Value-based management and the corporate profit centre

New research suggests that many European companies are merely paying lip service to VBM – yet the experiences of those trying to go deeper suggest the issues are more complex than expected.

Table 1: how VBM attitudes and practices vary

	Situation 1 This approach doesn't change our management	Situation 2 We use these concepts to improve our incentive systems	Situation 3 We want to use the whole approach
How it is used	External financial communication	Revisit of performance indicators	Full deployment
Main arguments	Nothing new to derive KPI's	Making managers aware of the cost of capital. Many unsettled issues (CoC, goodwill, R&D, etc.)	Culture change
Level of application of the approach	Group level	Group, Heads of Business Units	Group, Managers of Business Units
Linking up with compensation systems	No	Marginal	Yes
Overall appreciation	It's a fad	It requires more work to be applied	It is basically correct and should be accessible to a large internal audience

Value-based management (VBM) has been defined as a means of making explicit the link between a company's strategic and operating decisions and their effect on shareholder returns. As such it should be the natural framework for aligning executive incentives with the interests of stock market investors (Ittner and Larcker, 2000).

While many firms have embraced the VBM phenomenon in recent years, at least in their communication with shareholders, it is far from clear that value-based management has really had any significant impact on internal management systems. Large survey articles on executive compensation in the US, such as that by Murphy (1998), strongly suggest that the new metrics are not being widely applied internally. This begs the question of whether diffusion is still at an early stage, or whether there is a gap between hype and reality. Could value-based management simply be another management fad?

This paper (based on interviews with almost 30 European and US companies) sets out to investigate the performance measures actually used by organisations at the profit centre level, as well as the issues which arise when implementing them. The findings show that most companies in our sample merely use value-based management to communicate with financial analysts and that only a limited number have implemented it throughout the entire organisation for compensation purposes. Some intended to change that in the near future but as with a similar study by Wallace (1998), who interviewed about 30 US companies known to use the Economic Value Added (EVA) methodology, our research suggests that the most positive impact of VBM is the awareness it creates throughout corporations of the cost of capital.

In the following sections we will focus on the implementation methods and technical difficulties experienced by those companies which have sought to embrace VBM more fully, as well as their strategic and financial motivations for doing so.

In short...

- This paper investigates the performance measures used by organisations at the profit centre level.
- Direct observations from how value-based management is implemented show that most companies merely use Value-based Management (VBM) to communicate with financial analysts.
- For companies that do implement VBM at the profit centre level it is a powerful tool for shifting from an industrial towards a more financial culture, from a strategy relying on growth and diversification towards a strategy relying on focus and profitability.

Why is VBM so limited at the profit centre level?

All the companies we interviewed in France and Germany emphasised value creation in their communication with financial analysts and investors. This has become a 'must' in annual reports and can be seen as part of a wider effort to improve the quality of information provided to shareholders, including greater use of international accounting standards, the introduction of quarterly reports, more willingness to provide a financial breakdown of key business segments, more regular conference calls and more active market guidance.

However, those value indicators used in communication are far from being standardised and the range of alternatives varies widely from traditional earnings per share to the 'new' metrics, such as TSR (Total Shareholder Return) and EVA (Economic Value Added).

Attempts to develop a common language are not encouraged by the financial community itself. Many analysts make their own adjustments from the accounting figures – often driven by the peculiarities of a particular sector – while others are dismissive of the 'new' metrics. There may be general enthusiasm for the concept of shareholder value but there is no clear guidance from the financial markets on how best to implement it within the firm.

Table 1 (on page 41) illustrates the different attitudes we found within companies. Quite a large number (14 out of the 29 companies in our sample) are clearly content to make vague and cosmetic references to value creation while leaving their internal management processes unaltered.

Others go deeper but merely to observe that there are many unsettled issues within the organisation: how to compute the cost of capital for the different business units, where in the company goodwill should be allocated, which rule should be used for capitalising R&D or advertising expenses. They take advantage of the focus on shareholders' interests to revisit their own indicators but refrain from embarking on a global change.

Only a few firms interviewed in Europe are currently doing the latter or willing to contemplate radical change in future.

As we shall see below, the main reason given by our respondents for embarking on wholesale change was the recognition by top management, often a new CEO, that financial performance had deteriorated in the recent past and that a radical new approach needed to be introduced. Such a move was often opportunistic (in part at least) and designed primarily to send an internal message throughout the company rather than to the outside world.

How does value-based management affect profit centres?

The following section deals with the key issues that arise when companies use value-based management as opposed to more traditional approaches to analyse profit centre performance and set executive rewards. The natural benchmark study is Merchant's in depth analysis (1989), well prior to the diffusion of VBM.

Issue 1

Determination of performance measures

Surprisingly perhaps, the most commonly used performance measure at the level of the profit centre does not take account of capital employed. Many companies in our sample still rely on such measures as Operating Profit or EBIT (Earnings Before Interest and Tax). This clearly means that managers have a strong incentive to increase capital investment. Balance sheet issues are likely to remain in the hands of accounting and finance people at corporate HQ with the result that the allocation of capital employed may not be related to the economic structure of each business.

> 'Direct observations from our research of how value-based management is implemented show that theory and practice are still far apart.'

The two performance measures that usually appear in the headlines in connection with the new metrics are CFROI (cash flow return on investment) and EVA (Economic Value Added, which is a trademark of the US consultancy firm Stern Stewart). These measures can be seen as an outgrowth from more traditional ones: ROI (Return on Investment) and Residual Income respectively.

While the underlying principles of those two measures are well known (for example, see Myers, 1996 for CFROI and EVA; Bromwich and Walker, 1998, Hanlon and Peasnell, 1998, for EVA), our research highlighted wide variation when it comes to actual implementation.

To illustrate this, consider the following three examples derived from our interviews:

Example 1 (CFROI): The actual calculation of the CFROI for a business unit requires assumptions about the life of the assets and their current age structure.
The difficulties of these assessments led many companies in our sample either to abandon the new approach, or to adopt much simpler tools such as TSR (Total Shareholder Return) based on EBIT (Earnings Before Interest and Tax) multiples. Where these two metrics are used in practice it is mostly associated with the evaluation of business plans at the corporate office and not directly with compensation policies at profit centre level.

Example 2 (EVA): In companies in the banking or insurance business, the allocation of equity to business units can depend on specific prudential rules and this differentially affects the cost of capital of these units; furthermore a procedure to eliminate the volatility of each market had to be introduced in some of the companies we interviewed before some relevant measure of profitability could be assessed.

Example 3 (EVA): In an industrial company dependent on large capital investments for growth, specific rules had to be introduced to capitalise the first years of expected EVA, which are usually negative, so as not to discourage such strategies and restore an EVA profile more in line with the standard cash flow analysis. In the case of this particular company an important issue was to decide who had the authority to make such an adjustment and whether this adjustment should remain at the profit centre level or be integrated at higher consolidated levels in the business.

The last two examples clearly illustrate how adjustments are necessary to elicit a 'true' economic performance measure at the profit centre level. They also explain why significant discrepancies may be found between internal and external EVA calculations. These discrepancies may endanger the very legitimacy of the internal approach in circumstances of large increases in internal EVA (tied to corresponding bonus payments) at the same time as large drops in the stock price.

Issue 2

Determination of standards and controllability issues

A new approach to setting standards comes along with these measures. Here the most important idea is to decouple these standards from the budget. This idea has been put forward for two reasons (see the CAM-I report by Hope and Fraser, 1999): firstly, the notion of budget as a goal setting process does not seem to be adequate with the ever changing environment; secondly, playing games with budget numbers is counterproductive to the need for greater transparency towards financial markets.

One approach we found was the automatic resetting of standards from one year to the next one, according to some specified formula. An example of such a formula for a given profit centre drawn from our interviews can be expressed as follows:

T(n+1) = Average T(n) + O(n) + EI
Where:
T(n+1), T(n) = Standards for year and respectively
O(n) = Observed outcome for year
EI = Expected Improvement reassessed every three to five years and derived from some external goal.

Deriving expected improvements for each profit centre within the firm still appears somewhat arbitrary and cannot easily be disconnected from internal expectations. Furthermore, at the profit centre level, business cycles may be quite pronounced, not to speak of shocks such as currency devaluations.

The issue of the controllability of standards seems to be the most difficult to solve. In this respect, there is a conflict between the cultural objective of "making the employees behave as if they were owners" (Stewart, 1991) and the commonly admitted view in management wisdom that 'you can only be held responsible for what you can control.'

The controllability idea, which is the application of the informativeness principle in contract theory (Milgrom and Roberts, 1992), suggests that:

- **ex-ante**, the performance measure excludes revenues or expenses which are out of the span of control of the manager such as corporate expenses, taxes, capital gains on divestitures, decisions imposed by top managers...
- **ex-post**, adjustments may be made in the case of truly acts of nature such as general economic conditions, fire, earthquakes...

Merchant's findings showed that practice differed widely between two extremes. Some firms rewarded effort, with a performance measure restricted to the operating profit of the profit centre favourably adjusted. Others rewarded results, with a performance measure encompassing many items independent of the manager's control, and allowing almost no adjustments.

Value-based management is a clear move in the latter direction, the performance measure used for compensation purposes typically integrating corporate expenses, taxes, capital gains or losses (which sometimes means significant ex-ante 'economic' adjustments from pure accounting numbers), but of course excluding the operational results from other profit centres and allowing as few ex-post adjustments as possible (except for financial activities as already mentioned). Still the companies we interviewed suggest that some freedom is kept to make exceptional ex-post adjustments where bonuses are hit by adverse occurrences outside an individual's control.

Risk averse managers are clearly under new pressures but typically the increased risks are balanced by the use of non financial performance measures, giving the lie to the idea that the new metrics should be the only language for making decisions.

Altogether, the approach adopted by the companies in our sample seems to be a pragmatic mix of two conflicting goals: the reward of individual effort through incentives and the creation of a robust corporate culture by rewarding results in line with shareholders' perception.

Issue 3

Avoiding short-term bias

Traditional bonus plans are based on two yearly components: a financial one usually based on Operating Profit or EBIT, and a non-financial one based on measures such as growth, market share, customer satisfaction, and personal objectives. Usually, the non-financial component is less standardised than the financial one in the sense that it is adapted to every business unit's qualitative constraints. The non-financial component is supposed to be forward looking and avoids the short-term bias of the financial component.

Value-based management provides an opportunity to assess the coherence of these two components using a 'value tree'. This tree is expected to point out the dynamic long-term interaction between the non-financial drivers and the financial outcomes. It should underline the pre-eminence of the financial component through the restoration of a long-term bonus scheme allowing the non-financial component to be dropped.

One way to move from a yearly bonus scheme to a long-term one is through a bonus bank. Consider the following example in line with the procedure to reset annual standards previously discussed :

Illustration of a bonus bank (two-year time frame)

Period	**(n)**	**(n+1)**	**(n+2)**
Initial target	100	100	100
Expected improvement	20	20	
New target	100	125	130
Outcome	110	95	
Bank (beginning)	70	40	5
Yearly bonus	10	-30	
Paid bonus	40	5	
Bank (end)	40	5	

T(n) = standards for year
O(n) = observed outcome for year
T(n+1) = Average (T(n) + O(n)) + EI
Year Bonus (n) = O(n) – T(n)
Paid Bonus(n) = (Year Bonus(n) + Bank)/2

In this case the yearly bonus is not paid to the manager. It is capitalised in a bank and only a fraction of the bank amount paid out in cash every year. The consequences of this deferred payment are the following :

- the annual calculated bonus may be positive or negative,
- The elimination of caps and floors may appear more acceptable and legitimate since the actual payments are smoothed over time and a higher expected bonus should imply higher risk tolerance,
- The maximisation of the discounted cash flows of bonus is an approximation of the maximization of the discounted EVA (it would be strictly identical if the amounts in the bank would generate an interest equal to the cost of capital).

The implementation of this approach requires great confidence in the value tree analysis. It also needs to be adapted to the fact that managers change jobs quite often so that not only does their bank amount have to follow them from one job to the next one, they also have to continue to bear some responsibility for the evolution of the performance measure of the unit they left. Without this the very idea of a long-term bonus would disappear.

It is always good for motivational purposes to introduce a new scheme in a good year, that is the bonus paid with the new scheme should preferably be higher than what would have occurred with the older scheme. With a bonus bank a bad year may have lasting consequences. With no initial amount in the bank it may mean zero bonus paid for a few years until the drought of the cycle is over and expansion returns.

Such analysis led one company we interviewed, which operates in a sector subject to high business cycles, to restore the notion of a traditional yearly bonus, with caps and floors, along with a three-year long-term bonus in which 'good' years and 'bad' years may eventually compensate each other.

While the idea of a long-term bonus is

conceptually attractive, many technicalities make full implementation difficult. As a consequence, the lower an individual sits in the hierarchy, the higher the probability that a traditional yearly scheme relying on both financial and non-financial components will persist.

Issue 4

The introduction of a culture emphasising the cost of capital

The empirical observations reported in the previous two sections showed that the diffusion of value-based management follows as much the objective of introducing a cultural change than of a narrowly defined incentive purpose.

We have observed that value-based management was introduced in most of the firms we interviewed because of low profitability and declining or stagnating stock prices. The main reasons put forward were lack of focus, the emphasis on costly growth and diversification. Previous internal performance measures were at least partly blamed for not providing advance signals of the value destruction phase.

In some cases VBM provided a clear signal that times had changed and that a new strategic orientation was under way. In companies where decision making is decentralised it was pointed out that a durable shift in strategy was unlikely unless the value creation objective was similarly implemented throughout the entire organisation.

By introducing accountability with respect to capital stocks and expenses, the new performance measure clearly creates a radical change, notably for non-financial managers who may not be so familiar with balance sheet issues. Heavy training programmes were deemed to be necessary, often involving games, simple exercises and motivational case studies.

It was no surprise to find that the value-based management project directly supervised by the CEO of many companies. While the idea may be initiated in the finance department, its deployment within the company requires full approval from the top.

A number of interesting points can be made from this view of value-based management.

On the positive side, it is clear that a cost of capital culture does affect the way decisions are made within a company. When bonuses depend on such a notion, it matters even more. It is one thing to have a capital investment analysed through a DCF exercise, and then forget it, quite another to assess the profitability of a business unit every year, sometimes every quarter, through a regularly updated controlling process. It becomes more difficult to make acquisitions for loose strategic reasons or to keep low performing assets within the portfolio.

On the negative side, it is clear that complexities like economic adjustments and the bonus bank create special challenges. Information systems need to be linked to the accounting files, while formalisation of the compensation schemes has to be registered and updated. Mergers, acquisitions, and sales of assets may complicate the whole system. Most importantly, internal expertise is needed to avoid bureaucratic excesses and to remain in line with the external evaluation of the firm.

In my opinion... by Brian Pitman

Sir Brian Pitman is a former chief executive and chairman of the Lloyds TSB Group. He is currently chairman of the UK retail group Next, a non-executive director of several other British companies, and a Governor of Ashridge Management College.

I am not surprised that research shows many European companies to be merely paying lip service to VBM. While the ability to generate consistently superior shareholder returns over time may be the best single measurement of corporate performance, it is also the most challenging objective a company can set for itself – far more difficult than an objective of increasing the size of the company, expanding market share or global growth.

Generating consistently superior shareholder returns requires delivering outstanding levels of current performance while building a legacy for the future. It demands continuous improvement. There is no time when you can sit back and admire your achievements. The measurement is obvious to all, inside and outside the company. There is no hiding place. Those companies who achieve it are hailed for their ability, year after year, to generate wealth for their owners far in excess of their competitors, but only a few succeed. No wonder some CEOs prefer an easier objective.

VBM is more than just managing by numbers. It is not a matter of putting in new metrics and the rest will follow. If only it were that easy. Often, it requires changing beliefs, changing the culture, changing the organisation structure, changing processes, changing behaviour – all with the aim of raising management performance.

You are unlikely to achieve consistent upper quartile performance in total shareholder return by incremental change: it requires major change and abandoning many of the old beliefs and ways of doing things.

You can set the bar as high as you like. Having set the target, you can use shareholder value to raise management performance, to drive management performance.

Setting ambitious goals forces the organisation to dig deeper for creative solutions and to rethink how the business should be run. The most successful companies set goals that will give substantial competitive advantage. The objective is to win, not just to improve.

The adoption of a shareholder value philosophy is a tough discipline. Sceptics argue that the philosophy implies short-termism, is just another fad, favours shareholders against other stakeholders and involves too much change. ('There will be nothing left if we follow the divestment criteria'). All sorts of arguments are advanced for

Table 2: Major differences between traditional and value-based management approaches

	Traditional approach	Value-based management (in theory)
Performance measures and standards	Internal assessment in connection with budgets	External assessment (financial market, peers)
Short-term bias	Yearly accounting indicators	Economic indicators to be used in long-term bonus
Controllability	Many adjustments to eliminate uncontrollable uncertainties	Very little adjustments (high volatility smoothed through a bonus bank)
Non-motivational purposes	To ensure sound planning and budgeting process incentives are kept low	Cost of capital culture
Typical flaws	Gaming	Complexity

Summary of findings and concluding comments

Table 2 summarises the key characteristics of the traditional approaches and the evolutions brought in by value-based management.

At the profit centre level, value-based management may in theory be considered as an attempt to unify into one unique performance measure the financial and non-financial measures that usually appear in the corresponding scorecard. The long-term aspect of this unique performance measure requires a corresponding long-term bonus scheme.

Direct observations from our research of how value-based management is implemented show that theory and practice are still far apart: the value metrics defined often do not sufficiently capture the appropriate operational levers, non-financial measures are reintroduced, and the long-term aspect has to face adaptations to a changing environment. In parallel to that, the rise of such approaches as the balanced scorecard (Norton and Kaplan, 1996), illustrates the need to develop a better understanding of the value tree of the firm to design its control system.

Whereas value-based management may appear as a very top-down and uniform system, the balanced scorecard is a reminder of operational relevance and need for a simultaneous bottom-up *ad hoc* analysis.

Another weakness of value-based management is the lack of any explicit connection to stock options. It may be that the intended cultural change could be accomplished at a much less bureaucratic cost through this instrument.

Notwithstanding the limitations and its

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staying in an activity even though it is a persistent underperformer.

In particular, middle management, recognising the potential implications for poorly performing businesses, may attempt to discredit the process. The barriers to change are most significant when the management's interests and incentives are in conflict with those of the owners. People employed in an underperforming unit find it hard to be realistic about their competitive strengths. Yet, one of the most effective and neglected areas of improved performance is the systematic elimination of all activities which cannot make an important contribution. To attempt the impossible is not good strategy, it is just a waste of resources.

People like the status quo. They like the way it was. When you start changing things, the good old days look better and better. You have to be prepared for massive resistance.

> 'People like the status quo... when you start changing things, the good old days look better and better. You have to be prepared for massive resistance.'

In most companies it is necessary to revise pay policies (as a few have clearly attempted to do in the research sample investigated by Bessanger *et al*) to support a focus on creating shareholder value. This is a key element in making the strategy work. A focus on the creation of economic value requires managers to act like business owners. This leads to a revision of incentive programmes. Incentives are tied primarily to their contribution to economic value and they represent a much higher percentage of total remuneration than before. Management should do well only if shareholders do well.

A growing number of companies benchmark themselves against their competitors to measure their performance in value creation. Measured by total shareholder return, to match the best in the world over the past couple of decades, you would have to double the value of the company every three years over a twenty-year period – a compound growth rate of 26 per cent per annum. To put this in perspective: £1,000 invested in a company which doubles its value every five years would be worth £16,000 at the end of 20 years: £1,000 invested in a company, which doubles its value every three years, would be worth more than £100,000 over the same period. If world class means anything, it means world class performance in value creation.

In my experience managing for value is the biggest challenge a company can set for itself. Managing for value is different and must be tailored to each company's needs and style. Above all, if you have a real passion for it, managing for value works.

intrinsic complexity, value-based management is a potentially significant tool for shifting a company from an industrial towards a more financial culture, from a strategy relying on growth and diversification towards a strategy relying on focus and profitability.

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Research methodology

Interviews were done with project leaders responsible for implementing value-based management in 29 large European and American listed firms (14 in France all belonging to the CAC40, five in Germany all belonging to the DAX30, two in the UK and eight in the US). A minimum of two managers (usually the chief financial officer or human resource director at corporate level, most often both) were interviewed for each firm, representing more than 50 interviews for the whole survey. We used for that purpose a set of four questions which allowed us to cover the different aspects of the context.

Financial support for these interviews was provided by the French Ministry of Finance and Industry under a research grant to investigate the impact of financial markets on corporate strategy.

VBM – the theory

According to traditional finance theory there is a direct link between internal performance measures such as earnings, dividends, and cash flows on the one hand and the financial performance of the firm on the stock market on the other. Maximizing the former, so it is claimed, will help maximise the latter. In this context the new value-based performance measures devised in recent years – SVA, CFROI, and EVA to take three examples – are typically promoted as having the best correlation with the stock price.

In our view, the novelty of value-based management lies elsewhere. It comes from three practical aspects. First, from the ability of the consulting firms which have pioneered them to precisely define and implement new internal performance measures. Second, from the willingness of some managers to diffuse these new metrics throughout the company, and not merely to that limited set of financial managers who traditionally assess the value of large capital investments. And third, from the reinforcement of this diffusion by the use of these performances measures for compensation purposes.

External measures derived from the stock market – such as Total Shareholder Return (TSR) – can be used to help remunerate top executives. But where the compensation of profit centre managers is involved, the key challenge is to ensure that those parts of the company for which the individual is not responsible are excluded from any calculations.

To better understand some of the practical issues involved when going from external to internal performance measures, a simple analytical example is illuminating. Assuming a perfect financial market, and taking TSR as the external measure and EVA as the internal one, six steps summarised as follows would be necessary.

Numeric illustrations

Assumptions: the share price is 100€, the cost of equity 12 per cent, the cost of debt is 6 per cent, the debt ratio is 50 per cent (100€ net indebtedness per share at 100€), the market to book ratio for equity is 200 per cent (currently the book equity is 50), the tax rate is t=1/3, there is no growth:

- **Calculation of the wacc (weighted average cost of capital)**
  wacc = 0,5*12% + 0,5*6%*2/3 = 8%
- **Relationship between result and share price assuming a perfect financial market**
  A net stationary result of 12€ per share is consistent with the stock market price (12/12% = 100). The same is true for an after tax operating income of 16 (16/8% = 200).
- **Relationship between EVA and MVA**
  EVA = 16 - 150*8% = 4 MVA = 200- 150 = 50 = NPV(EVA's) = 4/8% = 50.
- **From a TSR goal to an EVA stretch goal**
  Expected TSR for the market is the cost of equity 12 per cent; at this level there is no expected improvement for the EVA's, they should remain at 4€ per share. If we set a one-year TSR target at 15 per cent, it is necessary to create 3€ (=3%*100€) of value per share over the corresponding period. A 3*8% = 0,24 increase in the stream of EVAs is good enough; this goal is the stretch goal associated with the TSR target.
- **Relationship between the stretch goal and the business plan**
  Consider a business plan which implies a capital investment of 10€ per share and generates a net cash flow of 1.04€ per annum, while the ongoing business still generates an EVA of 4. This business plan increases the EVA stream by 1.04 - 8%*10 = 0.24.
  It should increase the MVA by 0.24/8% = 3 as long as the wacc is unchanged.
- **Financial policy (debt/equity)**
  How should one finance this additional investment while maintaining the same debt/equity ratio ?
  Let x = new borrowing and y = capital increase so that x + y = 10
  the value created by the new investment is 3, then one should also have 100 + x = 100 + 3 + y
  The solution is to borrow x = 6.5€ and to

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increase the capital by y = 3.5€.
In these conditions, after investment, the new net income = (12 + 1.04 - 4%*6.5) = 12.78€.
Given the cost of equity, the share is now worth 106.5€ = 12.78/12%.
The debt ratio is still 50% (100 + 6.5 = 106.5 vs 106.5 = 100 + 3 + 3.5).
And the TSR for the past year indeed was 15% = (106.5 + 12 - 3.5 - 100)/100.
The TSR for the following year will again be 12% = 12.78/106.5.

Here are some of the practical issues that need to be addressed to implement this theoretical approach in a practical business environment:

- Choose an appropriate market. Does it incorporate some growth and excess return in earnings (without new injection of capital)? Is it necessary to introduce some fading hypothesis to limit growth (to GDP growth rate) and return on capital (to the wacc) after a while? Should one take into account business cycles?
- Select a cost of capital and a procedure to update it: should it be the same through the whole company or a different one for each profit centre?
- Elaborate a reference EVA profile which is consistent with the above considerations, translate this profile into yearly expected improvements and decompose this profile along profit centres.
- Repeat the same procedure to derive stretch goals, starting with an ambitious TSR derived from a peer group analysis (select peers), possibility at the profit centre level using comparable companies, if any, that are on the stock market for that activity.
- Elaborate a value driver analysis to support the connection between financial objectives and operational levers.
- Agree on adjustments for significant internal changes (such as mergers, acquisitions, divestitures) or external changes (such as regards currency) with respect to the expected improvements and the stretch goals.
- Decide on a time horizon (typically three or five years) to reinitiate the whole procedure.

Addressing all these questions requires a significant amount of time and competencies from both financial, human resources and operational managers. Table 3 summarises the main issues to be addressed to implement the theory.

Table 3: VBM from theory to practice

External indicators	Internal indicators	Yearly indicators	Compensation policy
MVA, TSR	NPV, TBR	EVA, CFROI	
Use Peer group and market value to derive external targets	Infer internal targets (streams) from external ones using fading models	Decompose the targets annually and along the organisational chart Perform value driver analysis	Derive target bonus and bonus range for compensation policy