harris, head of Sales and Cargo UK/Ireland, whom he had known from prior acquaintance in the US. As a step toward creating a "market-led" airline, he invited Harris to form a Marketing Policy Group by selecting four young BA managers with potential. Marshall gave the following rationale: "Jim had worked in the US where the company did have Marketing in one person's title: VP of Marketing in North America. And Jim had been in that position, so he knew more about it than anyone else in the company. He put together a small team of what we saw as the rising stars within BA to work with Jim in coming up with some new marketing ideas that were going to get us moving in the marketplace" (1996 interview).

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On 18 February the formation of the Marketing Policy Group (hereafter MPG) was announced in the headline article of *British Airways News*. Marshall was cited in bold print: "This is the group that will drive British Airways forward to success in our highly competitive industry. Their job will be to set the policies that British Airways will follow in its whole marketing effort around the world, and also to see that they are implemented throughout the organization." Were this a grouping of top BA managers, the MPG would have been a conventional consultative body. But the announced four-man marketing team consisted of four obscure BA managers in their thirties (Stuart Luxon, Terry Grew, Paul Hopper, and Peter Owen, who later became Head of Operations). The Gang of Four, as they came to be known, is still widely remembered at BA, years after all of them left the airline.

The MPG was the first wave of selected young managers promoted to high posts that became a trademark of Marshall's management style during his early years at BA. One of the original MPG members explained in a 1997 interview: "We did discuss marketing issues, of course. But the other point is that Marshall needed allies. We were a cadre of young managers who acted, if you will, as his paratroopers." According to many interviewees, the existing heads of BA's three main divisions in 1983 were entrenched long-standing BA managers with considerable webs of influence within the company. In visiting different parts of the airline to explore marketing ideas, the MPG developed ties with promising individuals in the middle management ranks and identified new talent. As one of the young managers remarked by the MPG (and now a high-ranking BA manager) remembered: "We felt a bit lonely and frightened, to be honest, because all the other people were still there, and any human being with a bit of experience must think: Who are these clowns? Because we weren't called bosses or paid well or anything, we were just rubbish and not even part of the formal structure, really."

Initially the MPG did focus on marketing issues. They planned the relaunch of Super Shuttle, considered ideas for how to turn Heathrow into more of an international hub, and identified customer service as the dimension along which BA could best differentiate itself from competitors in the marketplace. The famous BA training program for staff, Putting People First, grew out of the MPG's deliberations. Yet fairly quickly Marshall, Harris, and the MPG concluded that in order to become a genuine marketing organization, a change in the organization's structures and leaders was needed. The MPG were later joined by Denis Tunnicliffe and Peter Bateson from BA's internal consultancy unit. Based on their prior review of the company, these men brought with them some blueprints for reorganizing the company's operations.

As a change in organization and leaders required both a great deal of secrecy to prepare and a degree of full-time top management attention that neither Marshall nor Harris could spare given their regular duties, the two men

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traveled to New York to engage the services of one Michael Levin, who had worked with Marshall earlier at Avis. About Levin much will be said in this chapter, for the adoption of the network-based industrial strategy was driven largely by this former SRI consultant (as well as psychologist, marketing expert, and accomplished jazz pianist) who became Marshall's right arm for most of the 1980s. While Marshall was always closely involved in the marketing and customer service aspect of British Airways and attended in a very hands-on manner to a wide variety of problems as they cropped up, it was Levin who mastered the various technical labyrinths of the airline and combined the roles of talent scout and hatchet man. Levin was a high-powered change agent, challenging, evaluating, educating, and intellectually overpowering the line managers of British Airways at any hour of day or night. He required little sleep and could patrol the company's operations after hours when most executives had gone home. From the standpoint of a time-constrained CEO, Levin's input had the merit of non-ambiguity; as Marshall mentioned in a 1996 interview: "Mike formed very strong views about people, about individuals ... He either liked them or he didn't like them, there was no in-between, absolutely none whatsoever. But the other aspects to Mike I always felt were so good that it was worth the down side and worth putting up with some flak to really get the best out of him."

During his first few months as CEO, Marshall became increasingly vexed with the operations-driven mentality of the management he had inherited. A reorganization provided the hope of both improving the structure of the company and accomplishing the revolution Marshall had become convinced was necessary. One member of the MPG (I have interviewed three of them) recalled: "Colin's feeling was that we would have to shoot people and then everything would be all right. I think what Michael and I and the others did was we turned that into a structured revolution."

The new structure was announced with no forewarning on 11 July 1983, six months after Marshall took office. Figures on the casualties usually count 60-70 of the top 100 senior managers (interviews; Campbell-Smith, 1986:104); in all, 161 executives and managers had their employment terminated in a 24-hour period (Bray, 1996:29). A key task, of course, had been to identify replacements for the existing senior management. A major part of Levin's time in the spring and summer of 1983 was spent scouting talent throughout the organization. Levin's ability for sizing people up quickly and accurately has been commented on by many interviewed BA and ex-BA managers. In 1983, he met privately every person recommended to him by his protégés (Bray, 1996:32). The operation of 11 July 1983 was known as the Night of the Long Knives.

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3.5.2 The 1983 reorganization

The apex of the new management structure had five units reporting directly to Marshall: Finance, Marketing, Operations, Engineering, and a new unit, Marketplace Performance. The directors of the first four were all 54-56 years old, established BA personalities (to avoid excessive discontinuity), and like Levin slightly older than Marshall himself (49). The exception was MPG member Peter Bàteson (38), whose unit Marketplace Performance was set up to give independent, quantitative assessments of how well the customer-serving parts the airline were performing their tasks (i.e. independent of what marketing or operations managers might care to claim). The unit was Levin's idea but was molded around Marshall's personal approach, which was to consider the whole gamut of systems affecting customers' perceptions of BA, from advertising campaigns to culture change programs for customer-facing staff to the mundane details of service aboard aircraft. As Harris, who was formally appointed Marketing Director of BA in June 1983, recalls: "Colin once asked me about the cleanliness of the toilets, even though Engineering was formally responsible for cleaning. But that was part of the product, and that's when I realized what he meant by a market-led airline: the Marketing Director had to be in charge of everything and had to get cooperation from departments not actually reporting to Marketing."

The 1983 structure reorganized Marketing and Operations. The three 1982 divisions were disbanded and their heads were retired. The core of Marketing now consisted instead of eleven profit centers: eight geographical "market centers" plus charter, cargo, and package tours. The heads of these market centers ("General Managers") averaged just 43 years of age (*BA News*, 22 July 1983). These were the new entrepreneurs of the airline, the managers responsible for responding to the marketplace. They competed for resources (airplanes, crews, etc.) on an active internal market supported by bidding systems to see who could generate the biggest return on assets. The youngest of the general managers (only 34 at the time) recalled: "The structure allowed a focus on profit potential, with proper segmentation by geography and markets. There was no real science in it, but it forced a most useful audit of what groups had a profit potential and what groups didn't." Beyond just its structural side, the 1983 organization was a training and proving ground for those managers promoted several levels over night. Most especially for the market center managers:

> As a general manager running a £250m turnover business I had better IT systems then than a lot of companies do now. We also had even then a good res[ervation] system, with good yield control - for those who knew how to use it, and pretty soon that was all of us, because we either had to cut it or get fired.

As another interviewee stressed: "The market center was not a new concept. What was new was saying to somebody age 35, you go and do it." The

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General Managers did not report to Marshall or even to Marketing Director Harris, but to a maverick MPG member, Denis Tunnicliffe (40), whose title was Senior General Manager Market Centers. To him reported likewise four General Managers with staff positions in marketing and sales, all in their thirties; three were from the MPG. Tunnicliffe was one of BA's most powerful managers at the time and a chief architect of the 1983 reorganization; yet his glory was short-lived and he was fired just two years later. Another ex-MPG manager commented: "The BA revolution was truly like the French revolution; after a while, it began to eat some of the bourgeois" (1997 interview).

There was one other Senior General Manager in the new structure. He was David Hyde (46), head of a new unit called Logistics which reported to the director of Operations.[8] This unit, too, marked an important organizational improvement, unifying as it did BA's various planning units, which under the previous structures had always remained separate sacrosanct fiefdoms. Logistics unified the planning of flights, crews, terminals, and engineering. Unified control over the planning functions enabled large strides in operational efficiency to be realized in the next few years.[9] The insight underlying the reform was the centrality of the bi-annual timetable as the decision-making process the company had to optimize. Efforts to computerize the flight and crew scheduling process began to take off at this point. Furthermore, with its encompassing view over the timetable and the efficiency consequences of possible timetable modifications, Logistics was well-positioned to know what changes in slot allocations to negotiate for at IATA conferences. A top BA operations manager, Chris Byron, explained to me:

> Logistics' role was to speak with one voice on behalf of all the operational areas. Ironically, having sorted the stuff out operationally, it actually became almost too powerful. Because it was speaking with one voice, whereas the profit centers had eight different voices. So they actually became the weaker of the two arms and, if anything, we were actually sorting out our operational issues to the detriment of the commercial side.

In sum, the idea of optimizing the network took hold on the operations side of BA during the 1983 reorganization; how it later came to take hold of the commercial side will be described in the next section. But in 1983, the

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[8] Logistics was essentially the brainchild of Tunnicliffe, whose "generalist," i.e. multifaceted career path within the airline had enable him to understand the various parts of the planning process and recommend a comprehensive reform. In conversations with BA's chief information technologist, John Watson, Tunnicliffe had long dreamed of integrating and automating the planning functions.

[9] Chief Pilot Captain Barnes said in 1986: "Our efforts to improve productivity culminated in a new agreement with our pilots and flight engineers last December. In output - flying hours per year - this makes BA flight deck crews among the most productive in the world. Right now we have overtaken such major European competitors as Swissair, KLM, and Lufthansa. And in 1986 we shall outstrip SAS and shall end the year with 480 cockpit seat hours per crew member - a full 20 hours ahead of our best competitor" (BAN, 9 May 1986).

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timetable planning and the basic administration of the airline's operations were reportedly in the hands of a troika consisting of the two Senior General Managers (Market Centers, Logistics) and the deputy finance director. This enabled Marshall to focus his attention on the slightly longer-range tasks of improving the morale and customer orientation of employees, of enhancing BA's image in the marketplace, and of renewing the fleet.

How was the 1983 reorganization decided? According to interview sources, the matter was basically decided through consultations between Marshall and Levin on the one hand and between Levin and the MPG on the other. One member of the MPG summed up the process this way:

> Most of the decision-making was achieved by conflict ... There was a lot of this conflict-type process and it was that process that built the organization and it's difficult to say who had the ideas. My recollection is that I had all the ideas, but then that would be my explanation, wouldn't it? So we {in the MPG} had a series of ideas, Michael {Levin} had a series of ideas, and the conflict between the two eventually became the 1983 revolution.
>
> What was Michael like? He was an immensely complicated person and capable of an amazing amount of activity. He was iconoclastic and had small numbers of key ideas which were undoubtedly valid. But you didn't know where amongst them all the right ones were, so you had to go through this conflict thing.

First, the basic structure was decided. Then the General Managers (i.e. the eleven profit center managers) were named. Thereafter, Marshall and Levin began consulting with the General Managers to decide who would be invited to fill the roles on the new organizational chart. Some 70 appointments were made in the space of ten days, but in the greatest secrecy.

A major reorientation that occurred in 1983 without visible effects on the organization chart concerned the strategic repositioning of Information Technology (IT). Though not acquainted with the technical specifics, Marshall and Levin intuitively grasped the strategic importance of IT.[10] They already had in the BA's John Watson an outstanding head of IT, but since they did not know this right away they hired outside consultants in 1983 in order to assess the strengths and weaknesses of BA's information technology and to scout around, if needed, for a new head. Watson, today CEO of SITA, recalls:

> We went through what can only be described as an interesting situation where everyone told Mike Levin and Colin Marshall the world would be wonderful if they fired John Watson and the IT department and got all the systems they wanted. They got some advisors and the advisors were frightened of Michael Levin and tried to read what he needed. And what Michael wanted to do was use them to frighten the IT

[10] Both BOAC and BEA, merged in 1974 to form British Airways, had contributed good information systems to BA. Efforts to combine the two airlines' systems began in the 1970s and a common reservations system, BABS, came on line in 1981.

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department into a leadership role. And to a certain extent, his major contribution was that. He and I used to have incredible rows where he was criticizing IT and it was throwing all the users who were blaming us, but basically what he was trying to do was to say IT has to have a central function and central role. And I was trying to say: "A lot of criticisms are fair in that the people are rather technical, and their technical excellence isn't appreciated, and we haven't had business systems people; there are very few people like myself who had come into this from more of a business system background. But really, Michael, these users don't know what they're talking about." He said: "You're right, but that's your fault." He was right, and he forced us in the operations management part to take a leadership role, to force the company to do things.

In the meantime, Watson had to argue furiously with Levin to save his special brainchild RS-13, a new state-of-the-art reservation system begun in 1981 and not scheduled for completion until 1985, too far in the future to suit Levin's urge for rapid results. But Watson had some critical supporters, including Tunnicliffe and BA's excellent chief financial officer Gordon Dunlop, who had taken a keen interest in yield management issues from the beginning and did much to focus BA's attention on the issue.

Despite the slimming down of corporate headquarters in 1983, the new management structure was full of little think tanks and creatively named units: not only Marketplace Performance and Logistics, but Futures Audit, Segments, Performance Improvements, User Requirements, Marketing Research, and Agency Affairs, to give just a sample of the organizational creativity of the time. They were almost invariably populated with young people placed in a swim-or-sink position. An example was Peter White, the manager put in charge of User Requirements in 1983 but named Hub Development Manager in 1984 at the age of 34. His case is considered next.

3.5.3 Discovery of the hub

BA undertook a marketing experiment in 1984 that in retrospect proved to be the cornerstone of a major strategic shift. In order to convince more Arab travelers to travel to the US via London, BA set up an Oasis Lounge. Passengers willing to change planes at Heathrow were offered free showers, coffee, a pretty hostess, and even valet service for their clothes. This lounge was not at Heathrow, however. The passengers were shuttled over to the Excelsior Hotel, with the lounge located on the fifth floor. At first the lounge was tiny and often received a mere half dozen passengers daily. But as BA promoted the lounge, its popularity grew and provided the airline with some very high-yield customers that would otherwise have flown with other carriers. Just as the Oasis Lounge was up and running, Peter White was named Hub Development Manager to explore further efforts along these lines.

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The rest is history. In May 1985, White spearheaded a company-wide campaign called "From London you can reach the world" whose stated objective was to raise awareness throughout the company of the importance of sixth-freedom traffic. The network-based strategy was by this time clearly stated by White in the company newspaper:

> KLM once said that British Airways was the biggest sixth freedom operator in the world - without even knowing it. What they meant was that through Heathrow British Airways could reach the world, but we were too preoccupied with our world beginning and ending at Heathrow. Instead of thinking of onward connections for our passengers and exploiting the biggest international hub and spoke network in the world, we were concentrating on ferrying passengers either in or out of London.
>
> The world and, indeed, our home markets are changing and over-reliance on Third and Fourth Freedoms is putting all our eggs in one basket. By developing Sixth Freedom markets we not only feed ourselves from new markets, thereby aiding route stability and corporate profitability, but also capitalize on one of our greatest assets - our route network ... We are sure that there is a vast unplumbed potential in the Sixth Freedom market.
>
> ... The most difficult part is trying to convey a shift of emphasis within British Airways, to approach Sixth Freedoms issues as something other than 'top-up' ... Sixth Freedom marketing is a genuine team effort. It involves us all from those who develop accounting systems, through GOL [Ground Operations London] staff to crews, overseas schedulers and, not least, overseas sales areas. (*BA News*, 10 May 1985).

The consequences of this mind-shift were considerable. The company was reorganized in 1986 (as described below) to capitalize on its Heathrow hub (the second hub at Gatwick came later). With the opening of Terminal 4 at Heathrow in 1986, BA began working more closely with the British Airports Authority (BAA) to improve the attractiveness of the airport to passengers. In the second half of the 1980s, Tony Clarry of GOL led a concerted charge to vastly improve the ground services for connecting passengers, while Marshall and his marketers designed lounges, showering facilities, and as many extras as they could think of in order to compete for customers on the ground and not only in the air. The strategic novelty was in enticing passengers to choose not just a carrier, but to choose Heathrow over Charles de Gaulle, Frankfurt, or Schipol.

Terminal 4 had been redesigned in 1985. The new terminal design was "the single most important improvement for our customers in the airline's history" (Marshall in *BA News*, 14 June 1985). Among other things, the terminal accommodated traffic to Paris and Amsterdam in addition to long-haul traffic. That BA was intent on increasing its share of sixth-freedom traffic from France and Holland was announced repeatedly in the company newspaper. There was nothing terribly secret about all of this. Indeed, BA had to obtain the approval of the foreign carriers concerned by the new terminal design. One

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former senior Air France manager recollected: "Of course, when BA invited us to share their nice new terminal with them, we knew they would try to steal a few passengers. But we didn't think it would be very many!"

How did the hub initiative get started? Until 1984, White had been a human resource manager with no marketing experience whatsoever, but who had made it plain that he was tired of HR. The way in which White got the job was the typical story one hears in talking to top managers at BA:

> It was actually Mike Levin who said: Would you be interested in thinking about something completely different? In fact, I'll never forget the interview. First time I ever met him. And this is an indication, looking back after 10 years, he said to me: "If we were going to do something about our domestic routes because they are our shop window, what do you think we should do?" Now I was in HR, what the hell should I know? And I said: "I don't know, Mike, maybe we should ask the customers." And he said: "Why do you say that?" And I said: "Well, where I live somebody banged on the door the other night and asked if I would like two phones in the house. Of course, it's absurd! Nobody needs two phones in the house. You only need one." And Mike said: "What has that got to do with shuttle?" And I said: "Nothing really, but I was surprised somebody asked me. I suppose that's as good a place as any to start. Ask the customer." Then Levin said: "Who's the customer?" "Well, other than the person who sits in the seat, that's obviously a customer, it's the one who pays the ticket, I suppose."
>
> And after this interview I was given this job. And that's all the interview was, it was as long as that. And so I sat around and thought, I don't know what this means. I don't know what a hub means. I never heard of a hub. And a friend of mine said the hub is the middle of a bicycle wheel, the gears you have around it are called hub gears. And he said there is the hub and here are the spokes going around. And that sort of stuck in my mind. So I started to read a few books, and they were starting to do this in the States, the hubs, which to us was an appalling idea because it meant that instead of non-stop flights, you have to go by a hub. It'll never catch on here, I thought. And I profoundly believed that short-haul will never catch on here.
>
> I can't remember the process, but I decided to read KLM's report and accounts, and it was obvious that a country of 14 million couldn't possibly sustain an organization the size of KLM without the people coming from somewhere. And then somebody told me about the buses that went from Düsseldorf to Amsterdam. And then it was a simple step to: "Oh, why don't we do that?" So we started promoting the Oasis Lounge.

Why was a blank slate like White chosen for the job? Harris remembers: "The idea of the hub was already there. What we were looking for was somebody with the communications skills to sell the idea effectively within the organization."

With the assured support of Harris and the long-haul marketing managers, it became a matter of convincing the European market centers in seasons of excess of capacity to promote long-haul traffic through the London hub. The

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hub idea snowballed and in White's terms "it sort of captured the soul of BA that transfer traffic was good." By the end of 1985 the job of hub development manager was shut down, for it was no longer needed.

Although the hub concept had acquired legitimacy within the company, BA's systems were not yet capable of exploiting the full potential of the hub concept, especially of managing the bookings so as to maximize revenue according to O&D itineraries, exchange rates, competitive considerations, etc. White (now BA's Director of Sales) remembers what the utopia was:

> I said to the man who used to do my current job [Director of Sales]: "Jim, suppose we got 50,000 Germans on the way to the US rather than just 1000 like we have now? Then if the pound devalues - the deutschmark never does - we've got other people. We can kick the British off and put the Germans on or kick the Americans off and put the Swedes on." And Jim said: "How are you going to do that?" And I said: "I haven't a clue, Jim. But the idea seems to be something to pursue, and by the way [that irritated him] KLM does it."

In fact, Watson had designed the RS-13 reservation system to facilitate just these sorts of optimizing decisions. Among other things, RS-13's architecture allowed up to 26 different booking classes (for each letter of the alphabet) to be assigned to each seat. After RS-13 was completed in 1985 and cut over in 1986, however, it was still essentially a blank slate; exploiting its full potential required the development and refinement of new selling practices with the proper interfaces into the new technology and into the people operating the new information tools. Already in 1983, however, BA had completed development of a computerized system for tabulating O&D information from tickets which BA sold directly, while most other European airlines had to do this by hand from flight coupons and many did not do so at all (*BA News*, 28 Oct 1983).

By 1985 Levin was actively thinking about how to reorganize BA again. Harris had for some time advocated a single global sales force in place of the decentralized 1983 marketing organization which fragmented the allocation of network capacity across geographical regions and resulted in lost sales opportunities. A forum which afforded Levin insight into the needed systems architecture was the Distribution Task Force, set up to respond to the competitive threat of Sabre and Apollo and ultimately resulting in the development of Galileo (the CRS of BA, KLM, and other associated carriers). Though the task force was set up on Watson's instigation (and in the face of Levin's initial skepticism), Levin insisted on heading it and in so doing gained an understanding of how the global distribution system (Galileo), the airline's internal reservation system, and the airline's sales force would have to interact.

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3.5.4 The announcement of the 1986 reorganization

The new organization was announced in September 1986. The Marketing Department abolished at one stroke its old market centers and put in their place two new large, but separate units: first, Customer Services, which was regionally organized and represented British Airways in each region and country; and second, World Sales, which was to concentrate exclusively on selling. The Operations Department was reorganized as well and was, in a word, placed under the marketers' control. The long-timer Howard Phelps retired and in his place ex-MPG manager Peter Owen (39) took over. Prior to becoming Deputy Director of Operations in April 1985, Owen had been named General Manager of the charter unit in 1983 and was later promoted to Senior General Manager Market Centers. As for Ground Operations London (GOL) at Heathrow, this unit was directly moved from Operations to Marketing, reflecting the centrality of the hub airport in BA's strategy of pursuing sixth-freedom revenue.[11]

The key strategic unit in the new structure was clearly World Sales. Harris explained at the time:

> The World Sales unit has just one responsibility on which to focus: selling ... The market centers teams were geared up to be responsible for their own group of routes, rather than considering the implications for British Airways in a wider sense. There was some incompatibility in their responsibility of looking after their own routes - and selling for the whole airline. (*BA News*, 12 Sept 1986)

In pursuit of this objective, World Sales was by this time supported with some important IT tools. The RS-13 reservation system has already been mentioned. BA's Capacity Management unit was enhanced, and in early 1987 a team of 120, who monitored flights and adjusted the available capacities on a day-by-day basis, moved into the first floor of Speedbird House. As explained in Chapter 2, BA was at this time on par with the most advanced US carriers in this area and 5-10 years ahead of Lufthansa and Air France. Thus, the 1986 reorganization created the organizational structure needed for BA to exploit the full potential of its capacity and yield management tools.

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[11] While space prohibits us from more than alluding to the major service improvements and new facilities added to BA's Heathrow terminals in the ensuing years, one quotation clarifies the company's recognition of the issue: "The other major factor [in customer choice] is our Heathrow base. Not ideal in terms of geography, infrastructure and systems but all we have, and a major opportunity to turn our network into a hub where flows feed flows to maximize sixth freedom revenues. While there is no doubt that GOL's performance has improved ... we believe that a quantum leap in service is needed" (Tony Clarry, General Manager of GOL, in BAN, 20 February 1987). Further information on GOL's Customer 87 initiative is contained in Bray (1996).

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Capacity Management was part of a central brain unit created in 1986 called Tactics. It was the so-called "engine room" of Marketing and was what many airlines call a Network Department - and so renamed in 1990. After some shuffling, it crystallized into four sections by April 1987:

- Business Analysis
- Scheduling
- Pricing
- Capacity Management[12]

For readers indulgent enough to follow the highly technical discussion of airline organization issues presented thus far, the presence of Scheduling within Tactics (in the Marketing Department) may seem odd, since it was explained earlier that timetable scheduling had become, in 1983, the province of a specially designed unit called Logistics (in the Operations Department).

In fact, both Logistics and Tactics worked on scheduling. What the Scheduling unit of Tactics did was to consult with World Sales and with the field organization on the flights that were most desired from a commercial point of view. This enabled Marketing to speak with one voice in its discussions with Logistics. Thus, Tactics represented the views of the commercial arm of the company (focusing on revenue maximization) and Logistics represented the operational arm of the company (focusing on cost efficiency given the logistical constraints of aircraft, crews, and airport slots). Although this seems banal, establishing the right balance between marketing and operational imperatives in timetable planning is a fundamental challenge in any airline (Chapter 2). Chris Byron explained: "That has proved a very successful way of pulling these things together. Before that, we used to have all those marketing people in one room with us. It was impossible!"

A fringe benefit of abolishing the market centers, but not the primary motivation, was that it permitted centralized control over design of the basic product, namely the service levels aboard BA's aircraft. A restart of the Marketing Policy Group in the mid 1980s, with Marshall and Levin actively participating, surfaced the idea of enhancing not just the BA brand in general, but the individual seating classes offered by the airline. There had been some antecedents to branding in the pre-Marshall era, but what Marshall, Levin, and the new MPG came up with in the mid-1980s was the idea of hiring bona fide brand managers from companies in the fast-moving consumer goods (fmcg) industry.

[12] This including a Network Opportunities section, responsible for "identifying capacity opportunities, specifically sixth freedom selling and matching these to sales opportunities identified by World Sales" (BAN, 1 May 1987).

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Already in 1985 Marshall had championed a revamp and relaunch of Concorde as a means to enhance the visibility and image of the airline. The extension of this was to relaunch every class (whether first, business, or economy, whether long-haul or short-haul) as a differentiated branded product for which customers would be willing to pay a premium. And so in the second half of the 1980s brand managers were recruited from companies like Proctor and Gamble, Unilever, Mars, and Whitbread. Concepts such as brand awareness, market segmentation, and product databases took hold in BA's commercial vocabulary. More about how branding worked will be said in the section on the 1986-90 period. For now it suffices to point out that a new role, Senior General Manager of Products and Brands, was created in the 1986 reorganization and filled by outside hires - the first of whom lasted only three weeks.

In short, the four elements of BA's network-based industrial strategy were in place in the 1986 structure. First, Heathrow was repositioned as a global hub. Second, BA had arrived at organizationally innovative solutions for optimizing the flight schedule so as to harmonize cost (operational) and revenue (marketing) imperatives through the Logistics and Tactics teams. Third, powerful yield and capacity management systems were coming on line to be exploited by a new World Sales unit charged with the task of optimizing revenue over the overall network. Fourth, in tandem with BA's centralized selling operations, BA centralized its brand development strategy as well, developing short-haul and long-haul service levels with global brand recognition.

Who planned the new organization? When the reorganization was first announced in September 1986, Marshall stated: "The main thrust for the Marketing reorganization came from Jim Harris. He suggested establishing a world sales unit around two years ago. We felt the timing was not right then, but it seemed sensible to make these changes ... with the retirement at the end of this month of Howard Phelps" (*BA News*, 12 Sept 1986). Yet the concrete design of the new organization was basically a solo act by Levin, according to interviewed sources. As for who would fill the new top roles, this was jointly decided by Marshall, Harris, and Levin.

The 1986 reorganization, BA and ex-BA managers stress, was considerably riskier to implement than the 1983 revolution. The transition from a geographically-organized structure to a functionally organized one substantially altered the titles and job responsibilities of the top management roles on the marketing side of the airline. Many of the roles had been designed on the blackboard but neither the daily routines that would go with these roles nor the exact nature of interdependencies between roles could be completely specified in advance. A *BA News* article by the heads of the new World Sales unit in 1986 gives an idea of the novelty and untested nature of the new roles:

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We will be working very closely too with our colleagues in other areas of Marketing, particularly in Customer Services, Tactics, and Products and Brands.

Around the world, we will build a strong working relationship with our colleagues in Customer Services ... But if the Customer Services folk find they have a few hours spare each week after attending to all their regular duties, we'll be looking to them to go selling. It will never be a question of 'this is *my* patch.' Our job has no limits, so we can do with all the help we can get.

And Customer Services has some of the most important people to us - the teams in the travel shops and reservations centers around the world. If they don't close a sale when we get the customers to them, then all our efforts will have been wasted. (*BA News*, 14 Nov 1986)

In fact, as discussed later, the division of labor between World Sales and Customer Services in BA's field organization proved traumatic in many countries. Of course, even prior to this the airline had encountered difficulties managing all of the interdependencies between units, a problem that Marshall was acutely aware of. Some of the human resources systems installed by Marshall to enable this cooperation to emerge are explored in the next section.

3.5.5 Supporting systems: Human resources

The foregoing account of BA's strategic adjustment is undoubtedly sacrilege when compared with customary accounts of the BA transformation. The most well-known management innovations of BA, described in books and Harvard Business School case studies, are its training programs for staff (Putting People First) and for managers (Managing People First). The latter, launched in 1985, exposed more than 2,700 BA managers to dreadfully honest feedback on how others perceived them and obliged BA's managers to reflect about how better to communicate with peers and subordinates (Bray, 1996: 35). In a variety of exercises, including being blindfolded and then walked around and spoon-fed by one's colleagues, this program was designed to improve the capacity of BA managers to rely upon and manage their interdependencies with other individuals in the company. According to several interviewees, it was a critical supporting program for two reasons: first, with all young Turks promoted by Marshall and Levin, Managing People First (MPF) was needed to

influence young senior management minds before they atrophied and set. My goodness, it was important! It really opened things up. During those hectic years, things changed every week, they roared through before they ever got set. (Rod Lynch, former head of Customer Services, now at BBC Communications)

Second, Managing People First helped BA's managers to cope with a greater level of personal and departmental interdependence more generally:

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> Managing People First ... led to a tremendous proliferation of spontaneous peer-group level informal structures. People became much more aware of the need to have cross-departmental teams at a certain level to address issues which overlapped. It helped people to understand the need to have a good level of contacts, to cultivate other people in the organization, to think about how people would see things, it helped them to understand how they needed to relate to their subordinates, that they couldn't just tell them what to do. (David Jones, former head of IT Strategy, now at Amadeus Spain)

MPF represented a considerable investment, for it was not cheap. Forum Corporation, led by John Bray, ran the program and drew on the efforts of renown organizational psychologists like Warner Burke and George Litwin. Marshall put in a personal appearance during these one-week programs and took copious notes about what needed improving in the airline.

Given the importance of the Managing People First program, it is worth charting the process by which the program came into being. It started with Marshall himself. While the airline industry is full of top managers who pay lip service to the customer, the distinguishing trait of Marshall's drive to improve customer service, the profoundly held principle that gave practical substance to the idea, was the notion of "caring" for the customer's "needs." The idea that BA was supposed to look after people's needs and not just aircraft was at the center of Marshall's frustration with BA's pre-1983 operations-oriented management. It was also the centerpiece of company strategy in the initial phase.

Strategic analysis by the MPG in 1983 led to the conclusion that BA could never become a low-cost carrier and would have to compete on the basis of some form of product differentiation. BA undertook to improve customer service and the public image of the airline to this end, and was not afraid to borrow ideas from other carriers like SAS in order to do so. Marshall used the same Californian company SAS used (Landor Associates) to redesign the livery. He used the UK branch of the same company as SAS (Time Management International) to launch the Putting People First training program for all BA staff. Marshall himself appeared at 95% of the two-day workshops and came face to face with virtually everyone in the airline, an unprecedented behavior for the CEO of the company. This, a profit-share scheme introduced in 1983, and a generally flexible stance in wage negotiations helped diminish the divide between management and the unions and, aided by the climate of Thatcherism, made the airline fairly strike-free.

The logical extension of Marshall's view of the airline as a service provider responsible for looking after the customer's needs was articulated by human resources manager (and later Director) Nick Georgiades: "We have to take care of one another because it is only by doing that that we ensure that, in turn, we care for the customer the way we should" (*BA News*, 3 May 1985). The

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idea was that the company had to nurture its employees so that they would be capable of nurturing the customer. A bubbling enthusiast and university psychologist hand-picked by Levin (and in one ex-BA manager's words "as crazy as Levin was, but just the thing BA needed at the time"), Georgiades had the ambition of creating an environment where "even on the nastiest Monday morning everyone will want to come to work because it is *the* place to be" (*BA News*, 3 May 1985).

Georgiades' and Levin's first targets for improving the BA working environment were the passenger terminals at Heathrow airport. Given Heathrow's poor organization, terrorist threats, and the highly technical tasks that had to be performed and coordinated, they perceived that BA's ground staff was exposed to a working environment too hostile for them to attend to customer needs in a personal way. So in early 1984, they selected Forum Corporation's John Bray to select and train individuals to fill a new role, the PGC or Passenger Group Coordinator.[13] The PGCs replaced managerial positions focusing on technical coordination with a layer of supervisors whose job was to nurture customer-facing staff and in effect buffer them from the stressful environment of Heathrow so that these staff members could focus on customer needs. The PGCs were selected on the basis of interpersonal skills and a proven ability to care for others. The training program taught the PGCs to create "families" of staff who rostered together, learning each other's habits and developing a genuine *esprit de corps*. The program proved a success and ultimately led to Forum Corporation being retained for the Managing People First programs.

Did British Airways become the nurturing utopia Georgiades dreamed of? Certainly for many supervisors and managers in the company there was one negative wild card to the job, namely Mike Levin. He regularly popped in on any BA operation he pleased and he applied pressure whenever he thought it was necessary. Obviously, there is no way to assess objectively whether or not he antagonized staff excessively, nor is there any way to substantiate statements by some interviewees that Levin "descended like a vulture on the weak," was "loathed by hundreds of people at BA," or that there was "huge seething resentment a level or two down from the top a lot of the time because of Levin." It is clear from interviews, in any case, that BA's managers were being motivated in a number of different, and sometimes contradictory ways. As a formerly high-ranking BA manager put it:

> How could he {Marshall} unleash this beast Levin on us when he's talking about trust and all the stuff he's talking about? At the level of people who were being exposed to Levin, it made one understand that many of the things being preached were actually quite hypocritical, because it absolutely was not practiced at the top level. Yet it didn't

[13] To get the job, Bray had to pay a visit to Levin in the latter's New York apartment; Levin stood on the other side of the street and sized up the unsuspecting visitor's gait as he walked to the door.

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> undermine one's belief that it was very valuable and *should* be practiced! And somehow he {Marshall} got away with it.

Part of what made Levin so fearsome was his position in the organization. He had none, so there was no superior of his to appeal to. Officially, he hardly existed: Levin was quite simply taboo in official British Airways publications. Some irate employees evidently tried to summon the media, but this did no good. Indeed, I have found only one mention of Levin in 12 years of the company newspaper, on a back page in 1987:

> In a statement issued after Thames Television broadcast a Reporting London program about a British Airways member of staff last week, the airline said: "The report presented a seriously distorted account of events and contained many irrelevancies and inaccuracies in a wholly gratuitous attack on British Airways and Michael Levin. (*BA News*, 24 Apr 1987)

Aside from this one mention, Levin was a phantom in official BA discourse.

3.6. Mastering the network-based strategy, 1986-90

The 1986 reorganization altered the administrative and power structure of BA just as radically as the 1983 reorganization had done. The eleven market center heads, the entrepreneurial leaders of BA's decentralized businesses, had to be redeployed in a completely reshaped Marketing Department, now bifurcated into two units, World Sales (with a mission to optimize selling globally rather than on a region-by-region basis) and Customer Service (geographically organized by region and country, but not as area profit centers). Many interviewees emphasized the extreme pendulum swing in moving from the decentralized market center system to a centralized sales system in one single drastic reorganization. These managers point out that a smoother transition to managing BA's network business, without altering the power structure so radically, would have been feasible. The explanation for BA's reliance on a radical shift was Levin. As two ex-MPG managers emphasized in separate interviews, Levin became sidelined and somewhat bored when he was not leading a revolution and thus preferred revolutionary problem-solving.

The two major commercial units - World Sales and Customer Service - had to learn the new roles and behaviors needed to make the system work. Although BA had developed a new recipe for earning money in the business and completely reorganized its activities around this recipe, it took time for the supporting routines to stabilize. Unsurprisingly, the 1986 organization continued to be characterized by the youth of its top managers. A *BA News* article (5 Sept 1986) on "who's who" in the new marketing organization profiled

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eight top managers in their 30s, nine in their 40s, and four in their 50s, with Harris the oldest at age 57.

The following sections concentrate on two central learning processes of this phase: global selling and brand equity building. Global selling was the central activity in mastering the network-based strategy. Brand equity building was a British Airways specificity in the process of adopting this strategy. With the geographic market centers dismantled, a unitary approach to product design became possible. This resulted in BA's "branding" of its "products," that is, its cabin lay-outs and in-cabin services. For BA, this was all part of improving the yield. The following analysis illuminates the actors involved in these learning processes and tries to assess BA's dependence on Anglo-Saxon company patterns in mastering them.

3.6.1 Global selling

The head of World Sales was Jim Callery (52), originally hired by Levin in 1985 to head up sales in North America.[14] According to a widespread opinion among interviewees, the appointment of Callery to lead World Sales was a stroke of genius by Levin. World Sales encompassed 18 world sales regions (later reduced to 15), and it was Callery's task to orchestrate selling campaigns across the globe. His direct reports included the 18 regional sales managers plus another half dozen staff, including in particular Tactics with its yield and capacity management units. One new unit in Tactics was Sales Opportunities, charged with drawing World Sales' attention to sections of the inventory which were slow to fill and risked remaining unsold in the absence of active sales efforts. World Sales' announced ambition was to double the company's revenue in five years (it actually took seven).

Interviewed BA managers frequently likened Callery to Marshall as someone who managed through inspiration and personal interaction rather than through numerical control systems. In fact, Callery acknowledges that he studied "Galbraithian economics" at college and tended to drive the chief financial officer to despair "because I didn't take the time and didn't want to quantify how I felt ... At the monthly review I would do the sales part and if someone asked me a question I couldn't answer, I would give them a bullshit answer, and Sir Colin would smile and know I was giving them a bullshit

[14] Callery was initially appointed as deputy head of World Sales, the first head of World Sales being Mike Beaumont (36). Very quickly, however, Callery was doing most of the work, and when Beaumont left BA in 1987 Callery took over as head of World Sales. Levin had indicated to Callery in 1986 in any case that Beaumont would eventually be transferred to another marketing post to allow Callery to head World Sales. Callery recalls: "Mike probably saw that there would be considerable resentment if I [as an Irish American] was brought over for the top job from the start."

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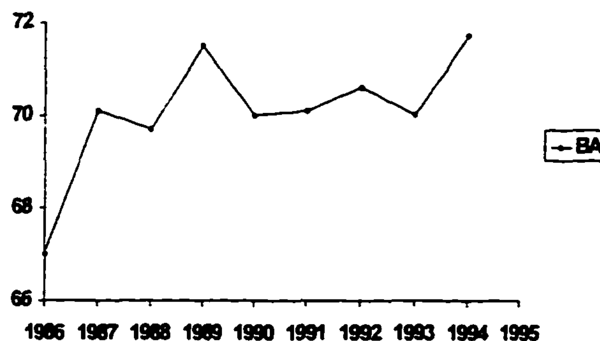
answer." The critical organizational task for Callery was to build a team among the regional sales units and overcome territorial thinking. Aside from frequent one-on-one phone conversations, Callery brought together his regional sales managers together every two months for a 2-3 day conference. According to Callery (and confirmed by other sources), the building of a team spirit with voluntary resource-sharing among regional sales managers took about two years. Callery explained: "Successful salespeople are often egocentric; you had to bring them out of that egocentric mentality, which is very individualistic, and make them part of a team."

The way information was distributed among the World Sales unit evolved. At first, statistics about capacities and yields were centralized in Tactics. The regional sales managers were dependent on Callery to set the targets and provide information about the market. Then a number of things began to happen to induce greater investment in, and wider distribution of, revenue management tools. First, the advent of PCs made it technically possible for the IT department to develop a new generation of revenue management tools for decentralized use within the airline. Second, BA's updated capacity management tools were resulting in increased factor-loads. The company's official Fact Book attributes the following improvements to its capacity management capabilities:

Mainline Scheduled Passenger Load Factor



Source: BA Fact Book 1995 (fiscal years ending year shown)

Third, World Sales generated quick successes in boosting BA's share of sixth freedom traffic. In doing so, the composition of BA's customer base became even less UK-based. Callery recalled one BA executive "getting up at a meeting and lambasting us for running all this trash through their terminal and destroying the image of the British Airways brand. All these foreigners! That was the mentality in those days. It was a momentous change. It was coming from all kinds of new customers."

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BA's next generation of revenue management was called Cobra (Capacity Optimization Bringing Revenue Advantage), the first stage of which began operation in 1990 (*BA News*, 12 June 1992). Cobra enabled yield information to be pulled down by managers who controlled a certain set of routes but shared them with others. Though grafted onto RS-13, it enabled local area networks and distributed data bases to emerge on PCs using OS/2. Its development was entirely internal to BA. Watson recalls: "We were the first big commercial users of OS/2 so we had to go through all the pain and agony of this. We were using PC's to make the yield management system far more sophisticated." Cobra enhanced the capabilities of Callery's regional sales managers to analyze their local markets and is considered to be a major driver of competitive advantage. Although neither Callery nor Watson would agree with the following statement, one interviewed former executive in Marketing felt like being provocative with the following declaration:

> All the PR stuff you ever read about BA, the case histories at Harvard and everything else - if you could only pick one thing, it wasn't Marshall or the customer or any of that propaganda, it wasn't even the wonderful advertising, because you can just buy that, any fool can do that, it's capacity management, that's what's made BA, I think. What is the legacy of Levin? Answer: BA truly values capacity management and will almost do anything to keep it moving ahead ... So I think the biggest Colin Marshall/Mike Levin contribution to British Airways is none of the stuff you hear about, what you hear about is trivia compared to this.

This individual was not in the revenue management or IT area of BA, it should be added. The context of this statement made in 1996 concerned the gap between BA's advertising hype and its real service quality: the product was reportedly no longer so terribly distinct, whereas BA's capacity management was truly superior to the competition's. A number of programmers in IT and managers in Tactics contributed to the development of BA's capacity management, among whom David Carrington and John Wood are frequently cited.

"The computer tools came later in the game," said Callery. "The company would not, in my opinion, have made the investment in the computer tools if they didn't see the potential that came in the very early days with very limited knowledge." In fact, the computer tools always remained aids in the selling practices of World Sales. The driving force came from incessant commercial initiatives. *British Airways News* in the 1980s and 1990s portrays the airline's managers as constantly generating headlines with new ideas, task forces, campaigns, conferences, and slogans; BA's marketing culture of constant new advertising pitches spilled over into the style of the internal management system. Callery's sales approach fits very much into this style:

> We were moving left, right, and center, and most state-owned European competitors could never get a handle on what we were up to. We would cream one market based on foreign currencies, then based on some judgment we would close down that

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> market and move someplace else in a gradual kind of way, and then we'd be back in again. We were forever moving and forever coming up with new programs, new marketing programs, new approaches to the marketplace. And everything they did took months to be planned and implemented, whether it be sales or marketing programs. We were always coming up with something new and if it didn't work we dropped it immediately. We didn't concern ourselves with trying to cover up.

While the 1986 reorganization was designed to allow the World Sales unit to focus exclusively on selling, it made life difficult for the rest of the field organization which was lumped together in Customer Service and headed by Rod Lynch (37). While Callery's unit had 2,500 employees, Lynch's had 18,000 in 159 locations. For the two-and-a-half years he held the post (he left to run Air Europe in March 1989), he traveled 250,000 miles a year. Lynch recalls that in that time he took exactly 11 days off - weekends included. "But it was an incredible opportunity for me and Peter Owen [Director of Operations], both just in our thirties, to be running the bulk of BA's operations and in charge of almost 30,000 employees. I must say that BA was totally fragile for the first 6-12 months after the reorganization, and it was only the quality of the people and 6-7 key guys who helped me to keep BA on the rails."

A key difficulty involved in the 1986 reorganization was that the country organizations now had two bosses, one reporting to World Sales and the other to Customer Service. The new structure implied an elevation in the rank of each country's chief sales manager who had formerly been subordinate to the chief customer service representative but was now on a par. How well this worked varied to a large extent according to the individuals involved. The problem remained significant enough that in 1990 BA recombined the two units into a single geography-based field organization.

3.6.2 Building brand equity

BA's marketing strategy was presided over by the triumvirate of Marshall, Harris, and Levin, with critical inputs from the advertising agency Saatchi and Saatchi and BA marketing managers like Derek Deer and Marilyn Cox. It is necessary here to retrace the way management conceived BA as a *brand* since 1983. Almost immediately after joining the airline Marshall acted to address BA's image problem. While internal company mottoes like "to be the best" encapsulated the message that Marshall and Levin tried to impress upon managers, for customers an advertising line had to be found which uniquely positioned the brand. Saatchi and Saatchi came up with "the world's favorite airline." Just as the phrase "to be the best" was sneered at by many BA managers in 1983 as propaganda, "the world's favorite airline" seemed laughable at the time even to many of those who did not equate BA with "Bloody Awful." As Harris put it, "we wanted our staff to always be reaching for

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something a little bit higher than what we really felt they were achieving at the present time."

The substantiation of "the world's favorite airline" was implemented in three staggered phases, thus giving management's initiatives time to work. In phase one, BA's advertising emphasized scale and stature: BA was the world's "favorite" airline in terms of various airline statistics like passenger numbers. The famous Steven Spielberg commercial depicting the hovering of Manhattan above London illustrated that more people crossed the Atlantic each year with BA than lived in all of Manhattan. In phase two, BA's advertising emphasized tangible product improvements like Super Shuttle and Super Club.[15] Starting around 1985, phase three emphasized customer care, communicating the improvements the airline had made in that area with programs like Putting People First. "Supercare" and "Supercare II" were the actual names of Saatchi and Saatchi's commercials from this phase.

This overall branding strategy gave way to a sub-branding strategy in the mid 1980s with the relaunch of Concorde in 1985 as a vehicle for enhancing the image of BA among high-yield business travelers. The first products attacked by the brand managers after the reorganization were the business classes. The first occupant of the brand manager position did not last, however, and it was the second occupant, Mike Batt (33) from the Mars Corporation, who reaped the glory of the launch of Club World, BA's long-haul business product. Most of the design features had already been decided prior to Batt's arrival. The difficult decision to replace the uncomfortable three-to-two convertible seats in long-haul business class by 7-abreast non-convertible seats, which went against the company religion of managing the yield, had been punched through by marketing manager David Jones. Most of the service details were selected by Paul Baxter. What Batt and his team did, however, was to infuse the new product with the aura of an overarching design. The presentation of the cabin, the cutlery, the presentation of the meals, the color scheme, the accessories, the giveaways, the lounges for the business passengers. - all of these were centrally coordinated and harmonized into an encompassing "seamless" experience. Jones remembers: "The brands people built an integrated whole around the basic concept, packaging it as a totality in a way the regular airline people probably wouldn't have come up with. The competitors didn't catch on to it for a long time."

The sub-branding concept required both organizational and promotional innovations. Each brand manager headed a brand management team consisting of representatives from many departments across the airline

[15] This was, coincidentally, about the period in which Levin executed his most famous exploit: concerned about the appearance of BA's aircraft interiors, he and two junior managers spent several nights cleaning the cabins on their own hands and knees to learn about how long the job actually took and how it could be performed better.

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(marketing, engineering, catering, cabin crew, etc.). The role of the brand manager in this context was to act as a champion for his or her product, to use the brand management team to both calculate the optimal parameters of the product and to obtain the cooperation of the departments needed to support the product. Rod Lynch recalls:

> There was a brand manager who was responsible for long-haul economy, the least romantic of all products. She was a phenomenal woman, and she would regularly win the day against the high-yield products, just by doing her sums, doing her homework, working out better alignments, better uses of space, better routines, better ways of putting the seats in. The product people below them did the spade work on the minutiae of china vs. melamine, plastic vs. cost of glass breakage, etc. Before this time, all this was done by heresy of catering managers saying, „Oh, you must have glasses made of glass" and so on. This time we researched it, we went through it in detail. The product was built up literally from peanuts straight up to putting in posh Carrera seats and hand-stitched gray leather in Concorde.

The other side of brand management was presentation. Here again Batt obtained kudos for his launch of Club World in January 1988. It was done in a London film studio "to the accompaniment of laser lights, audio-visuals, and pop music of an intensity on the threshold of pain" (Reed, 1989:82). One ex-BA marketing manager said:

> What Mike [Batt] did which was absolutely brilliant was to quickly pull together all of the strands of the World Club product and using the techniques he had learned in fmcg and working for Mars, he put together an absolutely brilliant launch platform for it. Without that, it would have just come into service with a bit of advertising, a bit of hype, but nothing much. He turned that round and made that something very very special and in doing so put his personal stamp onto this product and brands outfit and really put horsepower into it. The success of that one product kick-started the whole thing.

The success of World Club in particular was spectacular. According to one marketer's recollection, the product experienced volume increases of 17%, 20%, and 11% in its first three years, far above the normal 5-7% growth rates. As for the effects on the bottom line, Marilyn Cox, the former deputy director of Products and Brands, recalled revenue increases of 28% for the first year and 20% for the two following years, compared with a break-even rate of increase of 7%: she too emphasized that Club World involved „unprecedented research" within BA. Several interviewees pointed to Club World as a watershed in BA's product development; as indicated earlier, the 1986 reorganization was a critical pre-requisite to the new centralized product development approach. The First Class relaunch followed in 1989 and the economy product in 1991. Henceforth, BA's quality reputation was firmly anchored.

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3.6.3 *And Marshall and Levin?*

The foregoing account of BA's commercial innovations describes the changes that interviewed BA managers generally credit for the company's superior performance. Of course, a number of other activities were happening in the company: new staff training programs, privatization in early 1987, the absorption of British Caledonian (acquired in late 1987), negotiations with the unions, improvements in engineering, new lounges, the development of Gatwick as a second hub, new advertising strategies, etc. In fact, judging by the business press and company newspaper, British Airways was seemingly involved in almost every managerial fad that came along, constantly beating the drum for new improvement campaigns. Nonetheless, BA's acquisition of competitive advantage in the late 1980s was most generally attributed by interviewed top BA managers to: the development of the Heathrow as a sixth freedom hub, the creation of a World Sales unit, superior revenue management tools, and improved product planning (especially the "brands").

What was the role of Colin Marshall in bringing about these innovations, beyond setting the dynamics of change in motion? In this Anglo-Saxon company, what did the Anglo-Saxon CEO actually do? As interviews and published sources invariably showed, Marshall was, and conceived himself as, a service-sector manager. Two pillars of Marshall's basic management style were customer service and employee motivation. In dealing with employees, Marshall's style was predicated more on inspiration and motivation through personal contact than on analytic control. Marshall was also intensely image-conscious and took an active part in marketing decisions that affected the "look" of BA in the marketplace, be it redesigning the livery, changing the advertising strategy, or launching new services. Industry analysis and strategic thinking, in contrast, were tasks he tended more to delegate. To Levin and Harris he was personally quite close, while he kept a cordial distant to most other BA managers.

Though not a strategic or analytical thinker (this was obviously Levin's province), he actually was quite a hands-on manager in terms of attending to day-by-day problems. Marshall's personal appearance at BA's Managing People First (MPF) program involved, to a large extent, listening to whatever problems managers wanted to raise and taking copious notes about the details of the company's operations. While Levin was driving most of the organizational changes associated with BA's "radical learning phase," Marshall was busy resolving a number of other priorities: the protracted Laker lawsuit in the US (which delayed the privatization of BA by a good three years), the run-up to privatization in 1987, and everyday problem-shooting.

Levin's role, as Marshall himself noted, was highly complementary. From the standpoint of a chief executive, Levin attended to three extremely useful

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tasks. First, he screened ideas and people (solving the famous "asymmetric information" problem that plagues decision-making in complex organizations): as interviews confirmed to the point of excess, Levin did this by systematically taking the opposite point of view of BA managers and thereby forcing them to articulate the issues and defend what they were doing. Second, he was clearly a genius of organizational design with an ability to master highly technical details. In Marshall's words "he was super unusual, he was super intelligent, and he was an unbelievably hard worker." Third, while he did frighten and trounce many employees who did not have the ability to stand up to him (or to do so in a socially acceptable manner), for those who did he was an excellent catalyst and pedagogue. It was common for the younger fast-trackers in particular to develop "love-hate" relationships with him. As one former pupil put it: "He had the most phenomenal insight into people, he could tear you apart at the emotional level - or build you up and manipulate you at the emotional level, and he did." In this Levin was the diametrical opposite of the impeccable gentleman Marshall, who always maintained an aura of sincerity and trustworthiness.

A central empirical finding of this research was that Levin was indispensable to BA's commercial innovations of 1983-86 - and in the overwhelming estimation of those interviewed was superfluous and worse thereafter. Though an excellent catalyst and organization designer, Levin seems to have been BA's worst manager, capable of preaching empowerment but far too controlling to empower others himself. And behave like a manager he did, leading to unending conflict with BA line managers about who was in charge. It is not exactly a secret that Lord King and Gordon Dunlop considered Levin to have undue influence for a consultant. Furthermore, Levin did not take kindly to disciples who outgrew their awe of him and this contributed to a talent drain. Yet no matter how great the protest, Marshall remained steadfast in retaining Levin. This led to a political stand-off at the top in the late 1980s, with Marshall and Levin on one side and King and Owen on the other.

Of course, it would have been difficult for Marshall to foresee the fall in Levin's value-added in 1986. The impact of Levin in the preceding three years was so substantial and so complementary to Marshall's own management style that Marshall's insistence on keeping the same team is not hard to understand. I will develop this point later.

Levin continued to exert influence. He was instrumental in the selection of a successor for Marketing Director Harris, who retired in 1989. Levin's choice (and to an extent his downfall) was a senior marketing manager within the Reckitt and Coleman group, Liam Strong (45). As Marshall put it at the time Strong was selected: "He is a true marketing professional in every sense with experience in the UK market and internationally, which is important to us" (*BA News*, 18 Nov 1988). The basic rationale of Levin and Marshall was to carry

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the importation of fmcg marketing expertise one step further by appointing as Marketing Director an experienced marketing manager from the fmcg industry. From the standpoint of technical expertise Strong was a logical choice: during his brief tenure, Strong drove the concept of relationship marketing (collecting data on BA's individual and company customers, rather than just on routes and route segments), which was a logical and important next step in BA's strategic use of IT. From the standpoint of fit with the organization, however, Levin's magic had clearly left him: though intellectually brilliant, Strong had the personality of a "Northern Irish street fighter" or "a bull in a china shop" (to use two interview excerpts) and did not fit into the cooperative company culture that Marshall and Forum Corporation had built in BA. The trickling away of managerial talent became an exodus until Marshall helped Strong to find a job outside of BA, as chief executive for Sears PLC, 1991.

When Levin fell, he fell hard. The mismatch between BA and Strong, the failure of certain projects favored by Levin (such as the Four Corners travel agencies, sold in 1990), and complaints by female employees, including an expensive lawsuit in the US (*Financial Times*, 6 Feb 1993) led to Levin's dismissal in late 1989. He died in 1991. His reputation suffered posthumously as an influence in the commercial aggressiveness that led to the Virgin Atlantic fiasco.

3.6.4 Summary of the 1986-90 phase

The importance of the network-based industrial strategy, which in BA's case coincided with the recentralization of product design in the hands of fmcg brand managers in 1986, was summarized by John Watson in a 1996 interview:

> Coming out of that was an impetus that all came together in terms of giving BA a very very powerful selling system. You can't say it was one element or the other, it was the culmination of the products and the brands concept, the world sales concept, the capacity management/yield management/network management concept - it was a recipe.
>
> I think it was a combination of individuals. If you were to say who it is, you have to put Michael on the list, because although 50% of the time he tried to stop me doing things, the other 50% of the time he promoted what we were doing [in IT] with such force that the airline had to listen to him. I think Colin Marshall was fundamental to it because Colin Marshall's great strength is his innocence. He stands above things, looks at them extremely simply, and can see very clearly what needs to be done. He doesn't know how to do it, he doesn't indulge in control management, but he can see it ... It's really the combination of the two, without Colin that really wouldn't have happened.

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To recapitulate, BA went through a "radical learning" phase in the period 1983-86; in this phase, the marginal contribution of Levin as the CEO's personal assistant was essential. The exceptional informational and discretionary coverage by the CEO's office was arguably a critical factor in BA's early adoption of the network-based industrial strategy. Yet the learning process and BA's precocious implementation of a network-based strategy also depended on the authority of the CEO's office to shake up the hierarchy. Both in 1983 and 1986 important reorganizations took place that were centrally driven and institutionally enabled by the high unilateral discretion which Anglo-Saxon CEOs are allowed to exercise. The availability of "generalist" managers, partly engineered by management but also partly embedded in Britain's educational infrastructure, also aided the process.

In the period 1986-90, BA developed the new commercial skills needed to exploit the possibilities opened up by the 1986 reorganization: sixth-freedom selling, revenue management, improved ground services in the "hub" airports, recentralized product design, etc. In retrospect, Levin was much less essential during this phase, the new commercial recipe having already been conceived in prior years. As the prior sections suggest, the necessary organizational learning could be conducted by the functional heads installed in 1986: the World Sales unit mastered network selling, the brand managers learned how to "brand" airline products, and so forth. Although major reshufflings of the organizational structure and shake-ups of the managerial ranks required the unilateral CEO intervention displayed in 1983 and 1986, thereafter implementation of the network-based strategy did not require such strong intervention by the CEO's office; once the upper management posts were filled with carefully selected managers, a more decentralized form of organizational learning sufficed.

3.7 Efficiency and globalization phase, 1990-95

In 1990, another reorganization of Marketing and Operations occurred. The main upshot of this was a rebalancing of the trade-off between the central commercial functions and geographical areas. The structure is referred to by BA managers as a half-functional, half-geographic principle of organization and despite modifications it persists to the time of writing. Yet unlike the reorganizations of 1983 and 1986, the reshuffling of 1990 was of far less strategic significance in itself, although it coincided in time with an organizational sea change at BA. A variety of fresh initiatives were emerging at BA around 1990, including two new strategic priorities: cost efficiency and globalization.

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The following analysis of these new strategic priorities will show that their emergence was not centrally masterminded to the extent that the network-based industrial strategy was by Levin in the mid 1980s. Anglo-Saxon institutional patterns, this analysis suggests, therefore played a less significant role in facilitating or impeding these changes. In general, the organizational sea change of 1990, it will be seen, resulted from a much more typical constellation of forces than the CEO-driven changes of 1983 or 1986 (considering Levin as part of the CEO office). The organization changes and new strategic priorities set in 1990 were driven, on the one hand, by decentralized scanning processes (as documented below), and on the other hand, by power struggles and organizational politics (the ascension of Liam Strong after the mutually assured destruction of Michael Levin and Peter Owen), which likewise constitute a decentralized decision process.

How the new foci on cost efficiency and globalization emerged is set forth below. Interestingly, neither of these new foci can be attributed to specific individuals or events, but emerged incrementally as the external environment changed. To place these newly emergent foci into context, it is first necessary to gain an overview of BA's organizational sea change in 1990.

3.7.1 The organizational sea change of 1990

The strategic centrality of global selling and brand equity building ended in 1990. Though global selling and sub-brand improvements continued, new strategic priorities were set around 1990 and punctuated by organizational changes. With the resignation of Peter Owen (Head of Operations) in February 1990, Marketing and Operations were merged into MOPS and placed under the control of Liam Strong, who had lost little time in asserting his influence and lining himself up as a successor to Marshall as CEO. Later in 1990, MOPS was reorganized into the half functional, half geographical structure that exists to the time of writing. The World Sales unit was disbanded. Responsibilities for sales and customer service in the field organization outside the UK were re-merged and devolved to 17 Area Managers. The Area Managers reported to four Regional General Managers (the four Regions being: Americas, Europe, Pacific, and Southern), who in turned reported to a new Head of Regions. Within the UK, Sales and Marketing were reunited and placed under the command of Jim Callery. The basic principles of the reorganization were to recompartmentalize profit responsibility on a geographic basis (obviously with the stated aim of preserving the overall profitability of the network) and to improve coordination and cost focus at lower levels in the field organization.

Even the most casual reader of the company newspaper could recognize that major power struggles were occurring at this time. The headline article "Marketing and Ops Merged" explained: "The move followed the

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announcement yesterday that Peter Owen, at his own request, was to resign as Director of Operations" (*BA News*, 2 Feb 1990). When MOPS was reorganized, the former Head of Customer Service, Tony Clarry, was suddenly left without a job and *BA News* quoted him as saying: "The airline is facing its most difficult period for some time and whilst this reorganization is designed to address this challenge, I do recognize and understand that there is no place for me in it" (9 Nov 1990). With Levin no longer at BA, the formal authority structure now reflected much more the actual distribution of power in the airline: MOPS was reorganized and run by Strong, and he was both its titular and actual ruler. With its usual soft touch, the *Financial Times* referred to Strong as a "noted master of corporate politics" (14 Sept 1990).

Underneath the corporate politics, however, fundamental reorientations were taking place. Above all, BA recognized the need to contain costs well ahead of most other European airlines. Strong himself, according to interviews, was a key driver of this recognition. Already at the beginning of 1989, Marshall notified his managers that they should attempt to cut their planned spending by 10% for the upcoming summer. Rationale: 77 aircraft on order with options of 59 more, increasing competition from BMA and Dan Air on European routes, 20% lower costs of newer British competitors, and an anticipated yield squeeze from liberalization. Yet rather than simply impose cost-cutting targets in a bureaucratic top-down fashion as Air France's CEO did in the 1990s (see Chapter 4), Marshall mandated that "each department head outlines in coming editions of *British Airways News* the areas where he is planning to make savings" (17 February 1989).

BA's "cost crusade" (Marshall's words) became enshrined in a rewritten mission statement of late 1989. Whereas the previous mission statement of 1986 was full of flowery language and boundless ambition (examples: to be proud, creative, caring, the envy of competitors, rewarding to customers and staff, formidable as a contender in everything we do, seen as *the* training ground for talented people in the service industry), the new mission statement of 1990 was prosaic and encapsulated in seven simple propositions: 1. Safe and secure, 2. Financially strong, 3. Global leader, 4. Service and value, 5. Customer driven, 6. Good employer, 7. Good neighbor. The architect of the new mission statement, Corporate Strategist David Jones, explained at the time: "For the first time the need to control costs is explicit ... We can't have quality at any price. That was not explicit before" (*Financial Times*, 4 Nov 1989). The other implicit sub-text of the mission statement was that BA would avoid becoming involved in too many segments of the travel and tourist industry, as happened in the 1980s. Marshall, admitting that the new statement seemed platitudinous on the surface, commented at the time: "The message is we have no intention to diversify in any substantial way ... We are refocusing on our core business" (*Ibid.*).

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3.7.2 Efficiency drive

BA uses the term "performance improvement" to refer to the efficiency drive that began in 1990. "The airline's Performance Improvement program, launched in 1990, in a bid to reduce unit costs, is now a fundamental element of British Airways' long-term business strategy" (*BA Fact Book 1995*, p. 52). The three main categories in which these improvements can be lumped are: changes in working practices, a reworking of the supply chain, and increases in asset utilization. Space allows only some prominent examples of efficiency-enhancing activities to be given. In term of working practices, the in-flight catering unit was benchmarked against an external service and extensively rationalized, while more flexible working practices were introduced in the ground handling services. An agreement with the engineering unions in 1992 led to the scrapping of 500 supervisor posts in Engineering (maintenance) and the introduction of a production team-based structure with productivity gains of 5-10% (*Financial times*, 23 Sept 1992). In reworking the supply chain, the number of suppliers was reduced from 10,000 to 3,500 and inventories were streamlined through the introduction of new information technology. Tighter scheduling and reduced reliance on standby aircraft raised the daily average utilization of aircraft by 12.5% from 7.29 to 8.20 hours per day (*BA Fact Book 1995*, p 52).

The programs underlying BA's efficiency drive evolved in stages. The first, noted earlier, ensued from Marshall's 1989 injunction to all departments to reduce their costs by 10% and detail how they would do so in a set of *BA News* articles (which they did). The second stage was the Margin Improvement Program (MIP) begun in the spring of 1990 just as the recession was starting to be felt. With the help of McKinsey consultants, MIP encompassed five programs:

1. Reducing complexity (Alistair Cumming, Director of Engineering)
2. Creating value for money (Clive Mason, Purchasing Director)
3. Review of planning process (David Jones, Director of Corporate Strategy)
4. Scoresheet of progress (Roger Maynard, Director of Investor Relations)
5. SPRINT support activities review (Derek Stevens, Chief Financial Officer)

Top management signaled its commitment to MIP by having an important director champion one part of the MIP and by having MIP itself headed by the respected IT director John Watson. Again in illustrative contrast to the way Air France's CEO managed cost reduction by unilaterally setting cost reduction targets and then delegating their implementation to lower levels (Chapter 4), Watson declared at the time:

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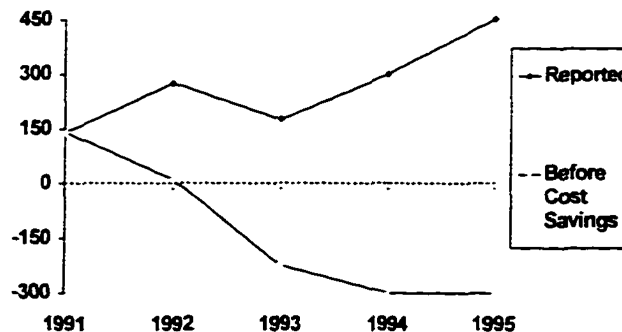
> I don't think it is of any value to tell people to cut costs without creating the framework within which it is possible - and that I see very plainly as a management challenge. Nor do I think it helps to argue that people should work harder. But they should be able to work more effectively. Again, it is a management task to create conditions for us all to achieve more for the same effort (*BA News*, 20 July 1990).

Most MIP projects had time frames of 18-36 months, with the exception of the Sprint review, which already in 1990 delivered savings of about £100m.

The remainder of the MIP projects were eventually collected in the third phase of BA's efficiency drive, a program called Gap Closure. Between 1991 and 1995, Gap Closure resulted in cost savings of £750m annually (over 10% of 1994-95 turnover). BA reports the effect of Gap Closure on the bottom line to be as follows:

Group Pre-tax Profit (in £ Mio.)



Source: BA Fact Book 1995 (figures exclude special items and refer to fiscal years ending in the year shown)

Within the Gap Closure exercise, countless projects took place. For example, when in 1991 Gatwick's short-haul operations continued to post losses, the Senior General Manager launched the Go for Gatwick campaign, seeking to cut short-haul costs by 30% after collecting ideas from departmental groups on how to bring its profitability up. Within weeks more than 500 ideas were generated from Customer Services brainstorming sessions alone (*BA News*, 11 Oct 1991).

The steering instrument of Gap Closure was the business plan, a managerial tool that had been neglected in the boom years of the late 1980s. As corporate strategist David Jones and BA's fleet planner Rod Muddle discovered when they reviewed BA's planning process, the sub-unit responsible for producing the plan had earlier been responsible for justifying the airline's aircraft purchases vis-à-vis the government by producing forecasts about the future. After privatization, its role within BA had become unclear. Muddle recalls:

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When I took on this job in 1990, planning had essentially been abandoned. That was something we did in the old nationalized days. The more recent approach has been ready, aim, fire! We rushed around doing things, which gets a lot of energy going, but there can be a danger of losing control ... One principle was not to analyze everything to death and fall into analysis-paralysis. But at the time we were not adequately managing the financials of the business. (Source: 1996 interview)

In late 1989, Jones encouraged the planners to come straight out with realistic projections for the future, and in light of heavy aircraft orders in the industry (see Chapter 2) a profitability gap of some £500m was not hard to forecast. This forecast made the rounds within top management in early 1990 and formed the backdrop of the MIP.

The next step was to transform the business plan from a forecasting tool to a management tool, and this was essentially the achievement of Muddle. Although the form and role of BA's business plan has evolved since 1990, the basic principles involved in the Gap Closure process were straight-forward:

- Define a strategic performance target (e.g. financial performance)
- Make realistic assumptions about the competitive and economic environment
- Forecast results based on these assumptions
- Quantify the "gap" between forecast and desired performance
- Use benchmarking to illuminate gaps on departmental basis
- Generate actions plans, obtain departmental commitments
- Iterate these steps until forecasts match the strategic target

The art was in the way these steps were executed. First, the financial target was set at an operating cash flow of 22% of net assets employed. Second, Muddle made sure that the projected revenue and cost figures for BA's departments were provided by the departments themselves, so that the numbers in the plan were "owned" by the managers who would be asked to "close the gap." Third, Jones, Muddle, and the planners produced suggestions on what each of the departments ought to contribute toward closing the gap based on benchmarked comparisons with other airlines on a department-by-department basis. Jones remembers:

We went back and said: We know the information is terribly partial and incomplete, but based on this, we recommend cut Engineering by £50m, IT by £3m, catering £10m, etc., according to the areas of the different directors. One of the most nerve-wrecking experiences of my career was to go to the Policy Group {Marshall's direct reports} and say: Gentlemen, we've agreed the shortfall will be 100m the first year, then 200m, 500m, etc. Here is our proposal for how we should seek to achieve this by way of cuts. And to my amazement, everybody accepted it. But thinking about it: everyone had agreed on the macroeconomic assumptions, so they could only hope to

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reduce the pain in their area by explicitly advocating increasing the pain in another colleague's area. We put everyone is a damned difficult situation if they wanted to reduce their own part.

Finally, when management could only come up with £100m ideas for cost savings whereas £200 were called for, Muddle went around on road shows and with the input of staff and employees eventually collected ideas permitting £265m worth of savings, £65 more than targeted.

Muddle continued to coordinate the planning process through 1994. The exact nature of the process evolved at BA continuously as events unfolded. When the Gulf War started in 1991, BA was the first airline to reschedule its orders with Boeing, resulting in a billion dollars in savings over two years. The plan had to be accelerated, but at least BA had a system to produce cost savings already in place, while many other airlines had to erect such a system from scratch.

As a final point, BA's strategic adjustment after 1990 involved a greater focus on anticipating future trends and taking appropriate actions. The fact that the main steering instrument behind BA's efficiency drive was a business plan predicated on three-year forecasts about future trends bears this out. Furthermore, BA went on to invest even more heavily in resources to read the future by hiring economist DeAnne Julius. She was hired from Shell in September 1993 to implement the technique of scenario planning. Her arrival signaled a more rigorous approach to the collection of economic data for forecasting within BA as well as the importation of Shell's well-known technique of producing alternative scenarios about future developments and adapting the company's contingency plans to prepare for a variety of future states. As Muddle explained in 1996:

> We picked her brain and she helped us to develop the scenarios. She took a team and built scenarios for about 6 months, and then I took a team and used those scenarios to build 30-40 workshops to travel with around the business, to think about the appropriateness of strategies and what new strategies will work in which scenarios and then starting to move from today's strategies to tomorrow's strategies. This is the process we're in at the moment.

BA's strategy in the 1990s has increasingly involved the dedication of managerial resources to the anticipation of future trends. Levin and the Future Audit Group, it is true, had engaged in visionary-type thinking about the future of the industry, foreseeing in particular the evolution of marketing techniques and the need for BA to conceive of itself as a "global airline." What the 1990s witnessed was the transition from a "soft" visionary forecasting approach to a "hard" economic one.

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3.7.3 Globalization

At the turn of the decade, the globalization strategy of BA paralleled that of KLM in many ways. In 1989, both joined consortia to bid for control of a major US airline: BA for United Airlines (with whom it had a marketing agreement since 1987) and KLM for Northwest. As BA's bid for United failed, KLM became the first European carrier to take a stake in a healthy US carrier (SAS had a minority stake in Texas Air). Meanwhile, in June 1989 BA and KLM announced a joint venture to create Sabena World Airways, in which they would each hold a 20% stake (the remainder to be held by the Belgian government). The venture was held up by regulatory concerns of the European Commission, however, and at the end of 1990 BA simply withdrew. By 1991 BA was in full-fledged merger talks with KLM to create the aviation equivalent to Unilever and Shell. Although the operational and political issues could be resolved (with KLM even ready to give up its name), the Anglo-Dutch deal eventually collapsed in February 1992 over differences in valuation and the distribution of profits.

In 1992, BA's ambition to reposition itself globally finally began to produce concrete results. In that year BA announced the formation of Deutsche BA in Germany (49%-owned by BA, 51% by three German banks so as to qualify as a German airline and obtain inner-German traffic rights), a 49.9% stake in the French regional carrier TAT, a shareholding alliance with US Air (revised in 1993 to meet US legal restrictions), and a 25% stake in Qantas. The German venture was in some ways the boldest move: after German reunification BA lost its traffic rights between Western Germany and Berlin. Its strategic response was to acquire a German regional carrier, Delta Air, with the help of three German banks as nominal majority owners and then rename the carrier Deutsche BA.

Negotiating and managing these alliances requires a cross-functional approach, as the marketing, legal, financial, and government relations departments are all involved. The coordinator and main adviser on alliances at BA has been Roger Maynard, the head of Corporate Strategy since 1991. Major decisions were made by Marshall's Policy Group of direct reports.

Interview and archival sources give no indications of any abrupt shifts in BA's globalization strategy, which simply evolved with the industry trend. From 1989 on, virtually all of the world's major airlines were engaged in discussions over alliances. Like other European airlines, BA was concerned about being too small to survive on a global scale. Growth through alliances was seen as the only practical way to grow its customer base worldwide and realize economies of scale and scope in marketing and routes. As Muddle put it: "The corps of evidence was that the world was littered with the bones of middle-sized airlines that didn't survive." Though it is possible to view BA's

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breakthroughs of 1992 (Deutsche BA, TAT, US Air, Qantas) in terms of a coherent plan, and of course such plans were regularly produced by the Corporate Strategy department, it is equally possible to see these ventures as having separate origins: talks with US Air began after a pre-existing marketing agreement with United broke down, which was virtually unavoidable once United gained access to Heathrow in 1991; Deutsche BA was in some ways simply the replacement for BA's internal German services prior to German reunification; TAT provided BA with needed slots at the Paris airports; and Qantas helped secure BA's place in the Australian market which had always been important for BA.

3.8 Summary

This chapter has shown how the network-based industrial strategy was conceived during a "radical learning" phase of 1983-1986, was implemented organizationally in 1986, perfected in the years 1986-1990, and then superseded in strategic importance by other initiatives (efficiency drive, globalization) in the 1990s.

The three phases of strategic adjustment studied in this chapter - 1983-86, 1986-1990, and 1990-95 - unfolded under very different decision-making systems. The radical learning phase of 1983-86 was driven by the office of the CEO in the person of Michael Levin, whose marginal contribution to the efforts of the CEO Colin Marshall was ostensibly a pre-condition for BA's early adoption of the network-based industrial strategy; in contrast, the 1986-90 and 1990-95 phases were far less dependent on the contribution of a single change agent. The institutional pre-condition of Levin's influence was the discretionary power of the CEO to decree organizational and personnel changes unilaterally. It can be rather safely ventured that if BA had had a German-type of executive board with majority-voting, Levin's tenure would have been much shorter.

The foregoing analysis also suggests that the degree of comparative institutional advantage conferred by Anglo-Saxon company patterns depends highly on the context of change within the industry. In a period where radical organizational learning and reorientation is required to take advantage of a window of opportunity opened by environment changes (in consumer demands, technology, industry structure, etc.), high-powered CEOs accompanied by high-powered change agents unimpeded by legal or institutional restrictions may prove beneficial. In less turbulent business environments, the costs of unchecked unilateral CEO authority may outweigh the benefits. As stated earlier, there was substantial agreement among

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interviewees[16] that Levin's contribution, however great up to 1986, was modest at best and rather negative at worst after this date. Once the network-based industrial strategy had been recognized as necessary, implemented organizationally, and entrusted to qualified personnel by 1986, BA found itself in a phase of development in which a central high-powered change agent was no longer as necessary.

Although it is easy enough in retrospect to criticize Marshall's retention of Levin in the face of considerable opposition, the fact is that a CEO cannot assess with full certainty the degree of change required by the environment. The degree of environmental change and the organization's degree of fit with its environment are more easily assessed *ex post* than in real time. The steep decline in Levin's added value after 1986 should therefore be seen not in terms of accurate or mistaken managerial judgment (or at least not only), but in terms of the contextual contingency of the value added of managerial instruments like a high-powered change agent. In other words, the value of Levin's contribution was ultimately determined by the changing nature of BA's competitive environment.

This chapter has mentioned several power shifts from Operations to Marketing, again facilitated and effected by the authority of the CEO. After becoming a new locus of power upon Marshall's arrival in 1983, Marketing gained greater control over the commercial and planning functions. In 1986 Marketing gained control over BA's ground services at the London airports. In 1990, Marketing took over all of Operations. Liam Strong now headed MOPS (Marketing and Operations) at the end of organizational processes which resulted in many resignations and departures. True, as Marshall said of MOPS at the time, "their merger takes that trend [of operations being market-led] to its logical conclusion" (*BA News*, 2 Feb 1990). Yet BA was no longer in the same situation as in 1983; shake-ups of BA in the 1990s were seen by many interviewees as more control-minded than commercially-minded in their rationale. A common worry expressed by interviewees is that the BA organization now runs the risk of relapse into bureaucratic, operationally-driven routine. This concern is clearly shared by BA's management and is reflected in a 1995-96 internal company campaign to encourage risk-taking, with full-page ads in *BA News* proclaiming "the world favors the brave" and holding up paragons of proactivism like Martin Luther King, Christopher Columbus, and John F. Kennedy.

The other useful institutional pattern revealed by research was BA's use of generalist managers, partly by managerial design following Marshall's arrival but also pre-dating his arrival as part of the British system of university-trained managers. Generalists proved useful to the company in the 1980s in allowing functions to coordinate and share information across departmental boundaries.

[16] For reasons of diplomacy, I did not ask Sir Colin Marshall for an assessment of this issue.

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This resulted in a fascinating paradox. On the one hand, BA managers were in danger of losing their job any minute, as BA was, as quite a few BA managers discovered first-hand, a hire-and-fire company. So the management system that emerged at BA was roughly the following: On one level, BA had a CEO, human resource practices, and a company ideology all emphasizing trust, cooperation, and team work. Simultaneously, BA had an unpublicized reality of high managerial turnover. One important challenge of top management, clearly, was to manage this contradiction. The team of Marshall and Levin, two men who in many ways could hardly be more different, reflects the way this contradiction was managed at BA.

3.9 A contingency framework of British comparative institutional advantage

The significant changes that the air transport industry underwent in technologies and market opportunities provided a window of opportunity to the advantage of the British national champion. On the one hand, it was significantly easier to initiate major organizational restructuring by managerial fiat in the UK. More importantly, however, in a market environment characterized by a high degree of uncertainty, it was not necessary in the UK context to fully determine in advance the exact nature of the changes required, thus allowing for flexibility and learning in the course of longer-term experimentation and implementation. The iterative organizational reforms in British Airways - and similarly in British Telecom (Darbishire, 1996) - highlight this capacity in their respective highly uncertain market places.

An important caveat concerning the transferability of the Marshall/Levin method is the fact, as mentioned earlier, that BA's commercial innovations were of a managerial, "generalist" type. The innovations covered here had little to do with aircraft, flying, or engineering. They also did not require extensive negotiations over industrial relations (though other management initiatives not discussed here, such as imposing separate wage scales for workers at Heathrow, Gatwick, and the Regional, non-London operations, obviously did require consulting the unions and sometimes provoked industrial action). The network-based industrial strategy required neither craft skills, nor specialized engineering knowledge, nor a high-trust system of industrial relations, nor coordination with other sectoral actors (with the important exception of the BAA) in its implementation. To this extent, the innovative opportunity offered to BA by its industry context appears ideally suited to the UK's economic mix of institutional strengths and weakness.

These considerations lead to two predictions about the comparative institutional advantages and weakness of British firms. The first is that British firms will be at a comparative advantage in making strategic adjustments that

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can be implemented through classic managerial actions within the boundaries of the firm, but will be disadvantaged by strategic adjustments requiring extensive coordinated action with other actors. For example, British firms can be expected to incur relatively high costs in obtaining modifications in public training programs or in organizing their industry association around a common purpose. The individualism of British companies makes them institutionally ill-disposed to solve industrial collective action problems but for this reason means they face fewer obstacles in making strategic adjustments that require only internal changes and normal market transactions.

In view of Britain's weak educational infrastructure for developing craft and engineering skills on the one hand coupled with a number of first-rate universities (Cambridge, Oxford, etc.) and highly developed capital markets on the other, the second prediction is that British firms will excel in making strategic adjustments that can be managed by generalist (and financially-oriented) managers but will on average fare poorly in international comparisons in making adjustments of a craft or engineering nature based on specialized technical knowledge. Such a prediction is consistent with empirical data suggesting that British manufacturing, while growing more productive in output per person in the 1980s (driven fundamentally by financial imperatives), has continued to lag in innovative capabilities requiring technical expertise (Walker, 1993: 182). Taken together, these prediction yield the following table:

Implementors of the adjustment: / Type of adjustment:	Technical specialists	Generalist managers
Made autonomously by the firm	A	B*
Requires non-market coordination with other actors	C	D

It is in quadrant B where the comparative institutional advantage of British firms may be expected to lie. Were it possible to add a third dimension to this table, it would be worth distinguishing between radical and incremental innovation.

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Unilateral CEO control and high managerial mobility were the institutional key to BA's ability to manage the "radical learning" phase of 1983-86.

Although the sample size obviously does not allow a general validation of this hypothesis, there is good reason for considering the network-based industrial strategy to be the kind of cell-B strategic adjustment in which British firms can be expected to excel. The network-based industrial strategy requires retraining of the sales force (generalists), but not of the pilots or maintenance workers. The most technical component in the new strategy concerns the information systems. As this chapter suggests, however, the key to managing the information systems resides not just the technical skills *per se*, but in properly integrating the information technology (IT) department into the commercial operations of the company.[17]

[17] The findings in this chapter echo those of Lazonick and West (1995) that US industry was most able to maintain its innovative capacities in industries like pharmaceuticals where learning and innovative strategies relied on the managerial structure alone and not on shop floor processes.

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CHAPTER FOUR: AIR FRANCE AND TOP-DOWN STRATEGIZING

4.1 Introduction

In the late 1980s, it was the manifest destiny of Air France to be one of the large European carriers to survive the post-liberalization shake-out of the airline industry. In the 1990s, however, its profitability plummeted, and only a state bail-out of an astonishing 20 billion francs has kept Air France out of bankruptcy. In many ways the failure of Air France fits a certain stereotype of state-owned European flag carriers. The French state's ownership and privileged treatment of its flag carrier provided neither management nor employees with strong incentives to become efficient and competitive. While the airline's politically appointed managers continually lobbied the state to shelter Air France from competition, domestic or international, within the sector, strikes have remained common throughout the 1980s and 1990s, almost irrespective of Air France's financial situation. To a certain extent, then, the Air France fiasco is a generic story of state ownership and conflictual industrial relations, a story repeated in other European state-owned flagship carriers like Iberia and Alitalia, similarly characterized by state ownership, monopolistic privileges, political appointees, and strikes.

Nonetheless, Air France merits closer analysis for other reasons. First, this chapter will argue that institutional patterns which clearly did not serve France well in civil aviation in the 1980s have worked far better in different industrial contexts. The Air France case can therefore be drawn on to build a contingency framework of French institutional strengths and weaknesses. Second, a finding that requires deeper explanation than just state ownership is Air France's considerable lag in innovation. State ownership explains quite well the Air France's inability to cut staffing levels and obtain greater labor flexibility, but does not in itself sufficiently explain Air France's tardiness in adopting the network-based industrial strategy. Air France failed to capitalize on opportunities to capture sixth-freedom traffic at an ideal hub location at the Roissy-Charles de Gaulle airport (hereafter CDG) near Paris.

Air France's President in the crucial period 1988-93, Bernard Attali, combined the roles of King and Marshall at BA, maintaining close high-level contacts with government while at the same time enjoying considerable authority, at least in principle, to decree comprehensive changes in the strategy

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and organization within the company. Yet this formal discretionary authority was more than offset by other institutional disadvantages: the Air France organization was ossified by decades of rigid sectoral regulation which had aimed more at minimizing conflicts than at promoting the industry; and as a parachuted appointee of the elite class, Attali, like most Air France Presidents, was divorced from the nitty-gritty of the airline's internal operations, lacking experience in managing business organizations. Air France's top management thus found it difficult to experiment, learn, or even "learn to learn."

Indeed, it was not until after Attali's departure that Air France's management became cognizant of the need to implement the reforms outlined in Chapter 2. The agent diffusing this critical information in 1994 was neither the old nor the new management nor consultants, but the representative of the pilot's union, Gilles Bordes-Pagès, whose links with Lufthansa's pilots made him aware of recent changes in the German carrier. Bordes-Pagès (1994a; 1994b; 1994c) wrote a series of reports for the new management detailing the company's mismanagement of the fleet, timetable scheduling, revenue management tools, and hub development, and quite systematically laying out the configurational changes required by the network-based strategy.

Given the difficulties that Air France has experienced, it is not surprising that neither Attali nor his top managers have wished to talk to me about Air France. Nonetheless, a wealth of information has been forthcoming from other sources: first and foremost, the reports by Bordes-Pagès, based on in-depth consultations with Air France's various departments; a book of reminiscences written by Attali (1994) after his dismissal in 1993; and an investigative report by the French Senate (Cartigny, 1991) that explored Air France's strategy and organizational dilemmas in considerable depth. I also have benefited from contacts at France's civil aviation authority, the Direction Générale de l'Aviation Civile (DGAC), and contacts with four gentlemen who regularly attended meetings of Air France's top board (*conseil d'administration*), either as voting members or as government-appointed observers: Mr. Gilles Bordes-Pagès (pilots' union), Mr. Paul Laprévote (CFDT union), Mr. Robert Espérou (DGAC), and finally Mr. Jacques Villiers (Ingenieur général de l'aviation civile) who has assisted the author greatly in the course of research.

4.2 Corporate governance and managerial hierarchies at Air France

Corporate governance in France is characterized by centralized leadership in the person of the President-Director General (PDG). French company boards are weak in practice and only very rarely will a *conseil d'administration* contradict the will of the PDG. Instead, the ultimate agency of control in France is very often the state, even in the private sector:

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> The PDG has virtual control over the board of directors. He or she controls their selection and may dictate the subjects on which they become involved. Indeed, it is regarded as "bad manners" for the board to take a vote on a management decision ... Indeed, if the PDG seeks advice on a major strategic move, he is a likely to go to the state (the company would probably require the help of the state banks) as he would to the board (Monks and Minow, 1995: 301).

The role of the state in credit rationing has decreased in recent years. Nonetheless, an illustration of the lingering *rapports de force* in French corporate governance was furnished by the small French carrier AOM in 1996: when the conseil d'administration (along with a number of top managers) fell into policy disagreements with the PDG Alexandre Couvelaire, the entire board simply resigned, but not the PDG (*Le Monde*, 17 Nov 1996). Thanks to the support of the French President and Prime Minister, Couvelaire retained his post despite the severe reservations of the airline's direct owner (a holding company - *consortium de réalisation* - of the Crédit Lyonnais) as well as those of the airline's other banks, suppliers, and several ministerial representatives.

At Air France, as in most large state-owned enterprises, the roles of President and Director General were usually separate. The President is a classic political appointee responsible for the interface with government, while the Director General occupies a more operational role. Thus, while the President of Air France was invariably parachuted into the company by the government, his Director General was often internally promoted within Air France. The exact division of labor between the two positions and the amount of *de facto* control exercised by the President over business decisions has depended mainly on the particular personalities involved. By historical Air France standards, Bernard Attali exercised very substantial control over business decisions as President and his Director General very little. In other words, Attali was a genuine CEO during his tenure at Air France, but not all Presidents of Air France have been genuine CEOs.

No matter how the roles of the President and Director General were divided, however, one institution had very little influence over Air France's activities: the conseil d'administration, consisting of shareholder (state) representatives, "qualified personalities" in civil aviation, and employee representatives.[1] The Air France board may be represented as follows:

[1] Technically, one of the six shareholder positions is set aside for a non-state representative.

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Corporate Governance at Air France

Conseil d'Administration

6 shareholder representatives:	6 employee representatives:	6 "qualified personalities":
Representatives of the state (including the President of Air France)	4 seats for ground personnel, 1 seat for pilots, 1 seat for cabin personnel	Named by the Transport Minister for expertise in civil aviation

In addition to the eighteen voting members shown above, meetings were also attended by two non-voting government officials (*censeurs*). The four interviewed participants in Air France's conseil d'administration all attested to the discretionary impotence of this organ, noting that this is the norm in France, even in the private sector. "There is no corporate governance in France," said one member. "The conseil d'administration is a recording chamber," said another, using a French idiom designating a place where people can air their opinions but nothing more.

From interviews it is clear that employee representatives did not consider themselves bound to exercise the supervisory duties one generally associates with board directors; co-determination in a German sense was neither practiced nor advocated. Indeed, it was scarcely feasible. With up to sixteen unions vying for representation on the conseil d'administration and on the central works council (*comité central d'entreprise*), union leaders concerned about re-election could ill-afford to be publicly perceived as collaborating too closely with management (although behind-the-scenes arrangements were common). Socialist legislation in the 1980s giving employees of state-owned enterprises a third of the seats on the conseil d'administration had only a marginal impact on Air France's system of corporate governance; since its relaunch in 1948, Air France's conseil d'administration already had employee representation for one-fourth of its seats (4 of 16).[2]

According to interviewed board participants (albeit expressed in different ways) responsibility for oversight of Air France lies with "the state." It was not

[2] Until 1994, Air France was legally a *société à participation ouvrière*, an idiosyncratic title in the French industrial landscape.

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always clear from conversations who "the state" actually was; in any event, the state was evidently not embodied in the state's representatives on the top board. One civil aviation official closely connected with Air France explained the company's management problems in the following terms: "The state did not begin to take a serious interest in Air France until 1993."

Formal responsibility for oversight of Air France - the true agents of corporate governance - actually lay with its two "supervisory ministries" (*ministères de tutelle*): the Ministry of Finance and the Ministry of Transport. The Ministry of Finance was the ultimate watchdog of the state shareholder's financial interests.[3] The Ministry of Transport dealt with regulatory issues, both technical and economic. The most important economic regulatory issues involved mediating conflicts between Air France and other French carriers over the distribution of traffic rights. The Transport Ministry department charged with regulation of civil aviation was the *Direction Générale de l'Aviation Civile*, (DGAC).

The Presidents of Air France were never internally promoted from within, but drawn from France's administrative elite. Members of this elite, rotating frequently from one top post to another within the French government-business complex, are typically (but not uniformly) composed of graduates of certain elite schools (ENA, Polytechnique, and a handful of lesser-status *grandes écoles*) who have been subsequently recruited into five *grands corps*: the *ingénieurs des Mines*, the *ingénieurs des Ponts et Chaussées*, the *Inspection des Finances*, the *Cour des Comptes*, and the *Conseil d'Etat*. These *grands corps* constitute "five establishments ... created to educate the administrative elite of the country and which select each year, among a generation of 800,000 persons, some fifty young people about 25 years old, assuring the selection of one-third of French top managers" (Bauer and Bertin-Mourot, 1995: 32). The following table shows the weight of *grand corps* membership in the selection of Air France Presidents:

[3] Even for private sector companies, it should be noted, the intervention of this ministry is often crucial. Observers of French industry note the extraordinary influence that can be exercised over creditors and banks on occasion by the Trésor directorate of the Ministry of Finance (Charkham, 1994: 121).

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Presidents of Air France since 1975			
Name	*Title*	*Years*	*Grand Corps*
Pierre Giraudet	PDG	1975-84	Ponts et Chaussées
Marceau Long	President	1983-87	Conseil d'Etat
Jacques Friedmann	President	1987-88	Inspection des finances
Bernard Attali	President	1988-93	Cour des Comptes
Christian Blanc	President	1993-	none

Besides the Presidents of Air France, the five top *grands corps* have furnished most PDGs of France's other two major carriers, Air Inter and UTA, as well as a number of top officials in the DGAC. However, most senior officials in the more technical divisions of the DGAC generally belong to one of France's industry-specific engineering corps, the *ingénieurs de l'Aviation Civile*, which has counterparts in telecommunications, armaments, agriculture, etc.[4]

Rotations between Air France and government were and remain very common; the regulators and the regulated were recruited from the same class of men (the gender term is used historically), and many men played both roles in their careers. The 1991 Senate report put it succinctly: "Thus, one doesn't know which of the two, the company [Air France] or the state, governs the other. Unless they are the same, for the bonds are tight between the government and the company. It suffices to draw up a list of the persons named to top posts and often coming from ministerial cabinets to be persuaded of this" (Cartigny, 1991: 215).

To this portrait must be added the highly personal preferences of French presidents and prime ministers who used Air France as a flying throne on which to install their friends - who alternated, it is true, with agents dispatched to clean up the havoc caused by previous political appointees.[5] Often these appointees had little business experience. DGAC senior official Robert Espérou was present when a President of Air France appointed by his crony de Gaulle received a balance sheet from his Director General, noticed the identical tallies of the two columns, and exclaimed: "I congratulate you, sir. You've balanced the books to the last centime!"

[4] About half of this corps' members are graduates of the Ecole Polytechnique, the others climb their way up to selection through alternative engineering career paths. There is a single aviation school in France, the Ecole Nationale de l'Aviation Civile in Toulouse. In the DGAC itself, roughly half the officials belong to the civil aviation engineering corps (especially on the technical side). The DGAC senior official with central responsibility for economic regulation, Robert Espérou, was a graduate of the Ecole Nationale d'Administration (ENA).

[5] The examples I had in mind are Pierre Giraudet (1975-84) and Christian Blanc (1993-present).

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The President of Air France (who at times qualified as a CEO) was therefore a "generalist" administrator, albeit not always a seasoned business manager. The ranks of Air France, in contrast, were filled with "specialist" managers. This "specialist" orientation, however, had less to do with rigorous training, however, than with a system of human resource management based on public-sector practices, with promotion based on points and seniority. Managerial mobility within Air France was low and department heads were traditionally Air France old-timers. Under Attali, Air France did make some attempts to introduce an element of merit into promotion and salary decisions; but these efforts did not even begin until after a 1991 audit submitted by Arthur Andersen and of course made no difference in the short term.

The Arthur Andersen audit found the Air France organization to be characterized by a rigidified, decades-old point-counting system of career advancement lacking any capacity for strategic human resource management. This went together with poorly defined responsibilities in general and a process of accumulated sedimentation rather than reform of procedures over the previous 20 years, making the company a prisoner of short-term thinking and unable to address longer-term issues like airport policy, the Amadeus CRS, or yield management in a coherent fashion (*Les Echos*, 13 Aug 1991). That an engineering, operationally-oriented bias was entrenched in the company culture of Air France was abundantly apparent from interviews and company documents. Commercial thinking was poorly developed. As Attali later recalled, perhaps a bit disingenuously: "This was my first surprise: I talked about the customer, they [at headquarters] talked about the company; I asked about the product, they answered by talking about production. The first reflex was driven by supply, not demand" (Attali, 1994: 12).

4.3 Comparative institutional advantage and the French *grands corps* elite

The syndrome of competitive decline in sectors excessively sheltered and managed by the French state is amply familiar to readers of Zysman (1977), Cohen (1989), and the daily newspaper. The objective of this section is to situate the fiasco of Air France within a framework of France's comparative institutional advantages and disadvantages. While France's economic woes in aviation, banking, and computing are well-known, there is a need to understand why failures in certain sectors contrast with successes in many others. The following synthesis drawn from various strands in previous research focuses, for the sake of parsimony, on a single building-block of French social and economic institutions: *the elite structure* (Thoenig, 1987; Ziegler, 1995). For many analytical purposes, the French elite structure is arguably a more fundamental component of French economic institutions than other often-cited institutional specificities, such as the historically central role of

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the state (Hayward, 1983), the credit-based financial system (Zysman, 1983), and French organizational culture (Crozier, 1963; d'Iribarne, 1989).

Focusing on the elite structure is neither a novel nor even controversial approach, as a growing chorus of observers have recently focused on the elite as being structurally the most deeply embedded and difficult-to-reform part of French institutions; this chorus now includes Crozier himself (1995). While French economic policy has vacillated between interventionist and liberal market tendencies since 1945, the seemingly unchangeable constant in the French economy has been the exclusivity of an administrative elite occupying the top positions in both the state and industry.

Having once been recruited into a *grand corps* at the age of 25 or so, members benefit from a life-long source of high-level relations and employment mobility due to membership in the corps. Among this elite, rotations between top posts in the state administration and in top French companies are common (they typically remain no more than 3-4 years in any one post), reinforcing a homogeneity of outlook across industry-government boundaries and a tradition of shared industry-government responsibility for the performance of French companies. The career path of a *grands corps* member usually begins with an initiation phase in the ministerial cabinets or in the upper echelons of the state administration; only at a relatively advanced age and without prior business experience does the fast-track career path of "catapulted," "parachuted," and "helicoptered" appointments to high posts in public-sector and private-sector firms begin to take off (Bauer, 1987).

Although links between industry and government *within* a given sector are usually quite developed, links *between* sectors are usually a good deal less so. The bulk of French civil servants spend their careers in the same administration; in the private sector, inter-firm managerial mobility is assumed to be lower in France than in the UK or US, although precise statistics are lacking. It is the fundamental lack of generalist managers and administrators in France (Cohen and Bauer, 1980) combined with the severe restrictions on entry into the *grands corps* (Thoenig, 1987) that makes the members of the *grands corps*, with their wide-ranging contacts across sectors and varied career paths, so valuable to firms and ministries. In other words, the scarcity value of the *grands corps* generalists testifies to the lack of developed inter-sectoral coordination mechanisms in France beyond this administrative elite.

The behavior of elite members cannot be merely inferred from socialization and recruitment patterns with the *grands corps*, however. It is also necessary to consider the configuration of group interests with which these members have to contend in practice. Typically, administrative leaders in France face a high level of fragmentation of employee's interests, both horizontally (multitude of unions, low union membership, strong competition between unions) and

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vertically (absence of comprehensive employee representation in negotiations with top management). Unlike the encompassing corporatist structures of Northern Europe, French institutions do not facilitate global interest intermediation between the various parties (state, management, unions). Each social group has to negotiate its interests separately - and often spontaneously, as when announcements by management unleash labor unrest or riots or when poor economic results lead to *ad hoc* requests for state assistance. It is the combination of

- a monopolistic central policy-formulating elite group in a given sector,

- *de facto* fragmented interest representation in the sector, and

- a supporting ideology of common interests within the sector formulated by the central policy-formulating elite group who purports to represent the interests of all groups

that generally characterizes the way interests are organized in France (Muller, 1991: 17).[6] In this view, recourse by firms to the state happens more as occasioned by necessity (to mediate social conflicts, to raise capital, to influence foreign governments, etc.) than by *a priori* preferences for state intervention. Casual observation suggests that, on the contrary, French companies often struggle for autonomy. When the need arises, however, it is easy to summon the state's assistance, as top-level contacts are facilitated by the French elite structure and unhampered by legal or political restrictions against consultation between large firms and government. As for the "supporting ideology of common interests" espoused by the elite group, this leadership trait can be observed in abundance in France and will be readily seen in the Air France case.

A perspective on France's comparative institutional advantages and disadvantages can be derived by considering the managerial capacity conferred by the peculiar nature of its governing elite, namely a "technical experts elite of engineers cum industrial managers, cum high level political and administrative personnel" (Chesnais, 1993: 192). Although only two of the top five *corps* are actually engineering corps, the other three so-called "administrative" corps (Inspection des Finances, Cour des Comptes, Conseil d'Etat) nonetheless have a technical orientation to problem-solving that contrasts with the Anglo-Saxon model of liberal arts university education; in France, the access of university graduates to top posts is very low and has actually declined since the mid 1980s (Bauer and Bertin-Mourot, 1995). Thus, while their educational background inclines elite members *technically* toward engineering and/or administrative problem-solving, the particular structuring of

[6] Muller inclines to consider the French model an idiosyncratic type of "sectoral corporatism." Although this characterization raises classification problems which extend beyond the confines of the present analysis, Muller's description of how interests are generally organized in France appears to fit the civil aviation sector.

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French interests in most sectors inclines them *socially* towards specific political strategies (state-business partnership, propagation of an ideology of common interests). This results in a set of idiosyncratic skills and weaknesses that distinguish French top managers from their counterparts in other countries.[7]

Business challenges are therefore likely to inspire "technocratic" searches for solutions, whereas social challenges are apt to lead to "political" searches for solutions. French top managers in sectors colonized by the *grands corps* elite tend to lack knowledge of their companies' operations and of their firms' particular strengths and weaknesses. Strategic initiatives tend to take the form of technical (rather than commercial or organizational) innovation on the one hand and of financial operations (rather than organic growth) to consolidate their market position by using links with the state administration and the financial system to acquire competitors (Bauer, 1987; Bauer and Bertin-Mourot, 1995). Whether these approaches are successful will depend on the sectoral elite's technical knowledge matching the fundamental strategic problems the company needs to solve or, to put it differently, on the nature of the problems being such that they can be analyzed through engineering or financial expertise and implemented in top-down fashion. In contrast, strategies based on the leveraging of idiosyncratic firm resources (as suggested by the resource-based theory of the firm) are, on average, *less* likely to be pursued by French top managers.

To understand why the French elite's particular bundle of technical and political capabilities can result in true comparative advantage and not just capture of the state by sectoral interests, it is worth underlining some of the possible market failure conditions this institutional combination can help to overcome. The first source of market failure is *uncertainty in the political landscape*. An obstacle to development in areas like nuclear power and noisy rail infrastructure is not just uncertainty about the return on investment because of economic uncertainty; the more delicate problem in pluralistic societies is the risk of political sea changes which dissuade investment in activities fraught with political unpredictability. Institutional patterns in the French political system help absorb certain kinds of political risk and encourage long-term commitments to large-scale technical projects like nuclear power. Second, not all Western countries can mobilize as well as France can the *complementary assets in state influence on foreign governments* needed to export products like high-speed trains and arms or to obtain access to petroleum reserves. Although all major Western firms try to mobilize their governments to influence other nations to purchase their goods, the cost to large French firms of doing

[7] In addition, one would have to consider the rational career calculus of individual elite members induced by the French system of appointments. Given the relatively short tenure of fast-trackers in any one post, the ability to contain social conflict and work cooperatively with other key elite members (especially high-ranking office-holders in the government) is likely to be particularly observable to other elite decision-makers and hence constitute a special priority in any manager's effort to sustain a good career record.

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so appears to be relatively low. French diplomacy can be placed at low cost in the service of opening foreign public procurement processes to French exports (Chesnais, 1993: 220). Third, so-called "network externalities" in certain industries mandate *critical mass in the installed base of products subject to a common technical standard* (Gabel, 1987). Decentralized market forces can lead to a proliferation of standards and the non-emergence of a national producer large enough to survive in world markets. For example, Alcatel's installed base in electronic telephone exchanges in France, underwritten through its privileged position as the near-monopoly supplier of France Télécom, provided it with the critical springboard needed to build the world's largest international manufacturing group in telecommunications. In contrast, the UK's fragmentation of the telecommunications supplier market (GEC, Plessey, etc.) resulted in conquest of the market by foreign producers after the domestic producers failed to gain critical mass on a world-wide scale.

Unfortunately, none of these conditions applied strongly enough to European civil aviation to assist Air France. The misfit between characteristics of French institutional strengths and those of the European airline sector since market liberalization helps explain not only the poor economic performance of Air France, but the particular adjustment path chosen by its CEO from 1988 to 1993, Bernard Attali. The two central traits of Attali's leadership style recounted in the following narrative are a *top-down technocratic formulation of business strategy* and a *political strategy based on conflict avoidance, high-level government contacts and ad hoc ideological constructions about the "common interest."* Although neither strategy matched the requirements of the sector, they did conform to the behavioral pattern one might expect of a parachuted career fast-tracker belonging to the previously discussed "technical experts elite of engineers cum industrial managers, cum high level political and administrative personnel" (Chesnais, 1993: 192). In other words, the framework sheds light on why Air France's CEO behaved *as if* the combination of a technocratic approach to business strategy and a heavy reliance on political stratagems were appropriate means to accomplish industrial adjustment, reflecting as they do both the outlook this elite develops through its socialization and the institutionalized position of the governing elite in French society.

The following sections constitute a study of strategic stasis as far as Air France's industrial strategy is concerned. Management's top-down strategizing failed to guide Air France towards discovery and implementation of the network-based strategy. Top-down strategizing, the following analysis suggests, is inappropriate when the acquisition of competitive advantage requires experimentation and organizational innovation (as opposed to purely technical innovation). At the same time, the following study reveals the considerable energy exerted and effectiveness achieved by Attali in other areas, particularly in the French political arena. Attali's major achievement was in confronting what I will call a "sectoral monkey wrench" involving the way

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traffic was distributed among carriers and airports in France. This monkey wrench was a significant competitive handicap for Air France and the central target of Attali's (top-down) strategy. To understand Air France's difficulties in adopting the network-based strategy, it is first necessary to consider France's "sectoral monkey wrench" and the way Attali tried to remove it.

4.4 The configuration of French civil aviation: A sectoral monkey wrench

The fact that Air France was so slow to latch onto the network-based strategy had at least partly to do with the particular configuration of traffic among French airlines and airports. Whereas British Airways and Lufthansa had extensive domestic networks in the 1980s, Air France had none, as domestic air transport was a monopoly privilege of another carrier, Air Inter. Air France therefore sought to acquire control of Air Inter in 1990 and succeeded. But there was another problem: Air Inter's domestic hub was the Orly airport south of Paris, far away from Air France's main airport at Roissy-CDG, north of Paris. Although this did not prevent Air France from constructing a *sixth-freedom* hub among its international flights at Roissy-CDG (and does not excuse Air France's lag in doing so), the absence of an adequate feeder network on domestic routes was undeniably a competitive handicap and a disincentive to pursuing the network-based strategy.

Aside from a handful of tiny regional carriers (TAT, AOM, etc.), scheduled services in France had long been partitioned among three carriers:

Air France:	most international routes,
UTA:	long-haul routes to part of Africa and the Pacific, and
Air Inter:	monopoly on major French domestic routes.

As the three airlines had non-overlapping networks, they competed only against foreign carriers or other modes of transport (notably the national railway SNCF in Air Inter's case). For decades this territorial separation of routes suited both the carriers and the Transport Ministry, but for reasons to be explained, this equilibrium became no longer viable in the late 1980s, leading Air France to stage a takeover of UTA and Air Inter in 1990. Significant statistics for the three carriers in 1989 are the following:

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	Aircraft	Personnel	Turnover (millions of FF)	Passengers Carried (millions)
Air France	111	39,111	34,850	16.07
Air Inter	52	9,782	8,647	15.69
UTA	13	6,787	6,745	0.87

Source: Cartigny (1991: 10). Subsidiaries (e.g. charter) excluded.

Ownership structures among the carriers varied. Air France was state-owned, UTA was privately held, and Air Inter had both private and state-owned shareholders (Air France, SNCF, banks). Shares of Air Inter and UTA were publicly traded.

A major logistical constraint facing Air France was the way traffic was segmented between Paris' two major airports, Orly and Roissy-CDG. When Roissy-CDG was completed in 1974, the government obliged Air France and most international carriers to transfer their operations there from Orly. This resulted in the following segmentation by the mid 1980s:

Segmentation of French Air Traffic in the late 1980s

Airport	*Routes Assigned*	*Carriers Stationed*
Roissy-CDG	Most international	Most Air France operations, UTA, most foreign carriers
Orly	French domestic routes	Air Inter
	DOM-TOM (overseas territories) & Iberian peninsula	Iberia, some Air France operations, French charter carriers
	Some US carriers	American, Continental

As the table indicates, Air Inter remained at Orly, separate from the bulk of Air France's operations. The US carriers were split between the two airports, with American and Continental still serving Orly. Air Inter was allowed and invited to fly into CDG to feed Air France's international flights. But for reasons of both economics and political autonomy, Air Inter provided only a handful of flights to CDG, preferring to concentrate on its own domestic hub at Orly, notwithstanding repeated admonishments from Air France, the DGAC, and various Transport Ministers. In fact, with its Orly hub its natural ally was not Air

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France at all, but American Airlines, who proposed a strategic alliance with Air Inter in 1986; the initiative was rejected by the government (Cartigny, 1991: 176).

The result was the nearly complete separation between the domestic and international network of French air services. Passengers traveling from the French provinces to foreign countries or vice-versa often preferred to change planes at a non-French airport rather than face a long shuttle between Orly and CDG. British Airways, Lufthansa, and KLM have long exploited this configurational weakness, connecting the French provincial cities with their more convenient hubs in London, Frankfurt, and Amsterdam. Paris' two-hub problem is legendary. Virtually every civil aviation observer I have spoken to in the UK and Germany considers this configuration to have been fatal for Air France from the start and declares that this was obvious already in the 1980s. Within the French civil aviation "village," as some interviewees called it, the intensity of the problem was not so obvious.

Nor was it a problem of Parisian arrogance or indifference. A ministry-sponsored report on civil aviation from 1987 was carried out by the head of Lyon's chamber of commerce, Guy Malher; this report boldly concluded that French air transport, with its trio of Air France, Air Inter, and UTA, was well positioned for European liberalization and, while noting the two-hub problem, merely urged a few additional Air Inter flights to CDG. Malher explained, regarding the two hubs: "The problem was not the DGAC, but Air Inter, which simply wanted to keep all of its operations at Orly" (personal conversation of 1995). With regard to the needs of users in the provinces, Malher explained that the provinces were primarily interested in obtaining good connections to Paris from Air Inter; this view is echoed by DGAC officials, who report that the provinces' main demand was consistently for more flights to Orly.

Relations between Air France and Air Inter were generally characterized by rivalry, reflecting partly the different cultural orientations of short-haul and long-haul operations. Air Inter was regarded as a dynamic, self-financing, team-spirited enterprise with fairly motivated employees; Air France was perceived as bureaucratic and spoiled by its privileged showcase function as the flagship carrier. In fact, interviews and an official report (Funel and Villiers, 1982) converge in reporting that Air Inter, despite inflated personnel costs, was quite well run and showed considerable innovation in pricing schemes to keep load-factors high and tariffs relatively low (Funel and Villiers, 1982).

The normal mode regulation in France's civil aviation sector was political conflict resolution. Expressions like "Yalta" and "Judgment of Solomon" abound in accounts of regulatory decisions in the sector. A "Yalta" of 1963 reshuffled traffic rights so as to eliminate the last remaining network overlaps between UTA and Air France and hence avoid conflict. Thereafter, the

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unwritten regulatory policy remained "one route, one company." Another "Yalta" resulted from pilots' strikes at Air France, UTA, and Air Inter in 1971. When in that year the government withdrew its backing of the airlines' management, the three airlines were forced to sign a sectoral agreement which set out the working conditions and remuneration scheme for pilots in these three airlines. The terms of the text remained in force throughout the 1980s and the specter of a pilots' strike was never far from the minds of airline managers and ministers.

As for Judgments of Solomon, one lay at the root of the already cited French Senate investigation of Air France in 1991. Two years prior, UTA applied for rights to fly to Newark from several French provincial cities. Caught off-guard, Attali responded to UTA's move by requesting the same rights for Air France. In June 1989, the Transport Minister "cut the pear in half," allowing UTA to serve Newark from Southern cities (Marseilles, Toulouse, Bordeaux), and Air France to serve NY-Kennedy from Northern cities (Strasbourg, Mulhouse, Lille, Lyon). According to a senior DGAC official, these routes were manifestly commercially non-viable from the start, and not long after Air France acquired UTA in 1990 Attali canceled all of these services. Political leaders in the provinces protested, demanding the cited parliamentary investigation.

At the time of Attali's appointment in 1988, it was becoming impossible to resolve conflicts in France's airline sector through the customary Judgments of Solomon. First, disturbances in Africa had caused UTA's business to decline (precise statistics were shown in Chapter 2); UTA's PDG René Lapautre was therefore actively seeking new traffic rights within Air France's traditional sphere, with repeated requests to the Transport Ministry and interviews in the press denouncing the anti-competitive stance of the authorities. Second, and reinforcing Lapautre's activism, the EC's First Package had passed in 1987 and made it only a matter of time before both UTA and Air Inter would be legally guaranteed traffic rights within the EC. Not just UTA, which pointed out the need for European feed to its long-haul routes, but also Air Inter, with a view to logical expansion of its short-haul network, eagerly sought additional EC market access. Third, as a ploy to obtain the government's compliance, UTA had bought up additional shares of Air Inter after the SNCF began selling off its 25% shareholding in 1987. By May 1988 UTA held a 35.8% share of Air Inter, constituting a "blocking minority" sufficient, among other things, to prevent a change in Air Inter company statutes which would enable it to fly beyond French borders (*Le Monde*, 11 May 1988). To parry the thrust, the government in January 1988 had arranged for the SNCF to sell its remaining shares directly to Air France, whose shareholding in Air Inter thus rose from 25% to 36.5% (*Le Monde*, 8 Jan 1988).

Prior to Attali's appointment, government intervention favoring Air France over UTA was not a foregone conclusion. Jérôme Seydoux, the majority owner

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of UTA, had close links to the Socialist party. The importance of relations between the politicians and airlines had been proved the year before, for in September 1987 Prime Minister Chirac had personally intervened to veto traffic rights for UTA to fly the Paris-Newark route; UTA's application for Paris-Newark had earlier been approved by Chirac's liberal Transport Minister, Jacques Douffiagues over the objections of the President of Air France. Chirac's veto was, as *Le Monde* wrote, "new proof of friendship for his old buddy Mr. Jacques Friedmann" (16 Sept 1987).[8]

4.5 Overcoming the sectoral monkey wrench: Air France-French Republic strategizing

Bernard Attali was appointed President of Air France in October 1988, shortly after the electoral defeat of Jacques Chirac and the return to office of the Socialists.[9] Aside from short stints at Club Med and the UK insurance group Commercial Union, the commercial experience of the 45-year-old fast-track graduate of ENA was limited. His experience in government was greater and included two successful phases (1974-80, 1981-84) at the DATAR (*Délégation à l'Aménagement du Territoire et à l'Action Régionale*, or Regional and Spatial Planning Delegacy), a federal agency designed to assist in the economic development of the French provinces. At the DATAR, Attali had earned the reputation as an energetic promoter of projects, a skillful negotiator within the

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[8] Chirac's veto of a second French carrier over North Atlantic had flown flat in the face of the policy trend begun by Douffiagues and the DGAC since the change of government in 1986. Douffiagues had cautiously experimented with competition among French carriers by liberalizing charter services as well as scheduled DOM-TOM services. He had even broken the "one route, one carrier" doctrine, opening Paris-San Francisco (formerly only Air France) and Paris-Tahiti (formerly only UTA) in 1986 to both long-haul carriers as an experiment to be evaluated after one year. DGAC officials monitored the consequences carefully and noted good results on the DOM-TOM routes; the director of the DGAC noted in early 1987: "The DOM/TOM experiment proves that there is price elasticity in demand. Air France has introduced new price structures ... This new structure has had immediate effects on traffic: the traffic to the Antilles for January and February of this year has increased 45% since 1986." (Source: Paper of Daniel Tenenbaum, DGAC, 26 Mar 1987.) Similarly, double designation on the Paris-San Francisco route led to increased passenger loads for *both* carriers and a 23% increase in the French market share overall at a time when France's market share on routes to the US was otherwise declining rapidly (*Air et Cosmos*, 3 Dec 1988).

[9] The appointment was announced by Prime Minister Michel Rocard after lengthy discussions with President Mitterrand about where to place the twin brother of the latter's prominent advisor Jacques Attali. Rocard had rejected the idea of placing Bernard at the head of UAP, France's largest insurance company. The incumbent President of Air France in 1988, Jacques Friedmann, was a close friend of Chirac and had been President of Air France for only 18 months; the pretext for his premature dismissal was a tragic accident of an Air France aircraft at an air show in June 1988 (Attali, 1995). In 1986 Friedmann, in his capacity as Chirac's adviser, had announced the dismissal of Bernard Attali as President of the insurance group GAN after just two years.

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administration, and a pioneer of planning contracts (*contrats de plan*) between the state and the French regions.[10]

In the course of 1987-88, UTA had negotiated in one way or another with British Caledonian, British Midlands, and British Airways about starting an alliance or acquiring a shareholding in the UK companies. This posed a threat to Air France. After the Socialists regained power in June 1988, UTA's owner Seydoux began declaring to the press that either the government should allow UTA to expand into new markets (in which case UTA would be willing to sell its shares in Air Inter to Air France) or it should openly state its intention to purchase UTA and create a single large carrier around Air France (*Air et Cosmos*, 9 July 1988; Cartigny, 1991:62).

As the new Transport Minister, Michel Delebarre announced that he would study the matter carefully and on 24 November 1998 he announced his decision. His analysis was that "air transport is also a public service," not just a consumer good. In the face of European liberalization, French companies suffered from a "size handicap": "One must above all permit them to coordinate their efforts in the face of international competition. Adding French-French competition to this would impose an additional handicap on them..." (Source: mimeograph text of speech). Thus, policy remained "one route, one company." Evoking the need for Air Inter and Air France to coordinate their efforts, and the fact that they were public services, both companies would be asked to sign planning contracts (*contrats de plan*) with the government specifying precise productivity and growth targets.

What surprised observers was that in the face of an untenable situation Delebarre, as one industry publication put it, "had decided it was urgent to do nothing!" (*Aviation Magazine*, 15 Dec 1988).[11] In justifying his decision in a letter to an advisory board on civil aviation,[12] Delebarre used two key words that were to form the ideological basis and ideational core of not just regulatory policy, but of Air France's strategy under Attali:

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[10] At the DATAR in the early 1980s he had also worked closely with a minister named Michel Rocard and later with a *directeur de cabinet* named Michel Delebarre - the Prime Minister and Transport Minister in 1988. Little wonder, then, that shortly after his arrival at Air France, he notified his top management committee that "as of today, I note that there are domains that I consider to be my particular competence: relations with the public authorities and all external communication" (cited in *L'Expansion*, 6-19 Jan 1989).

[11] According to one civil servant involved in the deliberations, the basic reasoning for the decision was this: Seydoux's statements to the press made it likely that UTA could be purchased by the state and under these circumstances, awarding UTA further traffic rights would inevitably raise the price the state would have to pay for UTA.

[12] This board is the *Conseil Supérieur de l'Aviation Marchande* (CSAM). The CSAM, which remains to this day the forum at which policy decisions in air transport are announced, has consisted of a rather docile mixture of politicians, civil servants, transport experts, and other industry representatives (with extremely weak representation of users); in any event its view is non-binding.

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"There is, to my mind, no contradiction between the orientations that have been defined and the evolution of air transport in Europe. This evolution will undoubtedly place them in ever tougher competition, and it is for this situation that I want them to prepare themselves. They can do it all the better if they are not distracted by vain *fratricide* combats. I want the three large regular French airlines to focus their efforts on conquering a larger place in international competition and look for ways of getting the best benefit from their *complementarities*." (Source: DGAC; my italics)

These words - fratricide, complementarities - were veritable slogans of Attali, along with "ultra-liberalism" and *angélisme* ("Platonic innocence," said here in reference to advocates of market liberalism). Regardless of who the original source was of these catch-words, they tended to be repeated by successive Transport Ministers, even those of the conservative parties, who fell under Attali's intellectual spell. In 1988, the government effectively made the decision to become Air France's unconditional sponsor, including in its planning contracts which endorsed more than they constrained Air France's formulation and implementation of strategy.

Attali said as much in his first press interview after Delebarre's decision. To the question "What place should a *contrat de plan* have?" he replied:

"I think that first Air France ought to define its strategy itself. It's a pre-condition. We have to say what we want, what we desire, what we know how to do, what we can do ... And then we will turn to our shareholder and negotiate a *contrat de plan* with it, to verify the compatibility of our ambitions with its own ... 1993 should be viewed in my eyes in an offensive way and without fear" (*France Aviation*, Dec 1988).

Implicit in such a view were two key premises. The first, reflected in his reference to "1993," was that the pace of market liberalization would be determined by the French state and European Commission.[13] Attali's strategy, as will be seen, revolved around the idea that the free-for-all would start on 1 January 1993 but not before.

The second key premise was that the appropriate adjustments required to prepare for the 1993 shake-out could be programmed from the top level and even formalized in planning contracts with the state: aircraft orders, mandated annual productivity improvements, etc. Starting in 1988, the CEO of Air France became the *de facto* locus of sectoral policy and government policy was customized to accommodate the strategy of Air France. For example, the planning contracts announced by the Transport Minister in 1988 were not actually implemented until 1991 so as to give Air France time to absorb UTA

[13] Though the Single European Act and the First Package had recently passed, the initial effects of European unification were to stimulate the economy and boost demand for air transport services. This encouraged government leaders like Rocard to proclaim proudly that "our Europe will be the one we want, the one we construct. In every sector, be it transport or agriculture, insurance or telecom, we are opposed to the internal market being translated into wild deregulation" (*Le Nouvel Economiste*, 27 July 1988).

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and Air Inter after the 1990 takeover (Cartigny, 1991: 214). The last *contrats de plan* signed by Air France had been in 1984 for the years 1984-86.

As for the takeover itself, Prime Minister Rocard claimed that he "piloted" the whole operation from the Hôtel de Matignon (Cartigny, 1991: 69). In Fall 1989, highly secret negotiations over the sale of UTA began between the government, UTA's majority owner Seydoux, and Attali. The FF 7bn deal was concluded on 12 January 1990 and gave Air France control over UTA and, because of UTA's holdings in Air Inter, made Air France the majority shareholder of Air Inter as well. Although Attali (1994) depicts the affair as a kind of heroic duel between himself and Seydoux, the Senate report (Cartigny, 1991) accords Attali only a modest role in the unfolding of events. In September, Seydoux met twice with Prime Minister Rocard and agreed in principle to sell UTA. Thereafter the Trésor and two banks studied the valuation of UTA to arrive at a selling price.

Coordinated Air France-French Republic action and its supporting ideology of complementarities, cooperation, and ordered competition (the antidote of enlightened men to the evils of fratricide, ultra-liberalism, and wild deregulation) served the supplementary purpose of mediating social conflicts in a sector of volatile industrial relations. Attali spend his first three months at Air France trying to sort out wildcat strikes of the maintenance division, whose workers protested against the excessive work-load imposed on them at the time: "a strike of growth" which caused 700 flight cancellations and a billion francs of lost revenue (Attali, 1994: 13).

Though government support was crucial for Air France's strategy, such support was of course conditional on the political costs being within reason. Attali's mandate at the time he assumed control of Air France was imbued with pre-suppositions very different from the brief Colin Marshall received when he became CEO of British Airways. Although both men were charged with making their national carriers more competitive, Marshall's mission was to change the company from his level *downwards*, whereas Attali's socialization and personal assets as a *grands corps* manager mitigated for him to operate from his level *upwards*, working to advance his strategic agenda with government officials, other airline leaders, and the authorities in Brussels. The Transport Minister was both a sponsor of Air France and France's spokesman in EC civil aviation policy; with the Transport Minister's help, the EC's first two Packages maintained most of the old regulatory restrictions in intra-Community air transport, giving Air France the impression of having time to prepare its strategic initiative.[14]

[14] In the same just-quoted speech of 31 Oct 1990, Delebarre went on to say: "I have personally led, during the French presidency over the second half of last year, the work of the Council of Transport Ministers on a path balanced between the too audacious propositions of the Commission and the hesitancy of certain states. It's on the basis of this compromise, decided in

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4.6 The non-adoption of the network-based industrial strategy, 1988-1993

The following analysis of Air France's failure to hit upon the network-based strategy falls into three sections. The first section discusses the problem of *organizational fragmentation*, both intra-organizational fragmentation within Air France and inter-organization fragmentation between the three airlines belonging to the Air France Group created in 1990: Air France, UTA, and Air Inter. This fragmentation resulted in substantial structural impediments to reform and discovery of the new strategy. The second section shows how this organizational segmentation led to *piecemeal, half-hearted efforts at reform* during the Attali years. Three areas of strategic action are studied: the merger of 1990, the construction of the CDG hub, and the management of the fleet. The third section presents an *interpretation of top management's approach*, making reference both to sectoral characteristics (intra- and inter-organizational fragmentation) and to national ones (France's *grands corps* elite).

4.6.1 Organizational fragmentation

A variety of sources, including interviews, portrayed Air France as a highly compartmentalized organization, with poor information-sharing between departments. Attali realized the "formidable internal partitions" (1994: 17) and tried to do something about them. Whereas British Airways and Lufthansa had for decades produced weekly or bi-weekly company newspapers to inform employees about developments within the airline, Air France had literally no company newspaper. Air France employees had no access to what its management was up to aside from what they might read in the press or an occasional interview with a top manager that appeared in the glossy leisure magazine *France Aviation*. Thus, Attali created a weekly newsletter, *Air France Info*, very shortly after his arrival. The first issue of 25 November 1988 announced another valiant effort of Attali: the creation of a profit-sharing scheme and an explanation of how the annual bonus of employees would be calculated.

Despite these excellent intentions, *Air France Info* was a rather pitiful effort when set alongside *British Airways News* or *Der Lufthanseat*. A 2-4 page newsletter typed on a normal typewriter, it was cold and impersonal in style and very short in content. Appendix 1 reproduces the pages of *British Airways News* and *Air France Info* announcing their respective profit-sharing plans; the respective presentation formats speak volumes about differences in the way these airlines' management communicated with employees. Not until 1993 did

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Paris last December, that was adopted in June of 1990 in Luxembourg what is called the second package of liberalization measures."

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Air France introduce a genuine newspaper replete with pictures, columns of text, and a certain richness of information on company activities.

The other initiative taken by Attali to reduce the functional partitions within Air France was a decision of September 1991 to sell its Montparnasse office tower and begin construction of new headquarters at the Roissy-CDG airport, close to the company's operations. Again, Attali recognized the physical and mental gulf between the airline's managers and employees on the line and acted to remedy a problem he had bequeathed from prior administrators content to bask in offices near the Montparnasse boulevards, far from disagreeable airport noise. Furthermore, Attali took it on himself to walk around the airports *incognito* from time to time in order to gain a first-hand impression of things.

Nonetheless, the evidence that Attali himself adhered to a technocratic, top-down planning approach to company strategy is overwhelming. His own statements in the company magazine convict him beyond appeal:

> "I understand that one might feel a gap sometimes between the strategy defined for the long term and the management of day-to-day difficulties. It's a bit inevitable. I have set the course for reaching the goal. It is now up to the different hierarchical levels, by delegation, to translate them into daily practice" (*France Aviation*, Aug 1990).

The basic people, structures, and principles of organization were only marginally modified beyond the reforms needed to accommodate the acquisitions of UTA and Air France in 1990. The government was not particularly concerned about the still quite profitable airline, and Attali's brief did not include the mandate to shake up the management. Attali's basic approach was therefore to work with the people and structures that greeted him upon his arrival and to leave organizational adjustments largely to consultants called in to examine specific problems. The only real exception to this was Attali's recourse to Arthur Andersen in 1991 for an extensive audit.

In the key departments whose integration is a prerequisite for adopting the network-based strategy, Air France suffered from a debilitating separation of activities. The Program and Plan Department (responsible for the timetable) remained completely separate from the Commercial Division (with the managers of the various geographical routes). This was revealed in interviews and can be seen in Air France organizational charts. The first attempt at integrating the commercial and planning functions - a necessary step toward implementing the network-based industrial strategy, as shown in Chapter 2 - did not occur until 1992. Until that point, Air France's structure had remained unchanged since 1972 (interviews; also Attali, 1994: 111). The way timetable planning worked was as follows: requests from the Commercial Division were

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passed along to the Program and Plan Department which generated a timetable as best it could according to technical constraints.[15]

Unfortunately, the Program and Plan Department, along with the rest of Air France, lacked a proper accounting system for reconciling technical with economic imperatives. Both myself and Bordes-Pagès have collected countless anecdotes of company dysfunctions associated with Air France's ossified managerial accounting system. Timetable planning at Air France was oriented around a system of "route-by-route accounting" (*l'économie des lignes*) which was deeply entrenched in Air France's management practice. "Route-by route accounting" allocated a limited proportion of the airline's costs to each route. Bordes-Pagès documented a long list of "perverse effects" that resulted from the company's archaic accounting system. They all came down to the same thing: the Route Directors (Europe, Caribbean, Africa, Asia, North & South America) were making decisions about aircraft and scheduling in order to optimize the profitability numbers on their routes, but the numbers they used had only little to do with the overall costs incurred by the company as a result of their individual decisions. "The system is perfectly opaque because there is a complete gulf between decisions and their consequences" (Bordes-Pagès, 1994a: 11). The system was also antithetical to the implementation of a hub at Air France with the interdependence among routes a hub entails.

In fact, "Air France really does not have a real management accounting system" (Bordes-Pagès, 1994a: 11). The company secretary of Air France in 1995, Denis Olivennes, told me exactly the same thing in an interview: Air France fundamentally lacked the information and accounting systems to make proper business decisions. As a former technical director of Air France responsible for the fleet explained to me:

> The first year the A-320 came into service, the costs of training the new crews were allocated to it, whereas these costs had been amortized already on the 737. Whenever a new aircraft arrived in Europe, nobody wanted it! Let me tell you that when the A-320s arrived, the different Route Directors tried gently to pass them off on their colleagues because nobody wanted to absorb the costs allocated to them. And that's why there was a tendency for the route directors to say: don't get rid of the old planes. Which explains that the fleet of Air France was a relatively aging fleet compared to companies like Lufthansa and British Airways. (1995 interview)

Beyond just disjointed decision-making within Air France, top management also had to contend with disjointed coordination between Air France and Air Inter. Air Inter was at logjams with Air France. Ever since Delebarre's invitation of 24 November 1988 to the three companies to "coordinate" their efforts, Air Inter

[15] Until 1989, this department was called the Program and Development Department, but was renamed the Program and Plan Department as part of its new task of preparing *contrats de plan* with the state - poor auspices indeed for organizational innovation (*Air France Info*, 24 Oct 1989).

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had negotiated more or less in vain with Air France to obtain European flying rights outside of France. As Orly was a shorter cab-ride to downtown Paris than Roissy-CDG, Air Inter believed it could attract substantial high-yield traffic on intra-European routes to Orly, which also boasted connections to the provinces. Yet Air France, posting increasing losses every year after 1989 (in contrast to Air Inter's continued profits), rejected the idea of "fratricide" competition.

As a result of this "coordination," the managements of Air France and Air Inter remained embroiled in a null-sum game over the distribution of traffic rights. Air Inter succeeded only in obtaining a few minor destinations in Iberia under its own name along with some flights to European capitals using Air France flight numbers; in exchange, Air France acquired more flights on domestic routes. Ironically, the European Commission, as a pre-condition for approving Air France's takeover of UTA and Air Inter, required France to open 48 domestic and European routes to French operators outside the Air France Group prior to 1993. This meant ultimately that many tiny French carriers (TAT, Air Liberté, EAS, Minerve, etc.) ended up with intra-European routes, but not Air Inter. Frustrated, the PDG of Air Inter, Pierre Eelsen, resigned immediately after the European Commission approved Air France's takeover on 30 October 1990. The continuation of the saga is contained in the next section.

4.6.2 Piecemeal reforms: Merger, hub, and fleet

The publicly given rationale by Attali for Air France's acquisition of UTA and Air Inter is that Air France needed to have a domestic feeder network in order to compete again carriers like British Airways, Lufthansa, and the American mega-carriers. Attali's speeches are full of references to the hub-and-spokes fortresses of the American carriers and full of warnings to the threat these posed for Air France. During the late 1980s and early 1990s American carriers were adding 30%-50% additional capacity each year at the Paris airports (Roissy-CDG in particular was still unsaturated), and Attali was particularly obsessed by competition from American Airlines at Orly, where connections with Air Inter made it a more natural choice than Air France for passengers traveling to and from the French provinces.

Although Attali paid extensive lip service to the idea of constructing a hub, Air France made very little headway toward doing so under his tenure. The existence of the two-hub problem contains a partial answer to why this was so, but top-down strategizing was likewise an important factor. The following sub-sections cover Air France's piecemeal reforms in the areas of the merger, hub, and fleet.

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Merger. The timing of Air France's acquisition of UTA and Air Inter, coming just a year before the Gulf War and the steeply declining sector profitability of the early 1990s, was unfortunate. Air France's timing of the acquisition was unfortunate in another way as well. In 1989, an EC Merger and Acquisition Directive had created a new unit in DG-4 with special authority to monitor mergers and acquisitions within the EC. The Air France takeover of UTA and Air Inter fell under this unit's scrutiny and under the intense suspicion of the Competition Commissioner Leon Brittan. Implementation of the merger was held up for nine months until a supposedly "secret" agreement of 30 October 1990 (but duly reported in all the newspapers) was signed between the Commission, Air France, and the French government.

Though legal obstacles to the merger were lifted, very little happened in practice. The three airlines continued to exist as separate entities in the Air France Group. Various project groups were set up to find various operational "synergies." In one area management disposed of no master plan for realizing synergies: in staffing levels. A widely cited figure in the press was that Air France had approximately 10,000 excess personnel at its counters, based on simple comparisons with British Airways (Cartigny, 1991: 293). Yet already in November 1990, a decision to transfer merely 62 ground personnel from Air France to Air Inter led to a twelve-day strike at the Nice airport and the total capitulation of management (*Le Nouvel Economiste*, 30 Nov 1990). The Senate inquiry of 1991 concluded that staffing levels were indeed excessive, but that the company "is incapable of saying at the present time where the excess personnel exists and if it exists" (Cartigny, 1991: 295). In the mind of Attali, the whole topic was taboo. The companies had "their own histories, culture, management. We don't want one, single uniform on the companies, because the French are Cartesian and like beautiful organization charts ... We have to reorganize the companies, correct the frontiers and here and there transfer some staff. But that can be done without deep drama, without layoffs" (Attali, quoted in the *Wall Street Journal Europe*, 10 Dec 1990).

The Senate report of May 1991 noted with alarm the modesty of merger activities; the stated policy of "strong coordination" between the three companies resembled all too closely the status quo. Initially, according to the report, the merger had given rise to a mix of anxiety and positive excitement within the group, but the mood of the group's personnel became increasingly anxious when no real changes were enacted. "Nothing is worse than the current situation: management continues to hold a formalized discourse on the necessity of the regrouping and on the toughness of the impending competition. But the reality remains the same: the three companies co-exist without any mixing of the personnel ... The feeling is however that this cannot last and there will necessarily be some victims" (Cartigny, 1991: 303). It is open to debate whether such conservatism was due mainly to the passivity and poor communication efforts of Air France's management, as the partisan

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Senate report maintained, or to the volatility of industrial relations in the companies, as Attali (1994) maintained.

The deepest conflicts were with Air Inter, where ill feelings toward Air France was an intrinsic part of the company's culture. Many interviewees have commented on the defiant and "suicidal" attitude of Air Inter's personnel (particularly the pilots), who have continually resisted the idea of a merger with Air France. Air Inter pilots, for example, have feared that a merger would relegate them to second-class status in the caste-like hierarchy of seniority and route assignments (not to mention lower pay) and have fiercely opposed any form of absorption up to the time of writing. Yet there were also constant conflicts of interest between Air France and Air Inter managers about how they would divide up European routes in the post-liberalization era. After the resignation of Eelsen as Air Inter's PDG in October 1990, Attali selected a successor from the entourage of the Transport Minister. This was Jean-Cyril Spinetta, the *directeur de cabinet* of Transport Minister Delebarre and a respected acquaintance of Attali.

Initially, Spinetta went along with Air France's designs, giving up Air Inter's few routes to major foreign cities like London, Rome, Madrid, and Lisbon and taking on regional destinations like Porto, Seville, Malaga, Valence, and Nice-Brussels. This reshuffling allowed Air France to focus on (high-yield) business travelers and Air Inter to focus on (low-yield) tourists (*Le Figaro*, 11 March 1991). Yet Spinetta too came to identify with Air Inter's perception of its own independent interests and he too became frustrated with the company having to sacrifice its own commercial ambitions to the mounting losses of Air France. He phrased the matter diplomatically at first: "The group considers Air Inter as a dissuasive weapon vis-à-vis its European competitors, not a conquest weapon" (Spinetta in *L'Expansion*, 3-16 Oct 91). "The core debate between Air France and Air Inter concerns how the domestic and short-haul European market will evolve in the coming years. I ask myself this question all the time" (Spinetta in *France Aviation*, Nov 1991). Spinetta eventually resigned in 1993 at the same time as Attali, by which time the situation had become even worse, as Air Inter (still profitable in 1993) was asked by Attali and the Transport Minister to compensate for the losses of Air France, especially in rearranging the capital structure. By this time Spinetta declared flatly: "The idea that there exists a strong industrial and commercial synergy between the two companies is a lie" (quoted in *L'Expansion*, 6-19 January 1994).

Like all PDGs of Air Inter to this day, Spinetta was quickly greeted with a trial by fire from the company's unions: all 14 went on strike on 17 April 1991. This came shortly after a highly controversial decision made by Spinetta in favor of Air France: canceling the development of its Antares reservation system and signing onto Amadeus, the CRS of Air France and its partners. Antares was tailored to Air Inter's specific needs (rapidity, simplicity) and had

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already cost FF 80m; this was the system that Spinetta's predecessor Eelsen had so vigorously championed and which even his successor Spinetta judged risky to replace with Air France's more complicated-to-use Amadeus. A written agreement was necessary to stipulate the compensation Air France would pay in the event that its technicians failed to make the system operate on schedule; Air Inter managers viewed the decision as the *Diktat* of Air France (*La Tribune*, 17 Apr 1991). From interviews with an ex-Air Inter developer of Antares, it is clear that Antares, though technically brilliant, was out of touch with commercial trends in the sector, which was the movement precisely towards global distribution systems like Sabre and Amadeus. If Antares had been constructed, travel agents would have had to call up the Air Inter reservation system separately from the larger CRS on which most airline reservations are made, making it more time-costly for travel agents to use - and of course making it difficult to coordinate Air Inter flights with those of Air France or any other airline.

Oddly, insisting on the cancellation of Antares may have been Attali's most significant contribution to Air France-Air Inter coordination, for their flight planning remained basically uncoordinated until about 1995, well after Attali's departure. Air Inter was theoretically supposed to provide domestic connections to Air France's network at Roissy-CDG, but only 35% of its flights departed within the connection time slots of Air France as late as 1994. "The contribution of Air Inter [to the hub] is practically zero ... To succeed in making 65% of Air Inter's departures outside the connection time slots of Air France at CDG (despite there being seven a day), a lot of good will must have been required" (Bordes-Pagès, 1994c: 30 and 35). In other words, the entire justification for acquiring Air Inter - to construct a domestic feeder network - was never really operationalized.

In contrast to Air Inter, UTA was ultimately absorbed by Air France under Attali. During the first six months of 1991, Attali called on Arthur Andersen to carry out a comprehensive audit of the airline. The final document was reportedly quite devastating (I was unfortunately not able to obtain a copy), but it did lead to an extensive plan for reorganizing the company. The strategic plan was called Cap 93, negotiated with the union leaders and the ministries, and finalized in September 1991. One component of Cap 93 was the absorption of UTA, which took place at the end of 1992.

Hub. Attali did eventually try to construct a hub-and-spokes system for its own flights at Roissy-CDG. The idea of a CDG hub was contained in the strategic plan Cap 93; the planning of a sixth-freedom hub thus dates from 1991. Of course, the idea of constructing a hub at CDG was not new at Air France: earlier proposals to construct a hub-and-spokes system had been surfaced in 1977 and 1982 but shot down by the Route Directors (Bordes-Pagès, 1994c: 32). According to interview sources, the Route Directors,

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whose autonomy was threatened by the hub, continued to be the principal opponents to the idea. Cap 93 provided for the formal integration of the route operations and timetable planning into a common Routes and Timetable Department.

The timetable was initially arranged to provide seven daily time slots for connections. To be sure, the existing layout of Air France's terminal ("CDG 2"), whose design had been left to Aéroports de Paris, was not ideal for this purpose. The terminal was divided into four separate pavilions, two on one side of the road loop and two on the other, and was not designed for passengers to change planes. Yet even with these obstacles, sixth-freedom traffic at Roissy-CDG accounted for 35% of Air France's traffic by early 1994, not far behind the 40% share of transfer traffic of British Airways at Heathrow.

Nonetheless, a detailed investigation of the Roissy-CDG hub by Air France's indefatigable Gilles Bordes-Pagès concluded in late 1994 that the CDG hub was in reality a "non-hub." The central conceptual flaw was that *Air France had opted for hub connections between short-haul flights only*, whereas the real payoff came from providing connections between short-haul and long-haul flights. The report also explained why: "The Gulf crisis was hitting air transport with full force. The partisans of the hub therefore 'sold' their idea of a hub in explaining that it would not cost anything. The simplest way was therefore to construct a short-haul to short-haul hub" (Bordes-Pagès, 1994c: 32).

In fact, closer analysis revealed that Air France's hub connections were actually very poor. Appendix II shows that the ratio of possible hub connections actually remained unchanged between 1991 and 1994. The seven daily time slots for connections instituted under Cap 93 spread the number of hub connections too thinly throughout the day (later timetables in the post-Attali era reduced the number of connection time slots to remedy this). As late as 1995, Air France estimated that poor connections at CDG cost the company FF 500m in annual revenues (*France Aviation*, 27 June 1995).

Not surprisingly, the non-implementation of the hub was accompanied by the non-implementation of the yield management tools needed to support it. A separate report by Bordes-Pagès on Air France's yield management systems concluded that "British Airways, United, and American Airlines are more than 10 years ahead of us, and it will take about three years [by purchasing a new yield management system from Sabre Decision Technologies] ... to go from the concept of yield management to full implementation of all the flights of an airline" (1994b:46). The company had established a new capacity management unit (*salle des marchés*) in 1991, but it only treated 400-500 flights per day and all the changes had to be done manually.

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As for yield management tools generally, Air France had taken an interest since 1986 (even before Lufthansa), bought a first-generation yield program from Unisys (ARE 3, renamed Trésor by Air France), but before this tool had been fully absorbed by the organization, the technology evolved, and in 1991 Air France installed Unisys' ARE 5 (baptized Opera by Air France), a second-generation yield management tool - but only on the mainframe, not on the entire reservation system.

From this point on, according to Jean-Luc Galzi, an Air France systems analyst and later head of Revenue Management, the company became locked into a pattern of not installing its information-processing tools for the sake of awaiting yet further refinements and functionality enhancements (such as integrating the network of Air Inter): a constant "retreat forwards" (*fuite en avant*), as Galzi put it. Thus, Opera was still not commercially operational three years after its initial installation on the mainframe. By 1994 Galzi was arguing fervently against further postponement of installation of Opera. "We have to abandon the wait and get going. The logic of waiting for the best system quickly leads to immobility. Opera already suffices for doing good things" (quoted in Bordes-Pagès, 1994b).

The systemic error insisted on by Bordes-Pagès and Galzi was that Air France had become cognizant of yield management at an early stage but had managed it as a compartmentalized, purely technical problem. Management had been oblivious to the need to alter the logic of the company's commercial strategy, to reorganize work structures, and to retrain the sales organization to make use of new selling tools. It is not surprising, then, that in Attali's strategic plan of December 1991 (Cap 93), yield management is mentioned almost casually as an operational improvement among others: "This new computing tool will allow us to improve the techniques for managing passenger flows and better regulate high-yield and low-yield traffic" (Source: Cap 93, in Attali, 1994: 271). This is all that Cap 93 said about yield management. The deeper organizational requirements of a modern yield management system were simply not understood at the pinnacle of the hierarchy. As Galzi explained: "It [yield management] has to be accompanied by another investment, enormous, in the area of people: qualifications, training, organization of work, practices - It is on this investment that the company is furthest behind" (quoted in Bordes-Pagès, 1994b).

Fleet. Top management's strategic preoccupation during the Attali years was not on the marketing or information-processing side at all, but on a more glamorous issue: buying aircraft and rejuvenating the aging Air France fleet. Attali inherited a substantial problem. In the mid 1980s, Air France registered substantial book profits by foregoing investment in new planes, making due with its existing aging fleet, and investing the free cash flow in real estate. In this way it built up the substantial cushion of cash needed to buy UTA in 1990.

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Taking advantage of a weak President at the time, the company's Director General focused on posting hefty annual book profits rather than taking a long-term investment perspective. By simply recording good financial statistics, Air France could keep interference by the state to a minimum. A former President of Air France summarized management's attitude of the time as follows: "The important thing is to show a profit, so that state control is less onerous" (quoted in Cartigny, 1991: 219).[16] As the Senators determined: "In reality, the state is satisfied with a company that doesn't cause problems, pays its taxes, makes a profit, pays dividends, even modest ones. The state favors the short term over the preparation of the future" (Cartigny, 1991: 219).

The reversal came with Jacques Friedmann (1987-88) who increased the volume of new aircraft orders. By the late 1980s Air France was having to lease an increasing share of its aircraft from other carriers (often with the other carriers' livery on it). To finance the fleet expansion, Friedmann envisioned floating 30% of the Air France shares, but the stock market crash of October 1987 caused this project to stall. After the Socialists returned to power in 1988, Mitterrand announced his privatization policy of "*ni-ni*" (i.e. neither nationalization nor privatization), thus forcing Air France to finance its fleet purchase with loans. Attali accelerated the shopping tour. By April 1990, the Air France Group had 196 aircraft with orders for 240 more (130 firm orders and 110 options; *Air et Cosmos*, 28 Apr 1990). As the French civil aviation system was not training enough pilots, Air France joined forces with Lufthansa to have pilots trained at its own expense in the US.

Beyond just the financial risks of fleet expansion was the problem of the fleet's productivity. The Senators had noted particular productivity deficiencies on the short- and medium-haul fleets, where A320 pilots had to be paid full salaries on up to 20% of unused working time (Cartigny, 1991: 277). My own interviews revealed no end of anecdotes about long-haul routes in which entire crews would be on weekly vacations in foreign destinations. Cabin crew often had so much slack in their schedules that they had second jobs. One interviewee reported:

> When a cockpit employee returned from vacation, the first thing he did was take a rest period. Why? Because returning from vacation there was no way of monitoring what he had done during his vacation; he might have been wind-surfing so hard that he no longer had the physical aptitude corresponding to a rest period. Now it's different, of course ... It used to be transport for the rich, for rich pilots, and now it's over. And did it ever provoke reactions! But that is how we lived for 30 years. Someone returned from vacation and began by taking another vacation before flying again.

But productivity problems were not only due to restrictions on the use of personnel. The planning functions worked poorly. As consultants, first Peat

[16] "L'important c'est d'être bénéficiaire, la tutelle pèse moins lourd."

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Marwick (1990-91) and later Arthur Andersen (1991) tried to work with the various departments involved in order to improve operations. In point of fact, it was not the management of Air France but the pilots' union that in 1990 complained about the poor planning procedures in the company and led to a call for assistance from Peat Marwick. The consultants' report underlined that the low productivity resulted from poor coordination in planning among three departments responsible for the deployment of cockpit crew: the Commercial Division, the Program (timetable) Department, and Flight Operations (Cartigny, 1991: 278). Judging by company studies conducted after Attali's departure, the improvements brought about by Peat Marwick and later by Arthur Andersen were limited in scope.

A post-Attali study of February 1994 concluded that the excessive heterogeneity of the fleet and poor scheduling resulted in excess annual operating costs between 500m and 1bn francs, and 300m francs in excess costs in cockpit personnel alone (about 5% of total personnel costs). Technological changes, stop-and-go patterns of aircraft purchase, lack of a coherent fleet procurement policy, and political pressures to buy Airbus had all contributed to a proliferation of sub-fleets (Bordes-Pagès, 1994a). Air France wound up with a greater number of sub-fleets, despite having fewer total planes, than either BA or Lufthansa (as shown in the statistics of Chapter 2). It was common practice for Air France to mix the types of aircraft on its routes, and because cockpit personnel are qualified to fly only a given range of aircraft, Air France's pilots at the end of one flight could not take to the skies again until aircraft of the right sub-fleets arrived at their station.

Why did Air France mix its aircraft types rather than homogenize its fleet? According to the former technical director who was in charge of Air France's fleet planning until retirement in 1991, a chief culprit was the combination of Route Directors and "route-by-route accounting": compartmentalized accounting responsibilities and the inherited system of cost attribution failed to provide any positive incentives to the Route Directors to homogenize their aircraft requests. Of course, some Route Directors did criticize the ossified accounting practices. Clearly, however, the interviewed former technical director was not exactly one of those who agitated for change but ascribed such criticisms of the accounting system simply to the self-interested calculations of individual Route Directors:

> There was a sort of pressure exerted on the choice of planes so as not to multiply the number of existing models. I can tell you that this was a complete fiasco, a complete failure, and as time passed - look at the current situation at Air France that they are now reviewing - we never had so many models in Europe, on long haul, besides the 747 there is the A-340, the A340-200, the A340-300, the 747-400 ... The instructions given were always "reduce the number of existing models" and you always had a pressure from the commercial managers who said: "But for us to develop such a route we need a model corresponding to its characteristics" ...

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This managerial accounting system always generated a lot of criticisms, with people always criticizing it according to the type of plane they had until they changed their route bundle. He who criticized the A-320 when it didn't give him an advantage, as soon as he had another plane, he would criticize it in the same way.

Besides the fleet's poor physical productivity, Air France also suffered from poor *commercial* productivity owing to poor frequencies in the timetable (likewise shown in Chapter 2). Attali's strategic plan Cap 93 concentrated the Air France network somewhat. Yet Air France remained geographically over-extended relative to its fleet size, resulting in an inability to offer a competitive timetable relative to competitors. Air France's schedule was full of non-daily flights, few flights per week to a given destination, and many stopovers rather than non-stop flights (Bordes-Pagès, 1994a). Thus, in the post-Attali era, Air France reduced the number of flights with two stopovers from 19 to 3 (*France Aviation*, 27 June 1995).

4.6.3 Interpretation of Attali's management approach

Interviews, press reports, and Attali's own book *Les guerres du ciel* give a fairly convergent view of a CEO who worked extremely hard, was articulate and well-intentioned, but who insisted on doing all the strategic thinking and planning himself. The bifurcation between strategy formulation and implementation was carried to an extreme; basic directives were formulated at the top and then disseminated in the form of letters sent to the various departments. The implementation of these directives was left to the vicissitudes of bureaucratic processes. Amidst some minor delayering after the 1990 merger (from 7 to 5 levels in certain areas), the company's basic structure, the top management personnel, the decision-making procedures, and the basic culture of the company budged only marginally during Attali's tenure. The 1994 reports of the pilots' union representative and *conseil d'administration* member Gilles Bordes-Pagès harped on the lack of any "feedback loop" within the company to ensure that initiatives were actually through on: "The managers complain often that their decisions are not quickly followed by any effect, but an off-hand directive is not a directive: no-one feels responsible for it or else everyone wants to grab it" (internal company report cited in Bordes-Pagès, 1994c: 37). In other words, the company lacked systems for holding individuals responsible for the implementation of action plans.

Air France's CEO was aware of the operational, bureaucratic outlook of his managers, but his view of how to change this reflects a limited arsenal of methods for making a complex hierarchy work efficiently:

The middle managers (*cadres*) of Air France ought to have played an essential role in the transformation of the company. Many are admirable, capable, or better. I

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received, visited them by the hundreds. For five years I devoted lunches and dinners to them at the expense of my whole personal life. The ground personnel as well as the cockpit personnel, to understand and send messages. I have to admit to myself today: it was, in the short term at least, without any major impact on their collective inertia (1994:85).

In his attempt to effect change all by himself, Attali evidently failed to distinguish clearly between decision-making and organization-changing actions, between strategic decisions on the one hand and overarching activities to modify the overall organizational context in which decisions were made and carried out within Air France on the other.

In addition, top management was allergic to any "destabilizing" actions. Arthur Andersen proposed decentralizing the company's operations into separate profit centers (which Attali's successor Christian Blanc did in 1994), but Attali wanted precisely to "prevent any destabilization of the management ranks through excessive or random structural changes." Citing the failure of such reforms at Iberia and Sabena (but passing over the experience of British Airways in silence!), Attali recalled that "my motto was calmer: carry out reform, not revolution" (Attali, 1994: 107). This motto helps explain Air France's pattern of minor adjustments and compromises.

The top management style can be summarized as "top-down strategizing." A partial interpretation of this style, certainly, is that it reproduced to an almost stereotypical extent certain behavioral patterns consistent with France *grands corps* elite ("technical experts elite of engineers cum industrial managers, cum high level political and administrative personnel"), as explained in section 4.3. A complementary interpretation takes into account the exceptional (intra- and inter-) organizational fragmentation of Air France and the Air France group. With such a cacophony of interests and viewpoints (even in technical matters), so much top management time and effort was devoted to containing social conflict that details of strategy implementation were delegated to lower levels.

To deepen our understanding of these issues, it is fruitful to probe the ideological underpinnings of Attali's management style. The first point to make is that Attali's timidity in merging the three airlines of the Air France group was essentially a continuation of the Transport Minister's decision of 24 November 1988 leaving the basic boundaries within the sector untouched while inviting the three incumbents to "coordinate their activities." Discourse analysis of statements made by Attali and Transport Ministries reveals a recurrent archetype of rhetorical justification for avoiding painful changes based on the supposed existence of a middle road between inertia on the one hand and "the law of the jungle" in "ultra-liberal" countries like the US on the other:

To succeed in making a coherent ensemble of three distinct companies, two extreme approaches were possible. That of *"intégration dure"* of the three companies: past

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> experiences, notably in the US, have proved that this approach was not the most efficient. That of *"cohabitation douce"*, which risked causing a precious loss of times on the eve of the key date 1993. In fact it is a third way that has been chosen, that of *"coordination forte"*, which will preserve the specificity of each of the companies while guaranteeing the greatest synergies among them. (Air France press communiqué of April 1990, cited in Cartigny, 1991: 237)

> The truth is that there is not on one side the "champions" of the free market, defenders of the consumer, and on the other side the "conservatives," attached to their supposed "situational rents" ... In reality there are those who, while being favorable to a liberalization in conformity with the Rome treaty, wish for it to be conducted on this side of the Atlantic at our own pace, in an "ordered" manner, for the consumer as well as the companies. (Attali, *Le Monde*, 6 Oct 1989)

> In our industry, doesn't sobriety mean choosing a halfway solution between two extremes, ultra-liberalism and re-regulation, the jungle or bureaucracy? (Attali, speech before the European Commission's Committee of Wise Men for Air Transport, 16 Sept 1993).

> This [air transport] policy refuses protectionism which consists in rejecting modernism, competition, criticism and eventually leads to finding oneself so uncompetitive that one is purely and simply wiped out. This does not however mean accepting the ultra-liberalism typical of Brussels which is but the renunciation of all political will for the sake of the sole law of competition, or I was going to say, the sole law of the jungle. The government favors ... a progressive, fair, and healthy competition, constructed around the best service for users and a social project for men and women working in the air transport sector (Transport Minister Bernard Bosson,[17] speech to the National Assembly, 20 Dec 1994).

To see only the fear of social unrest as the real motivation behind these statements would probably be an over-simplification. The emphasis on "ordered" processes of adjustment can be seen as part of the "technocratic" mind-set likely to prevail among *grands corps* members. The institutionalized segregation of administrative elite members from lower levels of their organization, the engineering or administrative focus of *corps* members, and of course the heavy mediating role of the French state (also governed by *corps* members) all favor "orderly" processes of adjustment as they do top-down strategizing.

One piece of the picture that emerges from discourse-analysis is the contradiction between the ideology of common French interests and the reality of distributive struggles among the various airlines, regulators, and professional groups in civil aviation. Just as the policy-makers' rhetoric of coordination, complementarities, and fratricide combat papered over a reality of constantly conflicting interests between Air France, UTA, and Air Inter, there was a notable tendency of sectoral actors to see conflicts between organizations not

[17] Bosson belonged to the UDF party, the most market-oriented of the conservative parties that came to power after the defeat of the Socialists in the 1993 elections.

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in terms of objectively conflicting interests, but in psychological terms as caused by individual or group attitudes (a phenomenon frequently noted in studies of France). Bernard Attali in particular had a penchant for attributing conflicts of interest to issues of personality or bad will:

> For them [the personnel of Air France], the success and independence of Air Inter was due to their leaders' lack of judgment. Giving traffic rights to UTA was the betrayal of the politicians. The lack of coordination between Air France and Air Inter at Roissy was both, plus the desire to divide - in order to conquer - of the Aéroports de Paris. These traumas ... create even today a three-fold suspicion: towards management, towards the Aéroports de Paris, and toward the state (Attali, 1994:23).

> These two enterprises [Air Inter and UTA] had the same job, were about to confront the same crisis, but, culturally, they hated Air France. Their leaders were in large measure responsible for this, of course. It took me little time to discover that René Lapautre [PDG of UTA] and Pierre Eelsen [PDG of Air Inter] had introduced into these airlines, each in his own manner, the worst of all "poison pills": mistrust (1994:92).

> The Crédit national acquired our participation in TAT [a regional French carrier] a little later. It was difficult to imagine in late 1990 that this great French institution would place the control of this enterprise two years later in the hands of - British Airways. One is never betrayed except by one's own, they say. Let's see. Can one imagine the German banking system acting in this way? (Attali, 1994:91).

Regarding this last point, one actually can imagine Attali's scenario of national treachery happening in Germany, and even Attali himself might have imagined it, for it already *had* happened while Attali was CEO of Air France: in 1992 a consortium of German banks took a 51% founding shareholding in Deutsche British Airways, a carrier on domestic German routes competing head-to-head with Lufthansa. Nonetheless, Attali's presupposition is an interesting testimony to the belief in the norm of common French interests.

Although Attali's diatribe undoubtedly has some roots in individual psychology, it also reflects the contradiction between an ideology of common interests advanced by French elite leaders and the reality of highly fragmented interests within and among French organizations in the air transport sector. At Air France, Air Inter, and the Parisian airports (Aéroports de Paris), interviews suggested the classic syndrome of French social relations: mistrust between the organizations generally; department managers without the prospect of promotion who ran their operations as little fiefdoms; strong social differentiation between hierarchical levels and different categories of personnel; and a multitude of competing, fragmented unions.

Given this contradiction between a common-interest ideology and the reality of highly fragmented interests, it was difficult for Air France's management to undertake actions that entailed clear winners and losers. Instead, half-hearted, piecemeal reforms were carried out that remained subordinate to the goal of maintaining a façade of common coordinated

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interests. Under such conditions, it is not surprising that Air France's management appeared more concerned about containing distributive conflict within Air France and the Air France Group than in pursuing fresh commercial opportunities.

Nowhere is this seen more clearly than in Air France's failure to adopt the network-based strategy. Though the planning and commercial functions were integrated, though money was invested in yield management, and though Air France made a feeble stab at constructing a CDG hub, these were mere refinements, without any overarching framework for strategic integration in the strategic plan Cap 93, which listed these changes as details among many others refinements. As for coordination between Air France and Air Inter, the whole notion of hubbing was evidently perceived as a competitive *threat* to be warded off rather than as a platform for developing the company. Air France appears to have been more obsessed with preventing UTA and Air Inter from developing alliances with foreign companies than he was in truly integrating their activities into the network of Air France.[18] Lip service to the hub notwithstanding, the priority was to minimize conflict between the three companies - for all intents and purposes, flight planning was not coordinated at Roissy-CDG (Bordes-Pagès, 1994c).

Management thus did not attack the fundamental nature of the organization in any systematic way nor institute any kind of program to promote deeper structural and cultural changes within Air France. Attali's technocratic approach can be framed as a failure to distinguish between what evolutionary theorists refers to as higher-order and lower-order "routines" (Nelson, 1991; Iansiti and Clark, 1995), to comprehend what Tushman and Romanelli (1985) refer to as the "hierarchy of organizing activities" or what strategy researchers call the difference between content and process (Bower and Doz, 1979). Although Attali and his consultants recognized a number of organizational problems, their remedies were piecemeal and of a timid, compromise nature. Top management's attention remained riveted on "lower-order" details of strategy and structure, but not on the "higher-order" issues of company culture, the fundamental strategic reorientation needed to harness the potential of new information-processing technology, and the company's basic approach to markets. The preceding analysis has shown how Air France recognized the threat posed by UTA and Air Inter in the context of liberalization and acted to neutralize that threat, but failed to implement the deeper changes needed to build a competitive hub or mitigate zero-sum thinking inherent in its strategic "coordination" with Air Inter; how Air France recognized deficiencies in its aging fleet but tried to remedy this merely by buying new airplanes, without fundamentally evolving its decision-making and organizational systems in such

[18] As Attali recalled: "What President of Air France could let the African network and the blocking minority of Western Europe's largest domestic carrier slip into foreign hands?" (Attali, 1994: 50).

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a way as to make economically efficient resource allocation decisions in fleet procurement, timetable scheduling, and crew planning. Thus, Air France did not adopt, or recognize the need to adopt, the network-based industrial strategy.

4.7 Satisfying the stakeholders: Attali's fictions about the environment

The preceding sections hypothesize that in view of the contradiction between a national norm of common French interests and a reality of highly fragmented company and sectoral interests, Air France's top management style was characterized by top-down strategizing. This style was consistent, furthermore, with the elite background of appointed Air France Presidents. Yet there is a need to go deeper than this. A further component of the CEOs management style was the *production of ideology-based fictions about Air France's economic and regulatory environment.* Though it is possible to see these fictions as by-products of a lack of business acumen, a more likely hypothesis is that such fictions were generated to satisfy Air France's stakeholders, principally employees and the state (with whom it had planning contracts). The following interpretation of Attali's management style, then, is that it was rooted in a stakeholder context that permitted fictions about Air France's economic and regulatory environment but did not easily accommodate a realistic evaluation of objective constraints. This helps explain why Attali, rather than seeing regulatory and economic constraints as objective difficulties to be negotiated, engaged in extensive ideology production.

A classic definition of business strategy is the set of decisions by which a company adapts to its environment (Hofer and Schendel, 1978). A commonly observed variation of this strategy, of course, is for companies - on the contrary - to influence and reshape their environment, especially through political means. Civil aviation, because of its highly regulated and bilaterally governed nature, obliges most major scheduled carriers to deploy both approaches: adapting *to* the environment (economic adjustment) and adapting *the* environment itself (i.e. influencing the environment) to fit the needs and especially the sunk costs of the airline (political adjustment). Without a doubt large French enterprises with links to the state find it institutionally less costly to pursue the latter type of strategy than the former a great deal of the time. At Air France, Attali relied on both approaches. What the following discussion will try to show is not so much that Attali relied too heavily on political adjustment strategies as opposed to economic adjustment ones (although this may be true), but rather that both these types of adjustment at Air France were prone to the production of ideology-based fictions.

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Air France's business environment worsened continually after 1989 as yields declined. Starting in late 1990, management's response was simply to accommodate each batch of disappointing figures with a new decree of cost reductions. The overall targets were decreed at the top and implementation was left to lower levels. Standard though this procedure may seem, the British Airways and Lufthansa chapters shows that alternative management approaches are conceivable and were even necessary. This is not to deny management's limited bargaining power with the unions, a handicap arising in part from state ownership and heightened by the vulnerability of the government to social unrest in the 1990s. Nor is it to deny management's success in genuinely lowering unit costs and overall staffing levels in the 1990s (from 39202 in 1991 to 35723 in 1993 at Air France; source: *France Aviation*, 27 June 1995). Yet management's responses were simply reactive, with one cost-reduction plan announced after the other as performance fell. This is evident in the very names of Attali's last two cost reduction exercises: Program for the Return to Equilibrium 1 (PRE1) and Program for the Return to Equilibrium 2 (PRE2), announced in October 1992 and September 1993, respectively. It was PRE2 that provoked Attali's downfall when the ground personnel occupied the runways in protest in October 1993.

Attali's reactive, stop-gap approach to the worsening of results are clear even from his own account. The original version of PRE2 had been viewed as insufficient by the Transport, Finance, and Labor Ministries in August 1993. A letter signed by the three cabinet directors of these ministries enjoined the management of Air France to increase its annual savings by an additional billion francs. Attali's reaction: "A shock: we have to strengthen our plan by 25%. It's difficult, but after all, the shareholder is the boss. I get back to work" (Attali, 1994: 211). By August 31, however, Attali addressed a note to the ministries warning them about the "social acceptability" of further cost-reduction measures and that one day of strikes results in more than FF 100m in lost revenues (1994: 211).

Once Attali had made his large-scale commitments to fleet purchases and pilot training programs by early 1990, a certain inflexibility was built into Air France's strategy. As yields, profitability figures, and other unpleasant signals from the environment came in, Air France's management invented rationalizations of the situation which justified maintaining the prior strategy. For example, when load factors and yields were sagging in the summer of 1990, Attali had three simple explanations at hand: 1) Hurricane Hugo in the Caribbean, 2) visas and taxes in Algeria, and 3) too much competition on the North Atlantic (*France Aviation*, Aug 1990). Even after the invasion of Kuwait, Attali insisted:

> "If Air France is suffering from falls in traffic in certain sectors and a high increase in its operating expenses due to the third oil shock ... the current difficulties do not call into question our recruitment and pilot training programs, nor our aircraft purchases of

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the coming years. We will not sacrifice the future to the present." (*Air France Info*, 9 Oct 1990).

As yields fell even further, management began to blame the problem on cyclical overcapacity. The following pronouncement by Air France's group planning director documents how locked in the company was to a previously formulated strategy and to a narrow interpretation of reality to justify it:

> For months we have been going through a crisis that now takes the form of an overcapacity crisis. And it's worth remembering that air transport is structurally and periodically exposed to it ... It is often necessary to make investment decisions at the very moment where the company's situation is deteriorating. The economists agree: it's in a period of stagnation that one should invest. (*France Aviation*, Oct 1992)

The term "overcapacity" became something of a stock phrase in Attali's public statements of 1992 and 1993, responsible for all the ills of Air France. By July 1993, he was stating that the airline industry crisis could be traced to a single source: excess capacity (cited in *Der Lufthanseat*, 30 July 1993).

In contrast to Air France's periodic cost-reduction mandates, market-oriented airlines at this time were preparing employees for an environment of permanent yield declines and actively building organizational systems to routinize productivity enhancements. Adhering as it did to its theory of cyclical industry overcapacity, Air France's management issued successive cost-reduction decrees as one-time adaptations to an unpredictable business cycle. A mind-boggling budgeting assumption presented to the conseil d'administration in January 1993 was that Air France's yields would remain constant in 1993 vis-à-vis the preceding year (*Air France Info*, 28 January 1993), although yields had declined by 7% in 1992 at Air France and industry observers were universally predicting further yield declines for 1993. While Attali consistently denounced "ultra-liberalism" and the "law of the jungle," Air France's management clearly failed to admit the fundamental difference between competing in a regulated and in a deregulated industry environment.

In terms of influencing his environment, Attali actively lobbied the authorities in Paris and Brussels and worked with other troubled airline managers to produce IATA and AEA proposals for dealing with the airline crisis of the 1990s. His lobbying efforts were more effective in Paris than in Brussels. After the 30 October 1990 agreement with the EC on the traffic rights France would have to grant to smaller French carriers in order for the takeover of UTA and Air Inter to go ahead, the French aviation authorities complied in a manner that resulted in Air France and Air Inter facing mitigated competitive threats. Though space does not permit documentation of this, the Senators commented on the attribution of routes to smaller French carriers as follows: "If the state had wished not to facilitate emerging competition, it would have behaved no differently than it did" (Cartigny, 1991: 116).

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In Brussels, on the other hand, Attali became embroiled in a relationship of deep animosity with the Commissioner for Competition, Sir Leon Brittan. Indeed, Attali became an outright antagonist of the Commission, regularly denouncing the "ultra-liberalism" of the Commission as the naive import of American free-market ideology. Whatever the merits of Attali's grievances, it can be doubted whether Attali's shrill manner and rhetoric served the interests of Air France. Interviewed officials at the Transport Directorate (officials of the Competition Directorate adamantly refused to talk to me about Air France) made no secret of their vexation with Attali, who, among other things, tried in vain to use his political network to the block the passage of the Third Package in 1992. Attali was the *enfant terrible* of the sector, making inflammatory statements like the following in Brussels:

> Let's put a stop to this hypocrisy ... Having exported its ultra-liberal dogma to the rest of the world - and, in particular to Europe - the United States has been ... bolstering the worldwide offensive of their principle champions ...
>
> Hypocrisy in the United States, but also confusion in Europe. Our British friends, not to mention any names, call themselves apostles of liberalism and all-out competition. These are, however, mere words. The reality is quite the opposite. Apostles of British liberalism carefully close the doors of Heathrow and continue to reap the easy profits of ... Bermuda II, signed in 1977. (Attali, speech before the European Commission's Committee of Wise Men for Air Transport, 16 Sept 1993).

Needless to say, this Anglophobia extended far beyond just the individual Attali. Up to the time of writing French air transport policy has been preoccupied by the threat of a takeover of the sector by aggressive UK carriers like British Airways. While interviewed civil aviation officials privately express their admiration for British accomplishments in air transport, the British are regularly cast as an enemy power in public French political debates on the subject.

Whatever their real motivation, Attali's endless polemics against Anglo-American "ultra-liberalism" and "hypocrisy," against the "naïveté" of Brussels, against the "psychosis" of the pilots and the "egoistic bidding" of the union leaders (1994: 75-8), against the "levity" and "absence of authority" of the government (1994: 219) for not supporting him in 1993 all point to a world view unwilling to distinguish between ideological preferences and objective differences in self-interest. Rather than seeing regulatory and political constraints as objective difficulties to be negotiated, the posture of Air France's CEO was to ascribe them to ideological and psychological characteristics of individuals and people. Thus, his method of remedy was to preach the "right" ideology to government officials, regulators in Brussels, and the personnel. Attali recounts:

> So, no regrets? Alas, immense ones. First, that of not succeeding in removing from the minds of the personnel an overly simple idea: the state must pay. And yet I

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> spent five years saying to everyone: "... The salvation of Air France is always up to Air France itself." I preached. In vain, I must admit. (Attali, 1994: 84)

In view of the fact that the French state did, in fact, agree to provide Air France with subsidies of FF 20bn in 1994, the Air France personnel evidently perceived the objective reality more accurately than Attali admits. It was the same with opposition to the Third Package, his strategic alliance with Lufthansa announced in 1989, and a variety of other regulatory issues that Attali became actively involved in during his tenure as CEO: Attali engaged in a great deal of rhetoric and symbolic action which did little to alter the basic facts of the situation. Thus Attali himself was one of those targeted by a comment of the European Commission's Wise Men's Committee of 1994: "The Comité was unwilling to accept misleading slogans and catchwords like 'jungle of ultraliberalism' or 'state support for lame ducks' which so often were the only available substitute for a solid and honest analysis" (Comité des Sages, 1994).

An equally vain exercise was France's denunciation of the US-France bilateral in May 1992. It was Attali himself who had advocated denunciation, overcoming the Prime Minister's hesitations (Attali, 1994: 154). From the point of view of subjective fairness, the French position was understandable: America's carriers were making capacity additions of 40% a year at the same time they were unleashing relentless price wars, and meanwhile Air France was having considerable conflicts with Sabre (owned by American Airlines) over discriminatory tactics in flight reservations. Yet like many of Attali's political moves, denunciation of the US-France bilateral made a bold statement without altering the objective constraints confronting the company. In fact, nothing really changed in this area. The US and France merely bargained over capacity on an annual basis, and US carriers continued to add substantial capacity as the Paris airports welcomed the additional revenues. Meanwhile Air France effectively lost whatever options it may have had to negotiate a code-sharing agreement (for which the US authorities would have demanded an "open skies" agreement). French denunciation actually helped Lufthansa more than anyone else: realizing that approval of the US authorities was needed for a code-sharing alliance with United, Lufthansa used the threat of outright denunciation, made credible by the French example, to obtain concessions from the US in a provisional agreement negotiated in 1993. The root problem, unchanged by denunciation, was that France's negotiating position was very weak.

Arguably, the confusion between ideological doctrine and objective constraints went deeper than just the individual predicament of an Air France CEO and was rooted in French institutional patterns. The concentration of authority in the hands of a homogenous elite probably contributes to a view of the world in which the removal of political constraints is tantamount to persuading the right people. This concentration is perpetuated by France's system of control (*tutelle*) used to monitor state-owned enterprises. In this

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system, the state is owner, operator, and regulator all at once. As a government-sponsored report on France's public services put it, "the state finds it difficult to distinguish among its own roles" (Stoffaës, 1995: 78).

It has been pointed out above that Air France's CEO had a penchant for doing all the strategic thinking himself. Whether or not this was wise from a business perspective, it was evidently helpful in obtaining government approval of Air France's business plans in the planning contracts with the state. Air France's conseil d'administration was not a decision-making body in any real sense, for Attali simply announced to it what decisions had already been agreed by the government. The board had only to rubber-stamp the company's most important strategic plan under Attali, Cap 93:

> The Transport Minister, the Director General of the DGAC, the cabinet of the Economics and Finance Minister, the Directors of the Treasury and the Budget, the cabinet of the Prime Minister, everyone had known about it and approved it prior to the conseil d'administration on 25 September 1991" (Attali, 1994: 109).

Yet even in this case the Jacobean pattern of escalating decisions to the very top of the national power pyramid had not run its course; after the conseil d'administration meeting, Attali was summoned to the Hôtel de Matignon and chewed out by Prime Minister Edith Cresson for not consulting her personally about the strategic plan (1994: 110).

Dependent on government backing though he was, Attali was doomed the moment Air France's social problems began to impose excessively high political costs on the government in power. After initially supporting Attali's 1993 savings plan (PRE2), the conservative Balladur government lost its nerve in October 1993. The explosive issue was a management decision to reduce overtime pay for night-time and holiday labor (a 50% reduction of the *primes*) for ground personnel and reimbursement for business-related car travel. Air France personnel began occupying the airport runways at Orly in an eruption of ire that ended only when the Transport Minister announced the withdrawal of the savings plan PRE2 on public television. A few minutes later, Attali resigned (as did Spinetta at Air Inter). It took days for the situation to return to normal.

The blind spot entailed by such tight Air France-French Republic links was the gulf between top management and company operations. The savings plans were conceived at the top, approved by the government, and then sent downwards into the organization without the necessary tools to implement cost savings in a meaningful way. This was the conclusion reached in the post-mortem diagnosis of the company carried out by SMG, a consulting firm run by noted French sociologists: "It became apparent that the managerial system was incredibly inefficient ... Accentuating productivity pressures did indeed lead to greater constraints on the personnel, but not to an improvement of results" (Crozier, 1995: 134). In light of what has been said about Air France's

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management accounting system, this is not surprising.[19] The conclusion of SMG, reached after a month of interviews with the personnel, was that the explosion of labor unrest on the runways in October 1993 expressed the accumulated frustrations of employees with management directives whose cumulative demands resulted in operational incoherence and self-defeating actions.

Nonetheless, the SMG report must be taken with some caution, for the scapegoating of Attali and even of Arthur Andersen was part of the management strategy for obtaining the support of the state and of employees in the post-Attali era. Attali inherited a very poorly run airline and a configurational dilemma in the French air transport sector with no simple remedies. Arguably, neither large-scale layoffs nor a rapid absorption of Air Inter were politically feasible in France during Attali's tenure as CEO of Air France (even voluntary departure programs provoke considerable labor resistance in France's public sector). Certainly as far as the main shareholder of Air France was concerned, the Senate's investigative study of Air France made it quite clear what the state's utility function was: "What are the state's preferences? Social peace" (Cartigny, 1991: 216).

4.8 Aftermath: The arrival of Christian Blanc

In late 1993 the government replaced Attali with Christian Blanc, a leader having even less business experience than Attali but with proven skills in managing social conflict. He had negotiated a peace agreement in New Caledonia in the 1980s and as head of the Paris subway system (RATP) he had found a way to surmount union resistance to change by decentralizing the various lines as separate self-organizing operations. Blanc did not pretend to be a businessman,[20] and has sought the perspective of a wide variety of sources: at least a dozen consultancies, the reports of Bordes-Pagès, and the personal services of United's ex-CEO Stephen Wolf for over a year as his personal deputy. Within months of Blanc's arrival the top layer of management was largely replaced by managers and administrators hired from outside Air France. Rakesh Gangwal, the former planning director of United, was brought in to overhaul the flight planning and reportedly succeeded in effecting major

[19] An example of cost-savings measures decreed at the top and then implemented below in the dark was in Maintenance. The "cost hunt" had led to Maintenance receiving repeated directives to lower its labor costs, which it did by reducing night-time work remunerated at higher wage scales; though this reduced "costs" in one area, it led to greater immobilization of aircraft and therefore did not improve the bottom line; meanwhile Lufthansa and British Airways tried to get as much daytime use out of aircraft as possible, even if doing so entailed night-time maintenance (Bordes-Pagès, 1994a: 16).

[20] Industry observers, Air France managers, and airline consultants I have talked to credit Blanc with very capably recognizing and managing his limitations.

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improvements in the timetable and in the company's scheduling procedures during his 18-month stay. The network-based industrial strategy was of course completely spelled out in the reports of Bordes-Pagès and Blanc committed the company solidly to the mastery of yield management. In early 1995, Air France signed a contract with Sabre Decision Technologies (SDT) to acquire a completely new set of yield management tools and training in their use. For an investment of FF 157, these tools were projected to enable Air France to augment its annual revenues by FF 1bn with no additional cost each year (*France Aviation*, 27 June 1995).

The various post-mortem analyses conducted after Blanc's arrival at Air France permit one to estimate the total cost to Air France of its delay in adopting the network-based industrial strategy. From the statistics cited in this chapter so far, we can add together

1.0 bn in poor yield management

0.5 bn in poor hub connections

0.5-1.0 bn in a sub-optimal fleet configuration and flight scheduling

to arrive at a total of at least FF 2-2.5 bn annually in lost revenues or excess costs as a result of persisting in outdated systems. This figure is close to the DM 700m improvement in results that Lufthansa's turnaround plan of 1992 (Programm '93) considered to be possible through similar improvements in its planning and commercial systems (Chapter 5).

Nonetheless, even these measures were insufficient to return Air France to profitability. In early 1994, Blanc's team elaborated a comprehensive turnaround plan (*Reconstruire Air France*) calling for a 30% productivity increase from all major categories of the personnel over a three-year period. Approval of the plan by the personnel was the quid pro quo of the government's willingness to inject FF 20bn into the company's depleted equity base. Nonetheless, open cooperation with management was such a sensitive issue for union leaders that only six of Air France's unions were willing to adhere publicly to the plan. Indeed, Bordes-Pagès himself, in the preface to his first report, felt obliged to justify his involvement in management affairs against possible reproaches from the ranks:

> I accepted this assignment with the obvious risks that it involved (specter of co-determination in particular). Because I think one can't ceaselessly complain about not being listened to while at the same time refusing opportunities to be heard! Today, the ball is in the camp of top management, for after the diagnosis contained in this study, the absence of reaction would be criminal (*coupable*) and deprive our top managers of all credibility. (Bordes-Pagès, 1994a)

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In the face of the unions' reticence to support management openly (although many union leaders were privately in support of the turnaround plan), Blanc had recourse to a (legally non-binding) referendum of the personnel who approved the turnaround plan by a majority of 81% in April 1994. With this result achieved, the unions signed the turnaround plan. But by mid-1995 Air France's cabin personnel became unhappy with the hardships imposed by the turnaround plan; in the union elections of spring 1995, a newly created union for cabin crew opposing the turnaround plan obtained 40% of the vote and unleashed a wave of strikes in the summer and fall.

Difficult though industrial relations were at Air France, they were infinitely more difficult still at Air Inter, where even the company's fall in productivity and increased domestic competition from smaller carriers (TAT, Air Liberté, AOM, etc.) have failed to tame social unrest. The sensitive issue for Air Inter's personnel and its fourteen unions has remained control by Air France. One can hardly count all of the diplomatic maneuvers undertaken by Blanc to negotiate a peaceful merger. The first maneuver, in 1994, was to place Air France's European operations under the control of Air Inter's new PDG, Michel Bernard (formerly director of the DGAC). Yet making Air Inter the master of the Group's European operations failed to prevent Bernard from being seen as too loyal to Air France to be the legitimate head of Air Inter, and the idea of absorbing personnel from Air France was fiercely rejected by Air Inter's unions. Amidst chronic industrial action, Bernard resigned in the spring of 1995. Thereafter, Blanc assumed the presidency of Air Inter himself, naming only a new Director General to succeed Bernard. In September 1995, Blanc dismissed the Director General of Air France and became President-Director General. The Air France Group has therefore undergone a considerable centralization of executive power since Blanc's arrival.

4.9 Summary

Chapter 1 tallied the following institutional independent variables for analyzing the case of Air France: generalist CEO with high unilateral control; specialist managers; and low managerial mobility. This chapter has fleshed out some of the qualifications that need to be added to these overall generalizations. While Air France CEOs have indeed been generalists, they have not necessarily been *business* generalists; while they have had high unilateral control *in principle*, this control in Attali's case extended more to control over strategy formulation than over implementation of strategy and the actual operations of the company. While Air France's managers have indeed had a specialist orientation, this is partly due to Air France's antiquated system of human resource management with promotion based on points and seniority.

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The combination of specialized (especially engineering-based) managers and a parachuted generalist from the *grands corps* nonetheless represents the classic institutional configuration in French industrial groups (Cohen and Bauer, 1980). The pattern is self-perpetuating, for reasons explained in section 4.3, because the institutionalized non-production of generalist managers in French firms (aside from notable exceptions like L'Oréal) creates a demand for them which only the *grands corps* can satisfy; despite complaints about the system, non-family owned French companies continue to prefer to "outsource" the education of generalist top managers to the state rather than incur the costs themselves (Bauer, 1987). The case of Air France illustrates the thesis that such a combination of specialist managers and a generalist CEO is not well-suited to all industry contexts.

Of course, these variables cannot entirely explain Air France's backwardness in adopting the network-based industrial strategy. The data presented in this chapter leave little doubt that the combination of state ownership and the company's industrial relations not only resulted in labor inflexibility and overstaffing, but acted as an incentive for management to devote its energies to attempts at insulating the company from market pressures rather than adapt to them. With these qualifications readily conceded, it can nonetheless be argued that Air France's innovation gap was also the symptom of a particular misfit between national institutional patterns and industry context. In an industry context whose essential parameters are technical and subject to engineering solutions (knowledge of ends-means relations), French managerial institutions can be expected to generate more innovative performance than they could in a sector like air transport in the 1980s.

4.10 A contingency model of French comparative institutional advantage

If top-down strategizing and the espousing of common interests are not just characteristics of Attali's management style, but characteristic of a governing elite, then the Air France story raises questions about the ability of this elite to maintain competitiveness of French firms. Statistics provided by Bauer and Bertin-Mourot (1987; 1995) reveal the continuing preponderance of French "generalist" PDGs in French firms over time. Among PDGs of the largest 200 French firms in 1993, 47% had begun their careers in government (typically in a ministerial cabinet). This ratio had actually *increased* slightly from 1985 to 1993 (1995: 38). In some ways, this figure understates the career benefits of government service, for 32% of the top 200 firms' PDGs belonged to the owning families. If one leaves aside French family capitalism, then 70% of the top firms' PDGs began their careers in the government. Of these top managers whose careers begin in government, three quarters come from the *grands corps*. In contrast to the high proportion of French top managers drawn

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from civil service or family capitalism, the ratio of top managers who have spent their entire career as private-sector managers is small (21% of the top 200 firms) and only about 4% made it to the top through internal promotion within the company (1995: 33).

Do top-down strategizing and the espousing of common interests, the hallmarks of Attali's management style, always result in poor company performance? The framework proposed here attempts to capture industry contexts in which such a style might prove more successful than in European civil aviation in the 1980s. This framework contrasts the degree of clarity about the *ends* pursued by the organization with the knowledge of *means* required to meet these ends (Thompson, 1967; Tushman, 1977). Clarity about *ends* refers to the extent that organizational members have common views about the ultimate standards of desirability underlying the firm's priorities. Example of standards of desirability include profitability, employment security, customer satisfaction, and social harmony. To the extent the organization's key constituents and stakeholders have converging or diverging rankings of these standards of desirability, the ends pursued by the organization will range from clear to ambiguous. Similarly, the different types of implicit or explicit incentive systems confronting organizational leaders lead to variation in the extent to which leaders pursue clear or ambiguous objectives in managing their organizations. Knowledge of *means* refers to the degree of understanding of cause/effect relations concerning actions taken by the organization. How complete or incomplete an organization's members consider their knowledge of cause/effect relations to be will (or at least should) have a vital impact on how they organize the enterprise's efforts to adapt to changes in its environment. The more incomplete this knowledge is, the more the firm will be obliged to organize activities like scanning, market research, and trial-and-error experimentation.

Reconsidering the characteristics of France's elite, it seems plausible that French firms will possess a comparative institutional advantage when the firm's industry environment can be accommodated by an adjustment strategy combining an "engineering" approach predicated on a complete understanding of the critical cause-effect relationships on the one hand with a political approach able to harmonize conflicting standards about the ultimate ends of the enterprise on the other. This corresponds to cell B in the following table:

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Ends: / Means:	Clear Standards of Desirability	Ambiguous Standards of Desirability
Complete Knowledge of Cause-Effect Relationships	A	B
Incomplete Knowledge of Cause-Effect Relationships	C	D

Some important industries do fall into cell B and France is a leader in many of them. Nuclear power, aerospace, aeronautics, weaponry, high-speed train construction, and Minitel are notable examples of French industrial strength and may be considered cell B endeavors to varying degrees. The classic case involves technological leadership by a specialized engineering corps, multifaceted state sponsorship (as purchaser, capital provider, political champion, etc.), and an aura of grandeur about the undertaking that legitimates extensive state involvement and helps mobilize employees. French institutions are easiest to mobilize (and social divisions easiest to bridge) through endeavors blending French engineering prowess with the political dividends of a high-visibility *grand projet* into a kind of "high-tech Colbertism" (Cohen, 1992).

In the 1980s, however, European civil aviation clearly became an industry environment whose characteristics were diametrically opposed to French institutional strengths: ends became increasingly *un*ambiguous and knowledge of cause-effect relationships became increasingly *in*complete. Liberalization of the sector by the EC signaled subordination of the sector to market imperatives (unambiguous ends). Rapid changes in markets and technology, meanwhile, ensured that airline managers disposed of ever less complete knowledge of causal relationships in the sector. Not only is this borne out by the lags among European carriers in adopting the network-based industrial strategy; it is also manifest in the fact that airline deregulation, as Levine (1987) has so amply documented, induced structural transformations in the industry radically different from what economists and regulators had predicted on the basis of prior empirical experience.

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APPENDIX 1a:
ANNOUNCEMENT OF BRITISH AIRWAYS' PROFIT-SHARING SCHEME

British airways

Friday, November 4, 1983

Cash bonus for staff will start this year

A share in success for all of us

Colin Marshall

This is a bill we will be happy to pay

By COLIN MARSHALL,
Chief Executive

The Profit Sharing Scheme we are announcing today is the most exciting and imaginative opportunity that has ever been put before the staff of British Airways.

We are going to be a successful airline. This scheme gives everybody who works for British Airways an opportunity and an incentive to contribute to and participate in that success.

The important word is "Profit".

It is the basis of our existence. I am proud to work in a profitable airline. I believe that everyone feels the same way.

A profit is not a luxury. It is the basic essential for the future success of our business.

No business can survive without capital investment in new equipment, new technology, new ideas. In our business, progress can cost a lot of money. A Boeing 747 costs over

● Turn to page 2

British Airways today announced the introduction of a Profit Sharing Bonus Scheme for its employees. The scheme will come into force in this current 1983–84 financial year.

The scheme, which will initially apply to British Airways' UK staff, is geared to the airline's financial results. When the operating surplus, announced at the end of the financial year, exceeds a predetermined "trigger" target of £150 million, then all eligible staff will get a bonus based on their basic week's pay.

The better the operating surplus, the bigger the bonus.

This is how the scheme will work:

At the end of the financial year, the airline's external auditors will determine the operating surplus. A full definition of this is given on page four, but basically, operating surplus is the difference between the revenue that British Airways earns from the airline services it provides, and the cost of operating those services.

Beyond an operating surplus of £150 million, the bonus payments will run like this:

If we produce an operating surplus of:	YOU earn a bonus equivalent to:
£200 million	One week's basic pay
£250 million	Two weeks' basic pay
£300 million	Three weeks' basic pay
£350 million	Four weeks' basic pay

But the bonus will still be paid, however, for sums in between these figures. A fiftieth of a week's basic pay will be paid for each complete million of operating surplus over the "trigger".

Announcing the scheme to members of the National Joint Council at a special meeting today, Director of Human Resources Ted Gostling described the Bonus Scheme as "a fine opportunity".

To illustrate the value of the scheme, Mr Gostling pointed out that last year, British Airways produced an operating

> At its regular monthly meeting today, the Chairman and the Board of British Airways are expected to review and approve the interim results for the first half of the current 1983–84 financial year.
>
> The results of that review were not available at the time of preparation of this bulletin, but it is expected that the customary half-yearly statement of results will be published later in the day. Details will be made available to staff as soon as possible.

surplus of £172 million. Had the scheme been in force in the 1982–83 financial year then all eligible staff would have drawn a bonus of half a week's basic pay.

He added: "We are looking for far better results than that. This is why there is no ceiling to the Bonus Scheme.

"This is not a token gesture. British Airways needs profits to pay for its future growth, and we want people who contribute to producing those profits to get a share of them. This scheme is designed to pay worthwhile rewards. It is geared strictly to the airline's financial success, and therefore the more we pay out in bonuses, the happier we shall be."

These are some of the other highlights of the scheme:

All permanent British Airways staff in the UK (except employees with British Airways Helicopters) who are in employment at the end of the 1983–84 financial year will be eligible.

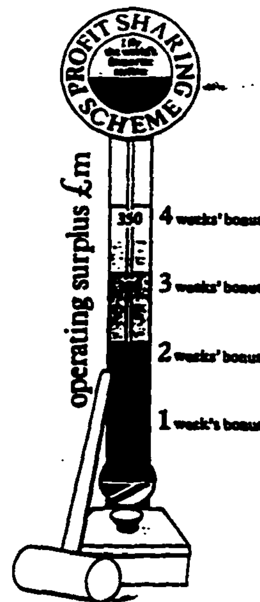
Although the scheme will apply initially to staff in Britain, the airline is anxious to apply it to staff in other countries, wherever local circumstances make it appropriate.

When the bonus has been triggered, the payment will be made as soon as possible after the formal publication of the airline's financial results.

Mr Gostling told union leaders: "Although the scheme is necessarily not contractual, this does not mean any lack of commitment. We are deeply committed to the scheme, and we intend to work to maximise the bonus payments because that means a healthy and successful airline."

● At the National Joint Council today, Mr Gostling also put forward British Airways' basic pay proposals.

This is what it will be worth to you



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Ted Gostling writes
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APPENDIX 1b:
ANNOUNCEMENT OF AIR FRANCES' PROFIT-SHARING SCHEME

INFORMATIONS DE LA SEMAINE n° 1 25 novembre 1988

Nous sommes heureux de vous adresser aujourd'hui le premier numéro d'AIR FRANCE INFO, nouveau bulletin hebdomadaire d'information de la Compagnie, qui vous tiendra désormais régulièrement informé des principales nouvelles de la semaine concernant la vie de l'entreprise.

Ce bulletin est fait pour vous : nous vous remercions à l'avance de bien vouloir nous faire connaître toute remarque ou suggestion le concernant susceptible de nous permettre de mieux répondre à vos attentes en matière d'information.

Le bulletin aura de deux à quatre pages, selon le volume des informations de la semaine. De plus, en cas d'événement le nécessitant, une édition "flash" d'AIR FRANCE INFO pourra être publiée spécialement.

Les décisions gouvernementales concernant le transport aérien français

Le Gouvernement vient de faire connaître ses décisions en ce qui concerne l'organisation du transport aérien français. Ces décisions sont favorables pour Air France. En résumé, comme l'a indiqué le Ministre, "la règle générale restera l'attribution d'une ligne internationale à une seule compagnie régulière française". Et donc :

- UTA n'obtient pas les nouveaux droits de trafic que ses dirigeants réclamaient depuis des mois.

- Air Inter ne modifiera pas ses statuts et Air France conservera sa part prépondérante dans le capital de la compagnie domestique.

- Air France et Air Inter coordonneront leurs efforts pour exploiter leurs complémentarités. Air France est autorisée (sous pavillon Air Inter) à développer des liaisons domestiques ; Air Inter, parallèlement, pourra desservir (sous pavillon Air France) des liaisons européennes que nous définirons ensemble.

Le Président Bernard Attali a déclaré à cette occasion : "Ces décisions concluent la première manche d'une partie qui en comptera d'autres dans les mois à venir. Mais le paysage aérien qui se dessine aujourd'hui est plus qu'encourageant pour Air France et augure bien de notre avenir."

"A nous de bien travailler dans ce cadre : Air France doit maintenant reprendre son élan."

Le Président évoquera lui-même l'ensemble de ces sujets dans les semaines qui viennent : à compter du mois prochain, en effet, il tiendra, dans la Compagnie, un ensemble de réunions de travail, par fonction. Ces réunions auront pour objet de faire le bilan de la réflexion collective engagée au cours des derniers mois et d'en tirer les leçons pour l'avenir. Elles éclaireront le travail de préparation d'un prochain Contrat de Plan avec l'Etat.

Participation et intéressement à Air France

Le Président a annoncé, lors du dernier Conseil d'Administration, deux nouvelles importantes pour les agents de la Compagnie.

La première concerne une proposition de modification de la formule de calcul de la participation aux résultats financiers de l'entreprise. Cette modification aura pour effet d'augmenter de manière importante le montant de la réserve spéciale de participation destiné à chaque agent et de mieux faire bénéficier le personnel de l'amélioration des résultats.

La seconde concerne l'ouverture d'une négociation avec les instances représentant le personnel, en vue de la conclusion d'un accord d'intéressement qui pourra permettre à chaque agent de la Compagnie de bénéficier directement, par une prime, de l'amélioration des performances et de la productivité due aux efforts collectifs.

Ces propositions doivent être bien entendu soumises à l'accord de nos autorités de tutelle.

La participation

En 1987, 49,8 millions de francs ont été prélevés sur les bénéfices de la Compagnie au titre de la participation, soit une somme moyenne par agent de 1 494 francs.

La modification du mode de calcul proposée permettra de mieux traduire l'amélioration de nos résultats financiers en 1988. Sauf aléa majeur d'ici la fin de l'année, le montant pourrait atteindre cette année 90 millions de francs, représentant un versement moyen par agent de 2 640 francs. L'application de l'ancienne formule aurait conduit à distribuer une somme nettement inférieure.

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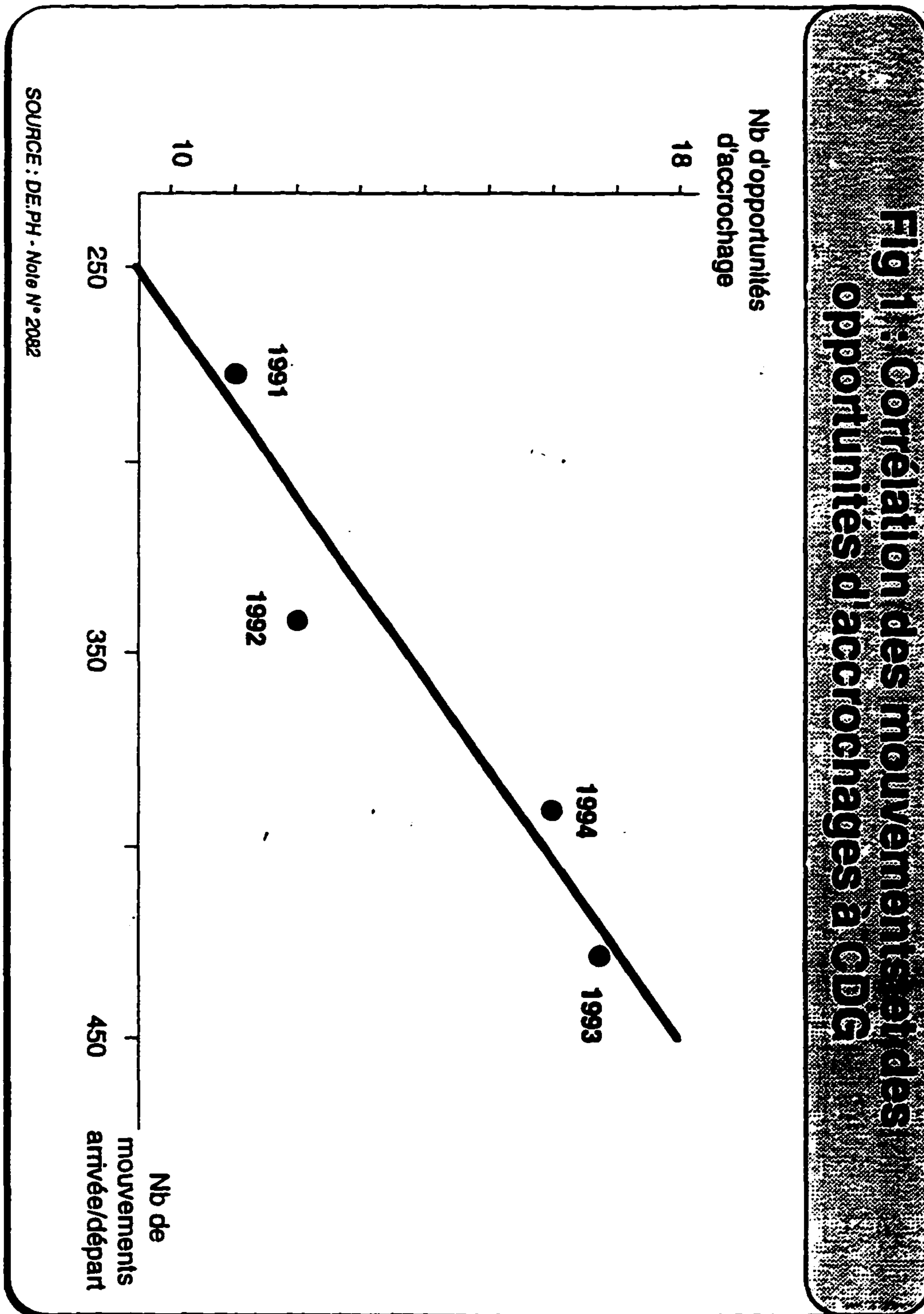
APPENDIX 2:
RATIO OF INTERCONNECTIONS/AIRCRAFT MOVEMENTS OF AIR FRANCE AT ROISSY-CDG (Source: Bordes-Pagès, 1994c)



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CHAPTER FIVE: LUFTHANSA AND BMW EMULATION

5.1 Introduction

In the early 1980s, Lufthansa and Swissair were clear stand-outs among European carriers for their service quality and both were considered to offer above-average board service, safety, and reliability at above-average prices. By the end of the decade, however, SAS and British Airways had joined the club of prestigious European carriers and Lufthansa, though still well-regarded, had lost some of its luster. Worse, its profitability plummeted and in the early 1990s it faced the real threat of bankruptcy.

Lufthansa's loss of market leadership in the 1980s can be understood in terms of the comparative advantage of German business institutions in supporting alternative types of strategic adjustment. For adjusting to an environment of incremental, continuous change (such as existed in civil aviation prior to the 1980s), German company patterns of consensus decision-making (part and parcel of German co-determination) and long-term employment contracts were arguably advantageous for Lufthansa: continuous change (involving increasingly efficient generations of aircraft) can be dealt with effectively by accumulating technical skills (hence consistent with long-term employment contracts) and by equitably splitting the economic gains of programmable productivity increases (hence consistent with consensus decision-making). By the same token, however, Lufthansa found itself at an institutional disadvantage in the 1980s when *discontinuities* in the industry's critical parameters of competition shifted from aircraft and flying to areas like information systems, marketing, and pricing.

The argument advanced here is based on two interconnected findings. First, although Lufthansa's top management clearly recognize the need to do something about its commercial systems, it was surprisingly tardy in grasping the potential of the network-based industrial strategy. The imperative of "optimizing the network" was not formally recognized until 1992. Second, for failure to understand the appropriate airline-specific strategy to implement in the 1980s, Lufthansa adopted a generic German strategy along the lines of "diversified quality production" (DQP). Although a DQP-like strategy seemed like a logical choice for Lufthansa and although DQP strategies were successful in many German industries in the 1980s, a DQP-type strategy failed at Lufthansa because it did not fit the new competitive requirements of the air transport industry. The two findings are connected: top management's

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tardiness in comprehending the airline's commercial opportunities (such as sixth-freedom traffic) and other industry-specific developments in the competitive environment (such as the centrality of yield management) induced the company to apply generic German formulae of the wrong sort.

Some of the evidence for the argument presented here is derived from events after 1992 when Lufthansa finally did proceed with implementation of a network-based industrial strategy. In fact, Lufthansa's more successful adjustments in the 1990s actually seemed to entail attempts at devising organizational solutions to disadvantages associated with the system of German corporate governance while at the same time exploiting the system's strengths (such as the strong integration of employees' representatives and the unions into company decision-making). Beyond just analyzing the reasons for Lufthansa's tardy adoption of the network-based industrial strategy, this chapter studies Lufthansa's catch-up in the 1990s in an effort to isolate both comparative advantages and disadvantages associated with Germany company patterns.

5.2 Corporate governance and managerial hierarchies at Lufthansa

Although majority-owned by the federal government until 1994, the airline was administered in accordance with German company law applying to all joint stock companies (*Aktiengesellschaft*, or AG for short). This involves, among other legally mandated requirements, a two-tiered board structure. A *Vorstand* of executives is held responsible for day-to-day management by an *Aufsichtsrat* of supervisors. In accordance with the Co-Determination Act of 1976 for companies of 2000 employees or more, shareholders appoint ten of the Aufsichtrat's twenty members and the other ten are elected by employees. As long as the federal government held the majority of shares, this meant that the federal government and employees each elected half of the Aufsichtsrat. Of the ten Aufsichtsrat seats reserved for employees, one is set aside for executives and three are by law reserved for union members. In Lufthansa's case, there are two unions: ÖTV (Union of Public Services' and Transport Employees) and DAG (German Union of Salaried Employees). The first recruits most members from the ranks of ground service and maintenance personnel, the second from pilots and middle managers. However, Lufthansa is not generally a highly unionized company, although the pilots are, as in most airlines, highly organized (the exact figures on union membership are not disclosed even to Lufthansa).

The German system of corporate governance is not conducive to unilateral CEO action. Executive power is exercised by a collegial Vorstand whose decisions, by German company law, are made by majority vote. Lufthansa's

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Vorstand has consisted of 6-7 members, including the Chairman and the Directors of Finance, Personnel, Flight Operations, Maintenance (*Technik*), and Sales & Marketing (either as one or as two separate Vorstand divisions). The typical board structure can be summarized in the following diagram:

Corporate Governance at Lufthansa

AUFSICHTSRAT:

10 Shareholder Rep's:

Chairman (banker), 3 bankers, 3 state officials, 3 Länder prime ministers

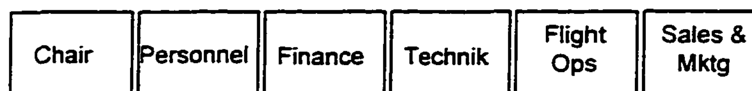
+

10 Employee Rep's:

Incl. DAG & ÖTV union leaders, 2-3 union stewards, executives' representative

appoints the

VORSTAND:



The Vorstand, as this diagram suggests, was segmented by functionally defined boundaries. Within the company as a whole, separation between Lufthansa's functional boundaries was reinforced by Lufthansa's geographic dispersion, with its maintenance operations in Hamburg, its financial and marketing operations in Cologne, and its operational base in Frankfurt. Yet it was also sustained by an organizational pattern of functional specialization and vertical "chimney" careers within the company, as top personnel managers have emphasized in interviews. As recounted below, when in the early 1990s a group of middle managers called themselves "Samurai for Change" and campaigned for new ways of doing things, the issue they centered on was precisely the need for more cross-functional and cross-departmental initiative within the company. Prior to the crisis of the 1990s, the specialist orientation of Lufthansa managers and the functional silos within the company were not widely perceived to be problems. Since then they are perceived as major challenges by Lufthansa executives who in interviews have noted the need for more "generalist" managers in Lufthansa's new competitive environment.

Functional specialization as long practiced at Lufthansa is a hallmark of Germany's managerial culture of "specialists"(Lane, 1989). Lufthansa was a "typically German" company in another way as well. Almost to the point of caricature Lufthansa reflected the technical orientation typical of German business culture (Lawrence, 1980; Ebster-Grosz and Pugh, 1996). Taking advantage of rapid depreciation provisions in the German tax code, Lufthansa generally sold its planes at a profit after ten years of use and maintained one of the youngest fleets in the world with the latest aviation technology. Its

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prestigious and large maintenance division (*Technik*) supplied a series of influential top managers to the Vorstand, including the highly respected Reinhardt Abraham as deputy chairman (*stellvertretender Vorstandsvorsitzender*) in the 1980s and the current CEO Jürgen Weber, the Vorstand chairman since 1991. Whereas the sales and marketing side of Lufthansa, as discussed below, struggled to find able Vorstand members in the 1980s and 1990s, the *Technik* division has provided a steady stream of orderly internal successions throughout this period.

Though the form of corporate governance and Lufthansa's technical orientation entailed certain disadvantages (as will be seen), they do appear to have solved certain other problems rather well. Strikes were very seldom. Management and labor conspired effectively against shareholder interests to keep dividends low and build up hefty hidden cash reserves through accelerated depreciation of new equipment.[1] Healthy relations between management and labor also allowed Lufthansa to implement productivity-enhancing measures with little resistance. A rapid agreement on introducing the two-man cockpit and compensating the flight engineers made redundant by the new technology was reached by early 1983, whereas across the Rhine efforts to implement the two-man cockpit remained an object of chronic pilots' strikes at Air France and Air Inter until about 1989. Finally, Lufthansa's system of corporate governance did allow the effectiveness of Vorstand members to be monitored. Less able performers were forced to resign, and the power of the CEO could be checked. The latter eventuality arose in the late 1980s when it became clear that the CEO's do-it-alone growth strategy was overly ambitious.

5.3 Comparative institutional advantage and German "diversified quality production"

Studies on Germany's comparative institutional advantage in its exporting industrial sectors usually take their point of departure from institutions governing human capital formation, manpower use, and industrial relations. These institutions enable German companies to invest heavily in worker training, delegate important tasks to lower levels, and operate with relatively flat hierarchies (Maurice, Sorge et al., 1980; Lane, 1989). Highly developed links between industry and technical schools through the German system of apprenticeship results in human capital externalities that cannot easily be duplicated in Britain or France, where training, job qualifications, and industrial relations are arranged differently (Maurice, Sellier et al., 1982; Hayes and

[1] "In no Lufthansa shareholders' meeting of prior decades were the Vorstand and Aufsichtsrat so attacked by the private shareholders and different representative agencies." At issue were the low dividends relative to posted profits. *Handelsblatt*, 18 July 1984.

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Fonda 1984; Soskice 1991). In addition, certain forms of inter-firm coordination facilitated by industry associations prevent firms from poaching one another's workers or market niches and hence provide them with positive incentives to diffuse technological innovations and bear the costs of other public goods (Soskice, 1991; Herrigel, 1993). Finally, though the economics may be less tangible, the system of governance in German companies is generally thought to provide *social capital*, that is, high levels of trust between labor and management. Since trust cannot be written into open market contracts, institutional arrangements enshrined in law which oblige corporate managers and employee representatives to interact in certain codified ways may result in the longer term in higher levels of flexibility and cooperation between social groups within the firm (Thelen, 1991; Streeck, 1992c). The classic pattern of German governance involves *co-determination* within companies (corporate governance) and "*corporatist*" arrangements across producer groups within an industry (sectoral governance), in which monopolistic industry associations and unions negotiate wages and terms for all firms within the sector.

In the 1980s German firms in many sectors faced the dilemma of competing on world markets from a home country base of high labor costs. Building on Germany's highly developed training infrastructure and good industrial relations, German firms in a number of manufacturing sectors were able to implement "diversified quality production" (Sorge and Streeck, 1988), the industrial strategy discussed in Chapter 1. Empirically, Kern and Schumann (1984) found that these new "production concepts" (the term DQP had not been coined yet) had been widely adopted in the German machine tool, automobile, and chemical industries. In a broader study, Porter (1990: 375) found that exporting German firms almost inevitably pursue a differentiation, rather than a cost strategy, emphasizing less overall market share than the dominance of sophisticated market segments.

The success of DQP-type strategies in the 1980s depended on a fit between institutional characteristics on the one hand and certain exogenous developments in both technology and product markets on the other. The globalization and growing product ranges of markets increased the number of market niches that companies could choose to serve. On the production side, new micro-electronic and information technology, by transforming production progressively from a "hardware" to a "software" exercise, permitted greater flexibility in the structuring of work processes. It widened the range of managerial choice or, in other words, it increased the indeterminacy of the impact of technological change on the organization of production (Dankbaar, 1988; Sorge and Streeck, 1988: 23). In doing so, it appeared to enhance the propensity of national institutional constraints to influence the strategic choices made by firms; for instance, Sorge and Warner (1986) observed systematic variation in the way CNC was incorporated by German and British firms due to institutionalized differences in organizational patterns, worker training, and industrial relations inherited from the two countries' social histories.

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Recent research emphasizes that while these institutional patterns may provide a comparative advantage for pursuing certain types of industry strategies, they can prove a handicap in others. That German institutions are far more conducive to the development of existing industries than to the emergence of new ones is readily acknowledged by observers of German industry (Porter, 1990; Audretsch, 1995). If it is true, as Streeck (1992a) argues, that German patterns of industrial organization and industrial relations provide a series of inducements (positive and negative) for adopting DQP as a strategy of industrial adjustment, the viability of such a strategy will of course vary by sector. Germany's institutional advantage lies in industrial sectors characterized by long-linked, loosely coupled technologies where learning proceeds incrementally in different stages of the production process; Germany has proven less competitive in sectors producing large-scale "complex systems" (computers, aerospace) or in newly-emergent high-tech sectors (Kitschelt, 1991). For these reasons, German companies are weak at radical innovation but strong at incremental innovation in manufacturing because of the relative incentives and costs of change built into their system of industrial relations, monitoring by banks, and skills and technology diffusion (Soskice, 1994a; Ebster-Grosz and Pugh, 1996).

Lufthansa's difficulties in the 1980s can be examined in this light. This chapter focuses on the way corporate patterns at Lufthansa were observed to affect top management's resources for integrating and reorganizing managerial activities within the firm. These patterns help explain why Lufthansa failed not only to adopt the network-based industrial strategy in the 1980s, but instead a DQP-like industrial strategy which was incompatible with the network-based strategy. The following narrative falls into two parts: first, the years in which Lufthansa *failed* to adopt the network-based strategy (up until 1992), and second, the years in which it *did do* so (1992-95). Both parts shed light on the way Lufthansa's path of strategic adjustment was influenced by German company patterns.

5.4 The non-adoption of the network-based industrial strategy, 1982-91

Lufthansa AG (originally founded in 1926 and restarted after the war in 1955), was on the surface well-positioned to adopt the network-based industrial strategy. It was blessed with full control over its domestic and international network. At Frankfurt it had a model hub-and-spokes airport with a large number of runways, designed to permit interconnections between domestic and international flights. If ever there was a company pre-ordained to adopt the network-based industrial strategy, it was Lufthansa. Indeed, as several interviewed managers have pointed out, Lufthansa had always found it easy to induce passengers from the French provinces to connect with international

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flights out of Frankfurt rather than put up with the inconvenience of the Parisian airports (see Chapter 4).

Yet Lufthansa remained fundamentally oblivious to the commercial opportunities of turning Frankfurt into a sixth-freedom hub until the 1990s, and its interest in yield management did not begin until 1987, one year later than Air France and many years later than British Airways. When confronted with this fact and asked for an explanation, interviewed Lufthansa managers were almost always embarrassed; the most common explanation was a shrug. Some interviewed managers pointed to the fact that Lufthansa had always been a successful and profitable business prior to the 1990s and the need for strategic rethinking had never arose. Others pointed to managers' excessive feeling of security within the company, exacerbated by state ownership.

Certainly one conceivable explanation for Lufthansa's lag in catching onto the strategic importance of sixth-freedom traffic and yield management tools might be the fact that the Vorstand chairman from 1982 to 1991 was a political appointee rather than an experienced businessman. Before arguing that such an explanation is too simple, the circumstances surrounding Heinz Ruhnau's appointment to that position - a major political controversy at the time - cannot be left unmentioned here.

Until 1981, Lufthansa had been largely left to its own devices by the political parties and run like a private company. In that year, however, a scandal erupted. Confidential documents on Lufthansa transactions with an oddball travel promoter dating from 1977 mysteriously reached the press and obliged the Transport Ministry and Aufsichtsrat to re-open a previously terminated investigation. The result was a censure of the Vorstand and forced resignation of the Vorstand chairman Herbert Culmann. But by the fall the opposition CDU (Christian Democratic Union) party and most of the German business press were convinced that the disclosure of the affair was but an SPD (Social Democratic Party) maneuver concocted by the Aufsichtsrat chairman, the transport minister, and the secretary of state for transport to place a party man at the helm of Lufthansa. The secretary of state was a certain Heinz Ruhnau, who as a member of the Aufsichtsrat was of course intimately informed about company matters. When it became known that Ruhnau was the proposed successor of the company man Culmann, the CDU party protested violently in parliament, as did Lufthansa's managers on the streets and in the media. The following press headlines give an inkling of the public controversy unleashed by Ruhnau's appointment:

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Hands off Lufthansa!
Lufthansa managers against Ruhnau
Lufthansa Vorstand: An SPD career spectacle
Lufthansa employees arm against politicization of Vorstand
Bonn ignores protests
Is Ruhnau electing himself?
Sharp protest of the Lufthansa Vorstand
Palace revolution of the Lufthansa personnel
CDU sees Lufthansa "raped" by the SPD
Lufthansa didn't deserve this
10,000 Lufthansa employees write to the Chancellor
Feltocracy congratulates itself: A manager is fired

Yet neither public outcry, nor protests and petitions by Lufthansa's managers could prevent Ruhnau's appointment: in early 1982, Ruhnau obtained the minimum 14 votes from a coalition of shareholder representatives and of several employee representatives associated with the ÖTV union. Press reports suggest that the specter of criminal prosecution helped in obtaining the docility of Aufsichtsrat and Vorstand members in accepting the Ruhnau nomination. Partly to appease the CDU, Lufthansa the same year appointed a CDU man to a newly created Vorstand position in Finance. Lufthansa was henceforth "politicized" and under intense scrutiny from the press and political parties.

Oddly, this had the effect of forcing Ruhnau to prove he was no mere bureaucrat and, as the following narrative will show, he spearheaded a number of strategic and organizational reforms. There were two quite distinct periods during the Ruhnau reign. During the first period (1982-1986), Lufthansa was managed conservatively and profitably, culminating in Ruhnau's unanimous re-appointment (20:0) in 1986 - despite a CDU-led government having since come to power. Lufthansa's attitude toward EC liberalization was hostile during this period, and to rally the German government's opposition to liberalization Lufthansa tried to affirm its identity as the patriotic instrument of German aviation interests. During the second period (1986-1991), once liberalization of the EC air transport market appeared inevitable, Ruhnau shifted tacks. Lufthansa embarked on an aggressive growth policy predicated on a made-in-Germany quality strategy. This was the period during which Lufthansa conceived itself as the aviation equivalent of Porsche, BMW, and Mercedes.

Both the patriotic period (1982-1986) and the BMW emulation period (1986-1991) will be treated in turn. Prior to this however, one Ruhnau initiative covering both periods needs to be highlighted: Ruhnau's effort to upgrade the Sales and Marketing capabilities of the company. The following three sub-sections therefore describe, in turn, the issues of Sales and Marketing upgrade

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(throughout the 1980s), Lufthansa's "patriotic" period (1982-86), and BMW emulation (1986-1991) respectively.

5.4.1 Upgrading Sales and Marketing

To help understand why Lufthansa fell behind the industry leaders in adopting a variety of commercial innovations, from revenue management to hub development to market-based product design, we recall from Chapter 2 that all large European airlines had inherited an operations-driven culture, whereas the new competitive environment in the 1980s called for a greater influence of marketing imperatives over the operations of the airline. This could not happen without significant internal shifts of power. Ruhnau, in fact, recognized this quite clearly, but in a consensus-based governance system had limited options for effecting change. The contrasting case of British Airways - the stunning power shifts effected by Colin Marshall in 1983 - illuminates the competitive moves that Lufthansa found it difficult to match.

Ruhnau's initial preoccupation upon becoming CEO (Vorstand chairman) in 1982 was ensuring Lufthansa's financial health during the recession and getting acquainted with his Vorstand colleagues. Quite quickly, as press reports of the time show, Ruhnau knew he had to improve Lufthansa's marketing savvy. Doing something about this was institutionally difficult. As mentioned earlier, the technical side of Lufthansa enjoyed a great deal of prestige and influence, as embodied by Reinhardt Abraham, the Vorstand member in charge of *Technik*, but also a highly influential deputy chairman and incontestably an expert on aircraft design. In 1984, new Vorstand appointments in Sales & Marketing and in Flight Operations were warned via the business press: "As soon as the two divisions are led by inexperienced people, it will become clear where the strong men in the Vorstand sit: in the technical and finance-technical divisions, where authority tends to prosper on the basis of systematic thinking and attention to detail" (*Der Spiegel*, 3 Dec 1984). Günther Becher (Finance) and Abraham reportedly formed a "technocrat cartel" in the Vorstand with whom even the "politician" Ruhnau had not yet found grace, and one of them warned: "It takes at least two years for a newcomer to get his way against the Vorstand routine of the others, and they can make a lot of mistakes at first from pure inexperience" (*Ibid.*). Clearly, such a system of Vorstand control and decision-making sharply checked the ability of a new CEO to make rapid changes in the structure or culture of the company.

Although Ruhnau plainly knew he had to upgrade the marketing side of Lufthansa, German corporate governance institutions gave him little scope to do more than to propose to the Aufsichtsrat the names of potential new

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Directors of Sales & Marketing on the Vorstand. As it was, the sales and marketing seat on the Vorstand turned into an "ejection seat" (*Frankfurter Allgemeine Zeitung*, 19 March 1993), a ten-year succession of appointment misfits. The 1984 appointee turned out to be largely an administrator and was forced into resignation in early 1990.

Ruhnau nonetheless persisted in trying to do something to revitalize Lufthansa's marketing strategy, and in 1989 the Sales & Marketing division was split into separate Sales and Marketing divisions. The new Vorstand member for Marketing was Falko von Falkenhayn, a marketing man recruited from BMW. According to interview sources, Falkenhayn's marketing skills were mostly confined to advertising. Producing rhetoric about serving the customer whose concrete ramifications his Lufthansa colleagues could not always discern, Falkenhayn earned the unflattering nickname Wirko von Wirrkopf,[2] and was forced out at the end of 1991.

In the meantime, the search for a new Sales Vorstand member lasted for fully nine months in 1990, with no Aufsichtsrat consensus on the ideal candidate emerging. Ultimately the Aufsichtsrat elected to promote Lufthansa's corporate strategy director, acceding to the preferences of the employees' representatives and against the preference of Ruhnau (Sources: interviews; also *Wirtschaftswoche*, 27 Sept 1990). Yet he too did not fit the bill and announced his resignation in early 1993. The curious fact in all of this is that Ruhnau was institutionally prohibited from selecting his own Sales & Marketing Director, much less from intervening directly in Sales & Marketing operations. Filling Vorstand slots at Lufthansa and other German AGs is the province of the Aufsichtsrat, which effectively has human resource responsibilities at the executive level. While casual observation suggests that the preferences of German CEOs receive substantial consideration in practice when it comes to filling vacant slots on the Vorstand, German company law does nothing to encourage this and at least in Lufthansa's case placed checks on the CEO's ability to choose his own team.[3]

The historical record suggests, therefore, that the German corporate governance system placed powerful restrictions on the CEO's ability to alter the power structure and technical orientation of Lufthansa. Prior to the 1980s, this was probably not a problem. In industry environments requiring company adaptations consisting of mainly technical solutions and agreements with

[2] Manager-Magazin, Oct 1990. A rough translation is "Muddle von Muddlehead." The variant Wirro von Wirrenhayn is also documented (*Industrie-Magazin*, Oct 1990).

[3] Another objection to the institutionalist argument might be that Lufthansa's top boards became deadlocked by politics after the 1983 elections brought the CDU/CSU to power and swept out Ruhnau's SPD party from power. And it is true that Lufthansa's post-election Aufsichtsrat chairman was a CDU man, Gerd Lausen, whose working relationship with Ruhnau was strained at times. Yet Lausen and the other Aufsichtsrat members in 1986 gave Ruhnau a resounding endorsement in their 20:0 re-appointment of him in 1986.

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employees on how the distributive consequences of change will be dealt with (such as the introduction of new aircraft models in an airline), a consensus-based system of firm governance can be expected to work well. The 1980s, however, confronted Lufthansa with environmental changes that could not be dealt with by simply adopting the latest productivity-enhancing aircraft technology, but required deeper reorientations extending beyond a simple staffing change in the Vorstand or maintaining good industrial relations. By the time Lufthansa grasped the need for profound reorientation in 1992, the very survival of the company was in jeopardy.

5.4.2 Lufthansa's patriotic period (1982-86)

One reason for the tardy implementation of the network-based industrial strategy, then, lay in management's difficulties in enhancing the commercial leadership and culture of the company. Clearly, this is not the whole reason. Up until 1986, Ruhnau's policy toward EC market liberalization was defiant, which meant that he rejected the commercial consequences of a deregulated market order as well. Lufthansa's hesitations about yield management are indicative of the problem.

At the General Shareholders' Meeting of July 1985, Ruhnau declared: "Pricing in the US is almost chaotic. Every week there are 60,000 price changes. How the consumer is supposed to figure out what's going on is not really clear" (Source: mimeograph text kindly supplied by Lufthansa AG). Ruhnau was therefore aware that a revolution in pricing had taken place in the deregulated American environment. A more savvy top executive at Lufthansa might have denounced deregulation in public while secretly preparing for it in private. This Ruhnau clearly did not do. Lufthansa did not embark on building a second-generation yield management system until 1987, fully a year after Air France undertook its first efforts (*Touristische Report*, 1 Feb 1991).[4]

Rather than bracing commercially for deregulation, Ruhnau's efforts went into forestalling it. Described by one top Lufthansa manager as a "German de Gaulle," Ruhnau played on the theme of German patriotism in a country singularly weak on national sentiment. In 1984, he held the General Shareholders' Meeting in Berlin, the city where Lufthansa had no traffic rights,

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[4] In 1987, the London consultancy of Cresap, McCormick, and Paget investigated Lufthansa's data systems and concluded that a complete overhaul was needed to prepare for liberalization. In early 1988, a department called MSS (management support systems) was set up to implement a route-by-route revenue accounting system, a cost accounting system, and a yield management system. As the head of MSS noted with respect to the planned revenue system: "Other airlines, particularly those in North America, are ahead of us" (*Der Lufthanseat*, 28 Jan 1988).

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but where Lufthansa had been founded in 1926. Without any prodding from government, Ruhnau practiced industrial *Ost-Politik*: "Here in Berlin it [Lufthansa] was founded ... and in Berlin it experienced the catastrophe of our fatherland and the temporary end of German aviation ... But this must not lead to us, Lufthansa, giving up our demand to fly to Berlin, and we are convinced that the day will come on which we will once again fly to an undivided Berlin."[5]

Ruhnau's political entrepreneurship went even further. In 1984, Ruhnau also initiated contact with the head of East Germany's airline Interflug. Later in the year, Lufthansa and Interflug agreed to provide services from the Federal Republic to the annual Leipzig fair. As they were not allowed to fly over their common border, however, the flights required a roundabout flight route over the Baltic Sea. Lufthansa thus became a player in inner-German politics. The cooperation in providing services to the Leipzig fair was followed by a Lufthansa-Interflug maintenance agreement in 1988 and the announcement of a comprehensive strategic alliance after the fall of the Berlin Wall. In April 1989, Ruhnau was awarded the Cross of Honor by the President of West Germany.[6]

Underneath the rhetoric, Lufthansa's political strategy can be seen as a tactical response to the threat of privatization on the one hand (the federal government held 74.3% of the shares until 1989, when its shareholding fell to 51%) and the threat of deregulation of air transport in Germany and Europe on the other. Although the Chancellor and the Finance Minister wished to privatize Lufthansa, Ruhnau (SPD) found an ally to oppose this in a powerful Aufsichtsrat member, the Bavarian Prime Minister Franz Josef Strauss (of the conservative Bavarian CSU party). As an indispensable member of the governing coalition, Strauss blocked progress on privatization until his death in late 1988. Strauss' opposition had to do with Bavarian commercial interests in Airbus and the desire to assure Lufthansa's customer loyalty. A position paper written by Lufthansa's head of Public Relations gives one an idea of the intensity of rhetoric at the time:

> The politicization of air transport is increasing, not decreasing... The Deutsche Lufthansa is a company that conceives itself as the instrument of the civil aviation interests of the Federal Republic ... The identification between the federal government and Lufthansa is the fundamental basis of such strength.... The common interest can only be protected through a company whose size, whose power, and whose exclusivity as the instrument of national aviation interests and - closely connected

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[5] Speech of 18 July 1984; mimeograph text generously provided by Lufthansa AG.

[6] Ruhnau's greatest political coup, however, occurred in 1988. This was Euro Berlin, a joint venture between Lufthansa (49%) and Air France (51%) which allowed Lufthansa to piggy-back on Air France's traffic rights to Berlin. Joint services started in 1988, although Euro Berlin was slowly wound down after German reunification. Long before the fall of the Berlin Wall but with even greater intensity thereafter, Ruhnau pressed the government to demand the restoration of air sovereignty to Germany.

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with this - whose property status allows it not to make every single decision from the standpoint of merely existing ... (Source: *Lufthansa-Jahrbuch '85*)

Underneath Lufthansa's conscious self-stylization as an "instrument of German aviation interests" was a straight-forward economic rationale, however. As Ruhnau explained: "We have the basic problem along with many others in Europe from which we can't escape. We produce at costs that arise in our country, and we sell at prices that emerge from international competition ... Nobody would suggest that with our personnel costs we would be able to escape from the political and social reality of the Federal Republic."[7]

5.4.3 BMW emulation (1986-91)

A pillar of Lufthansa's strategic thinking under Ruhnau was the idea of occupying the high-quality niche of the industry in its markets and thereby charging the higher fares needed to support its German labor costs. The significant point is that faced with the progressive liberalization of the European market from 1986 on, Lufthansa actually *enhanced* the centrality of "German quality" and "German productivity" in its strategic thinking. Lufthansa took the parallel with successful car manufacturers so seriously that it appointed a BMW marketing man to a newly created Vorstand position in Product Development and Marketing in May of 1989 (the aforementioned Falko von Falkenhayn), and after the Vorstand Director of Sales resigned in early 1990, Ruhnau eyed Volkswagen's illustrious Daniel Goeudevert as a replacement candidate: "We need a man like him, but we can't afford him" (*Manager-Magazin*, Sept. 1990).

By late 1986 liberalization of the EC aviation market was inevitable. In 1987, Lufthansa adopted an aggressive growth strategy, doubling its fleet over the next five years. The commercial pillar was a "made in Germany" high-quality reputation, hence Lufthansa's rejection of growth through foreign acquisition for fear of diluting the made-in-Germany image. The strategic thinking of top management was that deregulation in Europe would lead to market concentration (as it had in the US) and that Lufthansa would be able to crowd out new and existing competition. Though Lufthansa's management knew that liberalization would result in cost pressure, it was reluctant to endanger its generally good industrial relations through outright confrontation. Reducing labor costs through wage cuts or through concessions on working conditions, though often cited as necessary in Ruhnau's speeches, was a difficult option to pursue in the boom years of the mid 1980s. Thus, in Porter's universally used terminology, Lufthansa explicitly adopted a "differentiation" as opposed to a "cost" strategy:

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[7] Speech of 18 July 1984 at the General Shareholders' Meeting.

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> In a liberalized European market an airline can only be successful by developing a competitive advantage against its competitors. A competitive advantage can be acquired either through price or through quality. For Lufthansa the way is pre-traced: it already has a reputation as a quality leader. Furthermore, the high wage costs of the Federal Republic leave no other choice but to compete on quality. (Director of Strategy, *Lufthansa-Jahrbuch '88*)

> The reactive possibilities of Lufthansa to this development [liberalization] are limited: 'Our production costs are downwardly inflexible' has been noted in a position paper. A reduction of unit costs is mainly to be achieved through growth. (Marketing manager for Quality, *Lufthansa-Jahrbuch '87*)

To support this growth, Lufthansa in 1987 also began implementing an organizational reform which decentralized the sales and marketing operations.

Prior to 1987, sales policy and product planning had been conducted centrally. A major goal of the 1987 reform was to reduce administrative overhead and decentralize decision-making in sales and marketing so that Lufthansa's products and sales strategies could be more closely and more rapidly tailored to the local requirements of different markets. At considerable financial and internal political expense, some 200 personnel were relocated from the administrative headquarters in Cologne to the operational base in Frankfurt and assigned to the Sales & Marketing Division. The sales organization was reorganized into 34 different regional units, each given full responsibility for sales strategy within its area. Several product planners were recast as "route managers" responsible for deciding the appropriate cabin configurations and service levels of their respective geographic markets.

This meant that Lufthansa's "products" - in airline parlance the lay-out of the cabins and the services provided in each passenger class - could be "customized" to fit the customer needs and competitive requirements on each of the routes it served. For example, the types of cabins and service levels needed to serve the Asia-Germany routes (where most passengers were business travelers) differed substantially from the USA-Germany routes (where the percentage of leisure travelers was higher). By trying to combine the advantages of economies of scale with those of customized production tailored to specific market niches, the 1987 reorganization of Lufthansa's planning and commercial operations can be considered the aviation equivalent to the industrial strategy of DQP (diversified quality production).

The origins and evolution of the 1987 reform merit a brief historical summary. In 1986, Ruhnau began campaigning internally for a more commercially-driven decision-making system within the company. He commissioned a consultant's report lambasting the bureaucratic mentality and organization of the airline (*Wirtschaftswoche*, 29 Aug 1986). Ruhnau argued that Lufthansa would only be able to compete in the marketplace if planning

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and operations were more closely aligned to the commercial possibilities of the markets it served, and this was impossible when all the planning was done centrally in Cologne. An important objective of the 1987 reform spearheaded by Ruhnau was to transfer the route and product planning functions to the commercial area, which meant taking them away from one Vorstand member (Finance) and giving them to another (Sales & Marketing).

This Ruhnau could not do unilaterally. In fact, the decision to institute the organizational reforms of decentralized route management and sales was decided by a 5-2 Vorstand vote in September 1986; the losers on the Vorstand announced their resignations by the end of the year. In retrospect, the reorganization was but the first in a string of incremental Vorstand efforts to delegate commercial decision-making to lower levels, even if this meant reducing the scope of consensus decision-making at the Vorstand level. Sales & Marketing was referred to in the business press as now comprising a mammoth Vorstand seat, dwarfing the others and impinging on the principle of Vorstand collegiality. For example, *Handelsblatt* (the German equivalent of the *Wall Street Journal*) wrote that the discretion henceforth exercised by the Vorstand member for Sales & Marketing "actually belongs in the realm of responsibility of the whole Vorstand" (*Handelsblatt*, 12 Sept. 1986).

Lufthansa's "quality" strategy does not appear to have been based on careful calculation of possibilities and alternatives. The obsession with quality and appealing to the upscale end of the market went to the point of inducing outright commercial mistakes. The most well-known one was a 1989 decision to retain a first-class cabin for European services after the concept had been abandoned as unprofitable by all European airlines except Swissair. First-class had been the subject of an extremely heated discussion within Lufthansa in the late 1980s, and when the failure of its retention proved manifest, first class on German and European routes was abolished in 1992. At the same time, it would be an over-simplification to view the Lufthansa organization as monolithically behind such a "quality strategy." Quality was the particular obsession of Ruhnau, whose input into decisions like first-class services for Europe perhaps had a more emotional basis than an economic one.[8] Disagreements on strategy and on the centrality of "quality" did exist, and in the Maintenance Division, for example, a reorganization of operations decided in 1986 was specifically designed to reduce costs and economize on the types of German "over-perfection" that customers would not want to pay for.[9]

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[8] Some company studies suggested First Class within Europe was unprofitable. "But because he [Ruhnau] was jealous of Swissair's monopoly and because his heart lay, not wholly disinterestedly, with the wishes of his shareholder Aufsichtsrat members and other elites from politics, the economy, and culture, his 'image locomotive' remained on the program." *Manager-Magazin*, Nov 1989.

[9] *Der Lufthanseat*, 23 Oct 1986.

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The decentralizing reform of 1987, too, failed to live up to its aspirations. Following the introduction of decentralized route management, Lufthansa's fleet came to be subdivided into some thirty configurations to meet specific route requirements with, as a result, low flexibility, as each configuration had its own specific cockpit and cabin requirements, galley equipment, and so forth (INSEAD, 1995). Efficient scheduling became impossible as overly specialized aircraft, together with past agreements on working conditions for crews, imposed heavy restrictions on Lufthansa's ability to make optimal use of its planes and crews. In 1991, the sales and marketing activities had to be reorganized into a new system of "Area management," as discussed below.

Despite mounting evidence that there was something wrong with Lufthansa's marketing approach, the BMW/Mercedes analogy remained firmly entrenched in top management's thinking. Even a change of CEO in 1991 did not change this. As late as November 1991, well after the Gulf War had ended, the new Vorstand chairman Jürgen Weber held up Mercedes as a model of product-oriented differentiation for Lufthansa to follow, albeit now with the explicitly stated need to "adjust the production cost to the different products" (*Airline Business*, November 1991). Nonetheless, as the airline crisis deepened, with Lufthansa's average yields falling by 7% in 1992 and by another 6% in 1993, the premises underlying Lufthansa's high-cost, high-quality product strategy came increasingly into question. The evolution of Lufthansa's product quality ideals can be traced in the following declarations:

> *Pre-crisis.* "We have to reduce our personnel costs. But to bring them down to 24% of turnover like at British Airways is unrealistic ... German products are successful worldwide because of their high quality. In Germany we build BMW, Mercedes, Porsche, because there's a market for these cars in this country. The same holds for Lufthansa. Customers demand quality in this country." (CEO Heinz Ruhnau, interview in *Der Spiegel*, 24 Dec. 1990)
>
> *Mid-crisis.* "The most recent sales study shows that unclear notions about the Lufthansa product exist among customers and agents. Poor knowledge of the product, insufficient sales training, and lack of understanding of the complex quality output of Lufthansa often lead to agents overlooking the product and quality characteristics of our offerings and fall back on simple arguments about the price." (Sales and Marketing Vorstand member, early 1992, in *Lufthansa Jahrbuch '92*).
>
> *Post-crisis.* "We have to prepare for the globalization of the economy," he [Weber] said. This includes not just global alliances as with United or SAS. Global competition also requires internationalizing the costs ... The firm does not need to produce everything in Germany. From "Made in Germany" to "Made by Lufthansa" is the way Weber summarized his intention. (*Handelsblatt*, 15 May 1995).

Why could Lufthansa no longer position itself as an upscale carrier overall à la BMW? One explanatory statistic stands out: the percentage of (price-sensitive) leisure travelers aboard Lufthansa flights increased appreciably from 1987 on. The percentage was 22% in 1979, stayed steady for many years,

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rose sharply to 26% in 1988 and continued to rise to almost 50% in 1993.[10] Moreover, European business travelers became increasingly price-conscious in the 1990s as cost pressures arose from intensifying international competition and high European exchange rates. Thus, the market segment targeted by Lufthansa in the 1980s had dwindled. DQP failed in civil aviation, partly because the high-end segments dwindled but partly also because the nature of the product limited Lufthansa's discretion in choosing its market segments; whereas the producer of top-of-the-line cars, machine toois, or fur coats can ship these products to whomever desires to buy them and ignore the preferences of more thrifty customers, a scheduled airline serving a given route has little choice but to tailor its offerings to the array of customers that fly on that particular route.

Once might argue that discovery of the network-based industrial strategy is a matter of experimentation; the analysis of BA in Chapter 3 supports this view. Yet even the failure of route management at Lufthansa was insufficient for the airline to stumble onto the new industrial strategy.[11] A 1991 reorganization abolished the route management system set up in 1987. Yet the 1991 reorganization was *not* undertaken to optimize the network, but to create greater profit transparency by creating a new divisional structure. This structure separated the passenger and cargo businesses. The Cargo and Passenger Divisions were in turn subdivided into three Areas (Europe, America, and Asia Pacific/Africa), each of which encompassed the routes in its respective region. Furthermore, each of these "Areas" also embraced the respective sales organization of the region so that the knowledge of local sales people could be better integrated into planning.[12]

Interviews with Lufthansa managers make it clear that the system of decentralized "route management" was beset by a fundamental flaw. On paper, route management permitted an integration of product planning and marketing (but not sales). The idea, admirable in principle, was that route planning would become more market-based, that is, route planning would become a decentralized marketing exercise rather than a centralized operational exercise. But the people did not change. The individual route managers were not real marketing people, just former central planners relocated from Cologne to Frankfurt and renamed route managers without gaining much knowledge of their local markets. Placing the route managers

[10] Sources: *Lufthansa-Jahrbuch '89* and INSEAD (1995).

[11] The company had begun installing yield management tools to improve revenues; yet the second-generation system (see Chapter 2) was predicated on optimizing on a flight-by-flight basis, not on optimizing across routes as in third- and fourth-generation yield management systems.

[12] Lufthansa's 1991 "Areas" were broadly similar to the geographic profit areas set up by British Airways in 1983 and Air France in 1994, but were actually more "revenue centers" than actual profit centers, not having operational control and cost responsibility for dedicated fleets and crews to the extent of BA or Air France.

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together with the respective sales force in 1991 was therefore intended to remedy this by providing better market knowledge into the flight and product planning processes.

The system remained far from perfect. The commercial organization was still decentralized; interviews and company documents suggest a vacuum of commercial strategy. A union representative on Lufthansa's Aufsichtsrat told me: "The way we used to decide how to add flights at Lufthansa is stick our finger in the air and try to gauge where the wind was blowing." Indicative of the deeper problem, the Marketing Director Falkenhayn had been amazed at the extent of Lufthansa's pencil-and-eraser marketing practices upon his arrival (*Touristische Report*, 1 Feb 1991).

5.4.4 Summary of the 1982-91 period

It would certainly be an over-simplification to argue that Lufthansa's adjustment pattern of "BMW emulation" in the late 1980s was conditioned directly by classic German company patterns of consensus-based decision-making at the top level (i.e. limited CEO discretion), low managerial mobility (i.e. non-use of hire-and-fire), and specialist managers. Rather, Lufthansa's "quality strategy" and interest in marketing managers from German automobile manufacturers reflects a fundamental lack of strategic focus in top management's thinking. In view of high German wage costs, the appeal to a "German quality" strategy made intuitive sense, successful though diversified quality production (DQP) strategies had proven in prospering German industries of the time. Yet it also reflected Lufthansa's weak commercial capabilities, with a resulting vacuum of commercial acumen. My interpretation is that *"BMW emulation" and the non-adoption of the network-based industrial strategy were both outcomes emanating from Lufthansa's inability to enhance the centrality of commercial acumen in its overall corporate system.*

What German patterns of company governance and employment help explain is Lufthansa's difficulty in shifting power and resources from the technical to the commercial side of the airline. The Vorstand, and most particularly Ruhnau, attempted to do so: by transferring the planning functions from the Finance Director to the Sales & Marketing Director and by decentralizing the planning functions to better accommodate individual market requirements (1987); by splitting Sales & Marketing into two separate Vorstand seats (1989); by looking hard for suitable replacements on the "ejection seat" of the Sales and/or Marketing directorships in the Vorstand. Yet the insufficiency of these measures to change the company's orientation in a fundamental way reveals the limitations placed on what a German CEO can actually do.

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As we have seen, majority voting on the Vorstand made it difficult for Ruhnau and new Sales & Marketing Directors to impose their will quickly or unilaterally. Ruhnau could not install his own team. He could campaign for organizational changes or for the hiring of marketing executives from the German automobile industry, but his tools for reaching down into the company and changing things were institutionally limited. The responsibility for filling Vorstand positions ultimately rests with the Aufsichtsrat, which in 1990 (for instance) led to disagreements with Ruhnau and to a nine-month search for a new Sales & Marketing Director. As for lifetime employment, one of the disadvantages was manifest in the system of decentralized route management, introduced in 1987: as explained, the route managers, though touted as "marketing" managers, were in reality recycled central planners.

In sum, German company patterns of governance and employment do not directly explain why Lufthansa elected one strategy or another, but they do shed light on both the airline's difficulties in shifting from a highly technical to a more commercial orientation and on the vacuum in commercial strategy that was filled by a pattern of adjustment which can be called "BMW emulation" and likened to the generic German strategy of DQP. However, not all of the germane evidence for this interpretation of Lufthansa's difficulties can be adduced from events of the Ruhnau period. The institutionalist case can be strengthened by considering how Lufthansa has reformed its governance and employment practices in the post-Ruhnau period. Events after 1991, when Lufthansa *did* adopt the network-based paradigm and close the commercial gap to British Airways, illuminate the nature of the company's pre-1991 difficulties retrospectively. These events are analyzed in the following sections.

5.5 The adoption of the network-based industrial strategy, 1992-95

To understand Lufthansa's search for radical solutions in the 1990s which culminated in its adoption of the network-based configuration, it is necessary to cover the financial crisis arising in the wake of the Gulf War and study the way Lufthansa's management reacted to the crisis. The main analytical point emerging from the following narrative is that Lufthansa did more than just intensify its search for specific solutions; it had to modify, in both explicit and tacit ways, its system of decision and control. In particular, the narrative reveals to what extent Lufthansa devised organizational alternatives to Vorstand-level control and decision-making. The devising of these alternatives was not just a one-time, crisis-induced exercise; as will be seen, it continued even after Lufthansa regained profitability.

Discovery and implementation of the network-based industrial strategy resulted from a confluence of factors. Unlike Michael Levin at BA or Gilles Bordes-Pagès at Air France, no single individual at Lufthansa advocated the network-based strategy as a total system. Interviews and company documents

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instead present a picture of a collective learning process. Within this collective learning process, the various components of the network-based strategy were thought about more or less separately and yet simultaneously, impelled by the mood of crisis. The various components of the new strategy all came onto the agenda in 1992 and were clearly destined for implementation by the fall of that year. Yet they were seen as a subset of so many management actions being pursued simultaneously to save the company from bankruptcy. "Optimizing the network" became a rallying cry in 1992, to be sure, but as several interviewed Lufthansa managers point out, the various measure associated with this were off-shoots of a larger process of "mental change" and a large-scale turnaround process undertaken in mid-1992.

The leader of the turnaround effort was Jürgen Weber. Unanimously elected as Vorstand chairman in May of 1991, he was known for his candor and simplicity. An engineer by training, he had spent his entire career in the *Technik* division of Lufthansa. As one Lufthansa vice-president put it in an interview, "Ruhnau used Lufthansa as an instrument for engaging in politics, whereas Weber simply wants to make money with Lufthansa."[13] To understand how the turnaround process led to adoption of the network-based strategy, two sets of circumstances will be described prior to recounting the turnaround process itself. First, a set of non-turnaround inputs into discovery of the network-based strategy is mentioned. Second, a brief recount of the background of the 1992 financial crisis and important organizational antecedents to the turnaround process is indispensable for understanding the configuration of factors leading ultimately to the collective effort of turnaround and "mental change."

5.5.1 Non-turnaround inputs into discovery of the network-based strategy

Prior to the actual turnaround process, the first impulse to "optimize the network" actually came in early 1992 from McKinsey consultants. Surprising though it may seem, this has been confirmed in several interviews and in the

[13] Despite concern from many quarters, Ruhnau remained obsessed by the "patriotic" duties imposed by reunification, over-extending the company more than ever. He had succeeded in retaking control of Berlin; British Airways, Air France, and the US carriers lost their inner-German traffic rights. But after beginning regular services to Berlin in October 1990, Lufthansa's 1990/91 winter schedule contained an excessive 386 weekly flights from Berlin. As for Ruhnau's ultimate reunification dream of acquiring the East German carrier Interflug (controversial within Lufthansa precisely because of its dismal financial situation), this was thwarted only by the intercession of the Federal Cartel Office in 1990. The symbolic irony is that the Federal Cartel Office is housed in offices belonging to the very Tempelhof airport complex where Lufthansa was founded, as commemorated by a metal plaque posted by Ruhnau in 1986 just across the street from the Federal Cartel Office.

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press (*Manager-Magazin*, July 1992). The McKinsey consultants pointed out the need for computers tools to schedule flights in a way that would optimize revenues as well as costs. Efforts to automate flight scheduling were relaunched,[14] resulting in the NESTOR ("network structure optimization") project, capable of processing information on over 10,000 catalogued city-pair routes and assembling information on the flight patterns of Lufthansa's and competitors' customers to compute the revenue and yield effects of various scenarios of flight scheduling. Both McKinsey and Lufthansa programmers worked on the project, which had its first impact on the timetable in 1993. The effect on route profitability was calculated to be at least DM 300m annually.

Another vital impulse towards changing paradigms came from difficulties with the Area management system created in 1991: Area managers in the Americas, Asia/Africa, and Europe conflicted over scheduling priorities as each attempted to maximize the profitability of his own Area. For example, managers in the German region, noticing that seats on connecting flights of inbound passengers from the Americas were losing money, reduced the seat allocation for these transfers to zero - but without informing the Area managers for the Americas who were astonished to find that neither they nor their American travel agents could obtain connecting flights (INSEAD, 1995). What to do about the problem was fiercely debated within Lufthansa during 1992 and 1993. While globally recentralizing sales and marketing decisions made sense to some Area managers, others resisted the idea firmly, believing that the reforms of 1987 and 1991 had amply revealed the limitations of structural solutions; instead, they advocated informal networking and improved cooperation.

One Area manager in particular wielded considerable influence in bringing Lufthansa's poor hub connections and lag in yield management to the attention of Weber and the Vorstand. This was Fred Reid, formerly a marketing executive at American Airlines, who was recruited in late 1991 to head the Americas Area at Lufthansa and remedy the airline's competitive deficit over the North Atlantic. Reid quickly concluded that Lufthansa's problem was not just an unfair US-Germany bilateral. Lufthansa's "passenger connectivity" was poor, meaning that Lufthansa was offering too many transatlantic flights from airports with poor passenger feed such as Cologne and Hamburg. By mid-1992, Reid could declare publicly: "Using decentralized long-haul flights in a small country like Germany makes efficient air transport impossible" (*Der Lufthanseat*, 14 Aug 1992). Compared to the state of the art in US airlines, Reid also impressed on top management - though he was not alone in this - that Lufthansa's yield management systems were not up to par in adjusting prices according to route, season, day-of-the-week, and hour-of-the-day. One of the messages Reid began to spread was: "We must quickly rid ourselves of

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[14] An earlier effort called SPARC had been unsuccessful (Lehrer 1997).

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the habit of thinking that cheap flights are only offered by cheap airlines" (*Der Lufthanseat*, 14 Aug 1992).

These various inputs did not in themselves lead to a revolution in Lufthansa's basic commercial strategy. Instead, they pinpointed certain flaws and competitive lags in the airline's existing systems. To understand how these various inputs fed into a collective learning process, the circumstances surrounding Lufthansa's financial crisis of 1992 are examined in the next section.

5.5.2 Crisis-related inputs into discovery of the network-based strategy

To finance its fleet expansion of the late 1980s, Lufthansa had drawn on its reserves, issued new shares in 1989, and placed two variable-rate Euro-bond issuings of DM 1bn each in the early 1990s. Its net indebtedness grew from DM 1.8bn in 1989 to DM 4.4bn in 1991.[15] Ruhnau's rationale was simple: "What must we do to prepare for 1 January 1993? We must occupy market positions in time. We must try to complete our fleet modernization by the end of 1992. The others will still have this before them."[16] Unfortunately, 1 January 1993 was not nearly as significant an event in European air transport as the Gulf War.

The Gulf crisis itself had an estimated negative impact of DM 350m on Lufthansa's results. Initially, there was a tendency to attribute the 1991 bottom line to the non-recurring effects of this crisis. Encouraged by improving sales during the second and third quarters of 1991, Lufthansa managers hoped that a hiring freeze and various action programs (e.g. process re-engineering and TQM initiatives) would enable the company to grow its way out of deficit. But results in the fourth quarter fell below expectations and by early 1992 the awareness of a deepening crisis was beginning to set in. Despite a 10% annual rate of increase in passenger volume, a return to profitability was nowhere on the horizon. Average ticket prices per kilometer (yields) were falling at a 7% annual rate, while load factors remained low due to excess industry capacity (INSEAD, 1995).

When in the first half of 1992 the monthly figures showed continuing losses due to declining yields, the Vorstand knew that drastic things needed to be

[15] Source: Lufthansa annual reports.
[16] Heinz Ruhnau, speech at the Annual Press Conference, 17 May 1990, cited in: *Lufthansa-Jahrbuch '90*, p. 137. Even before the Gulf War of 1991 Lufthansa's profitability deteriorated, barely breaking even in 1990; Lufthansa's expansion and still bloated administration was registered with increasing consternation by the business press, Lufthansa's unions (DAG, ÖTV), and by the Aufsichtsrat chairman Gerd Lausen.

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done. A trigger of this recognition was a chilling presentation to the Vorstand by the corporate strategist Axel Pfeil in March of 1992 extrapolating current trends analogous to the US experience of deregulation. An eye witness recalled in a 1996 interview:

> Pfeil painted a picture that sent down chills over everyone's spine as people saw that we were in a very dangerous downwards movement. Pfeil changed the strategic focus of top management away from growth thinking and more towards a focus on the critical dimensions of the company with respect to Lufthansa's position in comparison to competitors: what are the units costs and the trend in yields? He conducted a number of extrapolations about yields and market concentration based on the US post-deregulation experience. He applied this scenario to Lufthansa ... Were we ready? And people saw very clearly that we weren't ready at all and that the whole thing could end in disaster unless we acted to take radical measures.

Another party that was becoming uneasy about Lufthansa's situation were the unions. They had always been uneasy about Ruhnau's growth strategy. With the unions' company stewards on the Aufsichtsrat, their access to company information was excellent. Numerous interviews with Lufthansa managers and members of the Aufsichtsrat attest to the technical competence and concrete awareness of Lufthansa's financial problems among the DAG and ÖTV union leaders. In consulting with the political parties in Bonn, the unions also learned that Lufthansa could not expect a government bail-out. The liberal FDP party, whom Lufthansa had offended in the past by resisting privatization, was particularly hostile; yet the ÖTV could not even obtain a commitment from the opposition SPD party to support a federal bail-out (Source: interview with an ÖTV Aufsichtsrat member). Just how deeply Lufthansa's troubles were recognized by labor leaders is attested in the June 1992 issue of a newsletter published by the pilots' association:

> The profitability and cost situation is not only bad, it is *catastrophic* ... The desperately necessary capital injection for pushing on is equally not in sight. Nothing can be expected from the government ... The Waigels and Möllemanns[17] will raise hell and would not survive politically ... if they invested in the bottomless bucket Lufthansa ... Before privatization, restructuring has to take place, and if that doesn't work, bankruptcy. And I can't exclude the possibility that this is being consciously aimed at [in Bonn] and is becoming the politically viable "investment" of the federal government because no-one can get a grip on the leviathan of the public sector ... You must know in what a catastrophic situation we are in, that we have absolutely no time to become distracted from the situation by crying about management failures of the past years ... Dear colleagues, a *revolution* will take place shortly - it must take place and everyone with responsibility knows it. In the best case, internally initiated, so that we can still have a word to say ... Not only the economic, but also the political pressure will not release him [Weber] from this responsibility. As child raised in this house he will be carefully observed, and if he doesn't bring results in a reasonable space of time, his days will be numbered. (Vereinigung Cockpit, *Tarifinfo* No. 3/92)

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[17] Waigel and Möllemann were the names of the Finance and Economics Ministers.

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Lufthansa's management could therefore count on the support of the unions to save the company. But beyond issuing targets, imposing a hiring freeze, and mandating cuts in expenditures, what could the Vorstand do through hierarchical control? The Vorstand members are technical specialists of the most heterogeneous sort, not appointed by the CEO, but by the Aufsichtsrat as experts in their particular areas, and the CEO Jürgen Weber had only one vote out of six. They could expertly monitor the numbers produced by their respective operational or functional areas, but were levels removed from that at which the global impact of fundamental reforms or large-scale cuts could be assessed. As press reports disclose, Weber was deeply frustrated by the fact that Lufthansa's problems were endlessly talked about, but nothing was done (*Manager-Magazin,* July 1992). Josef Grendel, who had been recruited by Weber to head the Communications Department, recalled:

> When I joined in late 1991 there was no sense of an impending crisis at all. But early in 1992, all of a sudden the disaster was on the horizon. My advice to Weber was to put the whole truth on the table, both internally and externally. He agreed and we began to spread the somber message. And still, I think it took at least six months for all our people, maybe a bit less for the managers, to understand and believe that there would be big losses threatening their jobs (quoted from INSEAD, 1995).

The Vorstand thus had to search for alternatives to conventional hierarchical steering. As documented in two inside case studies on Lufthansa (INSEAD, 1995; Mölleney and von Arx, 1995), the Vorstand had become attentive to a group of 25 middle managers one level below the top senior managers. These selected middle managers, having attended four weeks of INSEAD management seminars on change, began a campaign within Lufthansa. Study of other companies, especially Asian ones, had convinced these managers that to achieve competitiveness Lufthansa needed a fundamental "mental change" from compartmentalized responsibility to spontaneous unbureaucratic mutual assistance and informal networking across departmental boundaries. Calling themselves "Samurai for Change," they campaigned within their respective areas and undertook a number of cross-departmental initiatives that were supposed to demonstrate the benefits of the new culture and eventually engulf the rest of the organization. One Samurai recalled: "We let the Vorstand know that people were ready to give more of themselves without being asked and that the Vorstand could demand more of us" (quoted from INSEAD, 1995).

The impressed Vorstand next had to decide how best to use the "Samurai." In April, the Vorstand endorsed the idea of holding "mental change" workshops for the direct reports (the top managers reporting directly to the Vorstand), sensing that the change process could not be driven from the middle management level of the Samurai.

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A conference of the personnel managers in May 1992 was devoted specifically to the issue of "mental change," which became a battle cry (in English) within the company. It was becoming increasingly clear to Lufthansa's top management that the critical challenges could not be solved simply by changing structures. The problem was that Lufthansa was still an organization of specialists accustomed to an exclusive focus on their own particular areas. Moreover, top management was becoming increasingly aware that the company could not be steered in a top-down fashion from the Vorstand. The Vorstand Director of Personnel, Dr. Heiko Lange, emphasized in the company newspaper: "Top management is now convinced that mentality changes are necessary." Matthias Mölleney, a top personnel manager, underlined that mental change did not just mean pointing the finger at others: "Mental change has to happen within oneself: it cannot be delegated" (*Der Lufthanseat*, 19 June 1992). As interviews repeatedly revealed, the term "mental change" became an integral part of company terminology. Two weeks before the June workshop for the direct reports, in view of the deteriorating financial situation, Weber changed the workshop title from "mental change" to "crisis staff meeting."

Weber opened the June meeting with a plea to his senior managers to put their heads together and save the company.[18] With most of Lufthansa's top managers present, the group had the authority and knowledge of internal operations to work out a recovery plan. It was called *Programm '93* and aimed to improve results by DM 1.5bn annually through a formula of personnel cost reductions, non-personnel cost reductions, and revenue improvements. Through the various Works Councils, the Aufsichtsrat, and close contact between the employee representatives and the Vorstand Director of Personnel, the involvement of employee and union representatives in monitoring Lufthansa's situation was very high. This explains why once the rescue program was more or less finalized in August, it could be almost seamlessly introduced into the ongoing round of wage negotiations for the contract expiring August 31.[19] A new contract with DM 500m of labor concessions was signed on August 31 without a strike, the unions agreeing to a wage freeze (a "zero round") and greater flexibility in work assignments.

The crisis workshops also deepened the understanding of the need for a central "brain" to maximize network benefits. During the workshops, managers from the different geographic Areas agreed to present a recommendation to

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[18] "Lufthansa ist ein Sanierungsfall! - only insufficiently translated by the closest English equivalent of "Lufthansa is a case for restructuring!" (Lehrer, 1995).

[19] Indeed, one of Lufthansa's unions pre-empted management by proposing a package of concessions unilaterally: "Germany's DAG white-collar trade union turned traditional negotiating tactics on their head at the weekend with an offer to accept longer working hours and less pay for its high-flying members ... If directors, management, and other non-union employees followed the DAG lead, the company could save DM 500m a year, the union claimed" (*Financial Times*, 18 Aug 1992).

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the Vorstand for the creation of informal horizontal links across the organization, to complement and compensate for the formal division into Areas:

Passenger Division: Geographical and Networking Dimensions			
	Europe	Americas	Asia/Africa
Network Management ("The Brain")	Multiple		
Capacity and Flight Planning	Informal		
Yield Management (Pricing, etc.)	Links		
Computer Reservation Systems	across these		
Hub Management (Airport Slots)	Geographical Dimensions		
Source: INSEAD (1995)			

An effect of the 1992 crisis was thus to oblige the Area managers to think about how to "optimize the network" by better managing their mutual interdependencies along the above dimensions. These networking tasks are precisely the tasks that European airlines generally entrust to a specialized network department, as explained in Chapter 2. In mid-1992, Lufthansa managers were not yet convinced of the need for a formal unit to manage the networking tasks, hoping instead to do the job through informal links. The reasons for this are clear from what was said above: informal cooperation across departmental boundaries was "in," so to speak, structural tinkering was "out" at this point in time. Nonetheless, Lufthansa's top managers in the Passenger Division were now clearly focused on the problem of managing network interdependencies along all the dimensions listed above and engaged in a collective learning process about how to do it.

5.5.3 Implementation of the network-based industrial strategy

How central was optimizing the network to CEO Weber's priorities? Professor Heinz Thanheiser of INSEAD had the opportunity to see the pieces of paper that Weber walked around with in 1992 and 1993 on which Weber had jotted down his priorities for these years. Thanheiser rendered them into English as follows:

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Jürgen Weber's Personal Notes Regarding Priorities for 1992 and 1993	
January 1992	December 1992
- US partner	- improving network management
- tourism-concept/implementation	- PENTA hotels
- introduce shuttle	- implement Programm '93
- new cont[inental] product	- key position staffing in Sales
- VBL [pension] solution	- hold [more] town meetings
- new controlling system	- US partner
- AUA/Lauda	- get telephone replies up over 90%
- push TQM	- Condor scheduled service
- new wage agreement	- start restructuring into sub-units
- surplus people into Sales	- improve pricing
- introduce FreqFlyer program	- intensify Vorstand-info to management
- find PENTA hotel solution	

Source: INSEAD (1995)

Space obviously prohibits us from explaining all of the airline's problems that Weber had to sort out. As the above exhibit documents, in any case, the "network" clearly came to the fore of the CEO's priorities in the course of 1992. We recall from Chapter 2 that when asked at a Frankfurt "town meeting" with employees in October 1992 what BA did to make profits, Weber replied that there were three reasons: 1) BA's sophisticated *yield management* system, giving BA a seat-load factor (i.e. percentage of the plane filled) of 14% higher than Lufthansa; 2) BA's centralized *hub structure* in London, whereas decentralized services were becoming less profitable; 3) profitable *North Atlantic operations*, thanks to the UK-US bilateral. It is useful to chart Lufthansa's catch-up in each of these three areas.

Yield Management. Lufthansa's head of Information Technology (IT) declared in early 1993: "Up to now the success of individual routes stood at the center of our efforts; in the future we have to concentrate on the profitability of the entire network" (Dr. Peter Franke in *Der Lufthanseat*, 5 Mar 1993). After much effort, including a major consulting project, to develop management control and incentive systems which would guide the Area managers' behavior towards network optimization, it was finally concluded that this was logically impossible. Only a centralized system for managing the total network would achieve this. The decision to set up a formal centralized network management department to manage these IT tools, by now only a question of time, was taken in November of 1993.

The formal Network Department was set up in December of 1993, drawing together managers and specialists from the various Areas. Work was

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coordinated on the development of sophisticated software tools in four areas - fleet capacity, network scheduling, pricing, and yield management. As the central service unit in the Passenger Division, the Network Department would continually calculate and re-calculate the capacity and pricing structure along each route in order to optimize overall returns. While Sales remained formally decentralized for the meantime, managers from the Areas began spending more time in Frankfurt managing trade-offs in the allocation of capacity among geographical regions. To allay fears of recentralization of power, the new Vorstand Director of Marketing announced that the head of the Network Department would be rotated every 24 months - and neutralized opposition to the idea by appointing as its first head the Area manager who was expressing the greatest skepticism about the whole idea (Source: interviews). By this time, it was clear to top management that Sales would eventually have to be recentralized as well: this step was formally taken in mid-1995, consummating the adoption of the network-based industrial strategy.

Meanwhile, Lufthansa began purchasing new revenue management tools from Sabre Decision Technologies (SDT), including the wherewithal to update Lufthansa's yield management systems to the third generation level (virtual nesting). In an interview of mid-1994, the head of the Network Department reported that Lufthansa had by then caught up with the European leaders in yield management. Interviews in 1996 at Lufthansa and BA disclosed that both companies were preparing to introduce bid pricing (fourth-generation yield management) by 1997.

Hub Structure. Lufthansa recentralized its flights around its Frankfurt hub in the years after 1992. The main driver appears to have been Fred Reid, head of the Americas Area. Reid explained in a 1996 interview:

> We convinced the board to drastically curtail decentral services. We stopped New York-Cologne, Hamburg-Miami, Düsseldorf-Miami, Munich-New York, a bunch of others, and now we only fly Düsseldorf-New York and Munich-Chicago ... Between 1992 and 1995, we had to stop the hemorrhaging and cut costs like anything. We restructured the North Atlantic with a radical reduction of decentral flying. This forced us to examine decentral flying in other markets, which we did. We had to modernize the information-processing tools so we could run the airline on a hub basis, resulting in the optimization of the hub, and introduced an FFP [Frequent Flyer Program, in January 1993].

Almost as a natural extension of this Lufthansa began thinking about how to improve the feed into transcontinental flights from its extensive European network.

North Atlantic. It is with regard to this point that Lufthansa's implementation of the network-based strategy differed in focus from the way BA and Air France implemented the new strategy. As Weber's personal notes

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show, finding a US partner was a clear priority of Lufthansa throughout 1992 and 1993.

It was clear that Lufthansa needed a US partner if the company was to build up a proper global network and regain profitability over the North Atlantic. Without a feeder network in the US, Lufthansa could not hope to match the moves of US carriers flying to Germany. This imbalance had worsened considerably in August 1991 when Delta acquired Pan Am's gates and slots in Frankfurt. Until 1993, the prevailing wisdom for European carriers was that taking an equity share in one of the smaller US airlines was the only way of assuring both stability and equality in the relationship. But these US candidates either selected other foreign partners or proved unsuitable investments for other reasons; Lufthansa was on the verge of acquiring Continental Airlines in partnership with Martin Davis in 1992, but withdrew when it obtained more details about Continental's financial situation.

Lufthansa realized it had to risk an alliance with one of the "mega-carriers" and opened negotiations with American and United. This required another round of "mental change" within Lufthansa, for it signaled a dilution of Lufthansa's identity as a German carrier.[20] An agreement with United was signed in October of 1993, and after marathon negotiations with the US government a German-US memorandum of understanding in March of 1994 gave the green light to code-sharing (allowing Lufthansa to list partner's connecting flights under Lufthansa flight numbers and vice-versa, effectively merging the two networks). The alliance was a resounding success, generating 1000 excess bookings per day since its inception and greatly enhancing Lufthansa's profitability. Lufthansa subsequently added Thai Airways (1994) and SAS (1995) to its global web of alliances. The Lufthansa-United link-up ushered in a significant innovation in the global strategy of airlines, namely non-equity code-sharing alliances among major carriers, which other large airlines (including British Airways) were subsequently obliged to emulate.

5.5.4 Summary of the 1992-95 period

Since much importance has been attached in this research to the network-based industrial strategy, it is worth gauging the relative importance of the matter for Lufthansa's bottom line. A clue is provided by the original terms of *Programm '93* which it agreed with the unions in the summer of 1992. The

[20] Reid and the corporate strategist Stefan Lauer, as both men mentioned in interviews, had to overcome a substantial deal of skepticism and fear within Lufthansa about the prospect of a full-scale alliance with a mega-carrier. With regard to Lufthansa's German identity, a newly reformulated marketing strategy in December of 1993 clearly stated that Lufthansa was a European rather than German carrier (*Der Lufthanseat*, 10 Dec 1993).

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program was to improve Lufthansa's bottom line by 10% of turnover; the DM 1.5bn improvement was slated to result from:

- a DM 800m reduction in the cost base (DM 500m personnel costs and DM 300m non-personnel costs)

- a DM 700m improvement in revenues, due to refinements in scheduling, selling, a new frequent flyer's program, etc.

On the revenue side, Lufthansa expected the previously mentioned Nestor project to produce result improvements of at least DM 300m in the schedule (INSEAD, 1995). This leaves up to DM 400m to come from improvements in its pricing systems, which at 2.5% of Lufthansa revenue is well within the 6-8% range of revenue improvement that an Air France study indicated was possible by implementing the type of revenue management tools that it too was purchasing from SDT (Bordes-Pagès, 1994b). Lufthansa's IT head, Peter Franke, coyly told me: "The impact of yield management tools on overall revenues is hard to measure. It lies somewhere between 1% and 20%" (1996 interview).

The way in which Lufthansa implemented the network-based paradigm was described above. The process was collective, driven by the need to close the gap to BA and the US airlines in terms of competitive practices, and inscribed within the larger problem of saving the company from disaster. The following statistics give some idea of the turnaround, though for reasons of accounting discretion that need not detain us here, they actually smooth out the magnitude of change in Lufthansa's financial performance in the 1990s:

Lufthansa Group (including subsidiaries)

		1994	**1993**	**1992**	**1991**	**1990**	**1989**
Net profit (loss)	DM Mill.	302	-91.6	-391.1	-425.8	15.2	109.7
Turnover	DM Mill.	18,836	17,731	17,239	16,101	14,447	13,055
Employees	year average	58,044	60,514	63,645	61,791	57,567	51,942
Turnover/employee	DM Thou.	325	293	271	261	251	251

Source: Annual Reports, 1994 and 1995

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The turnaround was accomplished without hire-and-fire. The pre-crisis and post-crisis top managers remained largely the same.[21] Industrial relations at Lufthansa remained good and, far from impeding the adoption of the new strategy and other necessary changes, assured a rapid agreement on how the burden of turnaround would be distributed between employee concessions and renewed management effort. Finally, we have seen extensive evidence of CEO Weber's capacity to mobilize Lufthansa into effective collective action, notwithstanding - or perhaps even because of - consensus-decision making in the company.

Given how quickly Lufthansa was able to react (greatly surprising the airline community by the speed of its turnaround), does this imply that German company patterns of consensus decision-making, co-determination, and lifetime employment constitute a functional equivalent to Anglo-Saxon patterns of unilateral CEO control and high managerial mobility? Two caveats are in order.

First, rapid catch-up (of the kind evidence by Lufthansa) is not the same process as self-initiated innovation (of the kind evidence by British Airways in the 1980s). One reason why Lufthansa's governance system was able to distribute the burden of turnaround neatly between management and employees was that management, aware of competitive gaps to other airlines like BA, could specify actions likely to bring quantifiable performance improvements. Whereas BA's precocious implementation of the network-based industrial strategy in the 1980s took place under considerable uncertainty about the ease and effects of implementation, Lufthansa's tardy implementation could draw on accumulated industry experience to a much greater extent; for example, by the 1990s Lufthansa could purchase third- and fourth-generation yield management tools from the vendor SDT. In other words, the Lufthansa case does *not* support the hypothesis that German company patterns represent a functional equivalent to Anglo-Saxon patterns from the standpoint of effecting radical, discontinuous innovations under conditions of high uncertainty. However, the Lufthansa case *is* consistent with the perfectly plausible hypothesis that German company patterns may ultimately be *as good or superior* to Anglo-Saxon ones for purposes of implementing rapid techno-organizational changes whose effects are well-understood (conditions of low uncertainty) and whose implementation can therefore be bargained for among company stakeholders.

Second, a closer look at the turnaround process from 1992 on actually reveals that in adapting to pressures from its competitive environment, Lufthansa's Vorstand was obliged to search for alternative routes to Vorstand-

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[21] The Vorstand Director of Marketing was changed in 1993. Furthermore, during the staff reduction exercises of 1992-94, many lesser performers in the managerial ranks were gently encouraged to leave, as explained below.

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level control of its operations. In other words, and somewhat pointedly expressed, top management was looking for solutions to dysfunctions associated with the system of German corporate governance. To see this, it is necessary to extend the prior analysis briefly beyond the confines of the network-optimization problem and chart the course of the overall turnaround project (Programm '93). Because of its direct relevance to the governance and managerial mobility issues studied in this research, the final section of this chapter examines the implementation of Programm '93 and subsequent developments in the governance structure of Lufthansa.

5.6 The limits of Vorstand-level decision-making

As mentioned previously, the DM 1.5bn recovery package, Programm '93, was agreed by management and the unions in August 1992. It will be shown that implementation reflected the extent to which CEO's power was circumscribed by the German governance system, where neither hiring-and-firing nor unilateral CEO control was possible. Worth mentioning in advance is that the unions had the means to ensure that management was making its 2/3 contribution to the DM 1.5bn result improvement; as part of the agreement, so-called "structure groups" were set up under each of the six Vorstand-led divisions of the company. These groups, which were composed of three managers and three employees' representatives each, had to be consulted on all important decisions. As senior personnel manager Matthias Mölleney put it, however, in a 1995 interview:

> Strictly speaking, the unions really didn't need the structure groups. The union representatives are extremely well schooled and have multiple access to information. If, say, Holger Haage [ÖTV representative] comes to me with a request for highly confidential information as head of the Hamburg Works Council or as head of the Comprehensive Works Council, I may be able to refuse. But if he addresses me in his capacity as a member of the Supervisory Board, I'm obligated to comply ... With structure groups, the unions could sell the agreement better to their members, saying 'We bear 33% of the brunt and we can monitor the other 67%.' (quoted from INSEAD, 1995).

Even so, it was one thing to obtain some verbal commitments on cost reductions and the like, quite another to make sure they were followed by concrete actions. The following narrative traces the organizational dynamics of implementation.

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5.6.1 Implementation of Programm '93

In the summer of 1992, the Vorstand initially appointed twelve senior managers, mostly from the workshop group, to a special "San Team" (*Sanierungsteam*) to monitor implementation of the agreed measures with the assistance of the corporate controller. The San Team met three times during the summer, but soon proved too large and heterogeneous to function effectively. As attendance dwindled, implementation of the recovery package became the task of a small team of initially just three carefully selected managers and one external consultant designated by Weber, the "Operations Team" or Ops Team for short.

Lufthansa is proud of the fact that the company was able to manage the turnaround using its own internal restructuring teams rather than relying on outside consultancies (Mölleney and von Arx, 1995). Yet from the standpoint of the current contribution, perhaps the most salient feature of the internal restructuring teams was that they operated on a principle fundamentally different from that of Vorstand-level decision-making. To begin with, the Ops Team was never invested with much official power, but set up shop in the symbolically important vicinity of Weber's office in Frankfurt. They set the agenda of the San Team while it lasted; produced minutes, analyses and position papers; coordinated where they could and, most of all, they talked with many managers individually about the earnestness of the cost-cutting program.

Their visits to various departments reached over 120 managers throughout the company in late 1992 and early 1993, whittling away at resistance and cynicism. Together with the controllers' office the Ops Team tracked progress against targets.[22] Extensive calibration efforts were required among different parts of the company, each of which went about cost cutting in different ways. Beyond stimulating and monitoring *Programm '93* the Ops Team was charged with spotting possibilities for further cuts throughout the organization and also formulated contingency plans that specified what actions would be taken in the event prior measures proved insufficient to meet the cost-reduction targets.

As the Ops Team's knowledge of the organization increased, they began to propose changes of their own, especially in the highly complex Marketing and Sales Division whose head had his hands full with revenue- and yield-enhancing projects. "The Ops Team took on the role of a heretic who asks uncomfortable questions and thus helps to prevent or reduce unnecessary expense," one Ops Team member recalls. Yet they also had to understand the delicate position of Lufthansa managers who risked being perceived as disloyal to their own areas if they contributed too readily to the cost-cutting effort. The

[22] Improvements made in Lufthansa's accounting systems over the previous years were a pre-condition for the success of the Ops team in monitoring progress.

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Ops Team was therefore engaged in a constant process of prodding and negotiation and had to contend with its status as a "shadow organization".

With respect to lifetime employment policies for managers, the activities of the Ops Team again signaled a break with prior company practice. In a remarkably forthright and detailed article on Lufthansa's personnel policies during the turnaround process, a top personnel manager and former Ops Team member wrote:

> The personnel reduction at Lufthansa could be conducted on a largely socially acceptable and voluntary basis, which by no means signifies that the employees jumped at offers of early retirement or severance pay. Pointed and individual discussions with those concerned were required and often conflicts could not be avoided. To absorb these ill feelings, an independent team with corresponding competences, like the previously described Ops Team, was an appropriate means for cultivating the image of a restructuring *bête noire* (Mölleney and von Arx, 1995: 551).

Managerial and administrative positions were reduced by 30%, as opposed to only 15% in operational positions (1995: 546).

Extensive calibration efforts were required among different parts of the company, each of which went about cost-cutting in different ways. Just how critical the Ops Team was - and its link with the nature of German corporate governance - was attested by Weber:

> The way I selected the Ops Team was on the basis of trust, in both competence and loyalty. I had to walk a very narrow path between maintaining a working atmosphere in the Vorstand and getting difficult and necessary things done for which a quick consensus of the Vorstand was not possible. The San and Ops Teams contributed a lot. The early regular meetings of the San team allowed me to personally increase the pressure on a whole range of line managers. The Ops Team pointed us down the right path, sign-posted this path and, though excessive at times, it was never in the wrong direction. (quoted from INSEAD, 1995)

Weber did take personal control of a number of things in the company, notably the development of certain information systems (the information technology director Dr. Franke reported directly to Weber for a time); nonetheless, an essential part of Weber's turnaround method was to invest his Ops Team with substantial autonomy and urge the organization into cooperating with the Ops Team, the "restructuring *bête noire*."

Clearly, the turnaround process involved finding alternatives to Vorstand-level control and guidance. To argue that the process by which Lufthansa engineered the turnaround was conditioned in part by the nature of German corporate governance is not to deny that the same sort of process could occur in an Anglo-Saxon airline or that a more directive top-down process of implementation and monitoring would be impossible in a large German firm.

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There doubtless exist English firms whose board composition significantly restrains the unilateral power of the chief executive, just as, inversely, Vorstand chairmen in some German companies may enjoy such unwavering support from the Vorstand and Aufsichtsrat as to be able to impose their will almost unilaterally. The lesson drawn here is simply that the rules of German corporate governance make it less likely that the Vorstand chairman will have the same unilateral powers as the CEO of an English or American company and will therefore have to envision means other than direct hierarchical control to engender and monitor the fundamental restructuring of the company.

5.6.2 The new corporate structure of 1995

An evident sub-plot of the previous section is that in adapting to pressures from its competitive environment, Lufthansa's Vorstand was ultimately obliged to search for alternative routes to Vorstand-level control of its operations. In other words, and somewhat pointedly expressed, top management was looking for solutions to difficulties associated with the German system of corporate governance. By 1994, Lufthansa had regained profitability, and an issue of new shares in the later part of the year caused the state's shareholding to drop from 51% to 37%. Yet even after returning to profitability, the saga of finding alternatives to Vorstand-level control over decisions continued.

To Lufthansa's management it was evident that yields would continue to decline while profit pressures would increase with privatization. As further wage concessions could not be expected, management pinned its hopes on a new corporate structure of internal markets to create greater cost transparency and initiative at lower levels. Concretely, the plan was to split Lufthansa into several legally separate companies: Cargo, Technik (maintenance),and Systems (data processing) would all be separated from the mother company Deutsche Lufthansa AG. The plan was originally formulated by the Ops Team. On January 1, 1995, three units becoming legally independent subsidiaries: Lufthansa Cargo AG, Lufthansa Technik AG, and Lufthansa Systems GmbH. In becoming independent, these spin-offs had greater latitude to "internationalize" their costs by making acquisitions or developing alliances abroad (particularly in lower-wage countries).

The new corporate structure required a deep change in the functioning of the Vorstand. The Vorstand had been composed of a chairman and five functional heads (Finance, Personnel, Maintenance, Operations, Marketing). Under the new corporate structure, Deutsche Lufthansa AG was left with only the Passenger Division and the corporate functions: the formal Vorstand functions Finance and Personnel, plus other subsidiary functions such as corporate controlling, strategy, facilities, and government relations, all reporting

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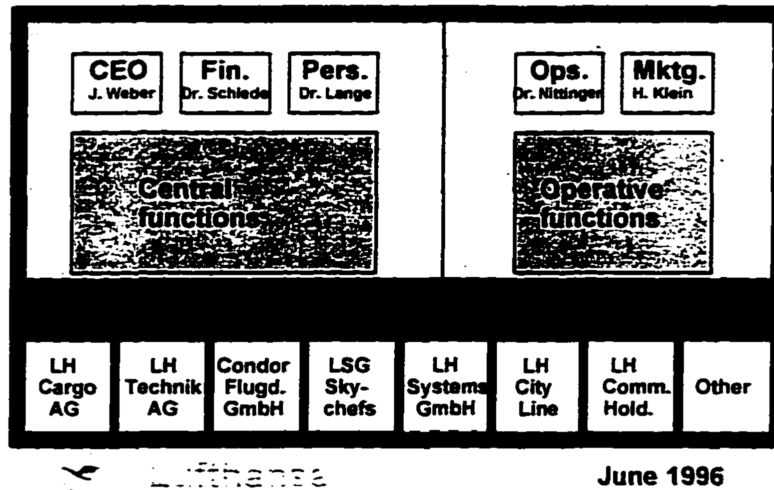
to one of the Vorstand members. Though remaining a collegial decision-making body, the Vorstand was henceforth composed of two distinct roles:



On the one hand, three Vorstand members (Chairman, Finance, Personnel) retained corporate-wide responsibilities, while the other two (Marketing, Operations) acquired functional responsibility over their respective activities in the Passenger Division. The rationale was that while the Passenger Division would transact with the newly formed legal subsidiaries on an increasingly arms-length basis, the Vorstand would monitor the overall process. Moreover, even *within* the Passenger Division, the reform was designed to institute more market-like relationships between Marketing and Operations; eventually, Marketing might eventually contract out for planes and crews to outside suppliers (just as Operations might contract out for maintenance to suppliers other than Lufthansa Technik AG) while Operations might conversely find supplemental purchasers of its capacity outside the Lufthansa group.

The upshot of this corporate reform is that it reduced the scope of company issues subject to consensus decision-making in the Vorstand. Arguably, the decision to go for legally independent units rather than merely internal company profit centers was again necessitated by a German governance system based on consensus decision-making at the top and substantial job security for managers. Faced with the need to impose cost reduction and profit improvement pressures, Lufthansa with its governance structure and longer-term employment contracts could arguably only hope to do so by exposing these units directly to market pressures through legal company independence.

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5.7 A contingency framework of German comparative institutional advantage

A hypothesis suggested by the foregoing analysis is that Lufthansa's system of corporate governance, based on consensus decision-making and company guidance at the Vorstand level, was institutionally adapted to the airline industry environment up to the 1980s when technological change was essentially continuous (involving new models and generations of aircraft), but placed Lufthansa at an institutional disadvantage in the 1980s when regulatory and technical changes in the industry required more discontinuous shifts in the strategy and organization of the company. Consensus decision-making and secure employment prospects for managers appear to provide an advantage for adjusting to an industry environment of continuous change through a policy of accumulating technical skills (consistent with lifetime employment for specialists) and of distributing the economic gains of programmable productivity increases (consistent with co-determination and consensus decision-making at the top).

However, in an environment requiring a sudden change in the company's set of skills, in the power structure, and in the company's capacity to make rapid decisions involving risk and uncertainty about the mode and success of implementation, a system of consensus top-level decision-making and of lifetime employment for mangers may prove disadvantageous. If this hypothesis is correct, it would explain what appears to be a Lufthansa pattern in the 1990s of exploring alternatives to Vorstand-level guidance and control systems.

Of course, Lufthansa *did* make the transition to the network-based industrial strategy in the 1990s with all the discontinuities this entailed. For all of the alternatives to Vorstand-level guidance and control Lufthansa developed in the 1990s, the German corporate governance system of co-determination did appear to foster social cohesion and cooperation of employees with the turnaround process. But it did so only once a clear plan for how to distribute the burden of adjustment could be presented (Programm '93). In implementing the network-based strategy, Lufthansa managed the process without changing its top managers the way BA did, suggesting that lifetime employment contracts for managers do not exclude the possibility of making substantial changes. Once again, however, Lufthansa only did so once a clear gap to industry leaders like BA had emerged and a clear path of imitation (as opposed to self-initiated innovation) was traced. In other words, Lufthansa did prove itself capable of making very substantial changes *once certainty existed about the technical course of implementation and the distribution of costs among management and employees.*

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The Lufthansa case and prior literature on the strengths and weaknesses of German companies suggest that the German comparative institutional advantage is strongest when two disruptive types of discontinuity are absent: first, *technical* discontinuity leading to unclear relationships between cause and effect; and second, *social* discontinuity leading to a lack of clarity about how the costs of change will be distributed. This can be formalized in the following framework:

Social Continuity: / Technical Continuity:	Clear Knowledge of the Costs of Change	Unclear Knowledge of the Costs of Change
Clear Knowledge of Cause-Effect Relationships	A	B*
Unclear Knowledge of Cause-Effect Relationships	C	D

Accordingly, Germany's comparative institutional advantage lies in industry contexts corresponding to cell B.

Obviously, the sample size is too small to test the general validity of this hypothesis. One of the obstacles to more empirical work on the behavioral and performance implications of German corporate governance is that the nature of the German system is by and large familiar only to people with unusually detailed knowledge of how German business works, whereas to these later people many salient features of the German corporate governance system are of such obvious significance that they hardly need to be talked about. Thus, the super-consultant Roland Berger declared almost as if it were too obvious to discuss: "Of course our company law (*Aktiengesetz*) is an obstacle in the way of assigning clear responsibility and leadership tasks on the Vorstand. But usually it is weak people who hide behind this argument" (*Manager-Magazin*, Dec 1995). The present chapter is intended as a contribution toward better understanding the comparative institutional advantages and disadvantages of German companies.

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CHAPTER SIX: CONCLUSION

6.1 Introduction

The more detailed look at organizational processes afforded by the previous case study chapters helps to flesh out the issues depicted only very schematically in chapter 1: macrosocial institutional factors affecting the role and discretion of the CEO, the relative power of the firm's shareholders, managerial mobility, and the general degree of managerial specialization. The case chapters have shown how these factors were embedded within both broader social phenomena (such as Thatcherism in the UK, the *grands corps* elite in France and co-determination in Germany) as well as how they interacted with narrower firm-specific characteristics (such as British Airway's headstart in information technology, Air France' two-hub problem, etc.). The chapters provide a basis not only for the comparative cross-sectional analysis already summarized in Chapter 1, but now permit an exploration of the deeper issues raised by the historical "process tracing" conducted for each of the airlines.

The following discussion falls into four parts. Section 6.2 rounds out the discussion of comparative, cross-sectional findings in this study. Section 6.3, in contrast, explores some of the *longitudinal* issues raised by the case studies and examines national institutional factors as not just a source of initial variation in the management style of firms, but of persistence over time as well. Section 6.4 briefly explores some of the managerial issues surfaced by the case studies, particularly the problem of managing "symbolic analysts." Finally, section 6.5 contrasts the comparative institutionalist approach with other approaches used in studying the impact of nationality on company management styles and explains how the approach adopted in this research is distinctive.

6.2 Cross-sectional issues: Macrosocial institutional factors as a source of variation in firm management style and competitive advantage

This research has illuminated the link between firms' individual management style and the national institutional context in which firms are embedded. The link between the macro-context and micro-style of company management is not to be conceived as deterministic. As emphasized in Chapter 1, British Airways,

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Air France, and Lufthansa were indeed "ideal types" and "unintended caricatures" of their respective national business systems in many ways, yet multiple "ideal types" are possible for a given type of national system.[1] Competitive implications arise from the fact that some ideal types are clearly *excluded* by a country's institutional context: for example, the "hire-and-fire" style of British Airways would virtually never be tolerated within the German institutional context.

The comparative institutionalist approach to company strategy adopted in this research is untypical. The bulk of strategists, both practitioners and academics, focus more on industry and firm attributes like market share and R&D capabilities than they do on nation-level attributes like company law or the generalist/specialist orientation of managers produced by the educational system. Yet also from a comparativist standpoint, and indeed even from a stakeholder perspective, the present research can claim to be distinctive. Attention has not focused on classic political economy issues like industrial relations and finance. Instead, the central social cleavage investigated in this research is between top and middle management, with a particular focus on the role of the CEO. Analysis has centered on the resources and constraints that top management confronted in dealing with lower levels of the managerial hierarchy and the way in which top managers adjusted to these resources and constraints.

As the title of this work suggests, a major implication of this research is to suggest that the comparative institutional advantages of a country's firms reside not only in commonly explored areas like shopfloor relations or the availability of finance, but in varying patterns of firm governance and top management control over the managerial hierarchy. At a purely static level, the case studies and the contingency frameworks derived from them (at the conclusion of Chapters 3, 4, and 5) suggest that British, French, and German systems of management have comparative strengths for responding to certain kinds of competitive contexts and comparative weaknesses for responding to others. For example, British management appears institutionally more adapted to radical innovation, German management more to incremental innovation, French management more to complex engineering systems requiring political support, and so forth. These general points have already been made in the previous chapters and need no amplification here.

Beyond just these comparative statics, the case studies revealed widely varying organizational processes orchestrated by top management as induced

[1] Indeed, this has been demonstrated by the longitudinal studies in the individual airline chapters. For example, after its crisis of 1992, Lufthansa's management style was very different from its pre-1992 style, yet both styles revealed strong German institutional traits such as peaceful and constructive industrial relations, continuity of management personnel, and consensus decision-making to a high degree.

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by national institutional factors. They showed how the macro national institutional context influenced the management styles of companies because of the varying role and discretion of top management vis à vis lower levels of the managerial hierarchy. Although British Airways, Air France, and Lufthansa were all in the same industry and faced very similar competitive challenges, the top management of these companies, influenced by varying constellations of institutional resources and constraints, developed very different styles in the way they orchestrated organizational processes - with significant consequences for the airlines' ability to compete and innovative.

Those not acquainted with decision-making processes in large companies might be surprised that these "stylistic" differences should matter. Yet it was clear from this research that airlines were anything but simple economic input-output machines consisting of costs, markets, and route structures. As explained in Chapter 2, changes in technology and markets in the 1980s made the economics of civil aviation far more complex and opaque. In a deregulated industry environment, an international airline serves tens of thousands of different markets (for each city-pair in its route network constitutes a separate market) in which competing airlines make thousands of price changes per day on computer reservation systems. As former British Airways executive John Watson explained: "When I prepared the first fare system for British European Airways (BEA), all the fares fit onto one sheet of paper. By the mid 70s there were half a million fares, today there are maybe 100 million fares."

Given the complexities of the business, no top management team could hope to steer the airline directly from the top, but was obliged to structure a set of delegated processes within the organization. It was in the vastly different ways the top management of the three airlines handled these sets of delegated processes that such notable variation in the strategies, and ultimately in the competitive advantage, of these airlines could be observed to arise. Faced with highly complex, rapidly changing environments, top managers did not have the time, means, nor specialized expertise to micro-manage adjustments in company strategy (though the CEO of Air France attempted to so), but had to manipulate various levers of action in such a way that a healthy dynamic of organizational change and strategic evolution could emerge. The complexity of the industry environment required experimentation and learning. As the case chapters illustrated, the airlines experimented (or sometimes refused to experiment) with a wide variety of organizational structures, from highly decentralized geographical profit centers to highly centralized structures built around high-tech central brain units.

At British Airways, CEO Colin Marshall (1983-95) orchestrated an extensive shake-up of the managerial hierarchy that allowed the company to engage in organizational experiments and major intra-firm power shifts. These power shifts enabled BA to break with the operations-driven culture prevalent

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in the industry and devote strategic resources - most especially young fresh minds - to commercial innovations in marketing, routing, product design, and use of information technology. Radical changes in organizational structure were announced in 1983 and again in 1986 that promoted promising young managers in their 30s and 40s almost overnight to top positions. BA's abundant use of dismissals, rapid promotions, and radical reorganizations proved appropriate in an airline industry environment undergoing extremely rapid change. Within the historical context of Thatcherism in the UK, British Airways after 1983 represented an ideal-typical hire-and-fire "Anglo-Saxon" company.

The management style of Air France was very different. Its CEO Bernard Attali (1988-93) also enjoyed significant discretion, yet this discretion was not exercised in the same way as at BA. Air France's CEO of the post-liberalization years centralized in his own person a great deal of strategy formulation in investment, acquisitions, alliances, and political lobbying. In contrast, strategy implementation was delegated rather passively to lower levels. Attali did not significantly alter the management personnel nor the organizational context in which decisions were made. This type of approach was observed to retard commercial experimentation and learning. Although this management style failed to match the requirements of the sector, it conformed to behavioral norms typical of a parachuted appointee belonging to France's *grands corps* elite and facing a highly fragmented organization of interests within the company.

At Lufthansa, lesser unilateral CEO control at Lufthansa was an obstacle in the Vorstand chairman's efforts to boost the marketing savvy of the airline in the 1980s. Majority voting and a specialist orientation in the Vorstand made it difficult for Lufthansa's CEO Heinz Ruhnau (1982-91) to match certain moves of his counterpart at BA, particularly moves to upgrade and enhance the power of the commercial arm of the airline. An interesting twist in Lufthansa's consensual management style was its conscious emulation of German car manufacturers. Conceiving itself as the aviation equivalent of Porsche, BMW, and Mercedes, Lufthansa tried to implement the "diversified quality production" that other German sectors in the 1980s successfully adopted to coincide with German institutional strengths and constraints. However, this quality approach was out of synch with the evolution of airline industry economics. In fact, Lufthansa's "German quality" strategy reflected a certain void in Lufthansa's commercial strategy.

The study's focus on the predicament and behavior of top management revealed an interesting relationship between institutional environment and industry environment and the way the former helped condition top management's perception of the latter. Using Weick's (1979) terminology according to which organization's "enact" their environments, one might say

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that the top managers of these airlines were "enacting" three different types of competition in the late 1980s. With the shake-up of the managerial hierarchy, BA's top management tried to orchestrate the "creative destruction" of Schumpeterian competition (the term is used loosely). Air France's top management, in its preoccupation with controlling UTA and Air Inter but not really integrating their operations into its own, was clearly enacting monopolistic competition. Finally, Lufthansa's top management in the late 1980s engaged in the enactment of quality competition. These differences in environmental "enactment" were by no means readily apparent from the outside. Indeed, beginning with BA's acquisition of British Caledonian in 1987, all European flag carriers were seemingly engaged in monopolistic competition and determined to dominate their home markets. It is only through the "process tracing" of archival and field work that substantive differences in firm management style and "enactment" can be uncovered.

Obviously, the "Schumpeterian" model of competition best fit the requirements of the air transport sector in the 1980s, at least as far as airlines' selling systems are concerned. By the late 1980s British Airways had built up a 5-10 year lead over its rivals in the areas of information systems, organization structure, hub planning, flight scheduling, and global selling across its network. Based on statistics presented in Chapters 4 and 5, the impact of these innovations can be estimated at about $500 million in additional revenues at no extra cost. This research has demonstrated the misconception - albeit an extremely common one - of assuming that BA's constantly high profitability since 1983 is attributable only to BA's massive headcount reduction in the years 1980-83 or to lower British wage costs.[2]

6.3 Longitudinal issues: Macrosocial institutional factors as a source of persistence in firm management style and competitive advantage

The airline cases constitute a comparative inquiry into what Gary Miller (1992) in his book *Managerial Dilemmas* calls the "political economy of hierarchy." In the language of micro-economics, top managers confront organizational problems of asymmetric information, individual self-interest, adverse selection, and joint team production (Milgrom and Roberts, 1992). As Miller (1992) shows in his review of the micro-economics of organization, no designed

[2] As emphasized in earlier chapters, these revenue-enhancing innovations cannot be attributed only to privatization, for the critical managerial shake-ups and commercial innovations came in the years 1983-86 when BA was entirely state-owned. Instead, what enabled BA to build competitive advantage in its commercial systems was a "shake-up" management style, favored by "Anglo-Saxon" institutional features: the high discretion of the CEO, high managerial mobility, and a culture of generalist (as opposed to specialist) managers. The role of Thatcherism and BA's run-up to privatization in this was to accentuate the traits of "Anglo-Saxon" capitalism in the way BA was managed.

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system of incentives can possibly eliminate all the perverse effects of information asymmetries and production interdependence. "The firm must be regarded as an arena for political leadership, ideology, and goal setting rather than simply for managerial manipulation of economic incentives and formal structure" (1992: 13).

In this research, macrosocial institutional factors were shown to influence the variation in top management styles among the three airlines, including in these "soft" areas of political leadership, ideology, and goal setting. Yet beyond just the issue of *variation*, the case studies shed light on the *persistence* of differing management styles. Understanding the persistence of these differing styles and not only the source of their initial variation has important implications for competitive strategy. As explained in chapter 1, the cornerstone concept of strategy is *competitive advantage*. Firms attempt to achieve a competitive advantage that is not fleeting, but "sustainable" over the longer term. The case studies have revealed that BA's competitive advantage in commercial strategy was surprisingly sustainable, as Air France and Lufthansa were so slow to catch on to what British Airways was doing. Why was this so? What can we say about the "barriers to imitation" (as discussed in Chapter 1) that prevented Lufthansa and Air France from quickly emulating BA's commercial innovations and eroding this source of competitive advantage? The general answer to this question leads to a wider understanding of why national institutional factors are strategically important.

Consideration of the longitudinal case studies in Chapters 3, 4, and 5 leads to the discovery of deeper institutional sources of sustainable competitive advantage than those mentioned at the outset of this research. In Chapter 1, national institutional factors were portrayed as constituting barriers to imitation because of the variation they introduce into the resources and constraints facing the firms' top management for managing the company. A stakeholder-influence model was developed to illustrate how stakeholder influences on top management vary according to cross-national institutional differences generally. Different institutional resources and constraints place varying costs to top management on the pursuit of alternative ways of running the company. In the studied airlines, cross-national differences in corporate governance and managerial hierarchies were shown to encourage distinctly different top management styles in the airlines studied.[3]

The case studies revealed something in addition to this. In complex, rapidly-changing industry environments like air transport in the 1980s, *national institutional factors constitute not only political barriers to imitation, but cognitive barriers to imitation as well.* Top management in Air France and

[3] To be sure, national institutional factors interacted in complex ways with other factors, including individual personalities and the politics of privatization, to produce the noted variance in management styles.

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Lufthansa was not just politically constrained in certain ways from emulating the management style of British Airways, but cognitively constrained as well, falling 8-10 years behind BA in recognizing the need to implement the network-based industrial strategy. Chapter 2 has argued that the timing differences were not due to simple economic reasons and the case study chapters have shown how Lufthansa and Air France awoke with a start when they finally did understand BA's strategy.

A brief review of strategy concepts helps to place this interesting finding into context. Whereas earlier theories of strategy based on industrial organization underlined the role of market positioning as a source of enduring firm profitability, recent strategy work underlines the innovative, "dynamic" capabilities of firms rather than static one-time advantages (Porter, 1991; Teece and Pisano, 1995). Competitive advantage achieved through firms' dynamic and innovative capabilities is sustained by complexity and knowledge limitations as obstacles to the emulation of more successful companies (Reed and DeFillippi, 1990; Amit and Schoemaker, 1993). These capabilities reside in complex "routines" by which the organization carries out its various tasks; these complex routines are difficult for competing firms to copy because the nature of the knowledge involved is often tacit and embedded in daily practice rather than formally codified (Nelson and Winter, 1982; Winter, 1995).

Applied to the case of European civil aviation, British Airways, Air France, and Lufthansa can monitor one another's prices, levels of service, and fleets with relative ease. It is more difficult to them, however, to monitor their competitors' complex organizational routines by which prices are decided, service levels upgraded, or the deployment of the fleet negotiated by managers from Marketing and Operations. And it is harder still for these airlines to accurately assess the impact of routines of leadership, power sharing, and corporate culture which induce revision in how these activities are conducted at lower levels of the company.

This point merits development. Since a seminal paper by Lippman and Rumelt (1982), the causal ambiguity surrounding the factors responsible for firm profitability has been recognized as providing important barriers to imitation (Rumelt, 1984). Such ambiguity is enhanced in the case of companies competing from different home bases which compound the "signal-to-noise problem" in detecting the source of competitors' profitability (Kogut, 1991: 42). In the case of firms' innovative and dynamic capabilities, causal ambiguity is inherent in the *hierarchical nesting* of organizational routines (Black and Boal, 1994). This hierarchical nesting of routines is formulated in different ways by different authors. For example, Nelson (1991) sees the firm's hierarchy of routines as combining lower-level organizational skills with higher-order decision procedures about what will be done at lower levels. Collis (1994) and Hogarth et al. (1991) adopt a learning perspective and see higher-

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order organizational routines in terms of the learning capability of revising lower-order routines, the basic idea being that in order to be competitive, firms have to "learn to learn."

To understand the competitive processes observed in European air transport, it is useful to postulate a somewhat different hierarchical ordering of key organizational activities. We can distinguish between higher-order and lower-order dimensions of airline strategy; specific decisions about acquisitions or aircraft orders are clearly lower-level decisions, whereas decisions about whether the airline should be fundamentally run by the Marketing or Operations Department reflect higher-order processes with important consequences for later lower-level decisions. The following table summarizes the relationship between the hierarchy of organizational activities ("routines") and their observability to competitors:

Order	*Nature of Activities*	*Examples in Civil Aviation*	*Link with Top Management Style*	*Observability of Effects to Competitors*
Higher-Order	Leadership, power relations, corporate culture, etc.	Distribution of power between Operations and Marketing, generalist vs. specialist orientation in management ranks	Direct	Very low
	Decision routines and capabilities	Yield management capabilities, product development skills, fleet planning procedures	Indirect	Low
Lower-Order	Outputs of decision routines (discrete decisions)	Prices, service levels, fleet	Indirect	High

These routines are hierarchical in the sense that higher-order activities have some direct or indirect effect on lower-level ones, whereas the reverse is far less likely to be the case. This table is *not* meant to suggest that lower-order activities are *exclusively* affected by higher-order ones, only that a significant causal relation is present.

One problem faced by Air France and Lufthansa in competing with British Airways was that they could observe lower-order changes in their competitors' strategies - issues like staffing levels, aircraft orders, and takeovers - much more easily than they could higher-order changes in their competitors' decision routines. For example, the top managers of Air France and Lufthansa were demonstrably obsessed by British Airways' takeover of British Caledonian in 1987, and like most industry observers they saw this as the beginning of a major concentration process in European aviation. Air France and Lufthansa

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began placing hefty orders for new aircraft, and Air France proceeded to acquire the other major French carriers, UTA and Air Inter, in 1990.

A finding of both theoretical and practical interest is that Air France and Lufthansa were at a competitive disadvantage to the extent their top managers remained fixated on "lower-level" phenomena as explanations for intra-industry differences in profitability. When Air France's CEO Bernard Attali was asked in late 1992 about the "miracle" of BA's continued profitability, he replied:

> There's no miracle. Certainly, BA has made good progress. First, the concentration of English companies began earlier than in France: BA is the result of two successive mergers. I'll add two reasons that weigh more heavily. The social charges in Great Britain amount to 17% of the wage mass. In France, they are 37%. If we had the British system, the charges of Air France would be lightened by 2 billion francs ... Second difference: by virtue of the 1977 agreement, called Bermuda 2, BA is protected on the North Atlantic by the limited number of designated American carriers. (Source: *L'Expansion*, 19 Nov - 2 Dec 1992).

In contrast, when the same question was posed to Jürgen Weber, the CEO of Lufthansa, at roughly the same time, he gave a very different kind of answer, one emphasizing BA's higher-order capabilities, not just the lower-order factors of wage costs and market structure. Asked at a Lufthansa "town meeting" in Frankfurt, "What does BA do differently to make profits?" Weber replied that there were three reasons:

> 1. BA long possesses a sophisticated yield management system with 20 booking classes, giving BA a seat-load factor (i.e. percentage of the plane filled) of 14% higher than Lufthansa.
>
> 2. BA's centralized hub structure in London, whereas decentralized services are becoming less profitable.
>
> 3. Profitable North Atlantic operations, thanks to the UK-US bilateral, much more favorable than the Germany-US bilateral (*Der Lufthanseat*, 16 Oct 1992).

This research has documented the extent to which the first two reasons for BA's competitive advantage mentioned by Weber in this quotation were the outcome of complex organizational processes and "higher-order" leadership activities orchestrated by top management. By 1992, Lufthansa's management too was engaged in changing its higher-order activities, not only upgrading its revenue management, scheduling, and hubbing capabilities, but also orchestrating a process of "mental change" within the company. Lufthansa by 1992 had moved up the "activity hierarchy" in understanding its loss of competitive advantage and in adapting to the new industry environment, whereas Air France remained fundamentally on the lowest rung of understanding until at least 1994.

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In summary, whether the airlines were early pioneers (British Airways) or belated implementors (Air France, Lufthansa) of the commercial innovations studied in this research depended critically on the nature of higher-order routines and higher-order changes occurring within the organization. National institutional factors of corporate governance and managerial hierarchies clearly affected the "higher-order" routines of leadership and power relations in the airlines studied. British Airways was institutionally doubly protected from imitation and erosion of its competitive advantage by Air France and Lufthansa. First, British institutions affecting these "higher-order" routines such as high unilateral CEO control and high mobility of generalists managers were difficult for Air France and Lufthansa to emulate because of their different institutional environments. Second, cognitive barriers to imitation existed as well. Environmental complexity and the hierarchical structuring of organizational routines made many strategically significant organizational changes largely unobservable to BA's competitors. Changes like centralizing the sales force, altering the basic view of the airline's markets, or redistributing power between Marketing and Operations - all of which BA did in the early to mid 1980s - were unlikely to attract the attention of competitors, nor were their effects easy assessed even when they did. As related in Chapter 4, when one interviewed former senior Air France manager was asked about whether Air France recognized that BA's opening of Heathrow Terminal 4 in 1986 was designed to augment BA's share of sixth-freedom traffic, he replied: "Of course, when BA invited us to share their nice new terminal with them, we knew they would try to steal a few passengers. But we didn't think it would be very many!"

6.4 Strategic issues: Organizing the work of "symbolic analysts"

The research perspective adopted in the foregoing study has commonalities with comparative political economy on the one hand and with scholarship in strategy process on the other. From the former current of research it borrows an interest in macrosocial institutional factors and in different forms of interest representation (i.e. stakeholder influence). With the latter current of research it shares an interest in organizational processes involving interaction between different hierarchical levels of the management structure (Bower, 1970; Bower and Doz, 1979; Burgelman, 1983; 1994). The present research is closer to the mainstream of strategy process to the extent that it investigates hierarchical cleavages within the management structure rather than the capital-labor or industry-finance cleavages that more typically interest political economists. Where it differs from mainstream work in strategy process, however, and comes closer to the fold of political economy is in examining patterns of relationships between different groups and roles (e.g. the CEO) within the organization; in contrast, the mainstream focus of strategy process has been on specific kinds of decision-making processes, such as corporate resource allocation (Bower, 1970), internal corporate venturing (Burgelman, 1983), or

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business exit (Burgelman, 1994).

It is worth departing briefly from the comparative focus adopted up to now to consider the broader issues of "managing managers" in complex, rapidly changing environments raised by the empirical findings. Robert Reich (1991) has coined the term "symbolic analysts" to describe professionals who perform intellectual activities in modern economies and have acquired an increasingly dominant position in contemporary labor markets. In a sense, the present research on commercial innovation in the airline industry has revolved very much around the problem of managing symbolic analysts. The discovery of the network-based industrial strategy entailed extensive analysis of both the industry environment and of internal company processes; top management activities, it was amply demonstrated, had a major impact on the way such analysis was (or was not) carried out. As discussed in the previous section, the capacity of the three airlines to innovate commercially depended critically on processes of scanning and knowledge generation. What do the empirical findings tell us about organizing the work of symbolic analysts?

As a first step, it is useful to reconsider the "higher-order" activities discussed in the previous section: on the one hand company decision routines and capabilities, and on the other hand patterns of leadership, power relations, corporate culture, and other "soft" organizational characteristics. Instead of considering these two dimensions hierarchically, however, let us consider them orthogonally as two different (but not mutually exclusive) paths open to top management for accomplishing strategic adjustment. Regarding the first dimension, top management faces choices about what new organizational capabilities to construct. These choices are in a sense "technical." Regarding the second dimension, top management faces choices about what changes to orchestrate in matters of leadership, power, and company culture. These choices are in a sense "political." Moderate changes can be termed "reforms," major ones "revolutions." This results in the following very elementary choice map for top management:

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	Stick with existing routines and capabilities		Radically replace existing routines and capabilities
Discontinuity in leadership, power relations, corporate culture, etc.	Political Revolution		Political and Technical Revolution
	Political Reform		
Continuity in leadership, power relations, corporate culture, etc.	Status Quo	Technical Reform	Technical Revolution

The purpose of this table is not to so much to suggest that technical and political reform have to be performed simultaneously and in synch in business organizations (this is well enough known), but to provide a context for briefly summarizing what the case studies, taken together, reveal about organizing the work of symbolic analysts.

One might summarize the three airline cases as follows. Air France's management tried to move horizontally in effecting strategic adjustment (technical reform without accompanying political reform, characteristic of top-down strategizing), whereas British Airways' management in 1983 began by moving vertically (political reform and revolution leading to subsequent technical reform and revolution). Lufthansa's management moved only in the horizontal (technical) direction until 1992, when, propelled by crisis, it began to move diagonally, orchestrating political and technical reform all at once. What the case studies have indicated empirically is the dependence of adequate strategic adjustment and even of proper technical reform on prior "political" reform within the organization. Macrosocial institutional factors, from this perspective, were important in the way they facilitated or obstructed firm-internal political reform.

This raises a larger question. Why were the effects of political reform/revolution on commercial innovation in the airlines (and ultimately on profitability) so substantial? What characteristics of the industry's "task environment" created the seeming need for political realignment as a pre-requisite to strategic adjustment? As a partial answer, the previous chapters have pointed to the discontinuous, radical nature of innovation involved in

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adopting the network-based strategy. The high unilateral discretion enjoyed by Anglo-Saxon CEOs, it was argued, was institutionally adapted to the nature of the changes that needed to be performed. Yet the individual case chapters suggest an additional perspective.

The company studies have shed light on the nature of the work performed by "symbolic analysts" in the managerial hierarchy. They reveal a number of critical information-generating and information-gathering processes at work in discovery of the network-based strategy. Guiding collective experimentation and learning exercises were certainly one side of the top managerial task. Yet there was another side to commercial innovation as well, namely *high-powered mechanisms for screening people and ideas.* The airline cases show that screening activities were critical to discovery and implementation of the network-based strategy for some of the following reasons:

1. *The highly skewed distribution of critical general knowledge within the organization.* Airlines generate massive amounts of statistics about passenger numbers, load actors, and yields. Yet often what top management lacks in this jungle of information is knowledge about very simple, but important things, like the need to reorganize the planning functions or anticipate the future trend in yields. The case studies have revealed the extent to which critical information often resides in single individuals tucked away in staff positions: for example, the ex-pilot Denis Tunnicliffe in the case of BA's planning functions, or the corporate strategists in BA and Lufthansa in the case of bringing the impending decline of yields to top management's attention in time for preventive action. Political reforms matter because they specify who will have top management's ear in the formulation and implementation of critical strategic adjustments.
2. *The importance of individual differences, and the inequality of talent and intellect among individuals.* The kinds of industry change observed in European civil aviation in the 1980s required more than just a new generation of managers able to break with standard operating procedures in the sector. The presence of organizational mechanisms for spotting individual talent and promoting that talent to positions of influence played a crucial role in the airlines' ability to adjust. As the BA and Lufthansa case studies do show vividly, separating the wheat from the chaff required very powerful, albeit unpublicized political agents like Michael Levin (BA) and the Ops Team (Lufthansa).
3. *The taboos of hierarchy.* Just as there exists an extensive economic literature on "market failure," there exists also an extensive literature on hierarchy failure (Milgrom and Roberts, 1992; Miller, 1992). An empirical fact, which like the previous point emerged repeatedly in the interviews, was the existence of taboos. Managers within the hierarchy were frequently constrained from speaking out for reform for fear of provoking enmity from others in the organization. Hierarchy and formal organization

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engenders a mind-your-own-business syndrome. Thus, political instruments like the Marketing Policy Group at BA in 1983 and the turnaround workshops at Lufthansa in 1992 were essential in breaking these taboos. Outside consultants were also used by the airlines for this purpose, but with varying effectiveness.

For these and for other reasons, the information and the analytical capabilities needed for these airlines to innovate in their overall industrial strategy was not available to management on a platter, but had to be assembled through activities or screening agents like Michael Levin at British Airways.

An extensive analysis of the way top management orchestrated experimentation, learning, and especially screening activities is beyond the scope of the present treatise. What is worth pointing out, however, is that the classic prescription for dealing with turbulent environments in complex organizations - namely "differentiation" and "integration" (Lawrence and Lorsch, 1967; Bartlett and Ghoshal, 1989) - was not really quite sufficient. It was not only a matter of creating knowledge specialists within the organization and then integrating that knowledge through a variety of coordination mechanisms. Nor was it sufficient to "empower" lower levels, or to create the conditions for proactively innovative, "integrative" problem-solving and avoiding the "segmentalism" that plagues complex business organizations (Kanter, 1983).

A great deal of management literature, political economy, and indeed social science in general is devoted to the topic of cooperation. What the radical learning period at BA in 1983-86 and the turnaround of Lufthansa in the 1990s illustrates, however, is the extent to which the active screening of individuals and ideas by top management involved a very different kind of leadership activity, namely one which designated clear winners and losers within the organization. While much of social science is about solving collective action problems and distributing the social rewards of coordinated action, managerial instruments like Michael Levin and the Marketing Policy Group at British Airways and the Ops Team at Lufthansa revealed the need for top management to actively sift through differing talents and points of view in the organization and to distribute rewards in a highly uneven fashion. *To a large extent, the strategic importance of high CEO discretion and managerial mobility emphasized in this research pertained to the exercise of top managerial actions to sift through the talents and inputs of the company's "symbolic analysts." Political action was needed both to conduct this activity - and to conceal it.*

For needless to say, CEOs do not publicize this kind of activity. The challenge for top management is obviously to foster both an ideology of sharing and also a reality of genuine cooperation, screening and sifting activities notwithstanding. Finding the balance, or rather managing the

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contradiction between screening activities on the one hand and cooperation-engendering activities on the other is obviously a classic management dilemma. The political engineering challenge is to promulgate the conviction of a commonality of interests among symbolic analysts while somehow legitimizing and/or concealing activities that might undermine such a conviction. While a full exploration of top management screening activities would clearly surpass the frame of the current analysis, the finding of inherently high non-common interests among "symbolic analysts" in the company contexts studied merits further empirical study and theoretical development. An open question is whether this phenomenon - the need for screening and sifting by top management - is widespread and frequently recurring in companies or is restricted to sudden industry changes (e.g. deregulation) that happen relatively infrequently.

6.5 Comparative institutional advantage: A final word

Does nationality continue to matter in a tightly networked global economy administered by "symbolic analysts"? Stopford and Strange (1991) and Ohmae (1990) have elegantly described the homogeneous outlook of the global managerial class transcending national boundaries. What they suggest, in essence, is that symbolic analysts are more or less the same everywhere. Can national comparative institutional advantage exist in corporate governance and managerial hierarchies if the type of managerial work performed and the type of people performing this work hardly vary from country to country? And even if (as seems likely the case) there does exist a substantial residue of national differences in managers as a result of past history, are not such differences destined to diminish over time?

In arguing for the enduring relevance of the current approach, it is worth distinguishing the comparative institutionalist perspective from other established approaches to nationality in management. These include what I will call the culturalist approach (Crozier, 1963; Hofstede, 1980; Hickson, 1993), the administrative heritage approach (Bartlett and Ghoshal, 1989; Guillén, 1994), and the industry specialization approach (Porter, 1990).

Although the term "culture" has been defined and used in many ways in the social sciences, Hofstede's (1980) magisterial study clearly dominates empirical research on national culture in the management field. His large-sample survey of managers' attitudes from different national IBM subsidiaries attempts to measure the effects of national culture on the basis of questionnaires filled out by individual managers. The repository for national differences in management is assumed to be the individual, who is socialized into a set of beliefs and values. In this view, the effects of nationality on management therefore derive from beliefs and values about issues like authority, the role of the individual, and the malleability of events to human

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intervention that are shared by the majority of individuals in a national society. Although Hofstede's ideational approach has been much criticized on methodological grounds, this type of approach is actually quite common. A similar ideational approach can be detected in the work of the early Crozier (1963) and more recently in d'Iribarne (1989) and the recent volume edited by Hickson (1993).

An alternative approach, which can be termed the administrative heritage approach, takes the organization rather than the individual as its unit of analysis. Contributions in this vein point to historically conditioned national trajectories in the way complex organizations are administered while acknowledging patterns of change over time. A well-known series of Harvard Business School research was inspired by Chandler's work on the development of diversified multidivisional firms in the US and endeavored to assess the extent to which similar developments had occurred in different European countries (Channon, 1973; Dyas and Thanheiser, 1976; Franko, 1976). Following Chandler, this line of research sees national differences in administrative heritage as conditioned by national opportunities for centralized coordination of production and trade arising from changes in transport, communications, population, and markets. A country's administrative heritage, in this view, is dependent partly on patterns of innovation in administrative techniques, but is more deeply rooted in the national opportunities or lack of them for large-scale enterprise organization. The term "administrative heritage" was made popular by Bartlett and Ghoshal (1989), who noted different historically conditioned patterns of administration in the multinational enterprises of the US, Europe, and Japan. Guillén's (1994) recent study of different national trajectories in 20th-century mass production represents a recent and particularly scholarly variation on the administrative heritage approach.

According to the industry specialization approach, the unit of analysis is neither the individual nor the organization, but the nation's position in the world economy. In this view, the appropriate way of managing a business organization varies by industry, and because countries specialize in specific industries, the characteristics of a nation's management patterns will be determined by leading-edge practice in the industries it has specialized in. Though Porter (1990), the most well-known exponent of this view, is not unaware of what we have called national institutional factors, his emphasis is on the dynamics of industry specialization and competition to explain why nations remain on different trajectories of management practice. National factor and demand conditions, pre-existing industrial infrastructure, and domestic rivalry create a mutually reinforcing system to ensure that a country's firms maintain the best management practice in the industries of national specialization. The industry specialization perspective was in some sense inherent in the structural contingency approach of the 1960s. Adherents of this approach argued that national differences in firm organization disappeared

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when controlled for industry effects . More recent replications controlling for industry effects have, however, indicated a clear effect of nationality on firm organization (Lane, 1989; Stewart, Barsoux et al., 1994).

The more well-known approaches to the impact of nationality on firm management style and organization thus adopt a unit of analysis at the level of the individual (culturalist approach), of the organization (administrative heritage approach), or of the nation's niche in the world economy (industry specialization approach). How does the comparative institutional approach focusing on corporate governance and managerial hierarchies contrast with these perspectives? First of all, the level of analysis falls between the individual and the organization and centers on relationships among groups and role positions (e.g. CEO) within the firm. The comparative institutional approach studies patterned relations between social actors rather than attributes of the actors themselves.

To illustrate this point by citing similar work along these lines, Soskice (1994a) refers to the "relational requirements" of firms engaged in different types of innovation. These requirements concern the types of written and unwritten contracts a firm has to write with its employees, owners, financiers, and other companies in order to create the necessary incentives for specific kinds of innovation to take place. Countries differ in the types of innovation they excel in because their respective institutional frameworks facilitate different types of formal and implicit commitments between groups within and outside of the firm. In a similar vein, Aoki (1990) views the firm as an equilibrium of multilateral economic relations between constituent groups of the firm (and outside stakeholders), whereby the relational equilibrium of the Japanese firm is fundamentally different from that of the Western firm and results in a different array of comparative strengths and weaknesses. In particular, the bargain struck between management and employees is qualitatively different in Japan, though not because of cultural reasons, but because of differing kinds of credible commitments made possible by traditional, self-reinforcing characteristics of the Japanese business system.

Both Soskice and Aoki argue that national specificities in firm management style and organization can best be understood in terms of the formal and relational contracting that takes place between key groups and stakeholders of the firm. National specificities facilitate certain types of organizational processes (e.g. incremental innovation in high-quality manufacturing in Germany, rapid product development in Japan) but tend to impede others. The critical nexus of this perspective is the fit between, on the one hand, the contracting among groups a company organizes within and across its boundaries, and, on the other, the processes it is able to orchestrate for competing in the market place (for example, radical versus incremental innovation).

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The present research falls very much into this line of inquiry. The focus is not on attributes of individuals or of organizations or of national economies, but on the structuring of relationships between key company groups, for example and especially between top management and the company's middle managers or "symbolic analysts." To return specifically to the issue of symbolic analysts, the focus of the institutional approach adopted here is not on the attitudes and values of symbolic analysts themselves (this would correspond to the culturalist approach), nor on the way they are traditionally organized within a country's firms (as in the administrative heritage approach), nor in their technical specialization within their country's leading industries (as would befit the industry specialization approach). Thus, although the earlier mentioned homogenization of the managerial class across borders would seem to pose a challenge for the culturalist perspective (given this perspective's emphasis on individual attitudes and values), it does not really reduce the significance of the relational perspective adopted in this research. Like the approaches of Soskice and Aoki, this research focuses on the firm's need to solve information asymmetries and multilateral contracting problems that are inherent in complex organizations.

In describing the different management styles of the three airlines, this research has thus steered clear of ascribing the observed patterns to attributes of individuals or organizations or national industries as much as possible. Instead, analysis has centered much more on the discretionary opportunities open to top management in dealing with lower levels of the managerial hierarchy, as conditioned in particular by macrosocial institutional factors. The institutional approach of this study has focused on roles and on the relationships between roles rather than on individual or organizational characteristics. The distinctive contribution of this research is in highlighting national sources of competitive advantage that reside not in characteristics of individuals, organizations, or industries, but in the institutionalized rules governing the relationship between social groups and roles within the complex business enterprise.

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