# A Liberal Discussion of Financial Liberalization

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n 1986 Taiwan enjoyed a real, or inflation-adjusted, growth rate of about twelve and a half percent, a trade surplus that exceeded U.S. \$15 billion, an unemployment rate of two and two-thirds percent (and falling), a personal savings rate of about one-third, with additional capital from overseas desiring entry but legally restricted, and prices, as measured on the wholesale level, that were falling at about three and a half percent per year. In 1987 the country briefly undertook a dramatic set of financial liberalization measures, substantially opening the economy to international flows of capital. Consistent with standard open-economy macroeconomic theory, growth slowed, inflation became less negative, and the current account deteriorated. By standards of other industrial nations, Taiwan was, and still is, performing quite nicely. Nevertheless, in view of the immediate consequences, the question should be asked: Why would a country want financial liberalization?

The point of this article is to examine that question. The next section begins with a brief discussion making the important distinction between measures of economic performance (as generally thought of in the United States) and the more important but less familiar measures of economic welfare. Although analysts typically talk about economic growth in terms of the former, they usually mean to talk about it in terms of the latter. The third section of the article formally discusses the process of both internal and external liberalization and comments on some of the economic issues involved. The article then applies the concepts of the previous two sections to the process of economic liberalization as it has occurred in Taiwan, one of the premier newly industrialized economies that has recently undergone substantial liberalization. The concluding section provides a summary.

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# A Digression on Measures of Economic **Performance and Economic Welfare**

Even though growth in Taiwan has slowed, that fact does not necessarily mean that the economy, on net, is not as well off as it otherwise might have been. Economic growth is usually treated as the benchmark against which judgments of economic welfare are made, but it is not always the appropriate metric.

The distinction between growth and welfare is best illustrated by discussing the difference between growth as simply measured by the percentage change in real gross national product (GNP) during some period and growth in per capita GNP over that same time. Growth per se is largely unavoidable in an economy with a growing population. A larger population creates a larger labor pool, which in turn is capable of producing more goods and services as well as creating a demand for additional output. These forces account for simple real growth. Of more importance, however, is whether aggregate GNP growth is outpacing the growth in population, in which case per capita GNP is rising and everyone in the economy could, potentially, be better off. If simple economic growth is lagging population growth, the economy is generally thought of as becoming poorer (though possibly quite large). So long as economic growth—that is, income—lags population growth, people will continue to feel poorer because, on average, they are.

In addition to the issue of growth versus per capita growth there is the matter of income distribution. While per capita real income growth is a necessary condition for everyone in the economy to benefit, it is clearly not sufficient. The fact that per capita income is growing says nothing about the ultimate distribution of individual incomes. If the distribution of income is considered part of the measure of overall economic welfare, a rapidly growing economy with a sufficiently unequal distribution of income could conceivably be characterized by declining social welfare, even as average per capita income grows. Although not the focus of this article, it should be noted that during the period of Taiwan's substantial industrialization, income inequality measures showed a pronounced drop. For example, from 1960 to 1980, the ratio of the income share of the highest quintile to the lowest was more than cut in half, from 8.9 to 4.2.2

The importance of these welfare criteria will become apparent as they are applied to the discussion of liberalization in Taiwan in a later section. Before that, however, an overview of the literature regarding liberalization is in order.

## **L**iberalization

Financial development and financial liberalization often go hand in hand. The purpose of this section is to set out the notion of financial liberalization as it commonly applies to developing nations. It is not necessary, however, to confine such a discussion to economies in the process of industrialization. Nations with developed financial and industrial markets can be studied within this framework as well because the financial development process is ongoing. The United States, in fact, is continuously developing and is quite far from the "full and complete" set of financial markets of which economists frequently speak.

Nevertheless, the importance of the idea of financial liberalization is usually seen in the context of developing nations, where some industrial and general economic development has taken place but secondary debt and equity markets have not yet emerged and where international capital movements may be regulated. This discussion of financial liberalization divides the process into its domestic and international components.

Domestic Financial Liberalization, or Easing Financial Repression. Financial intermediation is the process of matching up savings held by people or firms with people or firms that wish to borrow. Banks are an obvious example of financial intermediaries and are found fairly universally. However, their ability to allocate savings among alternative uses is frequently hampered by regulation. Interest rate ceilings on loans and deposit accounts, for example, are common restrictions. In the face of limitations on rates of return (interest rate ceilings on their loans) banks will choose relatively safe loans and forgo riskier but potentially more profitable and developmentally useful projects. In this simple case, liberalization can aid development by allowing lenders seeking a higher rate of return and borrowers having projects with a higher rate of return to come to mutually beneficial (and possibly socially beneficial) terms.

Ronald I. McKinnon (1973) and Edward S. Shaw (1973) make precisely this argument. The crux of McKinnon-Shaw, as the hypothesis has become known, is that regulation of the banking system (particularly interest rates) should be liberalized in develop-

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ing nations to speed the development process. Because banks are frequently the sole purveyors of financial intermediation, eliminating the economic distortions brought about by financial regulations would promote a more efficient allocation of capital within the economy, which, in turn, would promote economic development and growth. Stated differently, financial "repression," to use McKinnon's term, may specifically hamper the banking sector, stifling economic development by misallocating capital resources. Easing the financial repression—liberalization—thus would result in a more efficient allocation of capital and a higher rate of economic growth.

In later work discussing empirical support for his earlier hypothesis, McKinnon (1989) examines several Pacific Basin economies in search of evidence that an easing of financial repression coincides with relatively high (or higher) real rates of economic growth. He finds that high—sometimes astonishingly high—interest rates, both real and nominal, are associated with an easing of financial repression. These rates reflect a high demand for capital, in turn indicating the high productivity of additional investment. Thus he finds a seemingly puzzling result that supports the McKinnon-Shaw paradigm: high interest rates are associated with high growth rates.

At first glance paradoxical, the finding is not really surprising. If the real return on investment is high, the implication is that the growth resulting from a given quantity of investment will also be relatively high. At the same time, a high real rate of interest encourages savings. The net result is that when interest rates are high as a result of market forces alone, relatively high growth can be expected. Moreover, the higher income growth may promote even greater savings, implying a higher future growth rate, too.

Critics of McKinnon-Shaw (called "neostructuralists") argue that the easing of financial repression may not lead to higher growth rates, though it certainly will attract funds to the banking industry. The neostructuralists argue that informal, loosely organized intermediation will occur in economies whose primary financial intermediary is a repressed banking sector. An easing of interest rate ceilings would allow banks to compete more aggressively for capital, thereby shifting it from the informal markets to banks. However, that adjustment would not necessarily lead to more growth because banks are faced with reserve requirements that would tie up a significant quantity of the newly attracted funds. The neostructuralists contend that for McKinnon-Shaw to work, higher interest rates must not only attract funds to the banking sector but, on net, increase the total pool of savings (in both the banking and informal intermediaries sectors) by enough to offset the loss to required reserves imposed on the banking system. Their conclusion is that developing economies might as well leave interest rate ceilings in place and not interfere with the informal intermediation process (see Paul Burkett 1987).

Yoon Je Cho (1990) has pointed out that the disagreement between McKinnon-Shaw and the neostructuralists is not about the value of financial liberalization per se but the way to go about achieving it. Both parties, Cho claims, want to expand the intermediation process. The question is whether the informal sector or the formal banking sector is more efficient. Unfortunately, relatively little hard and systematic information is available about informal markets because they are, in fact, informal. It seems important to acknowledge, however, that even informal intermediaries, if they are pooling savings, must hold some reserves against "withdrawals." Moreover, because the formal banking system often has access to sources of temporary funding and insurance not available informally, the banking sector may actually be able to get by with a lower overall ratio of reserves to deposits. Further, as the absolute size of the banking sector expands, a simple appeal to the law of large numbers provides some predictability of the demand for withdrawals—that is, as the number of depositors increase, deposit flows will become increasingly predictable (see Valerie R. Bencivenga and Bruce Smith 1991).

In addition to the debate about increasing the overall amount of intermediation activity, another issue is the desirability of relatively high interest rates in the allocation of capital. The McKinnon-Shaw proposition holds that a higher formal rate of interest is likely to draw capital away from relatively inefficient selffinanced or informally financed projects toward projects having a high rate of real return. Cho argues that as an economy liberalizes domestically the set of investment opportunities available to the banking sector should be larger than the set available to the informally organized market. Although this question is, in a strict sense, an empirical one that cannot be pursued because of lack of data about informal markets, Cho argues that only under extreme circumstances would informal markets be able to match the allocative performance of an unfettered banking system. In addition, informal markets are likely to find themselves constrained by a smaller information set, further enhancing the banking sector's relative advantage in terms of efficiency.

The process of developing financial intermediation—called "financial deepening"—goes beyond simply unrepressing, or liberalizing, the banking sector. Financial deepening involves developing active stock and bond markets as well. Nevertheless, because the development of secondary debt and equity markets usually comes relatively late in the overall economic development process, empirical measures of financial deepening typically focus exclusively on development of the banking sector.

The standard measure of financial deepening used for developing economies is the ratio of M2 to GNP. Although M2 is generally thought of simply as a measure of "money," in fact it actually measures the sum of currency plus various forms of deposits in banks. If the banking sector is not functioning as an attractive or useful financial intermediary, the economy will, in aggregate, minimize its holdings of wealth in banks. As a consequence the M2/GNP number will be low, signaling the banking system's shortcomings as a financial intermediary. According to McKinnon-Shaw, if financial repressions were lifted and the banking sector allowed to function effectively, the result would be growth in banks' balance sheets and thus a rising ratio of M2 to income (GNP).

McKinnon (1989) argues that this process is indeed observed in economies that have experienced relatively rapid growth in the last few decades. For example, from 1960 to 1980 the M2-to-GNP ratio has moved from 0.29 to 0.91 in Germany, from 0.11 to 0.34 in Korea, and from 0.17 to 0.75 in Taiwan. In contrast, for the same period the ratio fell from 0.24 to 0.23 in Argentina and rose only incrementally from 0.15 to 0.16 and from 0.19 to 0.22 for Brazil and Colombia, respectively.

Moreover, McKinnon shows that measures of financial asset growth for the banking sector were positively related to relatively high real growth rates and positive real interest rates for the period from 1971 to 1980. He provides an interesting comparison of countries grouped into three categories (using International Monetary Fund classifications): countries with positive real interest rates, moderately negative real interest rates. Countries with high real interest rates had high, frequently double-digit, financial asset growth and high single-digit real growth. Furthermore, he found that countries with severely negative real rates had low and often negative rates of financial growth and real growth rates.

Bencivenga and Smith (1991) have presented a formal model broadly consistent with the McKinnon-

Shaw story. Their model is quite general, featuring savings that can be held in liquid forms (consumption goods) or illiquid forms (like "fixed" capital) as well as financial intermediaries that face reserve-requirement restrictions. They show that under relatively reasonable circumstances (in which savers are adequately risk averse) an economy with formal financial intermediaries is likely to invest more of its savings in capital (the illiquid asset) than an economy relying on self-financing (that is, informal financing) and thus to enjoy a higher rate of real growth. In Bencivenga and Smith's model a higher rate of real growth occurs even though the presence of intermediaries in the economy may not necessarily increase the overall rate of saving.

Opening the Economy to International Capital Movements. Eliminating domestic financial repression is an important component of financial liberalization, and the policy issues surrounding domestic liberalization are relatively clear-cut: imposing distortions on domestic financial intermediation hinders growth. Although there may be some legitimate and important debate about the appropriate means of managing, with minimal cost, the transition to a financially deep economy, the concerns are about means and not ends. The desirability of effective intermediation and its contributions to growth are not in question.

A much less settled issue involves the liberalization of international capital movements. Economies frequently impose a series of restrictions on capital movements across borders that may take the form of exchange rate controls and currency restrictions or capital restrictions limiting investment abilities (frequently in both directions across borders). Exchange rate controls usually manifest themselves in a fixed exchange rate, perhaps with restrictions on which institutions may engage in foreign exchange transactions. Currency restrictions generally prohibit the use of currencies other than that issued by the domestic monetary authority. Of restrictions limiting cross-border investments, those that prohibit domestic residents from investing abroad are usually motivated by a desire to stop capital flight, while those forbidding foreign ownership of domestic assets tend to grow out of sovereignty-related fears or concerns about the repatriation of profits to external owners of capital. Capital inflows today represent an outflowing stream of debt or equity claims that will mean debt service or profit repatriation to be paid abroad in the future, and this flow may potentially account for a large portion of domestic output.

The two forms of restrictions are not independent, for balance of payments mechanics connect trade and

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capital flows with exchange rate movements. Consider an economy with a fixed exchange rate that has a surplus in the balance of trade. There are two ways this surplus can be accommodated. Either the economy takes an offsetting quantity of foreign financial instruments (that is, the balance of trade surplus is matched by a capital account deficit; the country is a net lender) or the monetary authority intervenes, selling enough of its assets to keep the exchange rate constant. This latter strategy can become problematic when the monetary authority runs out of assets, as in the example presented later.

In an economy such as that described above, the acquisition of foreign assets by domestic residents seems to pose no problem. If, however, instead of a trade surplus an economy is experiencing a balance-of-trade deficit, foreign agents are likely to acquire domestic assets. This development may not be particularly popular. Without the economy's central bank specifically intervening (subordinating its domestic economic concerns) in the adjustment process, the two accounts must balance after exchange rate changes. In imposing exchange restrictions, the ability of an economy to run a balance-of-trade deficit is thus financially constrained.

External financial liberalization removes barriers to international capital flows, but the free flow of capital internationally may or may not improve economic performance and welfare. Effects on economic performance are fairly easy to evaluate. Aggregate production is, in a general sense, a function of labor, capital, technology, and natural resources. Economic growth requires that at least one of these components change. Financial liberalization affects economic performance through its impact on the growth rate of the capital stock. There are two possibilities. If the economy offers attractive investment opportunities but simply cannot internally generate enough savings for growth, then capital will, on net, flow into the economy as liberalization occurs. The economy will grow faster, and (ignoring issues of the repatriation of profits and debt service and a political fear of foreign ownership of domestic assets) welfare can improve.

The more common result of liberalization, however, is a net outflow of capital. Domestically generated savings go abroad, where risk-adjusted real rates of return are higher. Especially in a relatively undeveloped economy, watching domestic savings leave the country can be politically and economically painful. Indeed, the reason such controls were established in the first place often is to force domestic investment of domestically accumulated capital—to attempt to limit "capital flight." These controls usually enjoy only

limited success. Nonetheless, to the extent that they do contain capital movement, the net result of removing the controls may be a decrease in the capital growth rate at home as capital is free to flow out in search of a higher rate of return. In this case the liberalization process may lead to a lower rate of real growth.

While having capital controls in place enhances domestic capital growth to some degree, simply raising the possibility of establishing capital controls can be detrimental. Controls are frequently imposed in something of a crisis environment—when relatively large portions of domestic capital seem to be moving abroad—and the

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threat of controls may only serve to make the crisis worse. In the face of potential capital flight restriction, the most reasonable thing for holders of capital to do is to move it abroad before restrictions are imposed. This reaction only compounds the problem. The threat of controls also may discourage foreign capital from flowing into the country as investors fear they may not be able to recapture all the fruits of their investment. Consequently, anticipated capital restrictions may induce a capital outflow prior to the imposition of the restrictions, the magnitude of which may be greater than what would have happened in their absence.

The welfare issue surrounding financial liberalization is generally less clear. It is simple only in the case of capital inflow that creates a rise in domestic incomes and that is not complicated by repatriation of profits. (Scenarios can be devised wherein profit repatriation keeps domestic incomes from rising, but in principle the issue is clear-cut.) In contrast, the prohibition of capital flight has complex effects on welfare that are difficult to measure. The reason domestic residents wish to hold their savings abroad is that they expect to earn a higher return abroad, raising their

income. Thus, while capital flight may slow domestic economic growth, its effect on income may be ambiguous. Specifically, domestic residents investing abroad will have higher incomes than they would have if capital controls were imposed, whereas those who do not have additional capital with which to work will have lower relative incomes. The usual test applied here is to gauge whether there is, in principle, some means by which the winners could compensate the losers so that the winners still come out ahead while the losers would be indifferent to whether or not there are restrictions on investing abroad. Under these conditions, this surrogate measure of overall welfare indicates improvement.4

Considering these issues establishes a framework for thinking about the overall problems of financial liberalization. The following discussion focuses specifically on financial liberalization in Taiwan and its economic effects.

# The Recent Experience of Taiwan

Mercantilism Run Amok. Before Adam Smith published The Wealth of Nations (in 1776) the predominant way of thinking about measuring a nation's wealth was in terms of its stock of gold. Mercantilists, as they are called, believed that the way to increase a nation's wealth was to increase its gold stock by running a trade surplus and letting the resulting inflow of gold simply pile up. Smith argued that a more appropriate measure of a nation's wealth was its sustainable flow of income, so the mercantilist prescription for lopsided trade was not really appropriate. David Hume later, and for the purposes of this discussion quite importantly, argued that the mercantilist prescription itself was unsustainable because a gold inflow would tend to result in inflation and, with fixed exchange rates, thus increase the relative price of an economy's goods in world markets to the point that the goods would lose their international competitiveness, ending the trade surplus.

During the last few decades Taiwan accumulated a large stock of international reserves, specifically dollars and gold. By mercantilist standards, their actions would have to be judged quite successful.

While Taiwan was running a sustained balance-oftrade surplus, it restricted exchange transactions in such a way as to channel reserves into the central bank. Domestic holdings of foreign currency were restricted, and all proceeds from exports were surrendered to the central bank, which controlled the exchange rate as a managed float, or, before the mid-1980s, a fixed rate against the U.S. dollar. The immediate consequence of this institutional arrangement was that the central bank monetized the trade surplus. A firm that exported goods (the trade surplus) would be paid in a foreign currency, then would take that currency to the central bank and exchange it for domestic currency. As a result, the central bank ended up with the international reserves yielded by the net export surplus. The process generated a high rate of central bank money growth.

Because inflation in prerevolution China was a substantial problem for the nationalist government then on the mainland, the relatively rapid rate of money growth was of concern to the nationalist government of Taiwan. The central bank had to perform what amounted to domestic open-market operations, selling securities domestically (not international reserves) in exchange for its previous money issue. In effect the central bank was trading its domestic assets for international reserves. However, these operations were conducted on such a large scale that the central bank had to start issuing its own bonds (on which it paid interest) in exchange for foreign reserves (on which it earned little).

More importantly, however, from a theoretical viewpoint, the central bank was simply trading one form of its liabilities—central bank bonds—for another, central bank money, in an effort to control the growth rate of the latter. The latter did not pay interest, though, while the former did. Thus, the central bank was trying to slow the rate of money growth by issuing bonds that promised to pay even more money when the bonds matured. Serious issues of feasibility appeared and had to be addressed.

Liberalization. On July 15, 1987, Taiwan lifted all restrictions on current account transactions and up to a net nontrade-related outflow of U.S. \$5 million per year and net inflow of \$50,000, which increased with time. In particular, firms no longer were required to give up their foreign exchange earnings from trade, effectively meaning that the central bank was no longer forced to monetize the trade surplus.

Later that year, on October 1, restrictions on foreign investment into Taiwan were lifted. The effective investment intermediaries were commercial banks, whose total foreign liabilities had been frozen at U.S. \$13.8 billion on May 31, 1987. During the day of the liberalization these foreign liabilities increased by more than 17 percent, resulting in an immediate deliberalization the next day.

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While the rather dramatic events of October 1 highlighted the desire of the rest of the world to invest in Taiwan, in fact there was a substantial pool of savings waiting to get out, too. As the *Far Eastern Economic Review* reported at the time of the liberalization ("Opening the Floodgates" 1987), firms engaging in trade had always had a standard set of devices, such as under- or overinvoicing, to elude foreign exchange controls. However, these options were not readily available to individuals, so they had accumulated a substantial pool of savings that were expected to start flowing abroad quite soon. Indeed, in 1988 a capital outflow of U.S. \$4.9 billion occurred, and in 1989 an outflow of U.S. \$8.2 billion. The capital outflow for 1990 looks stronger still.

It is still relatively early to draw many serious long-term conclusions about the liberalization's effect on the economy. Savings rates are down from preliberalization levels, but that result, in itself, conveys little information: in 1987 gross national savings were about 38 percent of GNP, which, by industrialized economies' standards, seems unsustainably high. By contrast, the United States has a gross national savings rate of about 4 percent. Taiwan's savings rate has declined to approximately 28 percent of GNP, which is still quite high. There are two possible explanations for this decline.

First, the decline in savings may represent an increase in economic welfare. External investment opportunities may offer a higher risk-adjusted real rate of return, and the expanded set of investment options may allow more portfolio diversification, allowing for higher real returns with little net addition to risk. As a result of the larger opportunity set and greater diversification, the same net return from savings may be achieved with a lower overall savings rate. It is still too early to draw implications from postliberalization data about the change in domestic income from abroad. On the other hand, it could just be that the savings rate is returning to a more reasonable level.

The decline in savings did *not* initially adversely affect capital formation rates (a measure of investment), which have climbed about 3 percentage points as a fraction of GNP from the time of liberalization through 1989 as measured in either gross or fixed capital terms. Therefore, the slowdown in growth since the liberalization—from almost 12 percent in 1987 to (a forecast of) slightly more than 6 percent for 1991—cannot necessarily be attributed specifically to a decline in capital formation resulting from the liberalization.<sup>5</sup> The growth rate of a relatively small economy may be expected to be relatively volatile, as

indeed Taiwan's has been, and the slowdown may not be outside "normal" variations in the economy's growth. Moreover, by industrial economies' standards, Taiwan is still growing at a very healthy pace. The slowdown is nevertheless, and understandably, a major concern domestically ("Export Machine Revs" 1991). It is also too early to tell whether this change in capital formation is a permanent rate change or simply a transitional effect resulting from the liberalization.

One clear consequence of the liberalization is a diminishing of the central bank's ability to influence domestic real rates of interest. Earlier work (Rosemary Thomas Cunningham and Thomas J. Cunningham 1990; T.J. Cunningham and R.T. Cunningham 1991) has shown that prior to liberalization the Central Bank of China (Taiwan) had some influence over the behavior of the domestic real rate of interest. After the liberalization, however, the effect disappeared. This development is to be expected in a small, open economy, for which movements in real rates in the rest of the world force similar movements domestically.

Outside of immediate domestic considerations, several longer-run concerns make liberalization desirable. Internationally, Taiwan's persistent and large trade surpluses may annoy foreign political leaders to the point that they erect some form of trade barrier. Liberalization may not, by itself, address the tradebalance problem, but to the extent that a mercantilistlike accumulation of foreign assets is slowed, so too, by definition, must the trade surplus diminish. Taiwan's trade surplus has fallen about one-third from 1987 (U.S. \$18.6 billion) to 1990 (U.S. \$12.2 billion), with the shrinkage continuing into 1991.6 Domestically, large accumulations of savings denied access to international markets or constrained in rate of return by domestic financial repression may result in domestic political pressure for both international and domestic liberalization.

### Conclusion

Dramatic institutional reform, financial or otherwise, rarely happens outside of a substantial domestic political or economic crisis. Taiwan's liberalization, however, while accompanied by some relatively minor political demonstrations, seems to be the consequence of coming of age industrially. As such, it may provide some relatively "clean" evidence regarding the consequences of financial liberalization.

Liberalization, as discussed, has some rather substantial benefits. Though it may not immediately serve to increase economic growth, by expanding choice sets and more efficiently allocating resources liberalization will likely increase economic welfare.

#### **Notes**

- According to the State Department, the U.S. government no longer refers to Taiwan as the "Republic of China." Taiwan, however, still calls itself the Republic of China.
- The Gini coefficient during that time was also cut by a third, from 0.44 to 0.30. See Kuo (1983, 96-97). The larger issues surrounding income distribution and growth are outside the scope of this work. Readers interested in the topic should see Phelps (1973) or Rawls (1971).
- See Cunningham (1988) for a review of Naylor that contains a taxonomy and discussion of capital flight motivation issues.
- 4. Critics of the compensation approach to welfare analysis point out that this criterion seems inappropriate because the compensation is rarely made. Proponents respond that there are winners and losers in virtually any economic event, and some standard of welfare analysis needs to be made. More recently, see Pollak (1991). In fact, the entire issue of the *Journal of Econometrics* containing Pollak's article is devoted to welfare issues.
- 5. The 1991 forecast is from Republic of China (1990, 24).
- The welfare benefits of reducing a trade surplus to mollify major trading partners are unclear.

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