

# New Perspectives on Value Creation

*A Study of the World's Top Performers*

2000





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# Introduction

*Will the Internet and other state-of-the-art technologies create a new economic order? No one knows. However, what we can say with a fair degree of certainty is that the spectacular rise and fall of various dot.com equities has put the spotlight on a fundamental question: 'How do you measure the true potential of a company – its ability to create and sustain value?' More crucially, 'How do CEOs generate additional value and ensure their business's true potential remains in line with market expectations?'*

This report sheds important new light on these two questions. Based on a study of over 4,000 publicly quoted companies worldwide – one of the largest and most detailed surveys of its kind – it pinpoints the world's top value creators and provides fresh insights into the key drivers behind their success. In particular, we go beyond the capital-centric view of value creation and produce a deeper, more instructive analysis that holds important lessons for both 'old' and 'new' economy companies. Moreover, we assess the challenge businesses face

in keeping their intrinsic performances in line with market expectations, an essential ingredient for sustained value creation.

Our report doesn't claim to have all the answers or to be definitive. Our thinking will evolve and circumstances will change. Nevertheless, we hope it will stimulate a rounder and more informed debate at a time when companies are under increasingly intense pressure to deliver greater shareholder value.





# Executive summary

## **Total shareholder return (TSR) – the rise in a company's share price plus dividends – increased markedly for the top performers between 1995 and 1999, compared with 1994-1998.**

Annual average TSR for the top 100 rose from 38% to 45% per year between these two periods, while the top 10 nearly doubled their TSR to 116%. This high TSR performance contrasts starkly with the average TSR for all 4,125 companies analysed in the study – 9.4% a year, up from 6.3% in 1994-1998. Market corrections in the first half of 2000 have significantly reduced the rises in TSR for the top players but the rankings and trends for countries, sectors and companies remain broadly the same.

## **The US dominated the top 100 rankings, extending its lead over Europe and a resurgent Asia.**

American companies occupied more than half of the top 100 places by TSR and 75% of the top 20 slots. This was achieved mainly through growth rather than efficiency gains. Europe was the runner-up but its average TSR grew more slowly than the other two regions, including Asia, where TSR increased more than four-fold relative to 1994-1998. In Europe, France was the overall winner while Japan took pole position in Asia.

## **Information technology and telecommunications (ITC) businesses spearheaded the surge in TSR, taking all top 10 places and pushing more 'traditional' companies down the ladder.**

The ITC sector knocked the pharmaceutical industry out of the number one spot with an average annual TSR of 42%. The biggest climber was the service sector, up eight places to sixth. Utilities was one of seven industries to under-perform the market average. Nevertheless, there were individual high achievers in all sectors, demonstrating that superior value creation is possible everywhere.

## **Strong improvements in the business fundamentals of the top 100 companies fuelled their stock market success but this explained only about half of their TSR on average.**

This difference between TSR and the change in fundamentals, which we call the 'expectation premium', varied between sectors but rose progressively each year for nearly all leading businesses. This does not necessarily imply they are over-valued. The scale of the premium generally mirrored the scale of the improvements in their business fundamentals, suggesting that investors rewarded companies with a track record of success. Furthermore, the average premium for all companies in the study was close to zero, indicating that the market as a whole was functioning efficiently.

## **A new approach to internal value creation is required if businesses are to move forward and satisfy market expectations.**

The traditional focus on physical capital is too limiting and sometimes misleading, especially for the new breed of ITC businesses. In many but not all cases, human resources (HR) and customer bases are companies' primary assets. To improve value creation, these businesses need to concentrate on different metrics, such as value-added per member of staff or per customer, not returns on capital. The Boston Consulting Group (BCG) has adapted its capital-based methodology to accommodate each of these new variables in a meaningful and practical manner for CEOs. We call these HR and customer approaches Workonomics™ and Customomics™ respectively. Together with our capital-based methodology, these form part of BCG's real asset value enhancer (RAVE™) set of tools. Similar tools are being developed for other value drivers.

**Keeping your business' internal value creation in line with market expectations is a pre-requisite for long-term success.** Failure to correct unrealistic expectation premiums can lead to a collapse in share price, departure of key staff and other problems. CEOs must understand the root of any unjustified premium, build a stretch agenda and communicate more openly with investors, amongst other options. Greater transparency and consistency in international accounting standards and disclosure rules are also required to help investors make valid inter-company comparisons.

**Tomorrow's top value creators are likely to be biased towards people-driven businesses and able to move easily into new 'unknown' fields.**

Sustaining high levels of TSR isn't easy: only two companies managed to outperform their local markets continually over the last 10 years. Currently, the top value creators are increasingly dominated by people-oriented businesses. As share options become more common in staff compensation packages, this will place greater pressure on these companies to create and sustain high value if they are to attract and retain quality employees. Rising expectation premiums for the top 100 also suggest investors are placing a higher value on companies that have the flexibility to move into new, more profitable fields – the chameleon factor.



# What do we mean by value creation?

*There are two main ways to measure a company's ability to create value: from an 'external' perspective, focusing on the rise or fall in its share price over time; or from an 'internal' perspective, by analysing its business fundamentals. Both are likely to tell different but equally valid stories. The main difference is that the external view incorporates market expectations of a company's ability to generate additional value in the future. Whether these are reasonable is another issue which we address later.*

## The external view – TSR

Total shareholder return (TSR) is widely accepted as the best yardstick of external value creation and the one we use to measure corporate performance. TSR can be simply defined as the percentage change in share price over a given time, incorporating any dividends (Exhibit 1).

TSR provides investors with a useful snapshot of value creation but it does not give them or CEOs any insights into the key drivers behind a business's fundamental performance. To do this, we need measures of internal value creation that are closely correlated with TSR.

BCG subscribes to the CVA methodology<sup>1</sup>, due to its strong correlation with stock market performance and because it eliminates accounting distortions, such as book keeping depreciation, that can arise in the EVA<sup>TM</sup> income-oriented model.

CVA, which is broadly a company's cash flow less a capital charge on cash invested, pinpoints three key value creation levers:

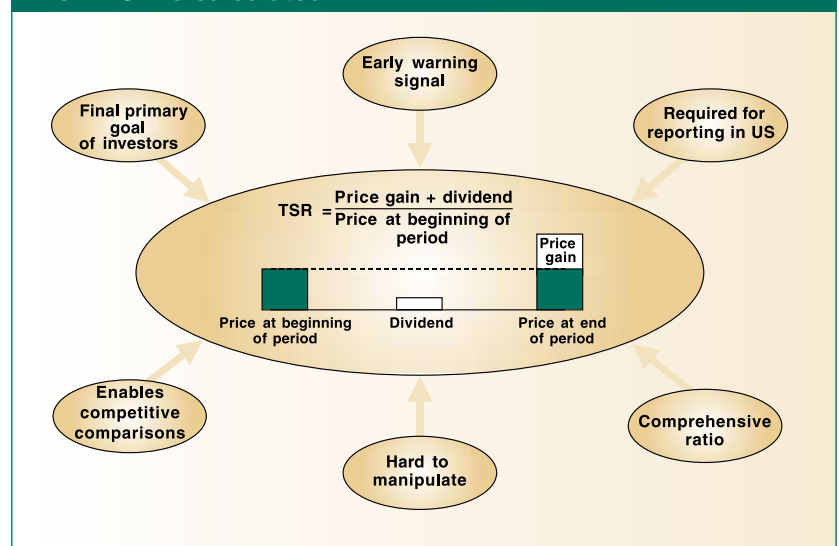
- Cash flow margin
- Asset productivity
- Growth

## The internal perspective – TBR and CVA

There are various schools of thought on the most effective way to measure internal value creation. The one that correlates most closely with TSR is BCG's Total Business Return (TBR) methodology, which calculates the percentage change in internal value and free cash flow. This is an important tool for quantifying the impact of business plans on TSR and setting targets, as well as benchmarking your fundamental performance against your competitors'. However, for the purposes of this report, we want to identify the specific levers CEOs must pull (and focus on in their business plans) to improve their intrinsic value. Two of the most popular ways to do this are the Cash Value Added (CVA) and Economic Value Added (EVA®)<sup>2</sup> methodologies.

Exhibit 1

### How TSR is calculated

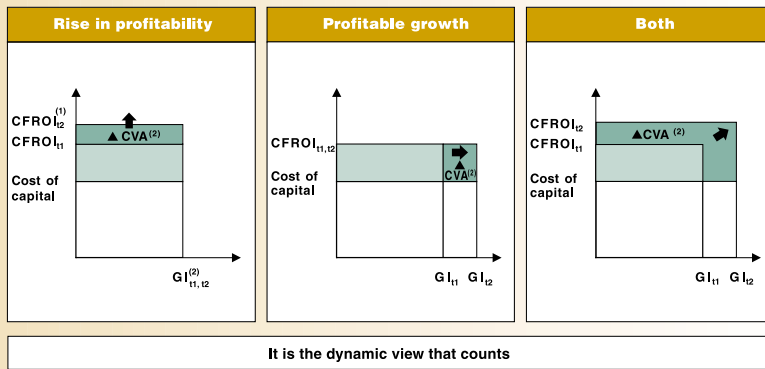


<sup>1</sup> See appendices for a fuller description of CVA and how it relates to other internal value creation techniques such as TBR.

<sup>2</sup> EVA is a registered trademark of Stern Stewart & Co

Exhibit 2

## How CVA is calculated and influenced by different levers



- (1) CFROI = Cash Flow Return On Investment  
 (2) GI = Gross investment (equity for banks and insurance companies)  
 (3) Same principle for banks and insurance companies on an equity basis:  
 CFROI = Real Return On Equity (RROE), GI = equity,  
 CVA = Added Value On Equity (AVE). See appendices for definitions.

Exhibit 2 illustrates how these three levers can be changed to increase CVA. These examples relate specifically to companies where capital is the principal value driver but, as we shall demonstrate, this methodology can be altered to accommodate other drivers, such as staff and customers. The results are identical in terms of absolute CVA, but the management implications – the levers CEOs should pull – are different.

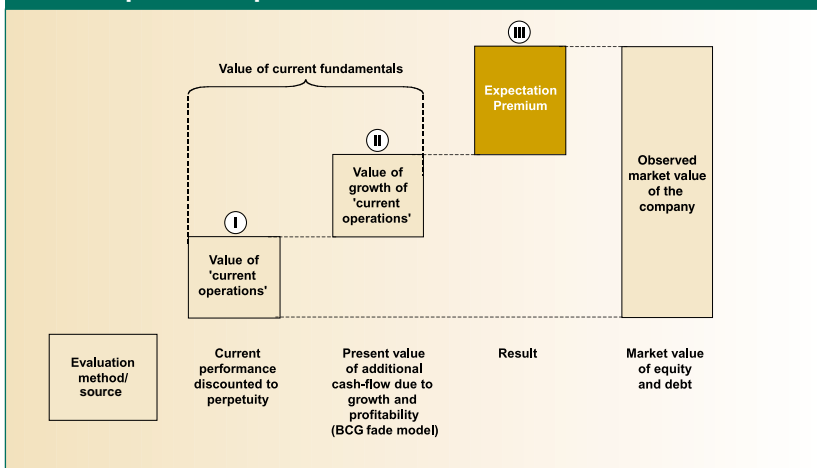
## The role of expectations: TSR versus business fundamentals

Market expectations play an important part in a company's value and, by inference, TSR. There are two reasons for this:

- A company's market value implicitly embodies expectations: it is the sum of the current value of operations and the expected growth in their value, based on existing business fundamentals<sup>1</sup>.
- In some cases, a company's market value will be greater or less than the value you would expect from its fundamentals. We call this difference the 'expectation premium'. Does a positive premium imply a company is overvalued and a negative one that it is undervalued? Not necessarily. There may be good reasons for this, which we address later in this report when we calculate expectation premiums for our top 100 performers (Exhibit 3).

Exhibit 3

## How expectation premiums are calculated



<sup>1</sup> Logically, a company cannot grow for ever at above-market rates. Over time its growth rate and profitability will fade to an industry average due to competitive pressures. In BCG's expectation premium model, this is assumed to occur over 40 years. See page 54 in the appendices for further details about our model and assumptions.

# Why value creation is important

*Companies often pay lip-service to value creation in public statements but few actively manage it. Part of the problem is confusion over how to define and control value, a difficulty we hope this report will help erase. A more deep-seated reason is a failure to grasp the broader implications of value creation for long-term success, beyond improvements in stock option prices.*

Value creation provides a number of important, inter-twined benefits for businesses and their stakeholders:

**Helps attract and retain key staff:** A high and increasing proportion of the top performers in our study are people-driven businesses. With the growing popularity of equity related remuneration packages, it will become increasingly important for these and other companies to achieve sustained improvements in their value if they are to attract and keep the best staff. Success in this arena should also enhance job security and loyalty.

**Makes it easier to generate capital:** Companies with rising value generally find it easier to raise capital, enabling them to enhance their value further. In most sectors, our study reveals a strong link between investment growth and TSR.

**Lowers the risk of a takeover:** Value creation alone is not a guarantee against a takeover but the higher the value the lower the risk. It also places businesses in a stronger position to become predators, not prey, a potentially powerful asset in fragmented markets (Exhibit 4).

## **Frees CEOs to take long-term strategic**

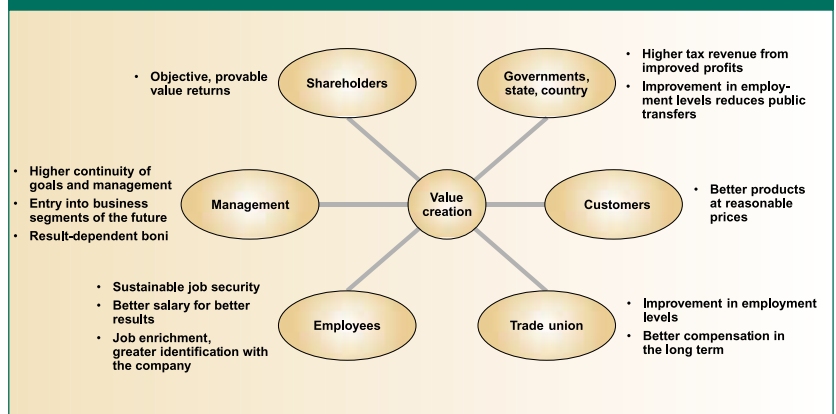
**decisions:** If CEOs deliver the value investors expect, they will not face the constant short-term pressures to justify their existence, giving them the latitude to focus on longer-term issues.

## **Assists companies in fulfilling their social**

**responsibilities:** Businesses are under greater pressure to contribute positively to society. Higher value creation is one way to do this. It often leads to improved employment levels and higher tax revenues for governments, which can be used to improve education, health and other areas, all ultimately beneficial to businesses.

**Exhibit 4**

### Who benefits from value creation?



## The top market performers

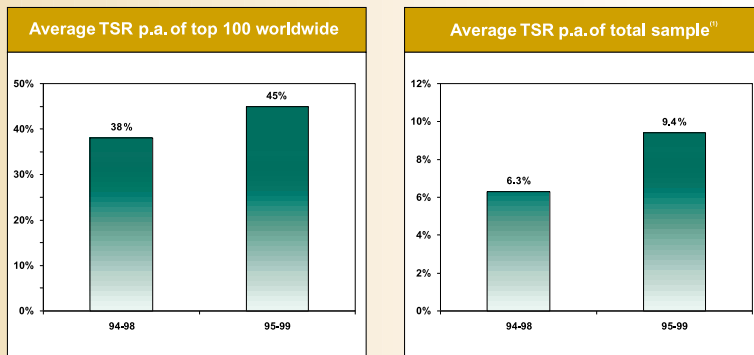
*In one of the longest-running bull markets in recent decades it is no surprise that the top 100 players increased their total TSR by an even greater margin in 1995-1999, compared with 1994-1998. What is striking is how the balance of power has shifted. Regionally, the US extended its lead while Asia closed in on a relatively sluggish Europe. More dramatically, IT and communications businesses snatched the number one industry slot and all the top 10 company positions. This reflected a general shift towards people-driven businesses.*

### Virtually 'e-free'

Please note that our results have not been distorted by the sharp rise in e-commerce companies' share prices towards the end of the 1990s. Only three e-commerce companies satisfied the criteria required for inclusion in the main study. These include a minimum market capitalisation of \$20bn and a market listing of at least five years. Due to the strong interest in this sector, we have created a separate e-commerce ranking for 1998-99, which can be found at the end of this chapter.

**Exhibit 5**

#### Rise in TSR for 1995-1999 relative to 1994-1998



(1) Total sample consists of 4,125 companies  
Source: Datastream, BCG analysis

#### Total TSR rises to 45% per annum for top 100

Between 1995-1999, the gap between the winners and losers widened. TSR for the top 100<sup>(1)</sup> increased to 45% a year, against 38% for 1994-1998. The top 10 recorded the biggest rise: their TSR rocketed to 116% per annum, nearly double the figure for 1994-1998 and more than 10 times higher than the annual average for all the companies in the study (9.4%) (see Exhibits 5-6).

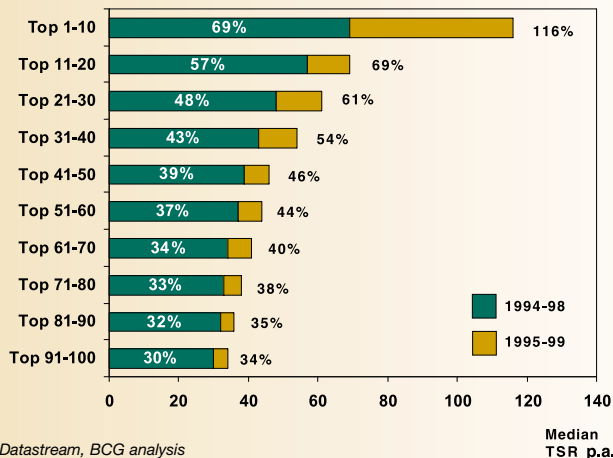
#### US shows disproportionate share of top performers

For the period 1995-1999, the US pulled further away from other regions around the world, significantly increasing its TSR and taking more than half of the top 100 places and 80% of the top 10 spots, compared with 60% in 1994-1998.

Europe maintained its second place but it cannot afford to be complacent. Relative to 1994-1998, it lost nearly two thirds of its top 100 positions and three out of four of its top 10 spots, largely to the US but also to a resurgent Japan and the rest of Asia. This squeeze was accentuated by relatively sharp rises in TSR in Japan and Asia, enabling them to close the gap with Europe (Exhibits 7-8).

**Exhibit 6**

#### Rise in TSR for the top 100 by decile



Source: Datastream, BCG analysis

<sup>1</sup> market capitalisation hurdle: US\$20bn

### France takes the lead in Europe, Japan excels in Asia

Performances in Europe were extremely variable. Country averages ranged from 31% in France, the clear leader, to 3% in Austria. Fewer than half of the 13 countries analysed exceeded the European average (21.5%) and most only marginally, underlining the region's reliance on a handful of top players (Exhibit 9).

Japan was the top performer in Asia with 16% annual average TSR for 1995-1999. Most other states in this region produced equally encouraging results, reflecting their recovery from Asia's economic crisis, but average TSR (4.7%) was held back by three countries: the Philippines, Malaysia and Thailand (Exhibit 10).

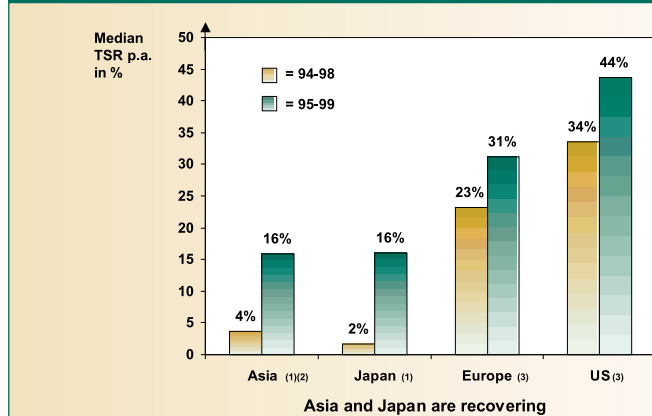
### People-driven businesses lead the field

Industries that depend heavily on human skills were strongly favoured by the markets, possibly because of their ability to adapt more rapidly to new opportunities than asset-based businesses. Could these be the true 'new economy' industries?

Four out of the five industries that rose up the rankings fell into this category, including the two biggest climbers, the media and service sectors, up four and eight places respectively. Together with the IT and communications sector (ITC), the

Exhibit 7

#### Regional increases in top 100 TSR relative to last year

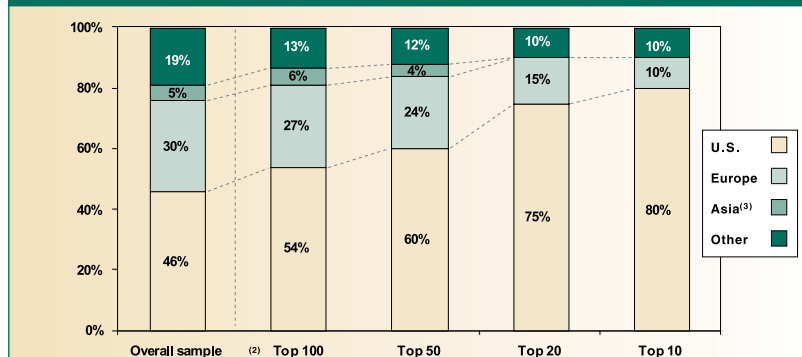


- (1) Market capitalisation > US\$5bn  
 (2) Asia excl. Japan  
 (3) Market capitalisation > US\$10bn

Source: Datastream, BCG analysis

Exhibit 8

#### Share of top 100 by region



- (1) Market capitalisation > US\$20bn; worldwide; ranked by TSR 1995-1999 p.a.  
 (2) 263 companies; % by number of companies  
 (3) Asia excl. Japan

Source: Datastream, BCG analysis

Exhibit 9

#### Rankings for top 100 in selected countries

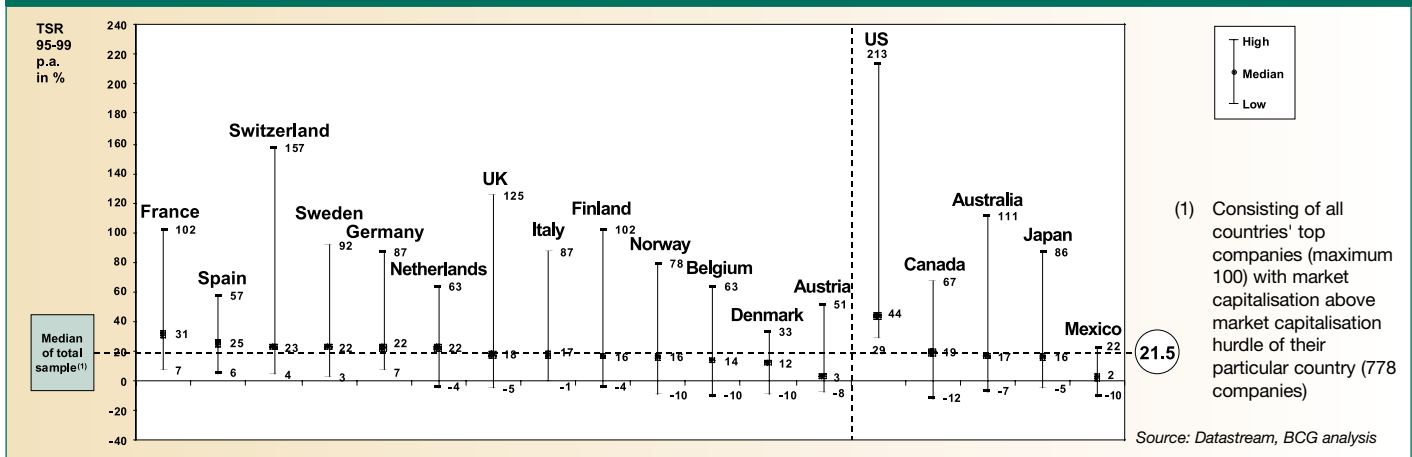


Exhibit 10

## Asian rankings for top companies in each country

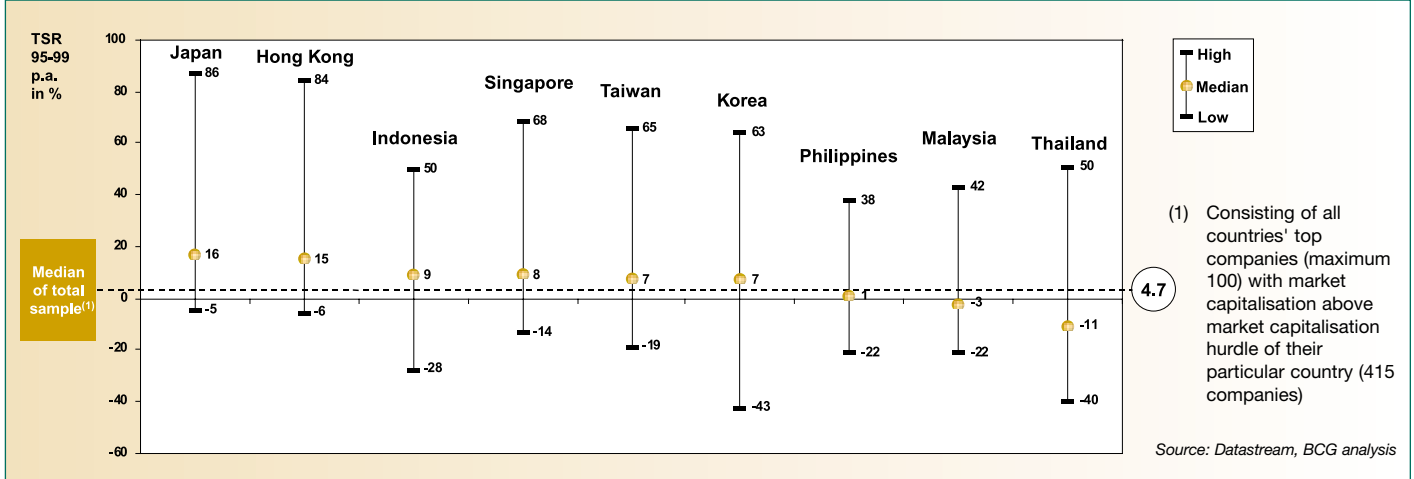


Exhibit 11

## Sector rankings

Value Creators Report 2000			Value Creators Report 1999	
Change from last year	Industry	Median 5 year TSR p.a. in %	Median 5 year TSR p.a. in %	
1 ↑	① IT and telecommunications (ITC)	42	27	
2 ↑	② Insurance	33	23	
4 ↑	③ Media	33	20	
3 ↓	④ Pharmaceuticals & health care	32	33	
2 ↓	⑤ Retail	29	23	
8 ↑	⑥ Services	27	7	
2 ↓	⑦ Banks	26	22	
0 →	⑧ Conglomerates	24	15	
4 ↑	⑨ Industrial goods	19	12	
1 ↓	⑩ Chemicals	18	14	
4 ↓	⑪ Consumer goods	18	18	
2 ↓	⑫ Travel, transportation & tourism	17	14	
2 ↓	⑬ Automobiles & supply	15	13	
2 ↓	⑭ Utilities	10	13	

Source: Datastream, BCG analysis

overall winner, these types of industries now occupy the top three positions. With the exception of the industrial goods sector, all other capital and R&D-focused industries have been pushed down the table.

The ITC and e-commerce sector was undoubtedly the star in the period 1995 to 1999 and not just because it occupies first place. Last year, it claimed seven of the 10 top company positions; this year it has achieved a clean sweep (see exhibits 11-12). This included six new entrants to the top 10. Furthermore, the combined TSR for these top 10 businesses is nearly twice as high as the 10 companies below them.

Exhibit 12

## Top 10 company rankings

Value Creators Report 2000 TSR 1.1.1995-31.12.1999 p.a.					Value Creators Report 1999 TSR 1.1.1994-31.12.1998 p.a.				
①	CMGI	US	E-commerce	213%	①	Dell	USA	ITC	153%
②	Veritas	US	ITC	178%	②	AOL	USA	ITC	143%
③	AOL	US	E-commerce	144%	③	SAP	Belgium	ITC	91%
④	Dell	US	ITC	140%	④	Nokia	France	ITC	79%
⑤	Qualcomm	US	ITC	128%	⑤	H&M	Sweden	Retail	69%
⑥	Sun	US	ITC	104%	⑥	Microsoft	USA	ITC	69%
⑦	Cisco	US	ITC	94%	⑦	Cisco	USA	ITC	67%
⑧	Nokia	FN	ITC	92%	⑧	Aegon	Netherlands	Insurance	66%
⑨	Softbank	JP	E-commerce	86%	⑨	Ch. Schwab	USA	Banks	65%
⑩	EMC Mass.	US	ITC	82%	⑩	Compuware	USA	ITC	64%

■ = Newcomers

Source: Datastream, BCG analysis



### E-commerce: a special ranking

For reasons explained at the beginning of this chapter, most e-commerce companies were excluded from the main rankings. Here we analyse 10 of these companies<sup>1</sup> over two periods: 1998-1999, the 'honeymoon years', and 1998-June 2000, taking into account the turbulence they encountered with their investors in the first half of 2000 (Exhibit 13).

The honeymoon years were undoubtedly impressive. Between 1998 and 1999, TSR for these businesses ballooned to a staggering 278% on average, nearly twice as high as the ITC sector in the main rankings (1995-1999). More amazingly, the company at the bottom of the table, At Home, had a higher TSR than the top companies in nine out of 14 of the sectors in the main rankings. However, when we incorporate the market correction of the first half of 2000, average TSR for the e-commerce industry drops by more than half to 102% per annum.

Exhibit 13

#### Top 10 e-commerce companies: 1998-99 & Jan.-Sept. 2000

Rk	Company	Country	Market Value (in US\$) <sup>(1)</sup>	TSR p.a.	TSR
			31.12.99	98-99	01.01.00 - 30.09.00
1	CMGI	US	33.858	755,7%	-79,8%
2	SOFTBANK	JP	104.552	438,9%	-69,0%
3	YAHOO!	US	113.266	399,9%	-57,9%
4	REALNETWORKS	US	8.902	316,5%	-33,9%
5	AMAZON	US	25.798	289,4%	-49,5%
6	AMERICA ONLINE	US	168.672	266,2%	-29,2%
7	LYCOS	US	7.626	177,4%	-13,6%
8	LEVEL 3 COMMUNICATIONS	US	27.770	135,2%	-5,8%
9	ETRADE GROUP	US	6.464	113,2%	-37,1%
10	AT HOME	US	14.814	84,7%	-67,1%

Source: Datastream, BCG analysis

<sup>1</sup> The selection criteria was that the business must have been listed by or before 1 January 1998.

## Key drivers behind these results

*(And some 'new' levers CEOs should pull to increase value creation)*

An analysis of internal value creation, using the cash value added (CVA) methodology, reveals that investment growth played a pivotal role in the success of the top TSR performers. But how can they sustain or even beat these high TSR levels? And how can those lower in the table catch up? Traditionally this has been done by focusing on capital efficiency, but for a growing number of businesses, especially those in IT and communications, capital is not the key driver behind internal value creation. Instead they might depend on people, customers or a variety of other value engines. BCG has successfully reworked its CVA methodology to take these factors into account, putting the spotlight on the new levers CEOs must pull.

### Investment growth fuels the top TSR performances (1995-1999)

BCG's measure of internal value creation, the change in CVA, correlated positively with TSR for most of the companies in the sample, underlining its robustness as a proxy for external value creation. More crucially, it enables us to isolate the key drivers or 'levers' that CEOs pulled to achieve their respective TSR levels (Exhibit 14).

Using the traditional capital-based CVA methodology, we found that the most successful

companies focused on profitable growth in capital investment (i.e. above the cost of capital), rather than improving profitability through restructuring. However they were only able to do this because they had already achieved the necessary profitability above the cost of capital to make and sustain these investments. In the US and France, for example, the top 10 companies had higher levels of profitability (significantly above the cost of capital) than any of their counterparts in other countries. Not coincidentally, these two countries also had the highest average annual TSR.

Exhibit 14

#### Levers used by region to drive internal value creation

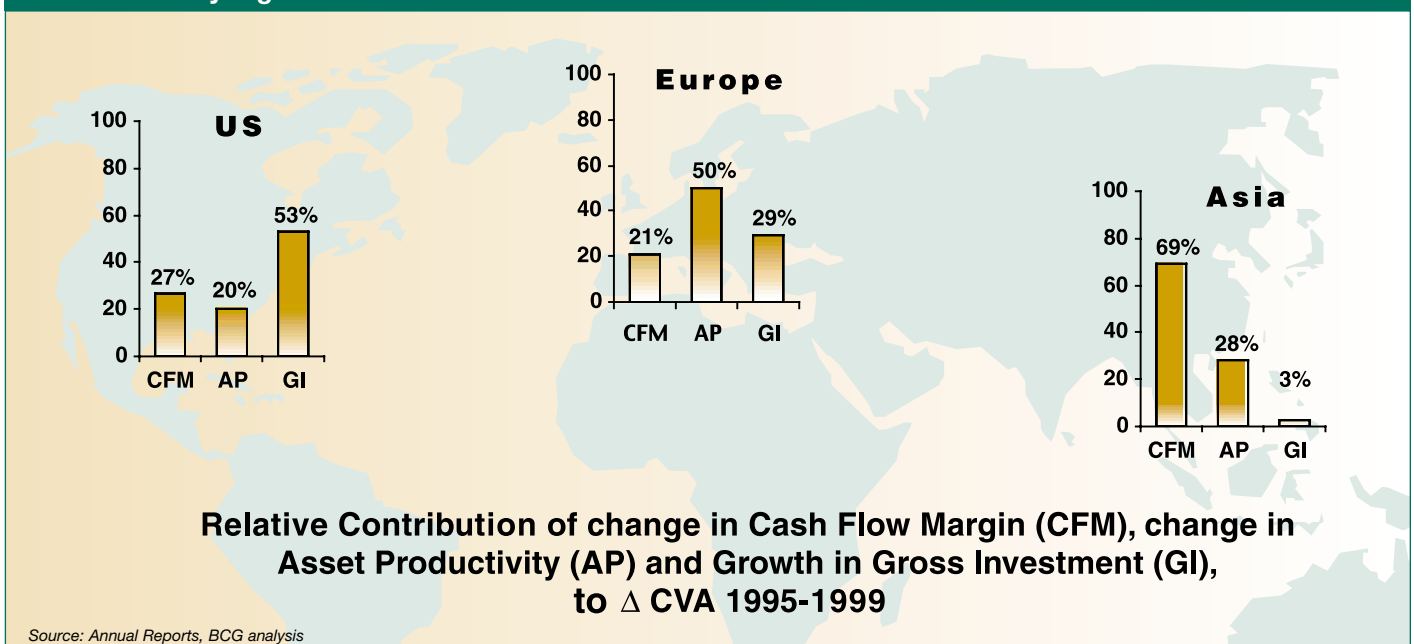


Exhibit 15

## Levers used by top 10 performers

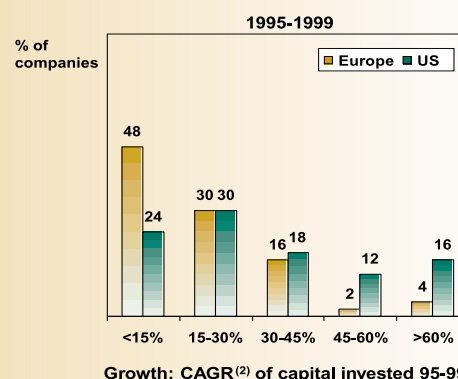
Top 10 performers	Average annual TSR (95-99)	Relative importance		
		Cash flow margin	Asset productivity	Growth of capital invested
1. CMGI	213%	+++	-	+++
2. Veritas	178%	+++	++	+++
3. AOL	144%	++	++	+++
4. Dell	140%	++	+++	+++
5. Qualcomm	128%	+	++	+++
6. Sun	104%	++	+	+++
7. Cisco	94%	-	++	+++
8. Nokia	92%	++	+++	+++
9. Softbank	86%	-	++	+++
10. EMC Mass.	82%	-	-	+++

Note: Scale of importance: + = low, ++ = medium, +++ = high  
 + = positive change, - = negative change

Source: Datastream, BCG analysis

Exhibit 16

## Top 50 performers



Growth: CAGR<sup>(2)</sup> of capital invested 95-99

(1) Market capitalisation > US\$10bn ranked by TSR 95-99

(2) Compounded Annual Growth Rate

Source: Datastream, BCG analysis

### Key findings that underline the importance of investment growth include:

- All top 10 performers relied heavily on growth, sometimes according equal weight to cash flow margin and asset productivity (see Exhibit 15).
- 46% of the top 50 US companies, whose annual average TSR was 14 percentage points higher than their European counterparts, increased their capital investment by at least 30% a year on average between 1995 and 1999. Only 22% of the top 50 European companies did the same (see Exhibit 16). However, there are signs that Europe is achieving the productivity gains needed to generate the profits required for greater investments.

### A new perspective on internal value creation (the way forward)

Focusing on capital efficiency alone as a measure of internal value creation is too limiting and possibly misleading for today's growth businesses. In many cases, the top performers have relatively low capital intensity, indicating that their key value drivers lie elsewhere. IT and telecommunications companies, for instance, tend to rely on human resources (HR), as does the service sector, the biggest climber in our TSR ranking. E-commerce, meanwhile, generally depends on customer metrics. The capital model is still valid for many businesses but we

Exhibit 17

## How CVA can be dissected

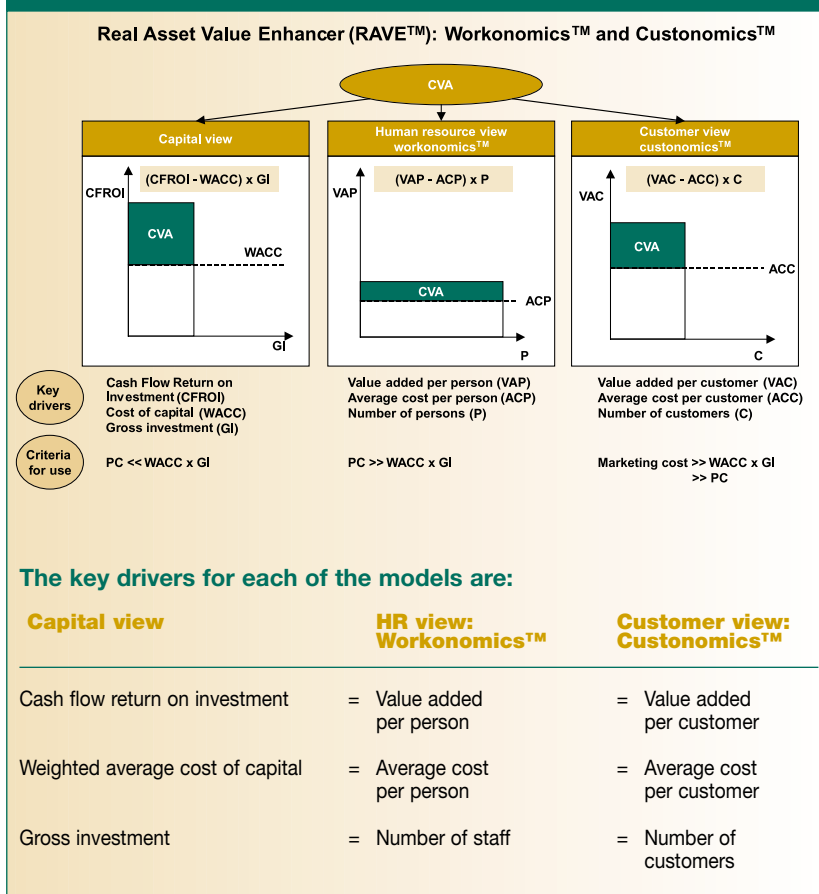
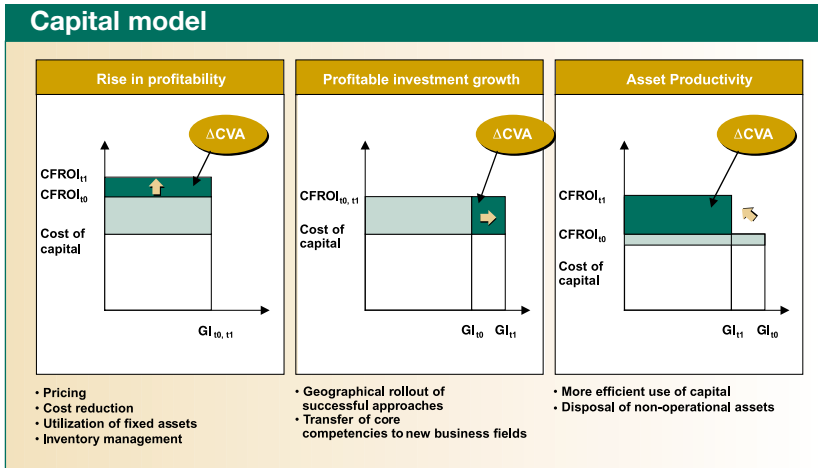


Exhibit 18



require more powerful tools to explain and guide the performances of companies driven by 'non-capital' factors.

BCG has successfully extended the CVA methodology to accommodate two types of these companies: HR- and customer-driven businesses. We call these new value management techniques, which form part of our Real Asset Value Enhancer (RAVE™) set of tools, Workonomics™ and Customonomics™ respectively (see Exhibit 17). The same principle could be applied to other value creation engines.

When used to analyse a company's internal value creation, both new methodologies – for HR and customers – produce identical levels and changes in CVA as their capital-based counterpart. The difference is that each uses different variables or 'levers' to explain changes in CVA. The advantage of disaggregating value creation this way is that it gives CEOs a wider and more precise set of levers to control value. This will help them create value more effectively and avoid misallocation of resources. Similarly, it will enable investors to focus on the fundamentals that truly determine performance (see Exhibits 18-20).

### Selecting the most appropriate methodologies for each company or business unit

The choice of methodology for each company is determined by the following criteria:

Capital approach:  $PC < WACC \times GI$

HR approach:  $PC > WACC \times GI$

Customer approach:  $MC > WACC \times GI > PC$

PC = personnel costs

WACC = weighted average cost of capital

GI = capital investment

MC = marketing costs

In some cases, companies might use a combination of models, either for different business units or to take into account the balance of their operations.

### How to increase value using each model

CEOs can control internal value by pulling the three levers in the model that applies to their business. The exhibits opposite illustrate how this can be done. For instance, in the 'HR view' model,

Exhibit 19

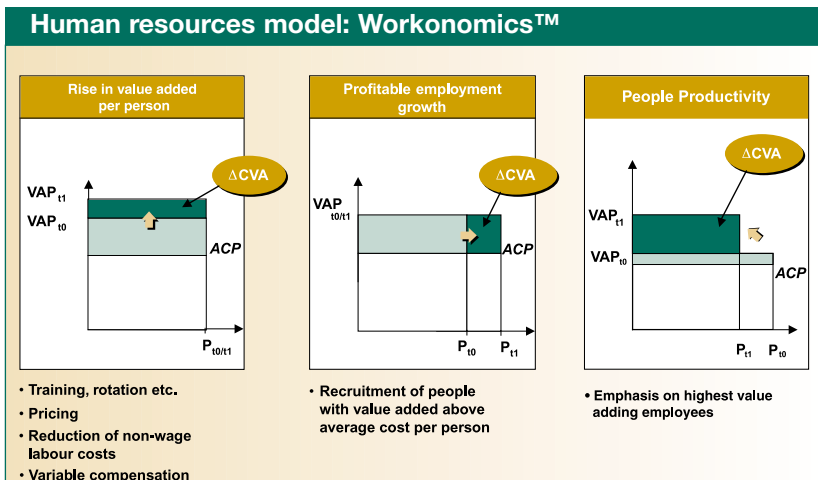
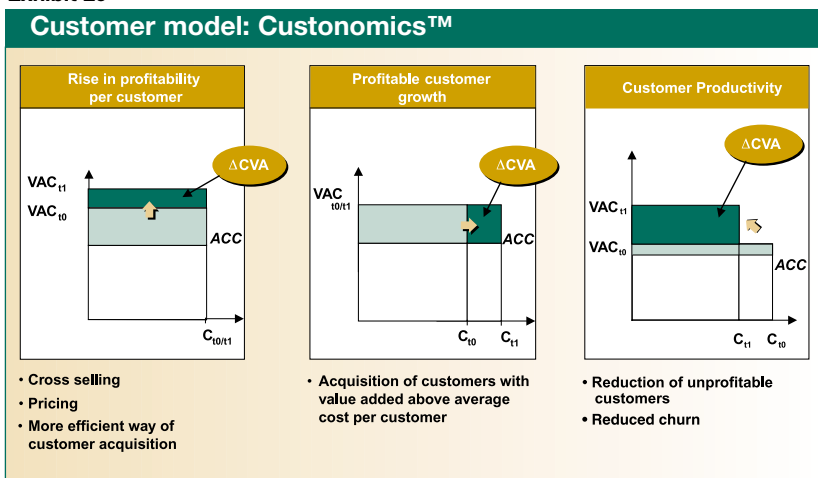


Exhibit 20



value added per person can be increased through typical HR measures like recruiting and development or price increases and reductions in material costs. Alternatively, a profitable increase in staff can be achieved by recruiting high-quality personnel, possibly measured by qualifications, and so on. The precise steps that companies take to influence each of their three levers will depend on their circumstances.

### Applying these models to three top performers

#### Capital: Nokia surges forward with profitable growth in capital investment

Nokia demonstrates the importance of investment growth above the cost of capital and improved asset productivity. This led to a strong rise in CVA and, indirectly, higher TSR. It also vindicated the company's strategy of shifting from a conglomerate portfolio to a focused technology play (Exhibit 21).

#### Human resources: Strong growth at SAP offsets loss in staff efficiency

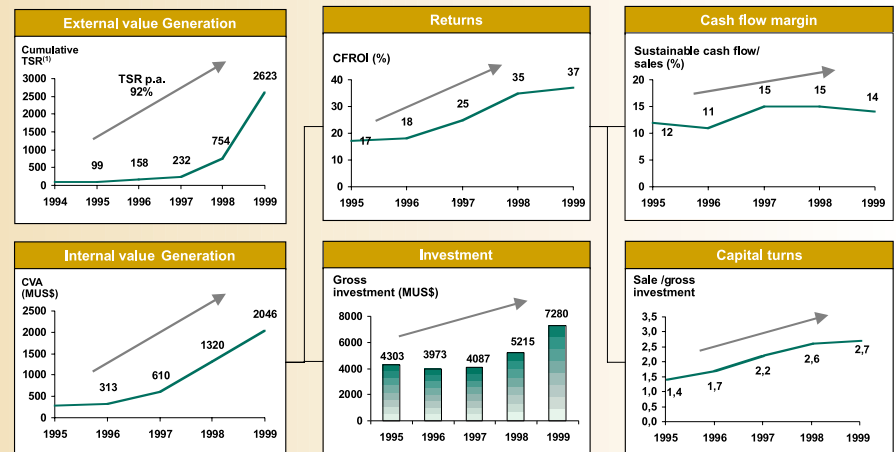
A sharp increase in staff numbers in SAP's people-driven business helped boost internal value creation and TSR despite a loss in average staff efficiency: value added per person increased at a slower rate than average staff costs (Exhibit 22).

#### Customers: Steep increase in customer numbers improves AOL's profitability

AOL pulled all the right levers: it doubled its customer base, increased value added per customer and reduced average customer costs, leading to a significant improvement in CVA (Exhibit 23).

Exhibit 21

#### Nokia: Capital view

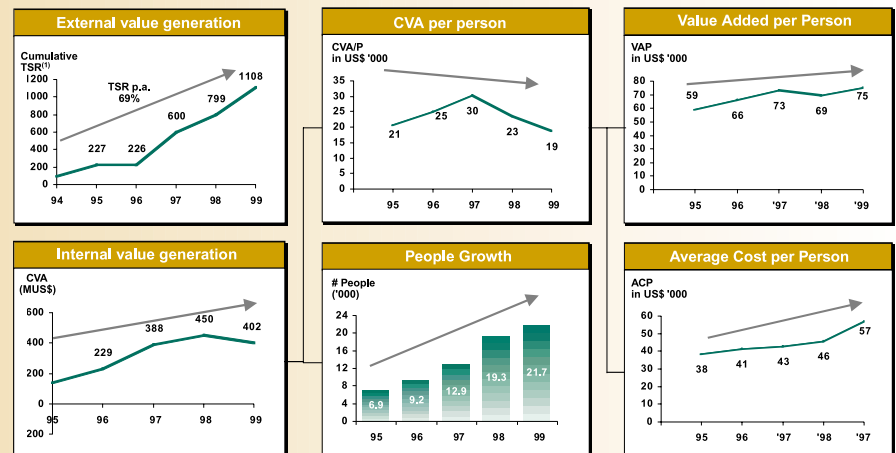


(1) 1994 = 100

Source: Datastream, annual reports, BCG analysis

Exhibit 22

#### SAP: Workonomics™

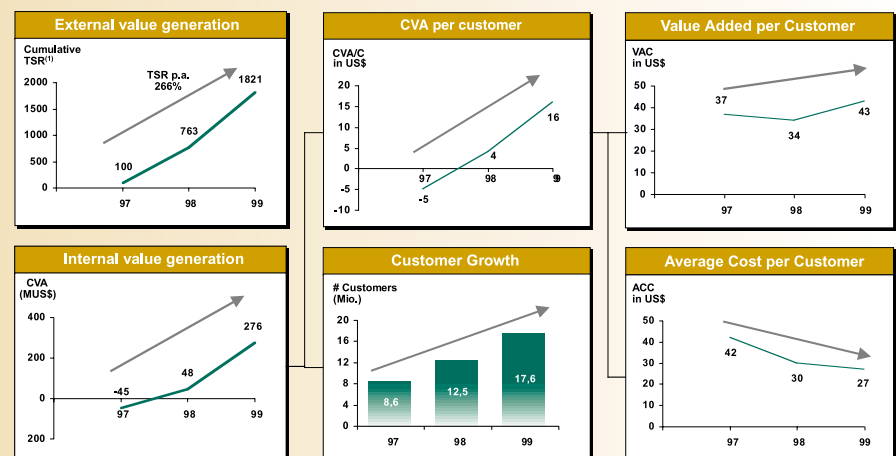


(1) 1994 = 100

Source: Datastream, annual reports, BCG analysis

Exhibit 23

#### AOL: Customonomics™



(1) 1997 = 100

Source: Datastream, annual reports, BCG analysis

## The challenge of rising market expectations

Around half of annual average TSR for the top 100 companies between 1995 and 1999 could not be explained by their current business fundamentals alone. We call this surplus the 'expectation premium'. Interestingly, this premium rose progressively over this period for the top 100 companies, even when different assumptions are used to calculate it. In many cases, this increase could be justified by the track record of the companies' management teams and other non-financial indicators. But if the premium is unrealistic and allowed to persist, businesses could be punished by the markets, possibly leading to takeover bids, staff defections and other problems. We suggest various ways companies could avoid this pitfall.

### Expectation premiums are on the up and up for the top 100...

A company's expectation premium is the difference between its market value plus debt and its fundamental value, calculated using standard cash flow projections. The standard projections are based on the business's current profitability and historical growth fading over time towards long-term market average. As we discuss in more detail in the appendices (see page 53), the size of the premium depends on the assumptions and data used to calculate a company's fundamental value. Nevertheless, regardless of the assumptions and data employed, BCG found that the expectation premium for the top 100 businesses was not only significant, but also rose progressively each year.

This is demonstrated in Exhibit 24 where we show two different levels of the expectation premium between 1995 and 1999, based on cautious and optimistic assumptions for evaluating fundamentals. With cautious assumptions, the premium accounts for 73% on average over this period. With optimistic parameters, it accounts for 48% on average. In both cases the premium increases year-on-year.

Every sector experienced a rise in expectation premiums over this period, with the exception of the automotive sector. In eight out of the 13 sectors analysed, these premiums accounted for more than 50% of market value, using cautious assumptions (Exhibit 25-26). The scale of these premiums

Exhibit 24

### Annual increase in expectation premiums for top 100

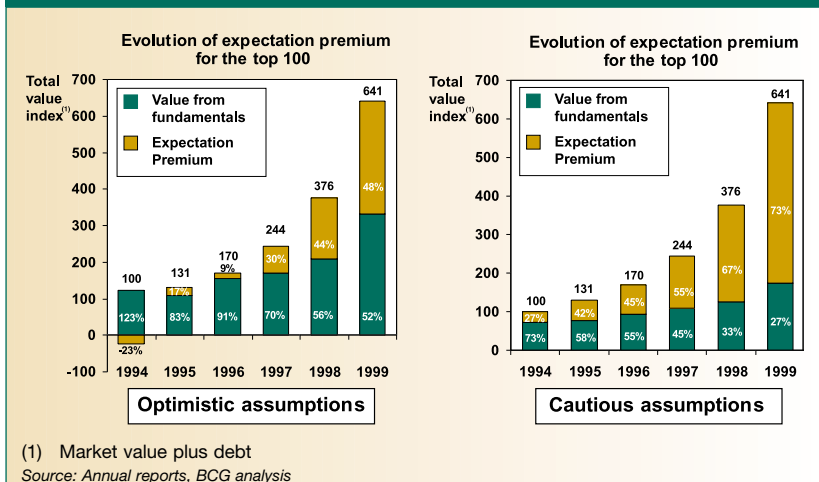
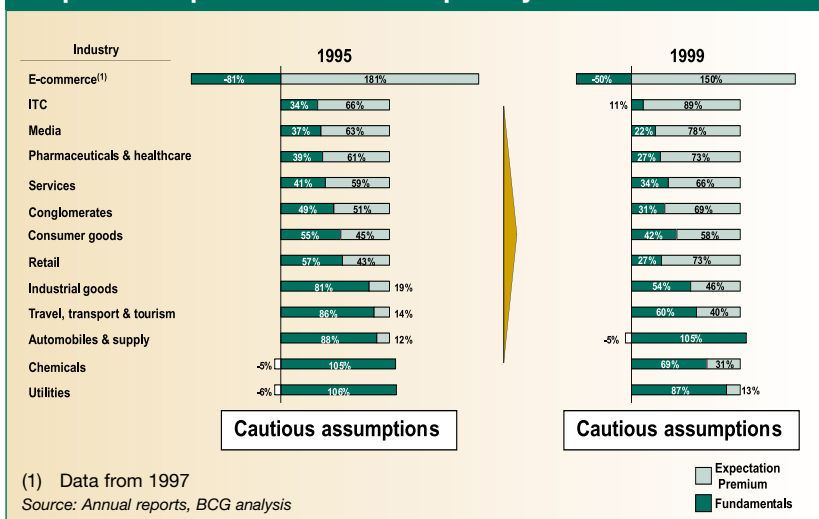


Exhibit 25

### Expectation premiums for the top 10 by sector





varied from sector to sector, with the IT and telecommunications sector the clear 'winner' with an 89% expectations premium gap, while the automotive sector had a negative premium of 5%. The e-commerce industry, which was analysed separately due to differences in the data available, produced the highest figure - 150% in 1999 alone.

### Possible explanations for this rise

An analysis of the top 100 revealed that companies with best improvements in their fundamentals tended to have the highest expectation premium. There appears to be an assumption that 'success breeds success', possibly due to the quality of the management team, powerful market positions and business models or other non-financial indicators. This could lead to investors embedding higher expectations in their assessment of these companies' fundamentals than the average business in the same industry.

Other possible reasons for the expectation premium include:

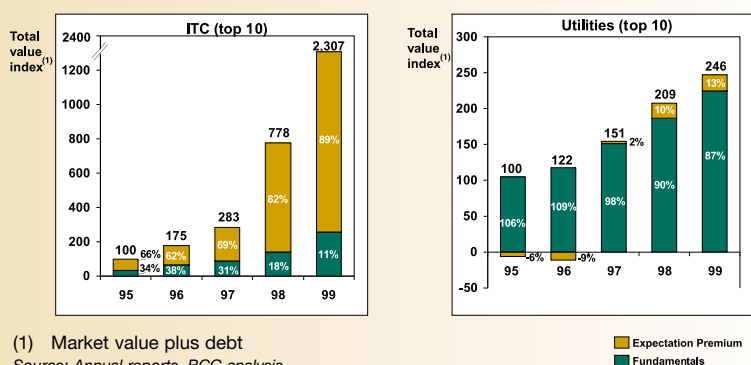
- an increase in demand for their shares, relative to their supply. This could have been partly fuelled by growing numbers of individual investors, especially in the ITC sector, which accounts for 40% of the top 100;
- capital markets may have started to reward companies that have the flexibility to move into new fields. This would be consistent with the upward trend of people-driven businesses and the slower growth of capital-based companies, such as utilities;
- the leading companies could be more sophisticated at communicating their potential to investors. Or more overzealous;
- the market has got it wrong, due to misinformation and incorrect assumptions. This is conceivable in the short-term;
- the data may have been biased by the sample size: the top 100 represent one tail of a distribution curve involving more than 4,000 companies. This
- might affect the scale of the premium but probably not its existence and growth over time.

**Exhibit 26**

### Expectation premiums rose more rapidly in certain sectors

The expectation premium has shot up in ITC ...

... while other industries have seen more stable growth



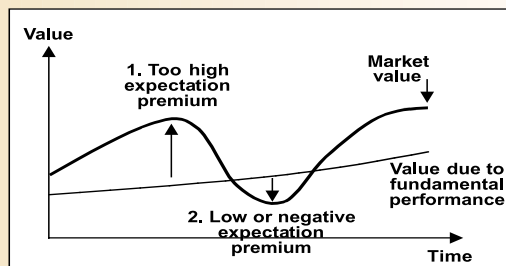
### The dangers of unrealistic expectation premiums

Rising expectations should be encouraged if they reflect a company's true ability to generate additional value. This assumes investors have access to correct information about the business's plans and other issues that could affect its future performance, such as forthcoming regulatory developments. But if they are fed poor data or misunderstand the dynamics, leading to incorrect expectations, investors will ultimately punish the company, producing a lower stock price and heightened volatility (see Exhibit 27). Businesses that fall into this expectations trap are likely to suffer from:

- management changes, resulting in business discontinuity and threat to relationships with key customers;
- departure of key staff, especially if their remuneration has a high stock option component;
- difficulties raising capital;
- takeover bids.

Exhibit 27

## Problems that can arise from an unrealistic premium



## Unsustainably high expectation premium

- Volatile stock price, sharp correction when expectations not met
- TSR underperformer in future
- Changes in management
- Employee turnover

## Low or negative expectation premium

- Attractive takeover candidate
- Change in management
- Less attractive for high-performing employees

## Suggestions on how to avoid this trap

Understanding what drives market expectations and how to keep them within realistic bounds is still an inexact science and further research is undoubtedly required. Nevertheless, there are several ways that CEOs might be able to keep TSR in line with their business's true potential. There are also a number of 'external' steps that would enable investors to gauge expectations more accurately.

## Solutions that might lie within the hands of CEOs

The starting point for every CEO is to establish the scale of the expectation premium, using existing business plans and internal valuation methodologies. Does the premium fairly reflect your business's true potential to generate additional value, taking into account your strategic plan, industry dynamics and other factors? If the answer is 'yes', no action is required. If you conclude that your company is under- or over-valued, you must understand why. Carry out an investor analysis. Once the problem has been identified there are various options, depending on whether your expectation premium is too high or too low (see Exhibit 28).

## Dealing with an unrealistically high expectation premium

- Build a 'stretch' agenda to improve fundamentals and raise business plan goals to reduce the gap with market expectations. This might include investing in new products, sales channels and other techniques. A high market value could be used to raise the necessary funds to achieve this. People-driven businesses are more likely to have the speed and flexibility to capitalise on these opportunities.
- Make sure you hit your existing business plans: don't take your eye off the ball.
- Communicate more regularly and openly with investors in order to align expectations of your future performance to a more reasonable level.

Investors should not be treated as a homogeneous group but as discrete segments, each with different objectives and perceptions. Understand these differences and tailor your messages accordingly. Companies repositioning themselves as growth or value stocks, for instance, should be particularly aware of the needs of their new audiences.

- Use the 'surplus value' – the expectation premium – to acquire a company that will enhance your business fundamentals and create additional options for growth. This could become a common strategy for many e-commerce companies, mirroring AOL's merger with Time Warner.

#### **And if the premium is unjustifiably low or even negative?**

- Focus on achieving agreed and realistic targets, build credibility through achieved performance.
- Introduce or improve stock option programmes and value-oriented bonuses to motivate staff to enhance performance (enabling them to gain from the company's under-valuation).
- Bolster your company's credibility in the market's eyes. This could involve actively managing your portfolio to focus your business on its value-creating components. Demonstrate your willingness to change. Another possibility is to communicate your business's strengths more effectively, including your management team's credentials.
- In some instances delisting through a management or leveraged buy-out may be a viable option to close the gap. There is life outside the stock market.

#### **A cautionary note on 'investor relations'**

Advances in telecommunications, notably the Internet, have not only enabled investors and other stakeholders to have 24/7 access to information but have created the expectation of round-the-clock news. In US political circles, this

development has been used to justify the concept that presidents are re-elected every day, not every four years: if they don't provide a daily diet of positive news, they will lose vital popular support.

While this view might hold true within the short horizons of politics, it is dangerous to transfer it to the corporate arena. Unless companies have something positive and significant to say they should not attempt to manage news flow or expectations on a frequent basis, a trend that has been evident in certain quarters. Be transparent and open to dialogue but do not attempt to massage expectations unrealistically through 'non-news'. The markets will quickly see through your strategy.

#### **External measures to improve transparency for investors**

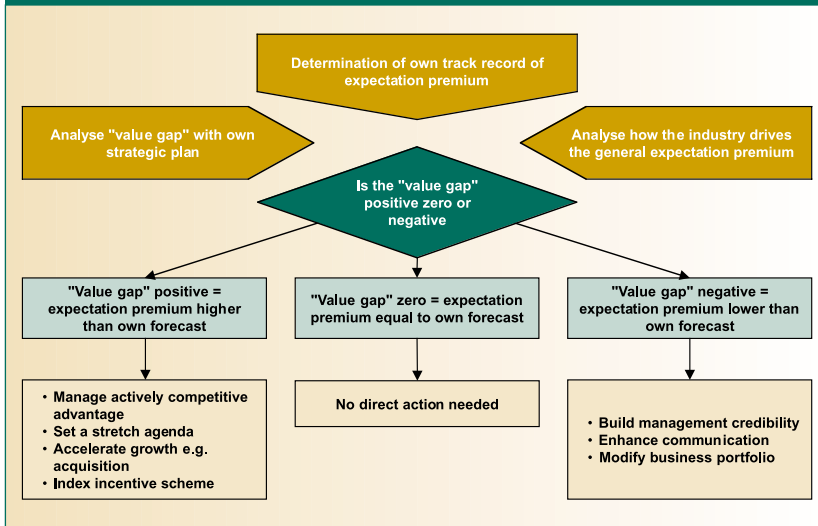
High-quality information on companies, which is comparable across regions and sectors, is critical for investors to formulate accurate expectations and make informed choices. Unfortunately, this information is often not available.

When BCG conducted its study, we were unable to establish accurate data on key value creation drivers, including value added per customer and per employee, for certain businesses, most notably in the e-commerce sector. Part of the problem is that these fundamentals are not always disclosed. Lack of agreement on definitions is another factor. What is a customer in e-commerce? A purchaser, a subscriber, a click-through? After what period of inactivity does a customer become an ex-customer?

Similarly there were reporting inconsistencies in different regions. In the US, for example, personnel and material costs are bundled together under the profit and loss accounts under the heading 'cost of goods sold'. In many other countries, they are separated. If personnel and other costs that control value cannot be explicitly measured and compared between businesses, investors will struggle to arrive at valid expectations.

Exhibit 28

## Dealing with expectation premiums



To overcome these hurdles and ensure expectations reflect businesses' true value creation potential, we need:

- more transparent reporting of business fundamentals, including metrics for capital, personnel costs and customer acquisition costs;
- consistent international accounting standards that facilitate cross-border and cross-sector comparisons.

## Can Amazon justify its expectation premium?

Like many e-commerce companies, Amazon's market value is due entirely to its expectation premium.

By the end of 1999, Amazon had around 20m customers and its value added per customer was US\$-13.9, while its average cost per customer was US\$12.39. This equates to a negative internal value of US\$-524m, based on the Customomics™ calculation below:

$$CVA = (VAC - ACC) \times C$$

$$\text{US\$ -524m} = (\text{US\$ -13.9} - \text{US\$12.4}) \times 20\text{m}$$

Yet Amazon's market capitalisation at the end of 1999 stood at US\$26bn. In other words, expectations account for 100% of the company's market value. Once again, this does not necessarily

imply Amazon is over-valued, but it means the company will have to dramatically increase its customer base and value added per customer to justify these expectations.

Assuming current customer growth of 50% a year, fading out over 40 years, Amazon faces the following hurdles to realise its 1999 value.

- by 2004, its customer base must more than treble to 66m and it must cut its loss per customer from *minus* US\$26 to *minus* US\$2.
- by 2009, it must have 107m customers and a profitability for each of US\$10.
- by 2039, it must have 206m customers and the profitability for each of US\$29

## Who will be tomorrow's top value creators?

*Sustaining relatively high levels of value creation is very difficult, reflected in the fact that there are six new companies in this year's top 10 performers. Outperforming the market average every year is even harder to do: only two companies have managed to do this for more than 10 consecutive years. All this makes predicting tomorrow's top value creators a hazardous task. Although it would be foolhardy to predict individual companies, there are several long-term trends that point to the types of businesses that could occupy the leading positions in the years to come.*

**Tomorrow's top performers will understand the importance of internal value creation and have a clear strategy and system for managing this process.**

They will know the key drivers behind value creation for their particular business and not be deflected from focusing on these. There will be well-defined systems to track and manage these drivers. Perhaps there will even be key personnel responsible for optimising each lever, cutting across all functions?

**Growth, in addition to efficiency gains, will characterise the performances of most of the top players.**

Regionally and by sector, growth is the undisputed engine for champion value creators. Nowhere is this more apparent than in the US and the ITC sector, a sector that America dominates. Restructuring is an important step towards achieving the necessary profitability to invest in new capital, better people and other growth drivers, depending on the business, but efficiency improvements alone are unlikely to produce outstanding results.

**People-driven businesses are likely to become more prevalent amongst the leaders.**

This trend is already obvious, not only in the preponderance of ITC companies in the top 100 but through the rise of other sectors, such as media and services. These companies appear to offer a level of versatility and flexibility not enjoyed by more capital-intensive businesses. In an age when speed of response becomes more vital, facilitated by technology, and where market demands become more fragmented and fluid, especially consumer markets, this nimbleness could be an invaluable edge.

**E-commerce companies might or might not be there. They are not a special case.**

They will live or die by the same value creation requirements that affect other businesses. Based on their current market valuations relative to their internal values, many have a fairly daunting task ahead of them.

**They will be open and transparent, effective at keeping expectations within realistic limits and led by CEOs with strong operational and communication skills.**

Until investors have access to regular, accurate information about all businesses' key value drivers and in a format that is easily compared, the top value creators will excel at communicating realistically with investors. They will appreciate how the electronic age has created new demands for transparency and news flow. They will understand the counterproductivity of unjustly inflating expectations. This, in turn, will flow from a broader sense of social responsibility towards individual investors, staff and their national and local communities. Value creation affects all stakeholders.

**There will be winners in all regions, all countries and all sectors. High value creation is possible everywhere.**

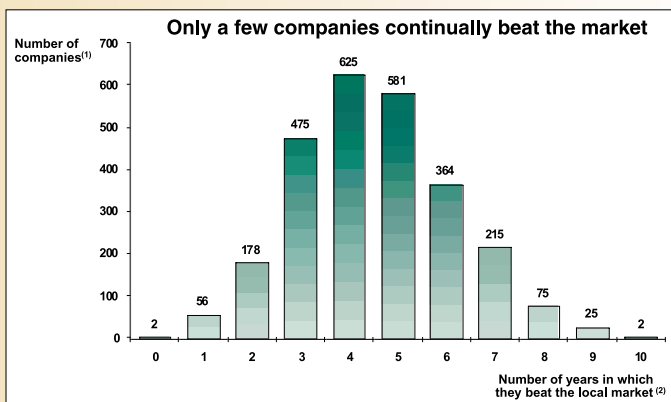
Value creation is possible in every industry and every country – provided you pull the right levers. Between 1995 and 1999, nearly every sector had at least one company that outperformed every other sector's average rise in TSR, often by significant margins. Similarly, every country had at least one star player that exceeded the averages for all other countries.

### Consistently beating the market average isn't easy

A separate analysis of more than 2,500 companies (source: Datastream) indicates how hard it is to deliver sustained value creation. Only two of these companies managed to outperform their local market averages for 10 years in a row: Nokia and Serco<sup>1</sup>, the UK 'task' management company (see Exhibit 29).

Exhibit 29

#### Creating value year after year is a difficult task



(1) Analysis included a total of 2,598 companies (market cap >\_1US\$bn and listed for 10 years)  
Source: Datastream, BCG analysis

<sup>1</sup> SERCO is an international task management contractor to governments and the commercial sector, providing comprehensive engineering and support services across a wide range of activities



## A checklist for CEOs

- ✓ Measure corporate success by TSR. Failure to deliver this will adversely affect your company's long-term prospects.
- ✓ Compare your valuation to business fundamentals to establish whether there is an expectation premium.
- ✓ If the expectation premium is zero or positive and realistic, focus on your key internal value drivers to deliver the necessary TSR. These will differ depending on the type of business. For example, is your business driven by capital, people or customers? Or some other factor? Top value creators concentrate on investment in their key assets, such as capital or people, underpinned by profitability above the cost of these assets.
- ✓ If the premium is unrealistic, understand the root of the problem. Analyse different investor segments to establish their relative perceptions and expectations.
- ✓ If the premium is too high, build a stretch agenda, communicate more effectively and possibly use the surplus to acquire businesses that will help achieve TSR.
- ✓ If the premium is too low, focus on a realistic agenda and communicate your strengths openly and effectively, highlighting management credibility.
- ✓ Beating the market in the medium- to long-term is a Herculean task. Cultural change and incentive systems are critical.
- ✓ Transparency and accurate, reliable data and signals are prerequisites for the market to hail your business as a top performer.
- ✓ Learn from the experiences of other businesses, both within and outside your sector. Benchmark your performance and value drivers.



## Key tables

**Top 100 Worldwide Performers (1-25)**

Rk	Company	Country	Industry	Market Value (in US\$) <sup>(1)</sup>	TSR p.a. 95-99	TSR 01.01.00 - 30.09.00	ΔCVA <sup>(1,2)</sup> (in US\$) 95-99	Value Driven By		Relative Importance of Fundamental Value Drivers			
								Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash-Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
1	CMGI	USA	e-commerce	33,858	213.0%	-79.8%	86	++	++	++	+++	-	+++
2	VERITAS SOFTWARE	USA	ITC	36,886	177.9%	48.8%	231	++	++	+++	+++	++	+++
3	AMERICA ONLINE	USA	e-commerce	188,672	144.1%	-29.2%	280	+++	+	++	++	++	+++
4	DELL COMPUTER	USA	ITC	130,094	140.0%	-39.6%	1,460	+++	+	+++	++	+++	+++
5	QUALCOMM	USA	ITC	115,579	127.9%	-59.5%	52	+++	+	++	+	++	+++
6	SUN MICROSYSTEMS	USA	ITC	121,163	103.5%	50.8%	645	+++	+	++	++	+	+++
7	CISCO SYSTEMS	USA	ITC	364,454	93.9%	3.2%	1,445	+++	+	-	-	++	+++
8	NOKIA	Finland	ITC	206,325	92.1%	2.4%	2,146	+++	+	+++	++	+++	+++
9	SOFTBANK	Japan	e-commerce	104,552	86.4%	-69.0%	-1,881	+++	-	-	-	-	+++
10	EMC CORPORATION	USA	ITC	111,816	81.9%	81.5%	539	+++	+	-	-	-	+++
11	HENNES & MAURITZ	Sweden	retail	24,235	73.8%	-31.9%	224	+++	+	+++	++	++	+++
12	MICROSOFT	USA	ITC	599,073	72.5%	-48.3%	5,893	+++	+	+++	+++	++	+++
13	CHARLES SCHWAB	USA	banks	31,189	72.3%	39.4%	260	+++	+	-	NM	NM	+++
14	CLEAR CHANNEL COM	USA	media	30,043	69.7%	-36.7%	543	+	+++	+	+++	-	+++
15	SOLECTRON	USA	ITC	27,712	69.1%	-3.0%	-27	+++	+	-	-	-	+++
16	SAP	Germany	ITC	55,724	68.7%	34.1%	310	+++	+	++	-	+++	+++
17	GATEWAY	USA	ITC	22,683	67.9%	-35.1%	196	+++	+	-	++	-	+++
18	NORTEL NETWORKS	Canada	ITC	136,264	66.9%	24.0%	-680	+++	+	-	-	++	+++
19	ORACLE	USA	ITC	158,651	66.7%	40.5%	3,786	+++	+	+++	+++	++	+++
20	APPLIED MATS.	USA	ITC	47,673	64.4%	-6.4%	165	+++	+	-	++	-	+++
21	ERICSSON	Sweden	ITC	124,929	63.6%	7.4%	839	+++	+	++	+	++	+++
22	MANNESMANN	Germany	conglomerates	117,723	63.5%	-31.4%	2,022	+++	+	++	++	+	++
23	SK TELECOM	Korea	ITC	29,796	63.4%	-32.5%	-173	+++	+	-	-	-	+++
24	ADVANTEST	Japan	ITC	26,193	61.2%	-37.0%	190	+++	+	++	+++	++	++
25	AEGON	NL	insurance & assurance	63,911	60.7%	-9.5%	157	+++	+	-	NM	NM	+++

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>

(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>

(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>

(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>

(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

For banks and insurance companies the following expressions need to be replaced:

CVA => AVE

DCVA => DAVE

Gross Investment => Equity

CFROI => RROE

WACC => Cost of Equity

Top 100 Worldwide Performers (26-50)

Rk	Company	Country	Industry	Market Value (in US\$) <sup>(1,2)</sup>	TSR p.a. 95-99	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
								Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash-Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
26	TEXAS INSTRUMENTS	USA	ITC	75,492	60.7%	-2.2%	686	+++	+	++	+++	-	++
27	GAP	USA	retail	38,923	60.2%	-56.2%	750	++	++	++	+	+	+++
28	MATSUSHITA*	Japan	ITC	49,433	60.0%	-45.8%	291	+++	+	+++	++	+++	-
29	INTEL	USA	ITC	273,472	59.8%	1.1%	3,766	+++	+	++	++	-	+++
30	ROHM	Japan	ITC	49,081	59.4%	-30.5%	468	+++	+	++	+++	+	++
31	PINAULT PRINT.	France	retail	31,069	58.4%	-23.0%	560	+++	+	++	++	++	++
32	TELEFONICA	Spain	ITC	80,692	56.8%	-9.5%	3,425	+	+++	+	-	+	++
33	TAIWAN SEMICONDUCTOR	Taiwan	industrial goods	40,653	56.1%	-20.3%	403	++	++	-	-	-	+++
34	TELLABS	USA	ITC	25,677	55.9%	-25.6%	273	+++	+	+	++	-	+++
35	MGST DEAN WITTER	USA	banks	79,063	55.2%	29.1%	2,860	++	++	+++	NM	NM	+++
36	AMGEN	USA	pharma & health care	61,013	52.1%	16.3%	675	+++	+	++	+++	-	+++
37	SPRINT	USA	ITC	52,559	51.9%	-56.1%	705	++	++	+	++	-	++
38	VODAFONE AIRTOUCH	UK	ITC	153,470	50.9%	-17.5%	567	+++	+	-	-	+	+++
39	BBVA	Spain	banks	29,795	48.7%	22.7%	1,116	++	++	+++	NM	NM	+++
40	KPN	NL	ITC	46,222	48.6%	-48.8%	687	+++	-	++	-	+	-
41	TYCO INTERNATIONAL	USA	industrial goods	65,931	47.6%	33.1%	1,878	-	+++	++	++	-	+++
42	WARNER LAMBERT	USA	pharma & healthcare	69,964	47.4%	59.1%	970	+++	+	++	+	++	++
43	HOME DEPOT	USA	retail	157,405	46.9%	-22.6%	1,274	+++	+	++	+	+	+++
44	TELECOM ITALIA	Italy	ITC	86,435	46.5%	-12.1%	4,783	+	+++	+	++	+	+
45	WAL-MART STORES	USA	retail	306,148	46.4%	-30.1%	3,200	+++	+	+	-	++	+++
46	BCE	Canada	ITC	57,741	46.2%	10.6%	-2	+++	+	-	++	-	-
47	TARGET (DAYTON-HUDSON)	USA	retail	31,999	46.2%	-29.9%	868	++	++	++	+	++	++
48	GENERAL ELECTRIC	USA	conglomerates	504,388	46.1%	12.8%	6,383	+++	+	+	+	+	++
49	COMCAST SPECIAL	USA	media	35,953	45.7%	-19.0%	-90	+++	+	-	-	+	+++
50	MURATA MANUFACTURING	Japan	industrial goods	56,120	45.0%	-37.6%	68	+++	+	-	+	-	++

\*: Period analysed: 1995-1998

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>2004</sub>

(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>

(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>

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WACC	=>	Cost of Equity

Top 100 Worldwide Performers (26-50)

# Top 100 Worldwide Performers (51-75)

## Top 100 Worldwide Performers (51-75)

Rk	Company	Country	Industry	Market Value (in US\$) <sup>(1)</sup>	TSR p.a. 95-99	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
								Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
51	MBNA CORP.	USA	banks	21,727	44.9%	42.5%	459	++	++	-	NM	NM	+++
52	PHILIPS ELECTRONIC	NL	ITC	45,648	43.9%	44.9%	426	+++	+	-	+	-	++
53	IBM	USA	ITC	193,372	43.7%	4.6%	4,086	+++	+	++	+	++	-
54	UNICREDITO ITALIANO	Italy	banks	24,110	43.6%	24.5%	1,154	+	+++	+++	NM	NM	+++
55	BANK OF NEW YORK	USA	banks	29,292	43.6%	41.8%	988	++	++	+++	NM	NM	+
56	AMERICAN EXPRESS	USA	banks	74,011	43.3%	10.1%	796	+++	+	++	NM	NM	++
57	MARCONI	UK	ITC	47,988	42.8%	-15.2%	140	+++	-	++	-	+++	-
58	WALGREEN	USA	retail	29,237	41.3%	30.1%	349	++	++	+	+	+	+++
59	CORNING	USA	conglomerates	31,386	41.2%	130.9%	128	+++	+	+	++	-	+
60	FIFTH THIRD BANCORP.	USA	banks	22,525	41.1%	-11.4%	195	+++	+	-	NM	NM	+++
61	BRITISH TELECOM.	UK	ITC	158,324	41.0%	-52.2%	4,012	+++	+	++	++	+	-
62	L'OREAL	France	consumer goods	53,698	40.9%	-11.1%	298	+++	+	++	-	++	+
63	SONY	Japan	ITC	121,945	40.9%	-27.5%	688	+++	+	+	+	++	+
64	FORTIS B	Belgium	insurance & assurance	25,634	40.3%	-0.8%	644	+	+++	++	NM	NM	+++
65	CBS.	USA	media	48,474	40.2%	-8.1%	515	+++	-	+++	++	+++	-
66	PFIZER	USA	pharma & healthcare	124,874	40.0%	39.5%	1,913	+++	+	++	++	+	+++
67	MEDTRONIC	USA	pharma & healthcare	43,278	39.9%	42.6%	606	++	++	++	++	+	+++
68	CARREFOUR	France	retail	62,536	39.1%	-7.7%	510	++	++	-	+	-	+++
69	TOKYO ELECTRON	Japan	retail	23,857	38.5%	-29.9%	175	+++	+	++	++	++	++
70	MERRILL LYNCH	USA	banks	30,377	38.2%	59.8%	946	+	+++	++	NM	NM	+++
71	SEVEN-ELEVEN JAPAN	Japan	retail	131,295	38.1%	-61.1%	247	+++	+	-	-	-	++
72	UNITED MICRO ELECTR.	Taiwan	ITC	32,065	38.0%	-28.2%	-11	+++	+	-	-	-	+++
73	BRISTOL MYERS SQUIBB	USA	pharma & healthcare	126,618	37.9%	-9.9%	2,068	+++	+	+++	++	++	+
74	SCHERING-PLOUGH	USA	pharma & healthcare	61,905	37.9%	10.8%	1,021	++	++	++	++	+	+++
75	CHASE MANHATTAN	USA	banks	63,718	37.6%	-9.2%	2,783	++	++	+++	NM	NM	++

For banks and insurance companies the following expressions need to be replaced:

CVA => AVE  
DCVA => DAVE  
Gross Investment => Equity  
CFROI => RROE  
WACC => Cost of Equity

NM: Not Meaningful  
(1) In Million  
(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>  
(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>  
(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>  
(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>  
(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>



Top 100 Worldwide Performers (76-100)

Rk	Company	Country	Industry	Market Value (in US\$) <sup>(1)</sup>	TSR p.a. 95-99	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup> 95-99	Value Driven By		Relative Importance of Fundamental Value Drivers			
								Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash-Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
76	COMPUTER ASSOC.	USA	ITC	37,488	37.5%	-64.0%	870	++	++	-	++	-	+++
77	FUJITSU	Japan	ITC	88,203	36.9%	-45.9%	5,125	+++	-	+++	++	+++	-
78	HEWLETT-PACKARD	USA	ITC	115,265	36.7%	7.9%	969	+++	+	+	+	+	++
79	CARNIVAL	USA	TTT	29,180	36.6%	-47.8%	473	++	++	++	++	-	+++
80	AMERICAN INTL. GROUP	USA	insurance & assurance	166,470	36.4%	32.9%	1,474	+++	+	++	NM	NM	+++
81	PRUDENTIAL	UK	insurance & assurance	38,309	36.1%	-22.2%	351	++	++	-	NM	NM	+++
82	ING GROEP	NL	banks	57,781	36.1%	28.0%	1,502	-	+++	++	NM	NM	+++
83	SAMSUNG ELECTRONICS	Korea	ITC	35,004	36.0%	-23.5%	2,308	-	+++	+	-	+	+++
84	UNITED TECHNOLOGIES	USA	conglomerates	30,945	35.2%	7.6%	980	+++	+	++	++	+	-
85	COLGATE-PALMOLIVE	USA	consumer goods	37,657	35.1%	-26.8%	486	+++	+	++	++	-	+
86	US.WEST	USA	ITC	36,179	34.8%	21.0%	838	+	+++	+	-	+	+
87	ELI LILLY	USA	pharma & healthcare	72,115	34.8%	23.3%	1,417	++	++	++	++	+	++
88	SWISS RE	Switzerland	insurance & assurance	29,951	34.7%	2.4%	841	++	++	++	NM	NM	+++
89	TAKEDA CHEM INDS.	Japan	pharma & healthcare	43,699	34.2%	42.1%	1,050	+++	+	+++	+++	+++	-
90	AXA	France	insurance & assurance	48,788	34.0%	10.7%	902	++	++	++	NM	NM	+++
91	ABN AMRO	NL	banks	36,274	34.0%	10.5%	1,401	++	++	+++	NM	NM	++
92	LVMH	France	consumer goods	43,434	33.9%	-3.0%	42	+++	+	-	-	+	+++
93	TIME WARNER	USA	media	84,805	33.6%	8.4%	968	++	++	-	++	-	+++
94	MARSH & MCLENNAN	USA	insurance & assurance	25,387	33.4%	40.7%	128	+++	+	-	NM	NM	+++
95	B. SKY B.	UK	media	27,681	32.9%	4.5%	10	+++	+	-	-	+++	-
96	HUTCHISON WHAMPOA	Hong Kong	conglomerates	56,036	32.7%	1.8%	2,215	+++	+	++	-	+	+
97	SIEMENS	Germany	conglomerates	74,911	32.7%	16.0%	1,385	++	++	++	+	+	++
98	BELLSOUTH	USA	ITC	87,625	32.2%	-12.9%	2,133	++	++	+	++	+	++
99	SMITHKLINE BEECHAM	UK	pharma & healthcare	71,359	31.8%	19.0%	1,152	+++	+	++	++	-	++
100	ZURICH ALLIED	Switzerland	insurance & assurance	27,436	31.3%	-10.2%	867	+	+++	++	NM	NM	+++

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>

(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>

(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>

(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>

(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

For banks and insurance companies the following expressions need to be replaced:

CVA => AVE

DCVA => DAVE

Gross Investment => Equity

CFROI => RROE

WACC => Cost of Equity

Rk	Company	Country	Industry	Market Value (in US\$) <sup>(1)</sup>	TSR p.a. 95-99	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup> 95-99	Value Driven By		Relative Importance of Fundamental Value Drivers			
								Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash-Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
1	THE SAGE GROUP	UK	ITC	14,825	125.4%	-33.3%	77	+++	+	+++	-	+++	+++
2	LOGICA	UK	ITC	10,223	92.8%	39.4%	70	+++	+	+++	++	+++	-
3	NOKIA	Finland	ITC	206,325	92.1%	2.4%	2,146	+++	+	+++	++	+++	+++
4	BIPOP CARIRE	Italy	banks	14,157	87.1%	16.7%	180	++	++	+++	NM	NM	+++
5	H&M	Sweden	retail	24,235	73.8%	-31.9%	224	+++	+	+++	++	++	+++
6	SAP	Germany	ITC	55,724	68.7%	39.8%	310	+++	+	++	-	+++	+++
7	BANCA FIDEURAM	Italy	banks	10,663	68.6%	60.6%	119	+++	+	+++	NM	NM	+++
8	ERICSSON	Sweden	ITC	124,929	63.6%	7.4%	839	+++	+	++	+	++	+++
9	MANNESMANN	Germany	conglomerates	117,723	63.5%	-31.4%	2,022	+++	+	++	++	+	++
10	AEGON	NL	insurance & assurance	63,911	60.7%	-9.5%	157	+++	+	-	NM	NM	+++
11	SKANDIA	Sweden	insurance & assurance	15,314	60.2%	49.0%	42	+++	+	+++	NM	NM	+++
12	CAP GEMINI	France	ITC	19,467	59.4%	-14.8%	201	+++	+	+++	++	++	+++
13	PINAULT PRINTEMPS	France	retail	31,069	58.4%	-23.0%	560	+++	+	++	++	++	++
14	BOUYGUES	France	industrial goods	18,152	57.7%	-8.1%	53	+++	+	-	+	-	+++
15	TELEFONICA	Spain	ITC	80,692	56.8%	-9.5%	3,425	+	+++	+	-	+	++
16	WPP GROUP	UK	services	12,168	56.3%	-17.1%	269	+++	+	+++	+	+++	-
17	TF1	France	media	10,951	53.1%	26.2%	115	+++	+	+++	++	+	++
18	VODAFONE AIRTOUCH	UK	ITC	153,470	50.9%	-17.5%	567	+++	+	-	-	+	+++
19	HAYS	UK	services	13,671	50.1%	-19.9%	197	++	++	+	-	+	+++
20	BBVA	Spain	banks	29,795	48.7%	22.7%	1,116	++	++	+++	NM	NM	+++
21	KPN	NL	ITC	46,222	48.6%	-48.8%	687	+++	-	++	-	+	-
22	VNU	NL	media	11,428	47.1%	10.2%	248	++	++	++	++	-	+++
23	TELECOM ITALIA	Italy	ITC	86,435	46.5%	-12.1%	4,783	++	++	+	++	+	+
24	PHILIPS ELECTRONICS	NL	ITC	45,648	43.9%	44.9%	426	+++	+	-	+	-	++
25	UNICREDITO ITALIANO	Italy	banks	24,110	43.6%	24.5%	1,154	+	+++	+++	NM	NM	+++

NM: Not Meaningful

(1) In Million

(2)  $CVA_{1999} - CVA_{1994}$

(3)  $CFROI_{1999} - CFROI_{1994}$

(4)  $Cash\ Flow\ Margin_{1999} - Cash\ Flow\ Margin_{1994}$

(5)  $Asset\ Productivity_{1999} - Asset\ Productivity_{1994}$

(6)  $Gross\ Investment_{1999} / Gross\ Investment_{1994}$

For banks and insurance companies the following expressions need to be replaced:

CVA => AVE

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Top 100 European Performers (26-50)

Rk	Company	Country	Industry	Market Value (in US\$) <sup>(1)</sup>	TSR p.a. 95-99	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
								Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash-Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
26	MARCONI	UK	ITC	47,988	42.8%	-15.2%	140	+++	-	++	-	+++	-
27	BRITISH TELECOM.	UK	ITC	158,324	41.0%	-52.2%	4,012	+++	+	++	++	+	-
28	L'OREAL	France	consumer goods	53,698	40.9%	11.1%	298	+++	+	++	-	++	+
29	FORTIS	Belgium	insurance & assurance	25,634	40.3%	-0.8%	644	+	+++	++	NM	NM	+++
30	CARREFOUR	France	retail	62,536	39.1%	-7.7%	510	++	++	-	+	-	+++
31	CANAL +	France	media	18,092	38.1%	18.2%	-252	+++	+	-	-	-	+++
32	BANCA INTESA	Italy	banks	18,651	36.7%	11.3%	316	+	+++	++	NM	NM	+++
33	PRUDENTIAL	UK	insurance & assurance	38,309	36.1%	-22.2%	351	++	++	-	NM	NM	+++
34	ING GROEP	NL	banks	57,781	36.1%	28.0%	1,502	-	+++	++	NM	NM	+++
35	LEGAL & GENERAL	UK	insurance & assurance	13,895	36.0%	0.0%	505	-	+++	-	NM	NM	+++
36	CHRISTIAN DIOR	France	consumer goods	11,070	35.5%	0.3%	155	++	++	-	-	+	+++
37	SWISS RE	Switzerland	insurance & assurance	29,951	34.7%	2.4%	841	++	++	++	NM	NM	+++
38	AXA	France	insurance & assurance	48,788	34.0%	10.7%	902	++	++	++	NM	NM	+++
39	ABN AMRO HOLDING	NL	banks	36,274	34.0%	10.5%	1,401	++	++	+++	NM	NM	++
40	LVMH	France	consumer goods	43,434	33.9%	-3.0%	42	+++	+	-	-	+	+++
41	BRITISH AEROSPACE	UK	industrial goods	19,388	33.3%	-9.2%	305	++	++	+	++	-	+++
42	GAS NATURAL	Spain	utilities	10,212	33.1%	-16.6%	386	-	+++	-	+	-	+++
43	TELE DANMARK	Denmark	ITC	15,951	33.0%	-13.7%	215	++	++	+	-	+	+++
44	PEARSON	UK	media	19,736	33.0%	6.2%	1	+++	+	-	-	++	+++
45	B. SKY B.	UK	media	27,681	32.9%	4.5%	10	+++	+	-	-	+++	-
46	SIEMENS	Germany	conglomerates	74,911	32.7%	16.0%	1,385	++	++	++	+	+	++
47	SMITHKLINE BEECHAM	UK	pharma & healthcare	71,359	31.8%	19.0%	1,152	+++	+	++	++	-	++
48	STANDARD CHARTERED	UK	banks	16,386	31.6%	5.5%	-125	+++	+	-	NM	NM	+++
49	ZURICH ALLIED	Switzerland	insurance & assurance	27,436	31.3%	-10.2%	867	+	+++	++	NM	NM	+++
50	AHOLD	NL	retail	18,766	31.3%	11.3%	756	+	+++	+	++	-	+++

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>

(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>

(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>

(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>

(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

For banks and insurance companies the following expressions need to be replaced:

CVA => AVE

DCVA => DAVE

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For banks and insurance companies the following expressions need to be replaced:

CVA	=>	AVE
DCVA	=>	DAVE
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CFROI	=>	RROE
WACC	=>	Cost of Equity

# Top 100 European Performers (76-100)

## Top 100 European Performers (51-75)

Rk	Company	Country	Industry	Market Value (in US\$) <sup>(1)</sup>	TSR p.a. 95-99	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup> 95-99	Value Driven By		Relative Importance of Fundamental Value Drivers			
								Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
51	VIVENDI	France	conglomerates	52,695	31.1%	-4.8%	-473	+++	+	-	-	-	+++
52	BANK OF SCOTLAND	UK	banks	14,409	31.1%	-15.7%	520	+	+++	++	NM	NM	+++
53	NOVARTIS	Switzerland	pharma & healthcare	104,817	30.8%	14.9%	2,087	++	++	++	+++	-	++
54	GKN	UK	automobiles	11,213	30.7%	-30.2%	350	+	+++	++	++	++	+
55	ARGENTARIA	Spain	banks	11,400	30.7%	-4.8%	300	++	++	++	NM	NM	+
56	ALCATEL	France	ITC	45,180	30.2%	60.9%	-162	+++	+	-	-	-	+
57	MÜNCHNER RÜCK	Germany	insurance & assurance	44,272	30.2%	34.0%	-155	++	++	++	NM	NM	+++
58	REPSOL	Spain	industrial goods	26,169	29.4%	-7.9%	1,246	-	+++	-	++	-	+++
59	KINGFISHER	UK	retail	15,116	29.3%	-33.6%	389	+	+++	+	+	+	++
60	BASF	Germany	chemicals	31,893	29.2%	-19.6%	1,031	-	+++	+	++	-	++
61	KBC	Belgium	banks	15,860	29.1%	-9.4%	557	++	++	+++	NM	NM	+++
62	CASTORAMA DUBOIS	France	retail	11,546	28.9%	-16.1%	247	++	++	++	+	++	+++
63	BARCLAYS	UK	banks	42,821	28.4%	9.0%	932	++	++	++	NM	NM	++
64	UPM-KYMMENE	Finland	industrial goods	10,633	28.2%	-25.7%	456	-	+++	+	+	+	+++
65	IBERDROLA	Spain	utilities	12,371	27.3%	7.9%	1,863	-	+++	+	+	+	-
66	HEINEKEN	NL	consumer goods	15,141	27.0%	31.0%	241	+	+++	-	++	-	+++
67	ROYAL BANK OF SCOTL.	UK	banks	15,752	26.6%	41.7%	588	-	+++	+	NM	NM	+++
68	NATIONAL WESTMINSTER*	UK	banks	35,678	26.5%	1.1%	386	-	-	+	NM	NM	++
69	SOCIETE GENERALE	France	banks	23,951	26.3%	14.3%	1,552	-	+++	+++	NM	NM	+++
70	CREDIT SUISSE	Switzerland	banks	53,531	26.1%	4.2%	2,070	++	++	+++	NM	NM	++
71	ABB LTD.	Switzerland	industrial goods	36,316	26.1%	-12.3%	-498	+++	-	-	-	-	+++
72	SCHNEIDER ELECTRIC	France	industrial goods	12,524	26.0%	-5.8%	346	++	++	++	++	-	++
73	INA	Italy	insurance & assurance	10,500	26.0%	2.5%	680	+++	+	++	NM	NM	-
74	GLAXO WELLCOME	UK	pharma & healthcare	102,379	25.8%	19.9%	1,029	+++	+	-	-	-	++
75	CABLE & WIRELESS	UK	ITC	41,067	25.5%	-6.8%	291	++	++	-	-	-	+++

\*; Period analysed: 1995-1998

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(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>

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								Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash-Flow Margin <sup>(4)</sup>	ΔAsset Productivity	Gross Invest Growth <sup>(6)</sup>
76	ROCHE HOLDING	Switzerland	pharma & healthcare	108,399	25.3%	-16.6%	608	++	++	-	-	-	+++
77	SAN PAOLO IMI	Italy	banks	18,863	25.2%	41.1%	981	+	+++	+++	NM	NM	++
78	DRESDNER BANK	Germany	banks	27,910	24.5%	-6.6%	508	++	++	++	NM	NM	++
79	RICHEMONT	Switzerland	conglomerates	12,330	24.1%	36.7%	316	-	+++	++	+++	-	+++
80	BAYER	Germany	chemicals	34,230	23.9%	-8.2%	680	++	++	-	-	+	-
81	UNILEVER	NL	consumer goods	31,258	23.6%	2.1%	1,085	++	++	++	+	++	-
82	ABBEY NATIONAL	UK	banks	22,634	23.4%	-2.8%	961	-	+++	++	NM	NM	++
83	ELECTRABEL*	Belgium	utilities	17,654	23.3%	-23.9%	1,005	++	++	-	-	-	+
84	ALLIANZ	Germany	insurance & assurance	81,569	23.3%	11.8%	301	++	++	++	NM	NM	+++
85	VOLKSWAGEN	Germany	automob.	20,740	22.4%	-5.4%	1,020	-	+++	-	-	++	++
86	SHELL TRANSPORT	UK	industrial goods	82,267	22.3%	10.4%	11,086	-	+++	++	++	+	++
87	GRANADA GROUP	UK	media	18,650	22.2%	-26.9%	596	-	+++	-	++	-	+++
88	TESCO	UK	retail	20,592	21.8%	35.1%	757	-	+++	-	-	-	+++
89	BMW	Germany	automob.	19,551	21.7%	29.3%	-127	++	++	-	-	+	++
90	DEUTSCHE BANK	Germany	banks	51,369	21.1%	13.6%	1,484	+	+++	++	NM	NM	+++
91	COMMERZBANK	Germany	banks	18,281	20.6%	-5.9%	257	++	++	+	NM	NM	+++
92	AKZO NOBEL	NL	chemicals	14,171	20.6%	-2.5%	377	++	++	+	-	++	+
93	NESTLE	Switzerland	consumer goods	71,480	20.5%	25.1%	1,244	+	+++	-	+	-	++
94	HOLDERBANK	Switzerland	industrial goods	11,066	18.9%	-16.5%	381	-	+++	-	++	-	++
95	SAINT GOBAIN	France	industrial goods	16,227	18.5%	-20.8%	426	-	+++	-	-	-	+++
96	DANONE	France	consumer goods	17,123	18.3%	35.7%	477	++	++	++	+	+	-
97	BOC GROUP	UK	chemicals	10,504	17.8%	-31.2%	456	+	+++	++	++	-	+
98	P&O	UK	TTT	11,095	17.7%	-40.4%	615	+++	-	++	+	++	-
99	RIO TINTO	UK	industrial goods	25,425	16.9%	-31.8%	731	-	+++	+	++	-	+++
100	VIAG	Germany	conglomerates	12,559	16.9%	25.2%	908	-	+++	+	+	+	+

\*: Period analysed: 1995-1998

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>

(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>

For banks and insurance companies the following expressions need to be replaced:

CVA => AVE

DCVA => DAVE

Gross Investment => Equity

CFROI => RPOE

WACC => Cost of Equity

(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>

(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>

(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

# Top 20 Asian Performers

## Top 20 Asian Performers

Rk	Company	Country	Industry	Market Value (in US\$) <sup>(1)</sup>	TSR p.a. 95-99	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
								Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash-Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
1	INFOSYS TECHNOLOGIES	India	ITC	10,686	164.0%	1.2%	23	+++	+	+++	-	++	+++
2	WIPRO	India	conglomerates	13,695	155.3%	2.2%	-9	+++	+	-	-	+	+++
3	HON HAI PREC.INDUSTRIES	Taiwan	ITC	8,168	65.2%	14.8%	547	-	+++	+++	+++	+++	+++
4	SK TELECOM	Korea	ITC	29,796	63.4%	-32.5%	-173	+++	+	-	-	-	+++
5	TAIWAN SEMICONDUCTOR	Taiwan	industrial goods	40,653	56.1%	-20.3%	403	++	++	-	-	-	+++
6	ADVANCED SEMICONDUCTOR	Taiwan	ITC	7,037	51.7%	-49.4%	32	+++	-	-	+++	-	+++
7	JOHNSON ELECTRIC HDG.	Hong Kong	industrial goods	5,864	48.4%	34.8%	97	+++	+	++	+++	+	++
8	GUDANG GARAM	Indonesia	consumer goods	5,105	43.5%	-42.2%	190	+	+++	+++	+++	+	+++
9	DACOM	Korea	ITC	12,301	42.5%	-89.7%	-19	+++	+	-	-	-	+++
10	UNITED MICRO ELECTRONICS	Taiwan	ITC	32,065	38.0%	-28.2%	-11	+++	+	-	-	-	+++
11	SAMSUNG ELTN.	Korea	ITC	35,004	36.0%	-23.5%	2,308	-	+++	+	-	+	+++
12	HUTCHISON WHAMPOA	Hong Kong	conglomerates	56,036	32.7%	1.8%	2,215	+++	+	++	-	+	+
13	ACER	Taiwan	ITC	9,251	31.9%	53.9%	0	+++	+	-	-	+++	++
14	CHEUNG KONG	Hong Kong	services	29,029	28.8%	-3.4%	-1,227	+++	-	-	-	-	+++
15	DBS GROUP	Singapore	banks	19,194	27.9%	-28.7%	225	++	++	++	NM	NM	+++
16	SINGAPORE PRESS	Singapore	media	7,889	25.9%	-26.4%	-32	+++	+	-	-	-	+++
17	FAR EASTERN TEXTILES	Taiwan	consumer goods	6,546	23.4%	-49.6%	201	++	++	++	+++	+	-
18	SINGAPORE AIRLINES	Singapore	TTT	14,279	20.9%	-11.7%	421	++	++	+	++	+	+
19	POHANG IRON STEEL	Korea	industrial goods	10,592	16.6%	-32.4%	1,230	-	+++	-	-	+	++
20	HANG SENG BANK	Hong Kong	banks	21,709	16.2%	0.4%	1,148	-	+++	+++	NM	NM	+

NM: Not Meaningful

(1) In Million

(2)  $CVA_{1999} - CVA_{1994}$

(3)  $CFROI_{1999} - CFROI_{1994}$

(4)  $Cash\ Flow\ Margin_{1999} - Cash\ Flow\ Margin_{1994}$

(5)  $Asset\ Productivity_{1999} - Asset\ Productivity_{1994}$

(6)  $Gross\ Investment_{1999} / Gross\ Investment_{1994}$

For banks and insurance companies the following expressions need to be replaced:

CVA	=>	AVE
DCVA	=>	DAVE
Gross Investment	=>	Equity
CFROI	=>	RROE
WACC	=>	Cost of Equity



## AUTOMOBILES &amp; SUPPLY INDUSTRY

Rk	Company	Country	Market Value (in US\$) <sup>(1)</sup>	TSR p.a.	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
							Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
			31.12.99	95-99		95-99						
1	GKN	UK	11,213	30.7%	-30.2%	350	++	++	++	++	++	+
2	FORD MOTOR	USA	60,280	28.5%	-10.9%	7,645	-	+++	++	++	+	+
3	VOLKSWAGEN	Germany	20,740	22.4%	-5.4%	1,020	-	+++	-	-	++	++
4	PIRELLI SPA	Italy	5,155	21.7%	26.0%	669	+	+++	+	++	+	-
5	BMW	Germany	19,551	21.7%	29.3%	-127	++	++	-	-	+	++
6	GENERAL MOTORS	USA	46,276	20.6%	-8.7%	2,982	-	+++	-	+	-	++
7	TOYOTA MOTOR	Japan	181,140	19.7%	-13.3%	2,047	++	++	++	++	-	+++
8	HONDA MOTOR	Japan	36,031	17.2%	5.3%	1,265	-	+++	++	++	+	++
9	PEUGEOT	France	10,220	16.2%	-9.1%	-409	++	++	-	-	-	+++
10	VALEO	France	6,324	16.2%	-33.3%	161	+	+++	+	-	++	++

NM: Not Meaningful

(1) In Million

(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

## BANKS

Rk	Company	Country	Market Value (in US\$) <sup>(1)</sup>	TSR p.a.	TSR 01.01.00 - 30.09.00	DAVE (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers	
							Expectations	Fundamentals	ΔRROE <sup>(3)</sup>	Equity Growth
			31.12.99	95-99		95-99				
1	BIPOP CARIRE	Italy	14,157	87.1%	16.7%	180	++	++	+++	+++
2	CHARLES SCHWAB	USA	31,189	72.3%	39.4%	260	+++	+	-	+++
3	BANCA FIDEURAM	Italy	10,663	68.6%	60.6%	119	+++	+	+++	+++
4	MGST DEAN WITTER	USA	79,063	55.2%	29.1%	2,860	++	++	+++	+++
5	BBVA	Spain	29,795	48.7%	22.7%	1,116	++	++	+++	+++
6	NORTHERN TRUST	USA	11,732	45.6%	68.7%	160	+++	+	++	++
7	MBNA CORPORATION	USA	21,727	44.9%	42.5%	459	++	++	-	+++
8	ORIX	Japan	15,343	44.7%	-32.6%	87	+++	+	++	++
9	UNICREDITO ITALIANO	Italy	24,110	43.6%	24.5%	1,154	+	+++	+++	+++
10	BANK OF NEW YORK	USA	29,292	43.6%	41.8%	988	++	++	+++	+

NM: Not Meaningful

(1) In Million

(2) AVE<sub>1999</sub> - AVE<sub>1994</sub>(3) RROE<sub>1999</sub> - RROE<sub>1994</sub>

(4) DAVE = Delta Added Value on Equity

## CHEMICALS

Rk	Company	Country	Market Value (in US\$) <sup>(1)</sup>	TSR p.a.	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
							Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
			31.12.99	95-99		95-99						
1	BASF	Germany	31,893	29.2%	-19.6%	1,031	-	+++	+	++	-	++
2	MONSANTO	USA	22,364	26.3%	70.4%	487	+++	+	++	++	+	-
3	BAYER	Germany	34,230	23.9%	-8.2%	680	++	++	-	-	+	-
4	DU PONT	USA	68,333	21.5%	-35.8%	-1,786	+++	-	-	-	-	-
5	PRAXAIR	USA	7,953	21.0%	-24.8%	273	+	+++	+	+	+	++
6	AKZO NOBEL	NL	14,171	20.6%	-2.5%	377	++	++	+	-	++	+
7	SOLVAY	Belgium	6,886	20.3%	-16.2%	658	-	+++	+	++	+	+
8	UNION CARBIDE	USA	8,885	20.0%	-42.7%	-85	++	++	-	-	-	++
9	ROHM & HAAS	USA	8,856	19.1%	-27.3%	69	+	+++	-	-	-	+++
10	DOW CHEMICALS	USA	29,140	19.0%	-42.4%	743	+	+++	+	++	-	-

NM: Not Meaningful

(1) In Million

(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

## Top 10 Performers by Industry

### CONGLOMERATES

Rk	Company	Country	Market Value (in US\$) <sup>(1)</sup>	TSR p.a.	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
							Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
			31.12.99	95-99		95-99						
1	WIPRO	India	13,695	155.3%	2.2%	-9	+++	+	-	-	+	+++
2	MANNESMANN	Germany	117,723	63.5%	-31.4%	2,022	+++	+	++	++	+	++
3	GENERAL ELECTRIC	USA	504,388	46.1%	12.8%	6,383	+++	+	+	+	+	++
4	CORNING	USA	31,386	41.2%	130.9%	128	+++	+	+	++	-	+
5	UNITED TECHNOLOGIES	USA	30,945	35.2%	7.6%	980	+++	+	++	++	+	-
6	HUTCHISON WHAMPOA	Hong Kong	56,036	32.7%	1.8%	2,215	+++	+	++	-	+	+
7	SIEMENS	Germany	74,911	32.7%	16.0%	1,385	++	++	++	+	+	++
8	VIVENDI	France	52,695	31.1%	-4.8%	-473	+++	+	-	-	-	+++
9	HONEYWELL INT.	USA	45,275	29.5%	-37.4%	1,150	++	++	++	+	+	+++
10	TEXTRON	USA	11,343	27.3%	-38.8%	110	-	+++	-	-	-	++

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>

(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>

(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>

(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>

(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

### CONSUMER GOODS

Rk	Company	Country	Market Value (in US\$) <sup>(1)</sup>	TSR p.a.	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
							Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
			31.12.99	95-99		95-99						
1	L'OREAL	France	53,698	40.9%	11.1%	298	+++	+	++	-	++	+
2	CHRISTIAN DIOR	France	11,070	35.5%	0.3%	155	++	++	-	-	+	+++
3	COLGATE-PALMOLIVE	USA	37,657	35.1%	-26.8%	486	+++	+	++	++	-	+
4	LVMH	France	43,434	33.9%	-3.0%	42	+++	+	-	-	+	+++
5	PROCTER & GAMBLE	USA	143,181	30.9%	-38.0%	2,075	+++	+	++	++	+	+
6	CLOROX	USA	11,842	30.6%	-20.3%	210	++	++	-	-	-	+++
7	HEINEKEN	NL	15,141	27.0%	31.0%	241	+	+++	-	++	-	+++
8	ANHEUSER-BUSCH	USA	32,794	26.1%	20.9%	620	++	++	++	++	-	+
9	KIMBERLY-CLARK	USA	35,422	24.4%	-13.4%	1,221	++	++	++	++	+	++
10	UNILEVER	NL	31,258	23.6%	2.1%	1,085	++	++	++	+	++	-

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>

(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>

(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>

(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>

(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

### E-COMMERCE

Rk	Company	Country	Market Value (in US\$) <sup>(1)</sup>	TSR p.a.	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
							Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
			31.12.99	98-99		95-99						
1	CMGI	USA	33,858	755.7%	-79.8%	80	++	++	+	+++	-	+++
2	SOFTBANK	Japan	104,552	438.9%	-69.0%	-1,985	+++	-	-	-	-	++
3	YAHOO!	USA	113,266	399.9%	-57.9%	10	+++	+	+	-	++	+++
4	REALNETWORKS	USA	8,902	316.5%	-33.9%	-5	+++	-	+++	+++	-	+++
5	AMAZON	USA	25,798	289.4%	-49.5%	-396	+++	-	-	-	+++	+++
6	AMERICA ONLINE	USA	168,672	266.2%	-29.2%	228	+++	+	++	++	++	+++
7	LYCOS	USA	7,626	177.4%	-13.6%	-7	+++	-	+++	+++	-	+++
8	LEVEL 3 COMMUNICATIONS	USA	27,770	135.2%	-5.8%	-433	+++	-	-	-	-	+++
9	E TRADE GROUP	USA	6,464	113.2%	-37.1%	-76	+++	-	-	NM	NM	++
10	AT HOME	USA	14,814	84.7%	-67.1%	-425	+++	-	+++	+++	-	+++

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>

(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>

(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>

(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>

(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

## INDUSTRIAL GOODS &amp; ENGINEERING

Rk	Company	Country	Market Value (in US\$) <sup>(1)</sup> 31.12.99	TSR p.a. 95-99	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup> 95-99	Value Driven By		Relative Importance of Fundamental Value Drivers			
							Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
1	BOUYGUES	France	18,152	57.7%	-8.1%	53	+++	+	-	+	-	+++
2	TAIWAN SEMICONDUCTOR	Taiwan	40,653	56.1%	-20.3%	403	++	++	-	-	-	+++
3	TERADYNE	USA	11,223	50.8%	-47.0%	63	+++	+	++	-	++	+++
4	TYCO INTERNATIONAL	USA	65,931	47.6%	33.1%	1,878	-	+++	++	++	-	+++
5	MURATA MANUFACTURING	Japan	56,120	45.0%	-37.6%	68	+++	+	-	+	-	++
6	BOMBARDIER	Canada	10,257	38.1%	76.2%	213	++	++	-	+	-	+++
7	BRITISH AEROSPACE	UK	19,388	33.3%	-9.2%	305	++	++	+	++	-	+++
8	SMC	Japan	15,398	32.3%	-19.6%	-	-	-	-	-	-	-
9	REPSOL	Spain	26,169	29.4%	-7.9%	1,246	-	+++	-	++	-	+++
10	LOWE'S COMPANIES	USA	22,716	28.6%	-24.7%	283	++	++	-	+	-	+++

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

## INFORMATION/COMMUNICATION &amp; TELECOMMUNICATION (ITC)

Rk	Company	Country	Market Value (in US\$) <sup>(1)</sup> 31.12.99	TSR p.a. 95-99	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup> 95-99	Value Driven By		Relative Importance of Fundamental Value Drivers			
							Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
1	VERITAS SOFTWARE	USA	36,886	177.9%	48.8%	231	++	++	+++	+++	++	+++
2	INFOSYS TECHNOLOGIES	India	10,686	164.0%	1.2%	25	+++	+	+++	-	++	+++
3	DELL COMPUTER	USA	130,094	140.0%	-39.6%	1,460	+++	+	+++	++	+++	+++
4	QUALCOMM	USA	115,579	127.9%	-59.5%	52	+++	+	++	+	++	+++
5	THE SAGE GROUP	UK	14,825	125.4%	-33.3%	77	+++	+	+++	-	+++	+++
6	SUN MICROSYSTEMS	USA	121,163	103.5%	50.8%	645	+++	+	++	++	+	+++
7	CISCO SYSTEMS	USA	364,454	93.9%	3.2%	1,445	+++	+	-	-	++	+++
8	LOGICA	UK	10,223	92.8%	39.4%	70	+++	+	+++	++	+++	-
9	NOKIA	Finland	206,325	92.1%	2.4%	2,146	+++	+	+++	++	+++	+++
10	EMC CORPORATION	USA	111,816	81.9%	81.5%	539	+++	+	-	-	-	+++

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

## INSURANCE &amp; ASSURANCE

Rk	Company	Country	Market Value (in US\$) <sup>(1)</sup> 31.12.99	TSR p.a. 95-99	TSR 01.01.00 - 30.09.00	DAVE (in US\$) <sup>(1,2)</sup> 95-99	Value Driven By		Relative Importance of Fundamental Value Drivers	
							Expectations	Fundamentals	ΔRROE <sup>(3)</sup>	Equity Growth
1	AEGON	NL	63,911	60.7%	-9.5%	157	+++	+	-	+++
2	SKANDIA	Sweden	15,314	60.2%	49.0%	42	+++	+	+++	+++
3	PROVIDIAN FINANCIAL	USA	12,856	59.2%	39.7%	-	-	-	-	-
4	FORTIS	Belgium	25,634	40.3%	-0.8%	644	+	+++	++	+++
5	AMERICAN INTERNATIONAL	USA	166,470	36.4%	32.9%	1,474	+++	+	++	+++
6	PRUDENTIAL	UK	38,309	36.1%	-22.2%	351	++	++	-	+++
7	LEGAL & GENERAL	UK	13,895	36.0%	0.0%	505	-	+++	-	+++
8	AFLAC	USA	12,487	35.9%	36.5%	136	++	++	-	+++
9	SWISS RE	Switzerland	29,951	34.7%	2.4%	841	++	++	++	+++
10	AXA	France	48,788	34.0%	10.7%	902	++	++	++	+++

NM: Not Meaningful

(1) In Million

(2) AVE<sub>1999</sub> - AVE<sub>1994</sub>(3) RROE<sub>1999</sub> - RROE<sub>1994</sub>

(4) DAVE = Delta Added Value on Equity

## Top 10 Performers by Industry

### MEDIA & ENTERTAINMENT

Rk	Company	Country	Market Value (in US\$) <sup>(1)</sup>	TSR p.a.	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
							Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
			31.12.99	95-99		95-99						
1	TV GUIDE	USA	6,604	70.3%	6.1%	133	+++	+	-	++	-	-
2	CLEAR CHANNEL COM	USA	30,043	69.7%	-36.7%	543	+	+++	+	+++	-	+++
3	M6-METROPOLE TELEVISION	France	6,467	64.8%	16.2%	76	+++	+	+++	-	+++	++
4	TF1	France	10,951	53.1%	26.2%	115	+++	+	+++	++	+	++
5	VNU	NL	11,428	47.1%	10.2%	248	++	++	++	++	-	+++
6	COMCAST SPECIAL	USA	35,953	45.7%	-19.0%	-90	+++	+	-	-	+	+++
7	CABLEVISION SYSTEMS	USA	9,746	43.0%	-12.2%	-558	+++	-	+	+	+	+++
8	CBS	USA	48,474	40.2%	-8.1%	515	+++	-	+++	++	+++	-
9	NIPPON TELEVISION NETWORK	Japan	14,809	38.6%	3.6%	-	-	-	-	-	-	-
10	CANAL +	France	18,092	38.1%	18.2%	-252	+++	+	-	-	-	+++

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>

(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>

(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>

(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>

(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

### PHARMACEUTICALS & HEALTHCARE

Rk	Company	Country	Market Value (in US\$) <sup>(1)</sup>	TSR p.a.	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
							Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
			31.12.99	95-99		95-99						
1	MEDIMMUNE	USA	10,017	148.5%	39.7%	92	++	++	+++	+++	++	+++
2	IMMUNEX	USA	17,887	96.7%	19.2%	16	+++	+	+++	+++	-	+++
3	GUIDANT CORP.	USA	14,365	63.9%	50.4%	262	++	++	++	++	+	+++
4	AMGEN	USA	61,013	52.1%	16.3%	675	+++	+	++	+++	-	+++
5	BIOGEN	USA	12,625	51.9%	-27.8%	160	+++	+	+++	+++	++	+++
6	WARNER LAMBERT	USA	69,964	47.4%	59.1%	970	+++	+	++	+	++	++
7	PFIZER	USA	124,874	40.0%	39.5%	1,913	+++	+	++	++	+	+++
8	MEDTRONIC	USA	43,278	39.9%	42.6%	64	++	++	-	-	-	+++
9	BRISTOL MYERS SQUIBB	USA	126,618	37.9%	-9.9%	2,068	+++	+	+++	++	++	+
10	SCHERING-PLOUGH	USA	61,905	37.9%	10.8%	1,021	++	++	++	++	+	+++

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>

(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>

(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>

(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>

(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

### RETAIL

Rk	Company	Country	Market Value (in US\$) <sup>(1)</sup>	TSR p.a.	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
							Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
			31.12.99	95-99		95-99						
1	H&M	Sweden	24,235	73.8%	-31.9%	224	+++	+	+++	++	++	+++
2	GAP	USA	38,923	60.2%	-56.2%	750	++	++	++	+	+	+++
3	PINAULT PRINTemps	France	31,069	58.4%	-23.0%	560	+++	+	++	++	++	++
4	FAST RETAILING	Japan	10,731	56.5%	6.2%	47	+++	+	+++	++	+++	+++
5	KOHL'S	USA	11,703	48.7%	59.8%	121	++	++	-	+	-	+++
6	HOME DEPOT	USA	157,405	46.9%	-22.6%	1,274	+++	+	++	+	+	+++
7	WAL-MART STORES	USA	306,148	46.4%	-30.1%	3,200	+++	+	+	-	++	+++
8	TARGET (DAYTON-HUDSON)	USA	31,999	46.2%	-29.9%	868	++	++	++	+	++	++
9	BEST BUY	USA	10,257	45.1%	26.6%	92	+++	+	++	+	++	+++
10	WALGREEN	USA	29,237	41.3%	30.1%	349	++	++	+	+	+	+++

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>

(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>

(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>

(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>

(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

## SERVICES

Rk	Company	Country	Market Value (in US\$) <sup>(1)</sup>	TSR p.a.	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
							Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
			31.12.99	95-99		95-99						
1	VITESSE SEMICON	USA	8,188	127.9%	69.6%	38	+++	+	+++	+++	+	+++
2	ALTRAN TECHNOLOGIES	France	5,870	101.6%	19.8%	50	+++	+	++	+	++	+++
3	MLP	Germany	5,538	86.5%	126.5%	227	-	+++	+++	+++	-	+++
4	BELLSYSTEM 24	Japan	5,449	64.0%	-54.4%	22	+++	+	+++	++	+++	+
5	WPP GROUP	UK	12,168	56.3%	-17.1%	269	+++	+	+++	+	+++	-
6	HAYS	UK	13,671	50.1%	-19.9%	197	++	++	+	-	+	+++
7	KANSAS CITY SOUTHERN	USA	8,202	49.5%	85.0%	-	-	-	-	-	-	-
8	RANDSTAD	NL	5,511	43.1%	-39.7%	156	++	++	+++	+	+++	+++
9	INTERPUBLIC GROUP	USA	16,100	41.8%	-40.6%	286	++	++	+	+	+	+++
10	COMPASS GROUP	UK	9,310	40.6%	-5.3%	257	+	+++	+	-	++	+++

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

## TRAVEL, TRANSPORTATION &amp; TOURISM

Rk	Company	Country	Market Value (in US\$) <sup>(1)</sup>	TSR p.a.	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
							Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
			31.12.99	95-99		95-99						
1	CONTINENTAL AIRLINES	USA	2,554	57.2%	2.4%	1,229	-	+++	+++	+++	-	+++
2	US AIRWAYS	USA	2,278	49.8%	-5.1%	590	-	+++	++	++	+	-
3	CARNIVAL	USA	29,180	36.6%	-47.8%	473	++	++	++	++	-	+++
4	KUONI REISEN	Switzerland	1,097	33.2%	11.4%	98	-	+++	+++	++	-	+++
5	YAMATO TRANSPORT	Japan	17,109	30.0%	-39.3%	-	-	-	-	-	-	-
6	SOUTHWEST AIRLINES	USA	8,089	26.8%	50.5%	309	-	+++	+	++	-	+++
7	ACCOR	France	8,806	26.1%	-9.6%	236	++	++	+	+	+	+
8	PREUSSAG	Germany	9,285	22.5%	-36.2%	61	+++	-	-	-	+++	-
9	SINGAPORE AIRLINES	Singapore	14,279	20.9%	-11.7%	421	++	++	+	++	+	+
10	LUFTHANSA	Germany	8,790	20.8%	2.6%	156	+	+++	-	-	+	+

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

## UTILITIES

Rk	Company	Country	Market Value (in US\$) <sup>(1)</sup>	TSR p.a.	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
							Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
			31.12.99	95-99		95-99						
1	AES	USA	15,341	50.3%	83.3%	220	+	+++	-	-	-	+++
2	UNION FENOSA	Spain	5,268	44.7%	19.8%	724	-	+++	+	++	+	+
3	COLUMBIA ENERGY GROUP	USA	5,158	33.7%	13.4%	223	++	++	+	++	-	+
4	GAS NATURAL	Spain	10,212	33.1%	-16.6%	386	-	+++	-	+	-	+++
5	WILLIAMS COMPANIES INC.	USA	13,212	32.6%	39.7%	513	-	+++	-	-	+	+++
6	IBERDROLA	Spain	12,371	27.3%	7.9%	1,863	-	+++	+	+	+	-
7	ENRON	USA	31,578	26.3%	98.5%	959	++	++	++	-	+++	++
8	COASTAL	USA	7,515	23.5%	109.9%	423	-	+++	+	++	-	+
9	ELECTRABEL*	Belgium	17,654	23.3%	-23.4%	1,005	++	++	-	-	-	+
10	EDISON	Italy	5,147	19.6%	38.9%	236	-	+++	+	-	+	+++

\*: Period analysed: 1995-1998

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

## Top 10 Performers by Country

### AUSTRALIA

Rk	Company	Industry	Market Value (in US\$) <sup>(1)</sup>	TSR p.a.	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
							Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
			31.12.99	95-99		95-99						
1	COMPUTERSHARE	ITC	2,591	110.9%	11.5%	0	+++	+	-	-	-	+++
2	CSL	congl	1,872	58.8%	59.8%	18	+++	+	++	++	++	++
3	HARVEY NORMAN	retail	1,923	44.6%	41.6%	36	++	++	+	-	+	+++
4	WESTFIELD	services	3,224	42.6%	31.5%	52	+++	+	+++	-	+++	++
5	TABCORP	services	2,479	41.4%	-3.4%	69	+++	+	++	++	++	++
6	COMMONWEALTH BANK	banks	15,360	35.9%	10.4%	543	++	++	+++	NM	NM	+
7	PUBL.& BROADCASTING	media	4,209	35.1%	16.4%	260	-	+++	+	-	-	+++
8	ERG	ind/eng	1,128	34.0%	3.5%	-6	+++	+	-	-	-	+++
9	BRITISH AM.TOBACCO	consumer	1,368	32.2%	-17.6%	37	++	++	++	-	+++	+
10	BRAMBLES	services	6,236	31.8%	16.1%	217	++	++	++	+	++	+

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>

(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>

(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>

(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>

(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

For banks and insurance companies the following expressions need to be replaced:

CVA

=>

AVE

ΔCVA

=>

DAVE

Gross Investment

=>

Equity

CFROI

=>

RROE

WACC

=>

Cost of Equity

### AUSTRIA

Rk	Company	Industry	Market Value (in US\$) <sup>(1)</sup>	TSR p.a.	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
							Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
			31.12.99	95-99		95-99						
1	SEMPERIT	congl	226	50.9%	15.2%	25	-	+++	++	++	+	++
2	ÖST.ELEKTRIZITÄTSWIRTS	congl	2,101	26.7%	-23.7%	-168	+++	-	-	-	-	-
3	UNIQA	insur/assur	2	19.2%	-19.8%	289	+++	-	++	NM	NM	++
4	EVN	utilities	1,705	13.4%	-34.9%	-2	++	++	-	-	-	+
5	WIENER SAV AG	insur/assur	151	12.5%	2.0%	-7	+++	+	-	NM	NM	++
6	OMV	congl	2,598	9.3%	-12.9%	402	-	+++	+	++	+	-
7	AUSTRIAN AIRLINES	TTT	637	5.4%	-30.8%	21	+	+++	+	++	+	++
8	BWT	utilities	220	3.5%	196.6%	3	-	+++	-	-	-	+++
9	FLUGHAFEN WIEN	services	569	3.2%	24.2%	25	-	+++	+	++	-	++
10	RHI	ind goods	568	2.8%	-10.5%	22	-	+++	+	-	+	+++

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>

(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>

(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>

(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>

(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

For banks and insurance companies the following expressions need to be replaced:

CVA

=>

AVE

ΔCVA

=>

DAVE

Gross Investment

=>

Equity

CFROI

=>

RROE

WACC

=>

Cost of Equity

### BELGIUM

Rk	Company	Industry	Market Value (in US\$) <sup>(1)</sup>	TSR p.a.	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
							Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
			31.12.99	95-99		95-99						
1	TELINFO	ITC	952	62.9%	17.0%	8	+++	+	+	-	++	+++
2	D'ETEREN	services	2,243	51.1%	-35.0%	174	-	+++	++	++	-	+++
3	CREYFS	services	509	50.2%	31.0%	29	-	+++	-	++	-	+++
4	UCB	pharm/health	6,265	49.2%	-7.6%	160	+++	+	++	++	+	++
5	FORTIS	insur/assur	25,634	40.3%	-0.8%	644	+	+++	++	NM	NM	+++
6	KBC	banks	15,860	29.1%	-9.4%	557	++	++	+++	NM	NM	+++
7	COLRUYT	retail	2,220	26.6%	-19.5%	38	+++	+	++	-	+++	+
8	ELECTRABEL*	utilities	17,654	23.3%	-23.9%	1,005	++	++	-	-	-	+
9	SOLVAY	chemicals	6,886	20.3%	-16.2%	658	-	+++	+	++	+	+
10	DELHAIZE	retail	3,880	20.2%	-27.5%	306	-	+++	+	+	-	+++

\*: Period analysed: 1995-1998

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>

(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>

(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>

(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>

(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

For banks and insurance companies the following expressions need to be replaced:

CVA

=>

AVE

ΔCVA

=>

DAVE

Gross Investment

=>

Equity

CFROI

=>

RROE

WACC

=>

Cost of Equity



## CANADA

Rk	Company	Industry	Market Value (in US\$) <sup>(1)</sup>	TSR p.a.	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
							Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
			31.12.99	95-99		95-99						
1	NORTEL NETWORKS	ITC	136,264	66.9%	24.0%	-680	+++	+	-	-	++	+++
2	ONEX	services	2,929	54.2%	-8.8%	393	-	+++	+++	++	++	+++
3	BCE	ITC	57,741	46.2%	10.6%	-2	+++	+	-	++	-	-
4	SEARS CANADA	retail	2,900	41.6%	-14.5%	125	++	++	++	+	++	-
5	BOMBARDIER	ind goods	10,257	38.1%	76.2%	213	++	++	-	+	-	+++
6	SHAW COMMUNICATIONS	media	2,496	37.3%	44.9%	5	+++	+	-	-	-	+++
7	FOUR SEASONS	services	1,578	36.9%	45.7%	42	+++	+	+++	+++	++	-
8	GREAT WEST LIFE CO	insur/assur	5,981	36.9%	32.9%	325	++	++	++	NM	NM	++
9	LOBLAW	retail	6,627	35.8%	27.5%	268	+	+++	++	+	++	++
10	TORONTO-DOMINION	banks	16,442	33.5%	16.2%	47	++	++	-	NM	NM	+++

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

For banks and insurance companies the following expressions need to be replaced:

CVA =&gt; AVE

ΔCVA =&gt; DAVE

Gross Investment =&gt; Equity

CFROI =&gt; RROE

WACC =&gt; Cost of Equity

## DENMARK

Rk	Company	Industry	Market Value (in US\$) <sup>(1)</sup>	TSR p.a.	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
							Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
			31.12.99	95-99		95-99						
1	TELEDANMARK	ITC	15,951	33.0%	-13.7%	215	++	++	+	-	+	+++
2	GN STORE NORD	ITC	1,890	31.8%	242.2%	9	+++	+	+	-	++	+++
3	D/S 1912	services	6,285	30.8%	6.7%	-	-	-	-	-	-	-
4	D/S SVENDBORG	services	6,136	30.2%	1.8%	-	-	-	-	-	-	-
5	NOVO NORDISK	pharm/health	8,439	28.7%	92.5%	145	++	++	+	++	+	++
6	ISS	services	2,283	25.4%	4.9%	104	-	+++	+	+	-	+++
7	DEN DANSKE BANK	banks	5,735	23.3%	35.5%	60	+++	+	+++	NM	NM	++
8	COLOPLAST	pharm/health	1,043	23.0%	-0.2%	22	+	+++	++	+	-	+++
9	JYSKE BANK	banks	824	19.4%	2.3%	11	++	++	+++	NM	NM	+++
10	TK DEVELOPMENT*	ind goods	230	16.9%	127.7%	2	+++	-	+	++	++	+++

\*: Period analysed: 1995-1998

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

For banks and insurance companies the following expressions need to be replaced:

CVA =&gt; AVE

ΔCVA =&gt; DAVE

Gross Investment =&gt; Equity

CFROI =&gt; RROE

WACC =&gt; Cost of Equity

## FINLAND

Rk	Company	Industry	Market Value (in US\$) <sup>(1)</sup>	TSR p.a.	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
							Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
			31.12.99	95-99		95-99						
1	TIETOENATOR	ITC	4,758	101.7%	-48.0%	24	+++	+	-	-	++	+++
2	NOKIA	ITC	206,325	92.1%	2.4%	2,146	+++	+	+++	++	+++	+++
3	POHJOLA YHTYMA	insur/assur	1,284	50.6%	-26.2%	309	-	+++	+++	NM	NM	+++
4	HARTWALL	consumer	763	47.7%	50.7%	31	+	+++	++	+++	+	+++
5	SANOMA-WSOY	media	1,545	36.1%	27.1%	29	+	+++	++	-	++	+++
6	SAMPO INSURANCE	insur/assur	2,096	33.2%	62.0%	42	++	++	+++	NM	NM	+++
7	RAISIO YHTYMA	consumer	504	30.1%	-50.2%	-5	++	++	-	-	-	+++
8	UPM-KYMMENE	ind goods	10,633	28.2%	-25.7%	456	-	+++	+	+	+	+++
9	ASKO	congl	680	27.6%	11.9%	39	-	+++	+	-	+	-
10	STORA ENSO	ind goods	3,667	25.9%	-44.9%	481	-	+++	-	-	-	+++

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

For banks and insurance companies the following expressions need to be replaced:

CVA =&gt; AVE

ΔCVA =&gt; DAVE

Gross Investment =&gt; Equity

CFROI =&gt; RROE

WACC =&gt; Cost of Equity

## Top 10 Performers by Country

### FRANCE

Rk	Company	Industry	Market Value (in US\$) <sup>(1)</sup>	TSR p.a.	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
							Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
			31.12.99	95-99		95-99						
1	ALTRAN TECHNOLOGIES	services	5,870	101.6%	19.8%	50	+++	+	++	+	++	+++
2	M6-METROPOLE	media	6,467	64.8%	16.2%	76	+++	+	+++	-	+++	++
3	CAP GEMINI	ITC	19,467	59.4%	-14.8%	201	+++	+	+++	++	++	+++
4	PINAULT PRINTEMPS	retail	31,069	58.4%	-23%	560	+++	+	++	++	++	++
5	BOUYGUES	ind goods	18,152	57.7%	-8.1%	53	+++	+	-	+	-	+++
6	TF1	media	10,951	53.1%	26.2%	115	+++	+	+++	++	+	++
7	CASINO GUICHARD	retail	8,493	41.5%	-4.2%	191	++	++	++	+	-	+++
8	L'OREAL	consumer	53,698	40.9%	11.1%	298	+++	+	++	-	++	+
9	HERMES INTERNATIONAL	consumer	5,499	39.7%	9.2%	49	+++	+	-	+	-	+++
10	CARREFOUR	retail	62,536	39.1%	-7.7%	510	++	++	-	+	-	+++

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>

(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>

(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>

(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>

(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

For banks and insurance companies the following expressions need to be replaced:

CVA => AVE  
ΔCVA => DAVE  
Gross Investment => Equity  
CFROI => RROE  
WACC => Cost of Equity

### GERMANY

Rk	Company	Industry	Market Value (in US\$) <sup>(1)</sup>	TSR p.a.	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
							Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
			31.12.99	95-99		95-99						
1	MLP	services	5,538	86.5%	126.5%	227	-	+++	+++	+++	-	+++
2	SAP	ITC	55,724	68.7%	39.8%	310	+++	+	++	-	+++	+++
3	MANNESMANN	congl	117,723	63.5%	-31.4%	2,022	+++	+	++	++	+	++
4	SIEMENS	congl	74,911	32.7%	16.0%	1,385	++	++	++	+	+	++
5	MÜNCHNER RÜCK	insur/assur	44,272	30.2%	34.0%	-155	+++	+	++	NM	NM	+++
6	BASF	chemicals	31,893	29.2%	-19.6%	1,031	-	+++	+	++	-	++
7	DRESDNER BANK	banks	27,910	24.5%	-6.6%	508	++	++	++	NM	NM	++
8	BAYER	chemicals	34,230	23.9%	-8.2%	680	++	++	-	-	+	-
9	ALLIANZ	insur/assur	81,569	23.3%	11.8%	301	++	++	++	NM	NM	+++
10	PREUSSAG	TTT	9,285	22.5%	-36.2%	61	+++	-	-	-	+++	-

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>

(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>

(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>

(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>

(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

For banks and insurance companies the following expressions need to be replaced:

CVA => AVE  
ΔCVA => DAVE  
Gross Investment => Equity  
CFROI => RROE  
WACC => Cost of Equity

### ITALY

Rk	Company	Industry	Market Value (in US\$) <sup>(1)</sup>	TSR p.a.	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
							Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
			31.12.99	95-99		95-99						
1	BIPOP CARIRE	banks	14,157	87.1%	16.7%	180	+++	+	+++	NM	NM	+++
2	GRUPPO EDIT. L'ESPRESSO	media	4,889	81.9%	19.6%	58	+++	+	++	++	+	++
3	BANCA FIDEURAM	banks	10,663	68.6%	60.6%	119	+++	+	+++	NM	NM	+++
4	TELECOM ITALIA	ITC	86,435	46.5%	-12.1%	4,783	+	+++	+	++	+	+
5	UNICREDITO ITALIANO	banks	24,110	43.6%	24.5%	1,154	+	+++	+++	NM	NM	+++
6	MONDADORI ED	media	4,039	42.6%	-13.1%	64	+++	+	+	-	++	-
7	BANCA INTESA	banks	18,651	36.7%	11.3%	316	-	+++	++	NM	NM	+++
8	COMIT	banks	9,609	28.6%	10.1%	414	++	++	++	NM	NM	+
9	INA	insur/assur	10,500	26.0%	2.5%	680	++	++	++	NM	NM	-
10	SAN PAOLO IMI	banks	18,863	25.2%	41.1%	981	-	+++	+++	NM	NM	++

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>

(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>

(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>

(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>

(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

For banks and insurance companies the following expressions need to be replaced:

CVA => AVE  
ΔCVA => DAVE  
Gross Investment => Equity  
CFROI => RROE  
WACC => Cost of Equity

## JAPAN

Rk	Company	Industry	Market Value (in US\$) <sup>(1)</sup>	TSR p.a.	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
							Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
			31.12.99	95-99		95-99						
1	SOFTBANK	e-commerce	104,552	86.4%	-69.0%	-1,881	+++	-	-	-	-	+++
2	TRANS COSMOS	ITC	10,328	68.6%	-71.8%	-	-	-	-	-	-	-
3	KONAMI	ITC	10,098	67.6%	-1.7%	169	+++	+	+++	+++	+++	+++
4	TOKYO SEIMITSU	ind goods	6,030	67.1%	-31.4%	23	+++	+	++	++	+	+++
5	BELLSYSTEM 24	services	5,449	64.0%	-54.4%	22	+++	+	+++	++	+++	+
6	ADVANTEST	ITC	26,193	61.2%	-37.0%	190	+++	+	++	+++	++	++
7	MATSUSHITA*	ITC	49,433	60.0%	-45.8%	291	+++	+	+++	++	+++	-
8	ROHM	ITC	49,081	59.4%	-30.5%	468	+++	+	++	+++	+	++
9	FAST RETAILING	retail	10,731	56.5%	6.2%	47	+++	+	+++	++	+++	+++
10	NIDEC	ind goods	9,206	56.1%	-41.4%	90	+++	+	+++	+++	++	+++

\*: Period analysed: 1995-1998

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

For banks and insurance companies the following expressions need to be replaced:

CVA =&gt; AVE

ΔCVA =&gt; DAVE

Gross Investment =&gt; Equity

CFROI =&gt; RROE

WACC =&gt; Cost of Equity

## MEXICO

Rk	Company	Industry	Market Value (in US\$) <sup>(1)</sup>	TSR p.a.	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
							Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
			31.12.99	95-99		95-99						
1	SORIANA	retail	2,739	21.9%	-20.3%	83	++	++	++	++	++	++
2	FEMSA	consumer	2,880	17.8%	-12.6%	358	-	+++	++	++	+	+
3	TELMEX	ITC	28,509	14.1%	-3.6%	279	+++	+	+	++	+	+
4	GMODELO	consumer	1,768	9.1%	-13.8%	27	-	+++	+	++	-	++
5	KOF	consumer	2,400	7.3%	14.2%	97	++	++	++	++	+	+
6	CONTAL	consumer	1,082	6.7%	-14.0%	60	++	++	++	++	+	-
7	TLEVISA	media	7,580	6.4%	-14.8%	120	+++	+	+	++	+	-
8	LIVEPOL 1	services	2,222	6.4%	-10.2%	14	+++	+	+	+	+	-
9	KIMBER	consumer	2,611	6.4%	-33.2%	-2	++	++	+	++	-	++
10	ALFA	congl	2,743	3.5%	-54.0%	746	-	+++	++	+++	+	+

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

For banks and insurance companies the following expressions need to be replaced:

CVA =&gt; AVE

ΔCVA =&gt; DAVE

Gross Investment =&gt; Equity

CFROI =&gt; RROE

WACC =&gt; Cost of Equity

## NETHERLANDS

Rk	Company	Industry	Market Value (in US\$) <sup>(1)</sup>	TSR p.a.	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
							Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
			31.12.99	95-99		95-99						
1	GETRONICS	ITC	8,896	62.9%	-56.8%	195	++	++	+++	+	+++	+++
2	AEGON	insur/assur	63,911	60.7%	-9.5%	157	+++	+	-	NM	NM	+++
3	KPN	ITC	46,222	48.6%	-48.8%	687	+++	-	++	-	+	-
4	VNU	media	11,428	47.1%	10.2%	248	++	++	++	++	-	+++
5	PHILIPS ELECTRONICS	ITC	45,648	43.9%	44.9%	426	+++	+	-	+	-	++
6	RANDSTAD	services	5,511	43.1%	-39.7%	156	++	++	+++	+	+++	+++
7	NUMICO	consumer	5,175	38.7%	59.6%	116	+	+++	-	+	-	+++
8	ING GROEP	banks	57,781	36.1%	28.0%	1,502	+	+++	++	NM	NM	+++
9	ABN AMRO	banks	36,274	34.0%	10.5%	1,401	++	++	+++	NM	NM	++
10	AHOLD	retail	18,766	31.3%	11.3%	756	-	+++	+	++	-	+++

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

For banks and insurance companies the following expressions need to be replaced:

CVA =&gt; AVE

ΔCVA =&gt; DAVE

Gross Investment =&gt; Equity

CFROI =&gt; RROE

WACC =&gt; Cost of Equity

## Top 10 Performers by Country

### NORWAY

Rk	Company	Industry	Market Value (in US\$) <sup>(1)</sup>	TSR p.a.	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
							Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
			31.12.99	95-99		95-99						
1	TOMRA	ind goods	1,401	78.3%	120.0%	19	++	++	++	+	-	+++
2	MERKANTILDATA	ITC	1,439	68.9%	-46.6%	24	++	++	++	+	+++	+++
3	ELKJOP*	retail	704	50.6%	0.6%	64	+++	-	-	-	-	+++
4	DET SONDENFJELDSKE	services	374	48.4%	-32.5%	-5	+	+++	++	-	+	+++
5	KONGSBERG GRUPPEN	congl	467	32.0%	-21.2%	17	-	+++	++	++	-	+++
6	CHRISTIANIA BANK	banks	2,692	30.8%	31.1%	-2	+++	+	-	NM	NM	+++
7	STOREBRAND	insur/assur	2,088	23.7%	7.6%	21	+++	+	++	NM	NM	+++
8	ORKLA	congl	3,739	22.0%	29.8%	159	+	+++	++	++	-	++
9	SPAREBANKEN NOR*	banks	1,078	21.6%	28.8%	6	+++	-	-	NM	NM	+++
10	STEEN & STROM	consumer	369	21.6%	-1.9%	1	+	+++	-	-	+	+++

\*: Period analysed: 1995-1998

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>

(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>

(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>

(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>

(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

For banks and insurance companies the following expressions need to be replaced:

CVA

=>

AVE

ΔCVA

=>

DAVE

Gross Investment

=>

Equity

CFROI

=>

RROE

WACC

=>

Cost of Equity

### SPAIN

Rk	Company	Industry	Market Value (in US\$) <sup>(1)</sup>	TSR p.a.	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
							Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
			31.12.99	95-99		95-99						
1	TELEFONICA	ITC	80,692	56.8%	-9.5%	3,425	+	+++	+	-	+	++
2	BBVA	banks	29,795	48.7%	22.7%	1,116	++	++	+++	NM	NM	+++
3	UNION FENOSA	utilities	5,268	44.7%	19.8%	724	-	+++	+	++	+	+
4	BANKINTER	banks	3,716	39.9%	-8.6%	71	+++	+	++	NM	NM	+
5	GAS NATURAL	utilities	10,212	33.1%	-16.6	386	-	+++	-	+	-	+++
6	ARGENTARIA	banks	11,400	30.7%	-4.8%	300	++	++	++	NM	NM	+
7	ALTADIS	consumer	4,548	29.8%	18.3%	144	+++	+	-	++	-	+++
8	REPSOL	ind goods	26,169	29.4%	-7.9%	1,246	-	+++	-	++	-	+++
9	AGUAS BARCELONA	utilities	2,007	29.0%	-2.2%	116	-	+++	++	++	+	+++
10	IBERDROLA	utilities	12,371	27.3%	7.9%	1,863	-	+++	+	+	+	-

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>

(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>

(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>

(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>

(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

For banks and insurance companies the following expressions need to be replaced:

CVA

=>

AVE

ΔCVA

=>

DAVE

Gross Investment

=>

Equity

CFROI

=>

RROE

WACC

=>

Cost of Equity

### SWEDEN

Rk	Company	Industry	Market Value (in US\$) <sup>(1)</sup>	TSR p.a.	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
							Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
			31.12.99	95-99		95-99						
1	WM-DATA	ITC	3,782	91.5%	-55.1%	62	++	++	-	-	-	+++
2	ASSA ABLOY	services	4,117	86.3%	48.2%	100	++	++	++	++	-	+++
3	EUROPOLITAN*	ITC	7,137	78.3%	-38.7%	92	+++	-	+++	+++	+++	+++
4	H&M	retail	24,235	73.8%	-31.9%	224	+++	+	+++	++	++	+++
5	ERICSSON	ITC	124,929	63.6%	7.4%	839	+++	+	++	+	++	+++
6	SKANDIA	insur/assur	15,314	60.2%	49.0%	42	+++	+	+++	NM	NM	+++
7	OM GRUPPEN	ITC	1,804	57.4%	126.6%	50	-	+++	-	-	-	+++
8	SHB	banks	8,856	31.8%	48.5%	60	+++	+	++	NM	NM	++
9	ELECTROLUX*	consumer	8,869	29.3%	-42.2%	-286	+++	-	-	-	+	+
10	SEB	banks	6,760	25.1%	40.4%	551	-	+++	+++	NM	NM	++

\*: Period analysed: 1995-1998

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>

(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>

(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>

(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>

(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

For banks and insurance companies the following expressions need to be replaced:

CVA

=>

AVE

ΔCVA

=>

DAVE

Gross Investment

=>

Equity

CFROI

=>

RROE

WACC

=>

Cost of Equity

## SWITZERLAND

Rk	Company	Industry	Market Value (in US\$) <sup>(1)</sup>	TSR p.a.	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
							Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
			31.12.99	95-99		95-99						
1	KUDELSKI	ITC	1,831	156.6%	178.4%	19	+++	+	+++	+++	+++	+++
2	PHONAK	ITC	1,063	40.8%	113.7%	13	+++	+	++	++	+	+++
3	ARES-SERONO	pharm/health	5,591	36.9%	148.9%	103	++	++	++	++	+	++
4	SWISS RE	insur/assur	29,951	34.7%	2.4%	841	++	++	++	NM	NM	+++
5	VONTOBEL	banks	1,525	34.6%	66.7%	118	-	+++	+++	NM	NM	+++
6	KUONI REISEN	TTT	1,097	33.2%	11.4%	98	-	+++	+++	++	-	+++
7	JULIUS BAER	banks	2,703	31.5%	88.6%	96	++	++	++	NM	NM	++
8	ZURICH ALLIED	insur/assur	27,436	31.3%	-10.2%	867	+	+++	++	NM	NM	+++
9	ALUSUISSE	ind goods	4,553	31.2%	-12.3%	1,001	-	+++	+++	+++	-	+
10	NOVARTIS	pharm/health	104,817	30.8%	14.9%	2,087	+++	+	++	+++	-	++

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

For banks and insurance companies the following expressions need to be replaced:

CVA =&gt; AVE

ΔCVA =&gt; DAVE

Gross Investment =&gt; Equity

CFROI =&gt; RROE

WACC =&gt; Cost of Equity

## UK

Rk	Company	Industry	Market Value (in US\$) <sup>(1)</sup>	TSR p.a.	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
							Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
			31.12.99	95-99		95-99						
1	THE SAGE GROUP	ITC	14,825	125.4%	-33.3%	77	+++	+	+++	-	+++	+++
2	LOGICA	ITC	10,223	92.8%	39.4%	70	+++	+	+++	++	+++	-
3	MISYS	ITC	8,808	66.7%	-33.8%	174	+++	-	-	+++	-	-
4	SEMA GROUP	ITC	8,301	63.2%	4.4%	92	+++	+	++	++	-	+++
5	WPP GROUP	services	12,168	56.3%	-17.1%	269	+++	+	+++	+	+++	-
6	VODAFONE AIRTOUCH	ITC	153,470	50.9%	-17.5%	567	+++	+	-	-	+	+++
7	HAYS	services	13,671	50.1%	-19.9%	197	++	++	+	-	+	+++
8	MARCONI	ITC	47,988	42.8%	-15.2%	140	+++	-	++	-	+++	-
9	BRITISH TELECOM	ITC	158,324	41.0%	-52.2%	4,012	+++	+	++	++	+	-
10	COMPASS GROUP	services	9,310	40.6%	-5.3%	257	+	+++	+	-	++	+++

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

For banks and insurance companies the following expressions need to be replaced:

CVA =&gt; AVE

ΔCVA =&gt; DAVE

Gross Investment =&gt; Equity

CFROI =&gt; RROE

WACC =&gt; Cost of Equity

## USA

Rk	Company	Industry	Market Value (in US\$) <sup>(1)</sup>	TSR p.a.	TSR 01.01.00 - 30.09.00	ΔCVA (in US\$) <sup>(1,2)</sup>	Value Driven By		Relative Importance of Fundamental Value Drivers			
							Expectations	Fundamentals	ΔCFROI <sup>(3)</sup>	ΔCash- Flow Margin <sup>(4)</sup>	ΔAsset Productivity <sup>(5)</sup>	Gross Invest Growth <sup>(6)</sup>
			31.12.99	95-99		95-99						
1	CMGI	e-commerce	33,858	213.0%	-79.8%	86	++	++	++	+++	-	+++
2	VERITAS SOFTWARE	ITC	36,886	177.9%	48.8%	231	++	++	+++	+++	++	+++
3	MEDIMMUNE	pharm/health	10,017	148.5%	39.7%	92	++	++	+++	+++	++	+++
4	AMERICA ONLINE	e-commerce	168,672	144.1%	-29.2%	280	+++	+	++	++	++	+++
5	DELL COMPUTER	ITC	130,094	140.0%	-39.6%	1,460	+++	+	+++	++	+++	+++
6	QUALCOMM	ITC	115,579	127.9%	-59.5%	52	+++	+	++	+	++	+++
7	SUN MICROSYSTEMS	ITC	121,163	103.5%	50.8%	645	+++	+	++	++	+	+++
8	IMMUNEX	pharm/health	17,887	96.7%	19.2%	16	+++	+	+++	+++	-	+++
9	CISCO SYSTEMS	ITC	364,454	93.9%	3.2%	1,445	+++	+	-	-	++	+++
10	EMC CORPORATION	ITC	111,816	81.9%	81.5%	539	+++	+	-	-	-	+++

NM: Not Meaningful

(1) In Million

(2) CVA<sub>1999</sub> - CVA<sub>1994</sub>(3) CFROI<sub>1999</sub> - CFROI<sub>1994</sub>(4) Cash Flow Margin<sub>1999</sub> - Cash Flow Margin<sub>1994</sub>(5) Asset Productivity<sub>1999</sub> - Asset Productivity<sub>1994</sub>(6) Gross Investment<sub>1999</sub> / Gross Investment<sub>1994</sub>

For banks and insurance companies the following expressions need to be replaced:

CVA =&gt; AVE

ΔCVA =&gt; DAVE

Gross Investment =&gt; Equity

CFROI =&gt; RROE

WACC =&gt; Cost of Equity





# Background to the study

The study is based on the annual returns of 4,125 companies in Datastream's global market indices for the period 1994-1999. Collectively, they represent around 70% of the world's total market capitalisation.

Businesses were selected from Datastream's database (total sample: 5,426) using three main criteria.

- **Listed for at least five years:** This excluded most e-commerce businesses. Separate rankings for all e-commerce businesses listed since 1998 were created.
- **Satisfied minimum market capitalisation hurdles:** Different capitalisation hurdles were set for each country and sector to reflect their relative economic weight (see Exhibits A1-A2).
- **Could be classified into one of 14 industrial sectors:** These are listed below and include 12 industry datasets plus banks and insurance.

Several companies that met these criteria were excluded from the final sample as they had been involved in major mergers or acquisitions over the study period (1995-1999) and it was believed this would distort the findings.

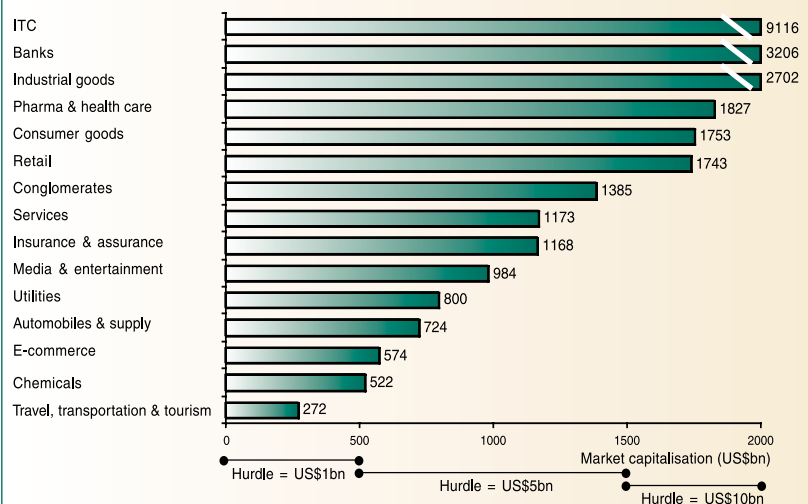
All financial figures were converted into both euros and dollars, using the exchange rates of 31st December 1999.

## Internal value creation model

Internal value creation was measured using the cash value added (CVA) model, rather than economic value added (EVA<sup>TM</sup>), for three main reasons:

**Exhibit A1**

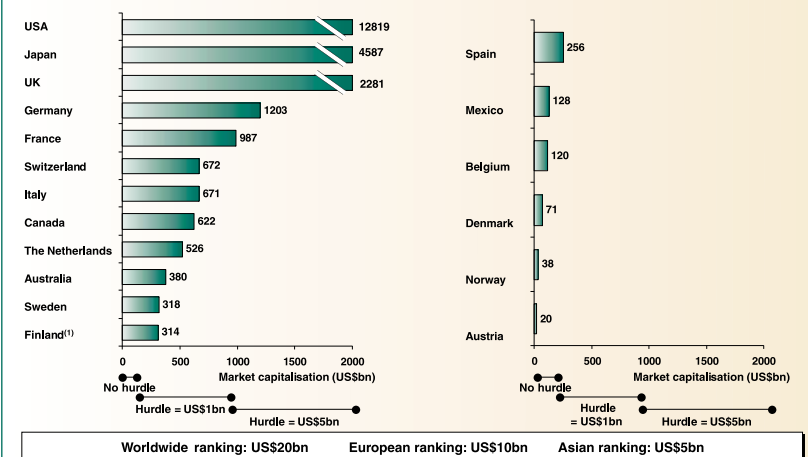
### Market capitalisation hurdles for each industry



Source: Datastream, BCG analysis

**Exhibit A2**

### Market capitalisation hurdles for each country



(1) No hurdle

Source: Datastream, BCG analysis

- it controls for depreciation, enabling us to focus on the key drivers behind changes in profitability;
- it eliminates any accounting distortions in individual companies that can arise in the EVA<sup>TM</sup> income-oriented model;
- investors are usually more interested in cash flow than income.

## Technical notes

### 1 Different ways to measure value creation

To effectively manage value creation, companies require multiple measures to be used in different applications and at different levels of the organisation. Exhibit A3 depicts the range of measures our clients have found most useful to manage value creation at different levels in the organisation.

#### Setting explicit external aspirations: TSR

Beginning at the corporate level, executives must set an explicit value creation aspiration that will energise their organisations, drive stretch thinking or performance, and focus the agenda of programmes that must be implemented.

We believe the most appropriate measure for aspiration setting is total shareholder return, TSR, relative to a local market index or industry peer group. Achievement of this 'external value creation aspiration' should be embedded in the incentive plans for corporate executives and key business unit leaders.

#### Aligning internal aspirations and plans : TBR

The next requirement is to cascade down the overall TSR value creation aspiration into internal corporate and business unit goals and targets and assess the gap between plans and aspirations at all levels.

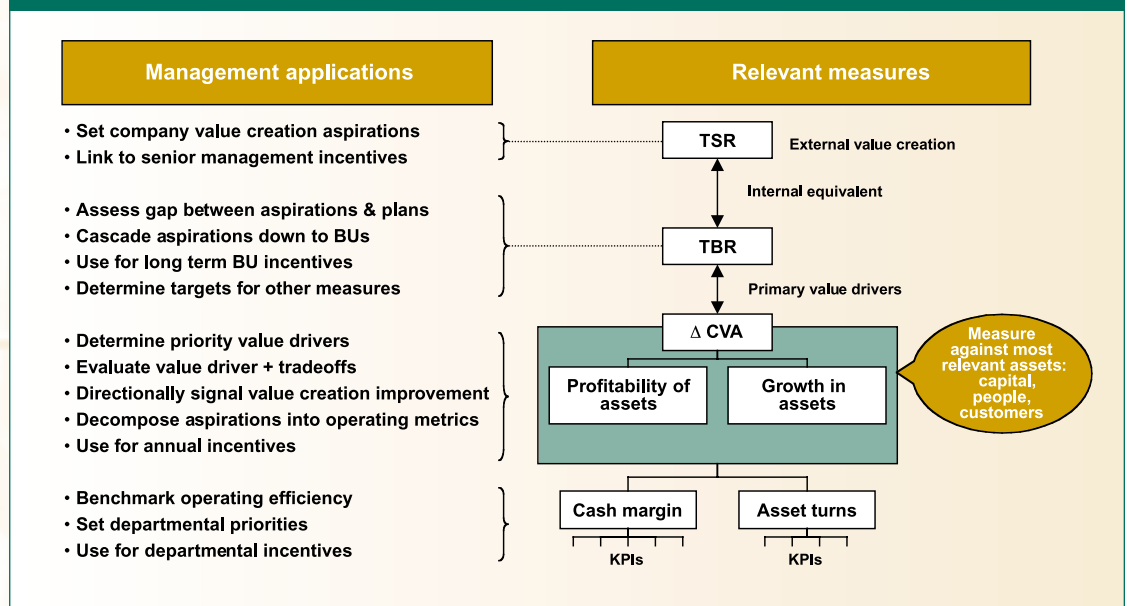
The Total Business Return (TBR) measure is an accurate and useful measure for this purpose (Exhibit A4). The TBR measure is an internal mirror of actual external TSR. It represents the 'intrinsic' capital gain and dividend yield from a business plan – either at the corporate or business unit level.

BCG has developed a range of methodologies to calculate the Total Business Return that can be tailored depending on the very specific situation of our clients. The TBR can be measured with sophisticated proprietary valuation models or with relatively simple approaches employing EBITDA, EBIT, or cash flow multiples.

Many of our clients have found the TBR measure

Exhibit A3

#### How TSR is calculated



to be a powerful tool for converting TSR aspirations into performance goals at business unit level and to drive accordingly a portion of long term incentives for business unit management. In that context, TBR can also be used as a rich planning tool to assess the value creation potential of business plans and help managers close the gap between aspirations and performance.

TBR is an important high level tool to assess the relative performance of a corporation or a business unit and to set future targets. It also provides a way to link other measures used for detailed value driver analysis or for setting operational targets back to the TSR aspiration.

### Measuring and setting targets for the internal value creation drivers: CVA

Cash value added, CVA, (or its financial services equivalent, AVE) is an absolute measure of operating performance contribution to value creation. It provides a strong directional indication of when and how value creation is being improved. The CVA measure reflects operating cash flow minus a cost of capital charge against gross operating assets employed (Exhibits A5-A7). The CVA measure is a very powerful tool to help managers pull the appropriate levers to create value. It can indeed accurately assess the contribution of the economic assets that actually drive a business. As noted in the report, in some cases they are tangible assets, in others they are either people or customers.

The CVA measure (or AVE measure) is an accurate tool for determining priority value drivers and assessing value driver tradeoffs. In particular, it is a useful strategic indicator that allows managers to balance the high level tradeoffs between improving profitability versus growing the business. Because its measurement is based on cash flow and original cash investment,

Exhibit A4

### TBR is the internal analogue to TSR

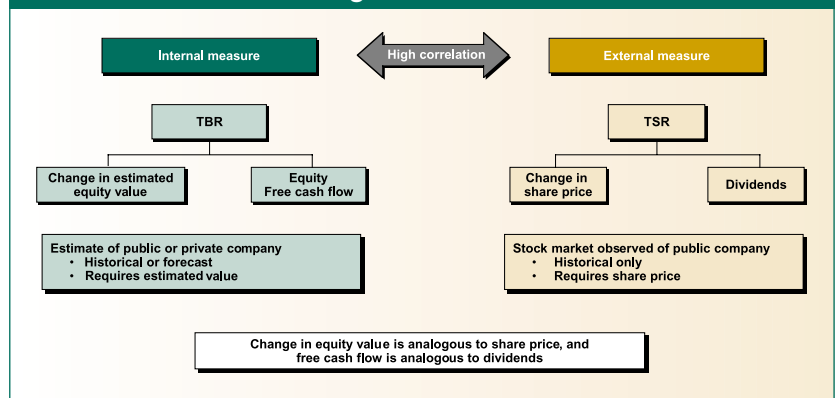


Exhibit A5

### CVA expresses residual income

Concept ...	... and example												
<ol style="list-style-type: none"> <li>1 Direct calculation CVA = gross cash flow – economic depreciation – capital charge</li> <li>2 Indirect calculation CVA = (CFROI – cost of capital) x gross investment</li> </ol> <p>with</p> <p>Capital charge = cost of capital x gross investment</p> <p>CFROI = <math>\frac{\text{Gross cash flow} - \text{Economic depreciation}}{\text{Gross investment}}</math></p>	<table> <tr><td>Gross cash flow</td><td>150</td></tr> <tr><td>Economic depreciation</td><td>50</td></tr> <tr><td>CFROI</td><td>10%</td></tr> <tr><td>Gross investment</td><td>1,000</td></tr> <tr><td>Cost of capital</td><td>10%</td></tr> <tr><td>Capital charge</td><td>100</td></tr> </table> <ol style="list-style-type: none"> <li>1. CVA = 150 – 50 – 100 = 0</li> <li>2. CVA = (10% – 10%) x 1,000 = 0</li> </ol> <p>CVA is the residual cash flow minus the implicit cost of reinvestment and the cost of capital</p>	Gross cash flow	150	Economic depreciation	50	CFROI	10%	Gross investment	1,000	Cost of capital	10%	Capital charge	100
Gross cash flow	150												
Economic depreciation	50												
CFROI	10%												
Gross investment	1,000												
Cost of capital	10%												
Capital charge	100												

Exhibit A6

### CFROI takes the reserves for future investments into account

Definition of CFROI	Formula								
$\text{CFROI} = \frac{\text{Gross cash flow} - \text{Economic depreciation}}{\text{Gross investment}}$ <p>Economic depreciation is the amount that has to be put aside annually to finance future replacement investments</p>	$\text{CFROI} = \frac{\text{Gross cash flow} - \text{Economic depreciation}}{\text{Gross investment}}$ $\text{Economic depreciation} = \frac{\text{WACC}}{(1 + \text{WACC})^n - 1} \times \text{Depreciable assets}$								
Definition of components	Example								
<p>WACC = Weighted average cost of capital</p> <p>Gross cash flow = Adjusted profit + interest expense + depreciation</p> <p>Gross investment = Net current assets + historical initial cost (possibly adjusted for inflation)</p> <p>Asset life = Economic operating life of the mix of assets</p> <p>Nondepreciable assets = Assets that flow back into the books at the end of their operating life</p>	<table> <tr><td>Gross cash flow =</td><td>150</td></tr> <tr><td>Gross investment =</td><td>1,000</td></tr> <tr><td>Nondepreciable assets =</td><td>200</td></tr> <tr><td>Asset life =</td><td>10 years</td></tr> </table> $\text{Economic depreciation} = \frac{10\%}{(1 + 10\%)^{10} - 1} \times (1,000 - 200)$ $= 50$ $\text{CFROI} = \frac{150 - 50}{1,000} = 10\%$	Gross cash flow =	150	Gross investment =	1,000	Nondepreciable assets =	200	Asset life =	10 years
Gross cash flow =	150								
Gross investment =	1,000								
Nondepreciable assets =	200								
Asset life =	10 years								

Exhibit A7

## Definitions value levers: industrial companies

Technical Term	Definition
Cash-flow margin	$\frac{\text{gross cash flow} - \text{economic depreciation}}{\text{Sales}}$
Capital turns (asset productivity)	$\frac{\text{Sales}}{\text{Gross investment}}$
Growth	$\frac{\text{Gross investment}_1 - \text{Gross investment}_0}{\text{Gross investment}_0}$

it avoids the key accounting distortions that can cause measures such as EVA™ to give misleading trends in capital intensive businesses.

Many clients have also found CVA to be an effective measure for annual incentives at the business unit and operational levels. The CVA measure can indeed be easily further decomposed into the key performance indicators (KPIs) that are relevant to each management area. KPIs then form the basis for internal or external performance benchmarking and for establishing annual incentive targets. Identifying priority KPIs and optimizing tradeoffs across them (i.e. low inventories versus high service levels) can be accomplished using the CVA measure.

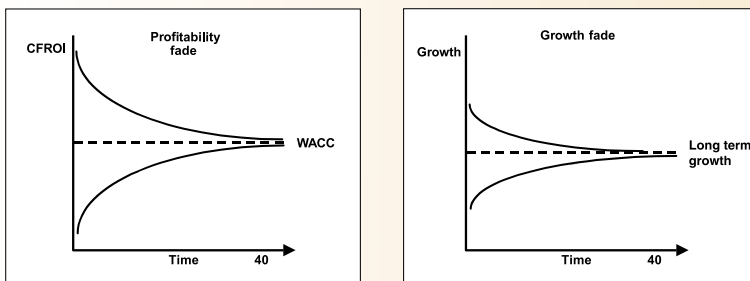
This brief description of value creation measurement tools does not address the many nuances of applying them effectively. Further information on how to quantify aspirations, tailor the measure to fit your type of business, or identify the highest priority KPIs, can be provided upon request.

## 2 Calculating expectation premiums

Exhibit A8

## Calculation of fundamental value

## Assumptions



- Growth in GI (1994-1999) is taken as the base growth rate to be faded out
- Growth is faded to a long term value of 1.5%
- CFROI of appropriate year is taken as base for profitability fade to WACC
- Fade rate for Growth: 20%
- Fade rate for CFROI: 10%

A company's expectation premium is the difference between its market value plus debt and its fundamental value. The scale of the premium depends on three main factors:

- **The market value of the company, measured by its market capitalisation plus debt.** BCG used calendar year data for this.
- **The assumptions used to calculate the company's fundamental value.** BCG used standard cash flow projections, based on the business's current profitability and historical growth. We assumed that profitability would fade by 10% per annum to the weighted average cost of capital over

40 years due to competitive pressures and other factors. In addition, it was assumed that growth would fade by 20% per annum to an average economic growth rate of 1.5% over the same period (see Exhibit A8).

- **The data used to calculate the company's fundamental value.** BCG used fiscal data for this.

### How different assumptions affect the magnitude of the premium

#### Cautious assumptions

When we calculated the expectation premium for the top 100 companies in the main study, based on the above assumptions, the average annual premium for this group was 53% over 1995-1999. More significantly, the premium rose progressively each year during this period (Exhibit A9).

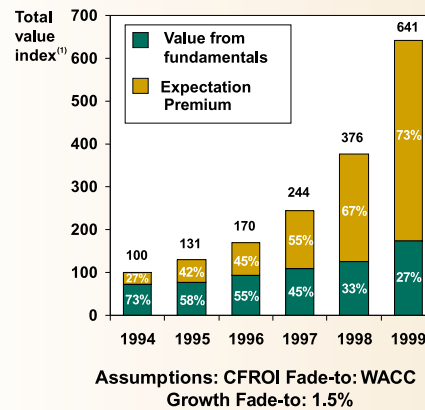
#### Progressively optimistic assumptions

If we use different data periods and progressively optimistic assumptions to calculate the companies' fundamental values, the magnitude of the premium diminishes. However, what does not alter is the upward, year-on-year trend in expectation premiums, as we demonstrate below.

- If we assume that the companies' growth rates fade to an average economic growth rate of 3.2% over 40 years, as opposed to the previous 1.5%, the average annual expectation premium declines to 50% (Exhibit A10). Yet the upward year-on-year trend still continues.
- If we further assume that the companies' profitability fades to WACC plus 2.5%, reflecting the possibility that investors expect top businesses to operate at higher level than the others, the premium declines again, to 21% (Exhibit A11). Once more, the annual rise in the premium persists.

Exhibit A9

#### Evolution of expectation premium for the Top 100

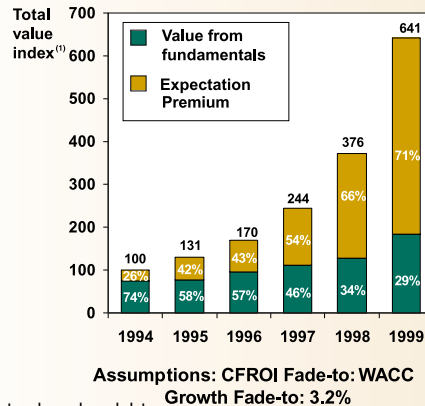


(1) Market value plus debt

Source: Annual reports, BCG analysis

Exhibit A10

#### Evolution of expectation premium for the Top 100

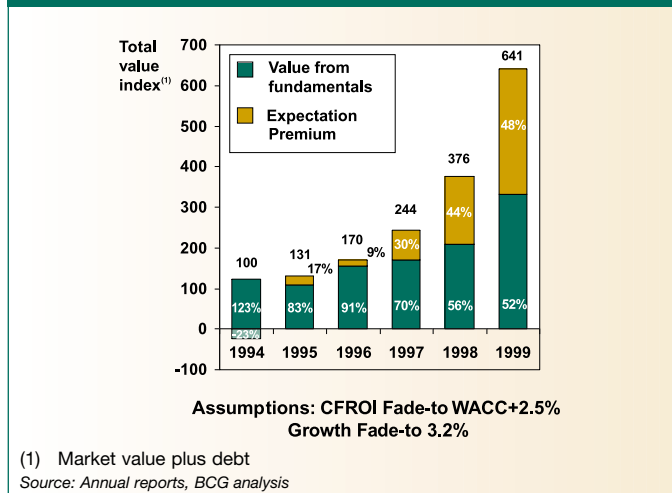


(1) Market value plus debt

Source: Annual reports, BCG analysis

Exhibit A11

## Evolution of expectation premium for the top 100



- Using fiscal data rather than calendar year data, the average annual expectation premium changes from 21% to 28%. And as before, the premium still rises each year. (Exhibit A12)

## What can we conclude from this?

If you change the assumptions used to calculate the top 100 companies' fundamental values, you change the scale of the premium, but not the steady rise in premiums over time. Indeed, it is not the scale of the premium that businesses should be concerned about, but the scale of their market capitalisation – the expected free cash flows that investors expect them to deliver. Can the top 100 companies achieve these ambitious cash flow goals? In many cases they will only be able to do this by defying competitive pressures and generating long-term, sustained improvements in profitability and growth. They will have to find a way to prevent their fundamentals fading to cost of capital and average economic growth in the long term. This is highlighted in Exhibit A13. To justify their combined value in 1999, for example, the top 100 companies would have to maintain their profitability at 8.9% above the cost of capital over 40 years. A tall order for any CEO.

Exhibit A12

## Evolution of expectation premium for the top 100

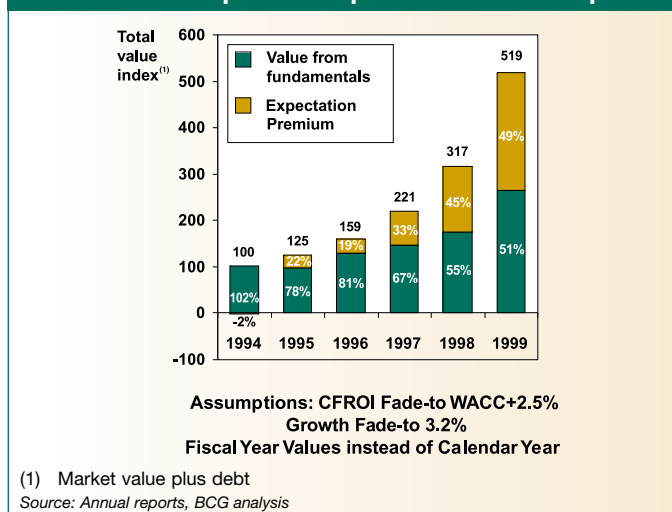
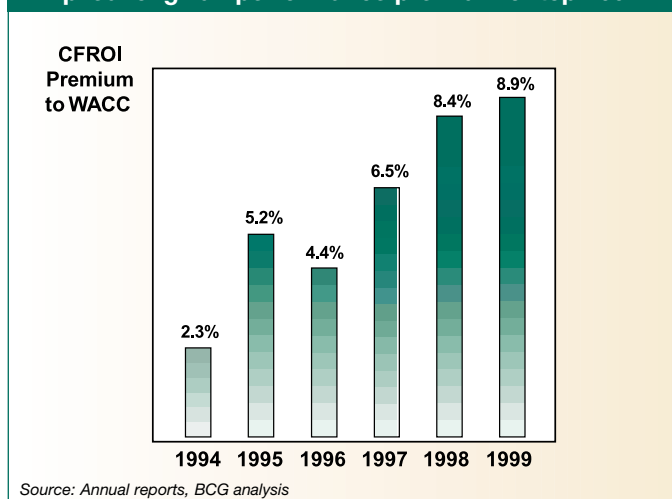


Exhibit A13

## Implied long-run performance premium of top 100



## List of technical abbreviations used

<b>ACC</b>	Average Cost per Customer	<b>HR</b>	Human Resources
<b>ACP</b>	Average Cost per Person	<b>KPI</b>	Key Performance Indicators
<b>AP</b>	Asset Productivity	<b>MC</b>	Marketing Cost
<b>AVE</b>	Added Value on Equity	<b>PC</b>	Personnel Cost
<b>CAGR</b>	Compounded Annual Growth Rate	<b>RAVE™</b>	Real Asset Value Enhancer
<b>CFM</b>	Cash Flow Margin	<b>R&amp;D</b>	Research & Development
<b>CFROI</b>	Cash Flow Return on Investment	<b>RROE</b>	Real Return on Equity
<b>CVA</b>	Cash Value Added	<b>TSR</b>	Total Shareholder Return
<b>DAVE</b>	Delta Added Value on Equity	<b>TBR</b>	Total Business Return
<b>EVA®</b>	Economic Value Added	<b>VAC</b>	Value Added per Customer
<b>GI</b>	Gross Investment	<b>VAP</b>	Value Added per Person





# Acknowledgements

**Dr Daniel Stelter**, a Vice President of The Boston Consulting Group, is based in Berlin and leads BCG's Corporate Development practice in Europe and is co-leader of BCG's corporate finance expertise worldwide. He led the research on which this report is based. (Email address: [stelter.daniel@bcg.com](mailto:stelter.daniel@bcg.com))

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