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## Maximising FM's contribution to shareholder value Part I: Can the capital expenditure process for fixed assets be improved?

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### Abstract

Planning and implementing fixed asset capital projects that increase shareholder value is problematic because the process spans the entire enterprise and requires the coordinated efforts of professionals in the areas of accounting, finance, real estate, facility management, tax, engineering and project management. In many respects the process is only as strong as its weakest link. Initiatives to improve the process must start with an understanding of capital budgeting, and require executive sponsorship and vision as well as a functioning capital budgeting system. This paper is the first of a two part series that provides an overview of the importance of capital budgeting and explains the four types of capital budgeting decisions that most executives face. Part II builds upon the basics covered in Part I and lists more than twenty improvement tactics that can be implemented by organisations and individuals.

The concept of creating shareholder value is simple: companies should invest in initiatives with returns higher than their cost of capital. While creating shareholder value through the effective deployment of fixed assets, such as real estate, is a fundamental goal of organisations in the Western world, actually following through is difficult because enterprises are facing new and significant challenges in aligning the facilities infrastructure with the changing needs of the organisation. The answer to the question posed in this paper's title is yes. Creating a value proposition does not lie in a strategy to lease everything, but relies instead upon improving the organisation's capital budgeting system, getting more benefit per dollar spent and ensuring that all facility changes closely match organisation's needs.

The pace of change in the business world is accelerating, while the facilities management profession, has not evolved as rapidly — especially with respect to delivering new facilities. This gap between business expectations and facilities performance has emerged as a major concern of business leaders. Financial analysts say that

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organisations should link their budgeting system to supply chain, customer relationship and other systems that provide realtime feedback about market changes, then update models as the market changes.<sup>1</sup> Facilities, however, are the Achilles heel of this new approach. Issues such as the delay in implementing business changes owing to the design and construction process as well as emerging issues such as modernisation<sup>2</sup> projects to update functionally obsolete<sup>3</sup> facilities, and increasing recapitalisation expenses<sup>4</sup> do not lie in the mainstream of most organisations' planning processes and are often not factored into long-term capital budgets.

**Modernisation  
Recapitalisation**

In 1998, only a handful of companies were re-inventing their planning process, while today many enterprises are embarking on planning and budgeting overhauls.<sup>5</sup> Not only are the processes being reworked, but there is an ever-increasing array of facility-related projects competing with core business projects for scarce capital dollars. Capital budgets for all capital expenditures will most likely continue to increase owing to capital widening,<sup>6</sup> a process where capital expenditures per worker grow rapidly. This has been a stable force in the total US and other Western economies since the early 1990s, and is a key indicator of increasing productivity. Factors that will keep companies spending throughout the industrialised world include:<sup>7</sup>

**Capital widening**

**Scarcity of labour**

— A continued scarcity of qualified employees (even in recessionary times), which leads to greater spending on information technology, which in turn drives the need for more workplace transformation to support new business processes.

**Technology**

— Technology will continue to enable organisations to build buildings better than the average American office facility of the late-20th century. Today, many European commercial structures are better than those in the US, because they have embraced new technology while US building codes have not supported innovation. US code restrictions are being addressed at a very slow pace, and eventually a new breed of buildings that are smart, green and energy efficient will emerge, rendering existing buildings functionally obsolete.

**Energy costs**

— The two drivers of increased energy costs — new regulations (US)<sup>8</sup> and a limited supply in the face of rising demand — could exert long-term, upward cost pressure in the typical facility manager's largest budget line item. If the cost of energy increases over the long term, look for initiatives to implement energy conservation projects creatively in many public and private sector organisations.

**Replacement cost  
rents**

— Market rents are nearing the point where they could exceed replacement cost rents in many US markets.<sup>9</sup> This shift in market economics, which makes ownership financially attractive to corporations, combined with the lack of buildable land in many metropolitan areas, could generate internal

**Lease vs buy**

debate in many enterprises about lease versus buy strategies for the real estate portfolio. Organisations throughout the world should track similar subtle shifts in local market conditions that could trigger reconsideration of current facility strategies and policies.

**Increasing shareholder value**

The author's proposition is that increasing shareholder value by deploying real estate assets more effectively first involves gaining an understanding of capital budgeting basics, then relies on improving the process and implementing tactics to improve the value delivered. This paper, the first of two, will address the former, while part II ('Improving the Capital budgeting process for fixed asset — Improvement tactics') will address the latter.

**CAPITAL BUDGETING BASICS**

According to IFMA Fellow Dave Cotts

**Capital planning system**

**'Few U.S. companies or agencies (with the exception of the Department of Defense) have a well developed, functional and continuing capital planning system. I know that is true because that is almost always one of the principal findings of my consulting studies of clients. I show them the DD Form 1391<sup>10</sup> and tell them the critical nature of having a regular way to surface, analyze, approve and disapprove capital projects. Few clients have the need for a programme as complex as the Department of Defense's but too much of capital programme development is done by the seat of the pants — particularly in the private sector and especially by these new high-tech companies who have only been in business a short time.'**

**Improving the capital budgeting process**

Most enterprises seek continually to improve processes and operations; however, improving the capital budgeting process has been consistently overlooked in many organisations. One reason is that no one department 'owns' the capital budget, while another is the inherent universal difficulty of forecasting costs for projects that cannot be anticipated. Most budgets span the enterprise and encompass various sites and departments. A large portion of capital budgets that include replacement of building systems are developed bottom-up and approved top-down. Does the finance department, facilities department or tenant organisation own the process? In the US, improvement projects are judged by their payback (public and private sector) or internal rate of return (IRR) (private sector). There are no cost reductions associated with improving the capital budgeting process — only the avoidance of future costs — which are not universally accepted as a true benefit of improvement efforts.

**Cost avoidance**

Process improvement is possible. In 1999, the US General Service Administration's Public Building Service (PBS) won a 'Best Practice Award' from the International Development Research



Council<sup>11</sup> for its Asset Business Plan. The plan focused on re-inventing the PBS by focusing on customer needs and relied upon extensive 'best in class' benchmarking for guidance. By stopping standard practices and looking at how common sense, technology and other advances could aid the process while still meeting customer needs, \$1.36bn was cut from the \$7bn federal building programme.

After an exhaustive review of literature and conversations with many facility managers and executives, the author has concluded that any discussion of the capital budget is inseparable from the strategic business plan. The capital budget closes the gap between the current situation and the infrastructure required to meet the enterprise's strategic vision. Business plans (including building plans and functional upgrades) originate at the business unit level in response to strategic visions and strategic directions that flow from the top of the organisation. Visions and values are the glue that hold together the progression of an organisation towards its goals. They are the responsibility of the chief executive and coordinate efforts both up and down the organisational chart as well as across business units or agencies. The effectiveness of the capital budget is indicative of the success in communicating the strategic business planning throughout the organisation. Improving the capital budgeting process requires leadership at the executive level and initiatives at the business unit level.

### Strategic business plan

### Drivers

#### DRIVERS FOR FIXED ASSET CAPITAL EXPENDITURES

Facilities-related capital spending encompasses more than determining when a new building will be needed. There are four reasons why enterprises spend capital on fixed assets:

- Expenditures are required by regulation.
- Portions of the buildings have reached the end of their useful life and should be replaced (new windows or a new chiller for example). This is often called recapitalisation.
- Growth in the core business requires new space.
- The space is functionally obsolete and needs to be updated.

Some expenditures (regulatory and recapitalisation) are necessary and cannot be postponed, while others (especially modernisation) can allow some discretion in terms of the timing of the expenditures.

### Regulatory drivers

#### Regulatory

In the US, most recent building-related regulatory changes have had extensive outreach programmes through the trade press and have provisions that do not require compliance until a substantial portion of the facility is renovated. The Americans with Disabilities Act is an example of delayed compliance for certain types of facilities.

## Recapitalisation drivers

### Recapitalisation

Companies such as IBM have developed systematic processes<sup>12</sup> for the planned replacement of building subsystems (called recapitalisation or capital renewal) that include surveys of each building's needs rather than using an average rate (such as 2 per cent of current replacement value) for budgeting. Recapitalisation does not create shareholder value. Accuracy of projections in this area is problematic, as Freddie Mac has found that annual subsystem replacement is not constant and can run up to nine times the annual baseline of the previous year.<sup>13</sup> The design life for buildings outside the US is longer than the typical 30–50-year US life expectancy, and facility managers in international enterprises should be aware that recapitalisation rates for each country might vary greatly. 'A special difference between the US and Europe is the US focus on the building cost and financial measures in making building decisions. Europeans focus on using facilities as a tool to keep the best employees and take a long view of facility investments', says Geert Frehling, immediate past president of the International Facility Management Association. There is considerable 'how to' and benchmark information available on recapitalisation,<sup>14,15</sup> and a variety of methods to calculate needs.<sup>16</sup>

## Business growth drivers

### The building plan

The 'building plan' is a generic term used to describe construction and leasing plans and budgets that support core business activities. These plans are the primary roll-out tool for new space for growing organisations and are a result of a strategic facilities plan where staff projections are compared with the availability of space to determine demand–capacity profiles that can be used in planning new construction.

The 'demand versus capacity' model is a useful tool for communicating with architects and organisational leaders because it speaks both the architect's language (building area) and the business leader's language (staff levels). Figure 1 was created using the following steps:

- Calculate projected staff levels by year.
- Target an ideal number of square feet per person — rentable square feet for lease space and gross square feet for owned space.
- Determine 'economic order quantity for space' — just as businesses spend a great deal of time studying inventory and purchasing costs for supplies, facility managers, architects and real estate brokers should study the most efficient way to grow, shrink or relocate within a given real estate market. Since space cannot be added in 250-square-foot increments as organisations add an additional person, the ideal 'economic order quantity for space' should be determined and used in planning. 'Economic order quantities for space' that are listed above the bar charts in

## Economic order quantity for space

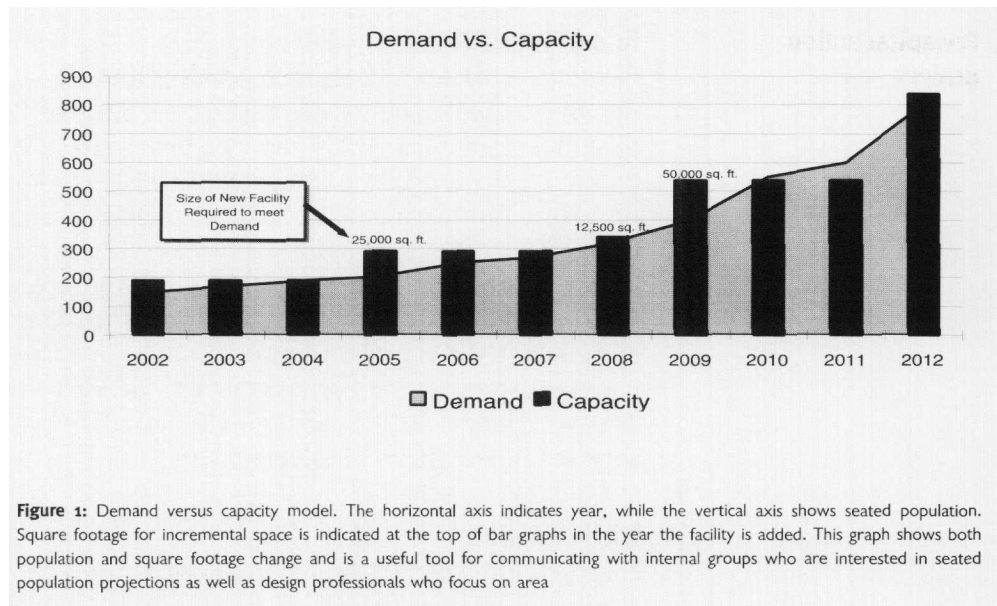


Figure 1: Demand versus capacity model. The horizontal axis indicates year, while the vertical axis shows seated population. Square footage for incremental space is indicated at the top of bar graphs in the year the facility is added. This graph shows both population and square footage change and is a useful tool for communicating with internal groups who are interested in seated population projections as well as design professionals who focus on area.

Figure 1 include 30,000 square feet, 15,000 square feet, 120,000 square feet and 120,000 square feet.

- Multiply projected number of staff by square feet per person to determine the space demand.
- Plan for new space to come on line so that supply meets demand in an efficient manner.
- The process should be repeated to allow the study of the impact of various assumptions. Actual demand will most likely vary from the model, but a study of how changing demand and the limitations of supply interact can lead to significant insights about the timing of construction and the size of new facilities.

### Construction timing

The demand versus capacity model is a useful communication tool for evaluating scenarios. For example, a small, rapidly growing bank had focused on two facility futures after considerable evaluation of potential alternatives. In one scenario, they could gradually occupy a vacant, high-end retail facility and almost exactly match their growth and staff needs by building out space when they needed it. In the other scenario, they would build offices and lease space near their existing home office. Because the net present value of each scenario was similar, the decision to go with the neighbourhood building programme was made for an intangible reason. Their motto was 'small enough to care' and, if they incrementally occupied a large facility, their customers might perceive them as a 'big bank' and their image would be ruined because of a facility strategy.

### Facility and business strategies

#### Modernisation to address functional obsolescence

The story of a group of parents dropping off their sons for a basketball camp at a prestigious US university illustrates the rising

## Functional obsolescence

importance of functional obsolescence. After walking into the dormitory (which was antiquated) and learning the tuition, the parents immediately decided against sending any of their children to that school. Universities have indeed found out that students and parents make a decision about attending a school within 15 minutes of setting foot on a campus. The challenge of updating functionally obsolete facilities is a major hurdle for US universities that are struggling to keep a lid on rising tuition rates, while still attracting the best students. Upgrading dormitories with air conditioning, adding Internet access and modernising the appearance of facilities is not recapitalisation because current facilities are being upgraded. Many organisations do not know functional obsolescence when they see it, but their customers do.

## CONCLUSION

Improving the capital budgeting process for fixed assets is a significant task for organisations of any size because the process can cross the boundaries of most business units and many departments. The expertise of accountants, financial analysts, architects, engineers, facility managers, tax experts and others from throughout an organisation play a key role in planning and delivering acceptable returns to shareholders. The road to success is not easy. Improvement initiatives must start at the top of an enterprise with executive leadership with a vision. Then a continuous planning system must be in place before any efforts to improve work processes can begin. This paper has provided an overview of the system, how it works and an explanation of the four types of capital expenditures. Part II will offer more than twenty tactics for improving a system, as well as advice on how to get started and what benefits might be expected from improvement efforts.

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2. Modernisation — while there is no known definition of a modernisation project, a description of what it is not can help define what it is. A modernisation is not as extensive as gutting and re-building an office interior, and is more extensive than new carpet and paint. Modernisation projects typically include work required to 'update' the style of space, address recent code issues, repair wear and tear and update functionally obsolete space.
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4. The concept behind recapitalisation is simple: If a building is designed to last 50 years, then on average, approximately 2 per cent of the current replacement value should be spent each year for the replacement of building subsystems. The core idea sometimes works well when budgeting for a portfolio of buildings but, for new buildings, there should not be any recapitalisation in the early years. For buildings nearing the end of

their expected life, the recapitalisation rate should increase. Also, recapitalisation expenditures tend to be sporadic in nature for a particular facility — that is, they are not constant from year to year. Recapitalisation is not maintenance, and it does not include upgrades. Some companies do not use theoretical rates and actually evaluate each building sub-system at each site. This approach identifies future expenditures and can eliminate the surprises associated with year-to-year-variances in total expenditures using the per cent of current replacement value method.

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15. Kaiser, H. (2001) *The Facilities Manager's Reference*, R.S. Means, Tradeline Inc, Orinda, CA. pp. 187–196.
16. Methods for estimating recapitalisation expenses:

— *Flat rate method.* If a building is designed to last 50 years, then approximately 2 per cent of the replacement value should be expected to be recapitalised annually. As with most methods that do not require thorough analysis, this method yields approximate results. For example, in the early years of a building's life, no recapitalisation should be required. In lieu of detailed information, this and other methods of calculation can serve as a guideline for expected recapitalisation for a portfolio of buildings.

— Other methods include the 'sum of the years digits approach', the 'component method' approach and the 'formula approach' that are similar to the 'flat rate method', but more complex

— The 'replacement index method' looks at building subsystems and projects replacement costs based upon a system's expected life span.

— The 'facilities audit cost estimate' involves a complete inspection of each building and subsystem, then estimates recapitalisation cost and timing based upon the inspection. It is the most costly and time-consuming method but yields the most accurate projections.

Some methods for calculating recapitalisation rates ignore the reality of varying component and system life cycles. Some of the simpler methods of calculation can have an error rate of up to 20 per cent according to the *Facilities Manager's Reference* (Kaiser, ref. 15 above).