

The next leg: The path to mid-cycle valuation

Target of 420 for Stoxx 600 by year-end 2013

We estimate EPS of 28 euros by 2013, assuming that future earnings growth will drive the ROE back to its historical average of 11.4%. We anticipate a mid-cycle P/E multiple of 15x by feeding long-run assumptions on the economy through GS DDM. Historical experience suggests that the market may pay for some of this in advance.

Upside scenario driven by higher margins

We decompose the ROE for non-Financials into leverage, asset turn and margins. We believe margins for non-Financials may have increased structurally, while the ROE for Financials is set to decrease. Our base case assumes that these two effects net out and keep the ROE for the index unchanged. If the margin increase is in the high end of our estimated range, it may more than offset the decline in ROE for Financials. This result gives our upside scenario of a structurally higher ROE, and an index level of 480.

Downside scenario driven by a higher ERP

If the economy is slow to recover, the ERP could still be higher than its normalized level of 3% by year-end 2013. Although this would likely be partly offset by bond yields being lower than 5%, it may still lead to a lower P/E multiple. This possibility drives our downside scenario of an index level of 364.

Three scenarios for year-end 2013 Stoxx 600 index levels

Index as of June 18, 2009: 206

	Downside scenario	Base case	Upside scenario
Assumptions (%)			
Margins	4.8	4.8	6.3
10-year yield	4.5	5.0	5.0
ERP	4.0	3.0	3.0
ROE	11.4	11.4	13.0
Outcomes			
EPS (€)	28	28	32
P/E multiple (x)	13	15	15
Market value	364	420	480

Source: Goldman Sachs Global ECS Research.

Anders Nielsen

+44(20)7552-3000 | anders.e.nielsen@gs.com
Goldman Sachs International

Sharon Bell, CFA

+44(20)7552-1341 | sharon.bell@gs.com
Goldman Sachs International

Peter Oppenheimer

+44(20)7552-5782 | peter.oppenheimer@gs.com
Goldman Sachs International

Jessica Binder, CFA

+44(20)7051-0460 | jessica.binder@gs.com
Goldman Sachs International

Gerald Moser

+44(20)7774-5725 | gerald.moser@gs.com
Goldman Sachs International

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Executive summary

Given the sharp rise in equity prices since March, many investors are now focused on how much further progress the market can make. The answer to this question lies in understanding both the likely normalized valuation that the market should trade on, and what the future level and trajectory of profits growth will be. Of course, at the inflection point in the market investors tend to lengthen their investment horizons and start to look at 'mid-cycle' multiples, paying for a part of this expected future value in advance. In effect, therefore, the important issues are both what the market is likely to deliver over the period of normalization in valuations and profits, and how quickly this will happen. On our base case we expect the Stoxx 600 will reach 420 by the end of 2013, which compares with its current level of around 206. We divide our analysis into three questions.

Q1: What is the right mid-cycle P/E multiple?

A1: Our base-case estimate is that the market will trade at 15x on normalized earnings. We estimate this mid-cycle P/E using our GS-DDM framework. The most important drivers are the equity risk premium (ERP) and the 10-year bond yield. In our base case, we assume a historical average of 3% for the ERP (from 5.6% currently) and a 5% bond yield. The 5% bond yield is roughly the result of feeding the consensus macroeconomic outlook through our economists' Sudoku model for fair value bond yields. However, our economists believe that the risks to this are on the downside given the likely profile for growth and inflation. Under a slow recovery there could be upside risk to the ERP estimate. However, we believe that this upside risk to the ERP would be partly offset by downside risk to the bond yield. Nevertheless, if this risk materializes we could end up in our downside scenario, with a Stoxx 600 index level of 364.

Q2: What will the level of earnings per share be when the ROE has normalized?

A2: Our base-case estimate for the Stoxx 600 is €28 by 2013. This is derived by assuming that earnings growth will be strong enough to bring the return on equity (ROE) back to its long run average of 11.4% (measured on a net income basis). We decompose the ROE for the non-Financial sector into asset turn, leverage and margins to assess the risk around this average ROE assumption. We believe that the levels of asset turn and leverage over the next cycle will be comparable to the levels of the last cycle but that there is upside risk to margins in the non-Financial sectors. In our upside scenario, we increase non-Financial margins by 150 basis points to 6.3%, based on structural improvements, while keeping asset turn and leverage constant. At the same time we use an ROE of 10.1% for the Financial sector (much lower than recent history) to compensate for the lower leverage in that sector. The result is an upside scenario index level of 480 by 2013.

Q3: What is the time frame to fully reach the normalized index level?

In the aftermath of the last three recessions the maximum time taken for the market to return to long-run average ERP and ROE from the trough in earnings was 45 and 31 months, respectively. We expect earnings to trough at the end of 2009 and for the market to reach long-run average value by the end of 2013. This is longer than the historical experience suggests but is, we believe, realistic given the severity of the current downturn.

This helps us to assess the likely returns that should accrue to investors over the next four years when we expect normalization of earnings and 'mid-cycle' valuations, but it does not tell us anything about the time profile of those returns in the stock market. We have long argued that the inflection point in the market, triggered by confidence that the economy has passed its worst point of deterioration, results in a fall in the ERP and a sharp jump in equity prices; investors effectively lengthen their investment time horizons and pay forward for future expected earnings.

Our approach to valuing the market at year-end 2013

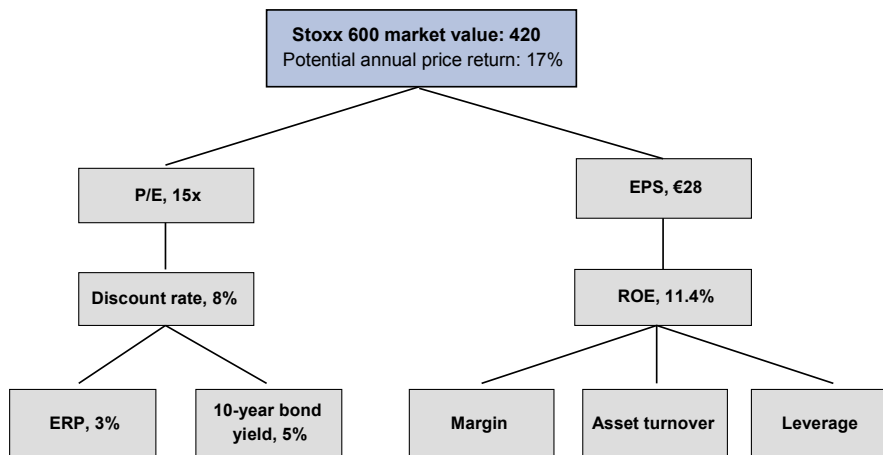
Given the size of the current economic downturn, the structural changes to the world economy and the likely upcoming changes in the regulatory environment, investors are questioning how the market should be valued.

Their questions fall into two parts – first, what the fair value of the market should be today, given that the risk premium is still high, and earnings likely to fall even further, and second where the market should trade once the economy has normalized and the next cycle is well under way.

We have covered the first question at length in the reports “Finding ‘Fair Value’ in Global Equities; Part I” and “Forecasting returns: ‘Fair Value’ Part II”. Our year-end target for the Stoxx 600 is 235, representing 14% upside from the current level. In this paper we focus on the second question.

Our analytical framework is outlined in Exhibit 1. We examine the appropriate mid-cycle multiple by looking at the discount rate – a function of both the ERP and bond yield. We analyse the level of earnings by assuming that earnings growth will be high enough to bring the ROE back to its long-term average. We analyse the potential for structural changes to the index level ROE. We break it into the ROE for Financials and the ROE for non-Financials. We then break down the ROE for non-Financials into its components: margins, asset turnover and leverage.

Exhibit 1: The path to a year-end 2013 target of 420 for the Stoxx 600



Source: Goldman Sachs Global ECS Research.

The central assumptions give an overall expected index level of 420 for the DJ Stoxx, which we believe is likely to be reached by the end of 2013, generating an expected annualized return of 17%. There are, of course, risks around this central case. Exhibit 2 summarises what we believe to be the most likely ranges based on upside and downside scenarios.

Exhibit 2: Our three scenarios for year-end 2013 Stoxx 600 index level

	Downside scenario	Base case	Upside scenario
Assumptions (%)			
Margins	4.8	4.8	6.3
10-year yield	4.5	5.0	5.0
ERP	4.0	3.0	3.0
ROE	11.4	11.4	13.0
Outcomes			
EPS (€)	28	28	32
P/E multiple (x)	13	15	15
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Source: Goldman Sachs Global ECS Research.

We have long argued that much of the expected returns through to the middle of the cycle under normalised conditions are 'front-loaded'. This means that as the risk premium starts to decline, usually as the worst part of the economic cycle is passed, the P/E starts to expand as the market jumps initially very quickly. Back in December 2008, when we argued that the market was likely to recover by 30%-50% from its low point this year, our view was based on this idea of paying forward for future expected earnings. Indeed, as Exhibit 3 shows, the average rise in the market from a major bear market trough has been around 60% over about a 9 month period, prior to a correction of 10% or more. During this early phase the multiple on the market typically expands in the expectation of future earnings growth. We fully expect this phase to be followed by one where the multiple starts to fall as earnings 'catch up'. This often results in the market trading water or moving in a narrow trading range for some time, a prospect we think fairly likely perhaps through much of 2010.

Exhibit 3: Typically, the initial move out of rallies is large and lasts for six months

	Trough dates	Bear Market (peak-to-trough)		Initial Bull Market*		Earnings Change
		Length in Days	Total Decline	Length in Days	Rebound	12m after trough
S&P						
	26-May-70	543	-36%	242	51%	-2%
	03-Oct-74	636	-48%	26	21%	-6%
	12-Aug-82	622	-27%	303	69%	-15%
	17-Oct-90	93	-19%	1820	229%	-9%
	09-Oct-02	929	-49%	36	21%	32%
FT All Share						
	27-May-70	481	-37%	96	25%	6%
	13-Dec-74	956	-73%	61	118%	-25%
	15-Nov-79	195	-23%	65	21%	23%
	24-Sep-90	1166	-22%	250	33%	-10%
	10-Mar-03	917	-49%	815	88%	19%
DAX						
	05-Nov-71	718	-36%	199	41%	NA
	06-Nov-74	593	-36%	113	42%	28%
	17-Aug-82	1398	-22%	384	72%	-4%
	06-Oct-92	921	-28%	325	60%	-29%
	12-Mar-03	1100	-73%	8	23%	23%
Topix						
	14-Aug-92	970	-61%	16	26%	-25%
	15-Oct-98	841	-43%	343	79%	-25%
	11-Mar-03	1128	-56%	160	43%	10%
AVERAGE		789	-41%	292	59%	-1%
MEDIAN		879	-36%	180	43%	-4%
STD DEV		337	17%	428	50%	20%

* Initial bull market is the time until the first 10% sell-off after the trough

Source: Datastream, Goldman Sachs Global ECS Research.

In this report, rather than focusing on the specific profile of the returns, we are more concerned with looking at the aggregate returns through the period until normalization in valuations and earnings is reached, which we expect by the end of 2013. Specifically there are three key questions we focus on in:

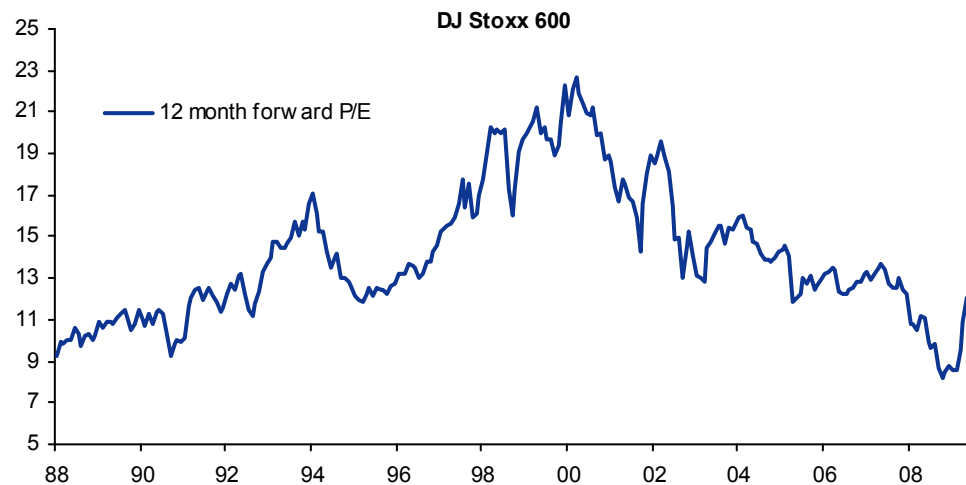
- What is the right mid-cycle P/E multiple?
- What will the level of earnings per share be when the ROE has normalized?
- What is the time frame to fully reach the normalized index level?

What is the right mid-cycle P/E multiple?

Our year-end 2013 target P/E of 15x is derived by assuming a discount rate of 8%, split between a 3% ERP and a 5% 10-year German bond yield. In this cycle, the ERP has increased in line with what should be expected given the economic deterioration and we therefore believe that it is also likely to return to its 3% normalized level when the economy recovers. The 5% bond yield assumption is in line with the results of feeding the current consensus economic outlook through our economists' Sudoku fair value model for bond yields.

The simplest approach to estimating a mid-cycle P/E would be to take the long-term average historical P/E. This simple approach is complicated by the fact that the P/E, while being impacted by the cycle, also responds to slower moving trends such as the reduction in real bond yields and inflation that has occurred over the last 30 years (Exhibit 4), making an average somewhat misleading.

Exhibit 4: Europe P/E – trended up from 1988 to 2000 and has trended down since 2000



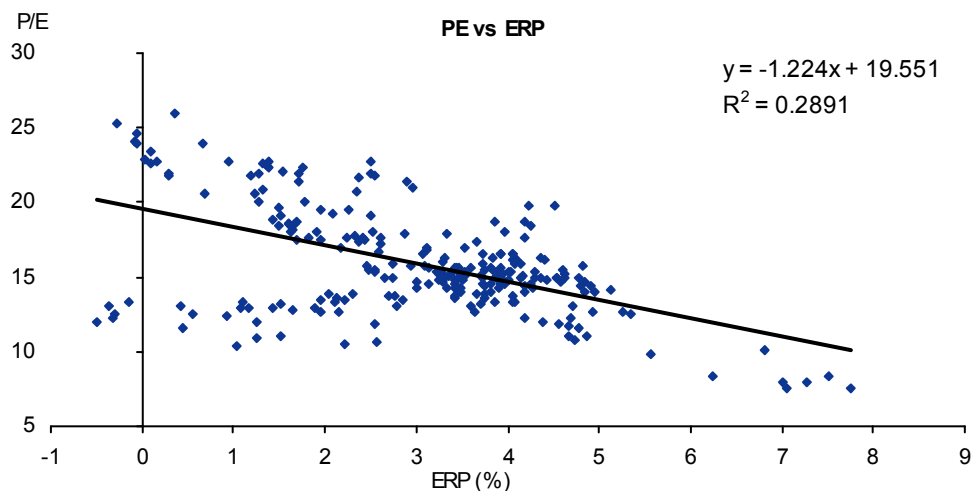
Source: I/B/E/S, Goldman Sachs Global ECS Research.

We account for the trends in inflation and bond yields using our GS DDM framework. Here the most important drivers of the P/E multiple are the 10-year bond yield and the ERP, and we therefore analyze the impact of each of these variables in detail.

The ERP: 3% is our base case, but the risks are to the upside

The importance of the relationship between the ERP and the P/E multiple can be seen from the scatter plot in Exhibit 5. On average, an increase in the ERP of 1pp has been associated with a decrease of 1.2 multiple points in the P/E.

Exhibit 5: A 1pp increase in the ERP corresponds to a 1.2 multiple point P/E contraction
12 month trailing P/E plotted against the ERP, 1989-2009



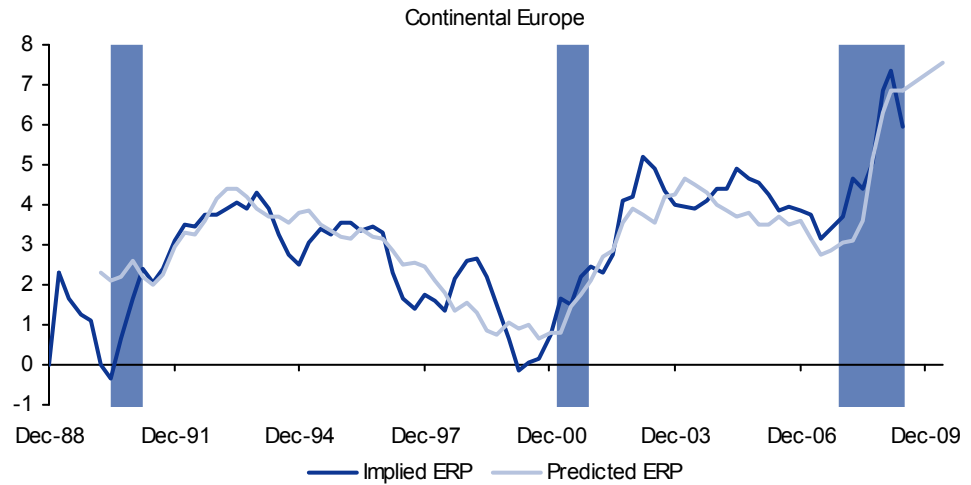
Source: Datastream, Goldman Sachs Global ECS Research.

We believe that a return to the long-run average ERP by the end of 2013 is the most reasonable point forecast, but we see the risks to that forecast as being skewed to the upside. Equity investors have just been through a decade of very low returns, and a crisis that has emphasized the risk of holding equities. This combined history of low returns and high risk could lead to investors demanding a higher risk premium going forward.

Furthermore, the degree of government intervention necessary to contain the crisis, has created a strong demand for regulatory reforms, particularly in the Financial sector. This uncertainty about the future regulatory regime, and its impact on the long-run value of the stock market, could also lead to demands for a higher equity risk premium.

An encouraging sign in this respect is that the increase in the ERP we have seen so far this cycle has been in line with what should have been expected given the deterioration in the economy. The flip side of this is that the ERP is likely to normalize once the economy does. This is represented in Exhibit 6, which shows the ERP implied by the observed market prices together with the ERP that we would predict given our model of the historical relationship between the ERP, the output gap and the ERP a year ago (for details on this model see "Forecasting returns: 'Fair Value' Part II").

Exhibit 6: The increase in the implied ERP has tracked the economic deterioration
 Implied and fitted ERP from GS DDM

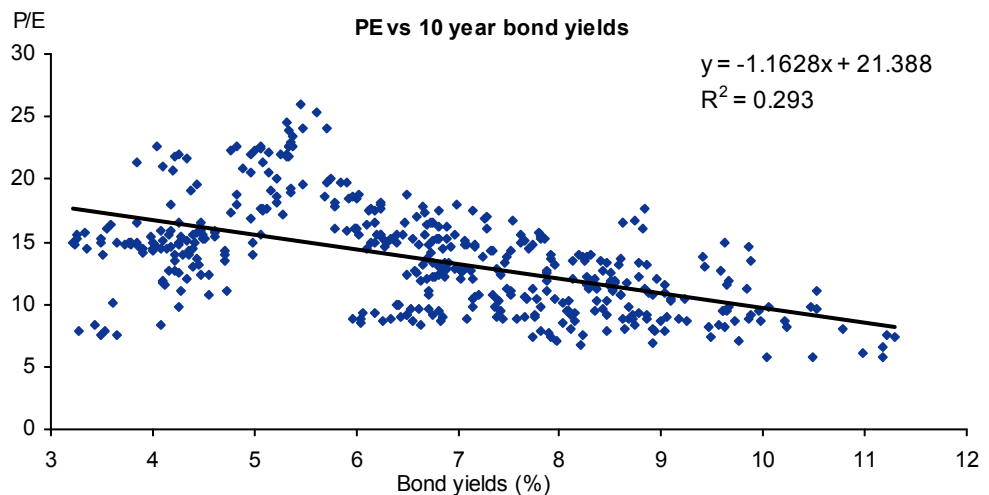


Source: Goldman Sachs Global ECS Research.

10-year yield: 5% is our base case, but the risks are to the downside

The 10-year bond yield has a similar correlation with the P/E as the ERP has. Exhibit 7 shows that a 1pp rise in the bond yield has been associated with a 1.2 multiple point decline in the P/E multiple.

Exhibit 7: A 1pp increase in the 10-year yield corresponds to a 1.2 point P/E contraction
 12 month trailing P/E plotted against the 10-year German bond yield



Source: Datastream, Haver Analytics, Goldman Sachs Global ECS Research.

The long-run outlook for interest rates is heavily debated as investors are divided between those concerned about inflation and those concerned about deflation.

As one way to assess the outlook for rates, our economists have put the long-run consensus economic outlook through their Sudoku fair value model that estimates equilibrium rates as a function of the economic outlook (See *Fixed Income Monthly*, May 2009, for details on this analysis). The result together with the assumptions is given in Exhibit 8. The analysis suggests that the German 10-year bond yield will be at 5.2% by the end of 2013 if consensus economic forecasts are right.

Exhibit 8: GS Sudoku fair value bond yields given consensus CPI and GDP expectations

%	US			Germany			Japan			UK		
	CPI	GDP	Yield	CPI	GDP	Yield	CPI	GDP	Yield	CPI	GDP	Yield
Dec-10	1.6	1.8	3.9	1.1	0.5	3.4	-0.5	0.8	0.6	1.8	0.3	3.9
Dec-11	2.1	3.5	5.1	1.5	1.6	4.8	0.3	1.6	2.1	2.2	1.9	5.5
Dec-12	2.2	3.3	5.3	1.6	1.6	5.0	0.5	1.7	2.5	2.4	2.0	5.8
Dec-13	2.4	3.0	5.4	1.8	1.7	5.2	0.8	1.7	2.9	2.6	2.2	6.0
Dec-14	2.5	2.8	5.6	1.9	1.7	5.5	1.0	1.8	3.2	2.8	2.3	6.3
Trend	2.8			2.0			1.8			2.7		

* Yield is the 10-yr bond yield generated from GS Sudoku Fair Value Bond Model

Source: Consensus Economics expectations for CPI and GDP (April 2009), Goldman Sachs Global ECS Research.

In our economists' view, this level of rates is likely to prove too high, and they see a level 4.5% as more plausible. The large output gaps in developed economies are expected to keep inflation in check and, while the current outlook for government budget deficits is worrisome, large parts of these deficits are cyclical and are being met by an increase in private sector savings.

A yield of 5.2% is also high compared with recent history. The average yield since 2000 was 4.2% whereas the average yield since the early 1990s was 4.9%.

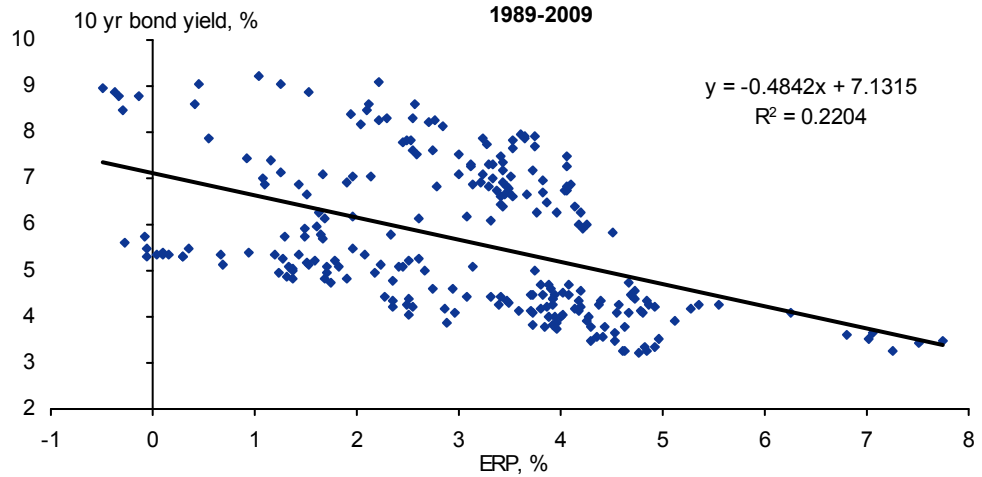
In summary, our assumption of a 5% bond yield is very close to what is implied by consensus expectations for the economy and high compared to recent history and our economists' view.

There is likely to be a degree of offset between yields and the ERP

We believe that there will be a degree of offset between any downside risk to our assumption of a 5% bond yield and any upside to our 3% ERP assumption. The ERP has so far followed the path that should be expected given the development of the economy, and therefore a slow economic recovery provides the main upside risk to the ERP, in our view. A slow recovery would also be a driver of downside risk to the 10-year bond yield assumption.

Historically there has been some offset between the ERP and bond yields as shown in Exhibit 9. This offset is partly responsible for the deviations between the empirical sensitivity of the P/E to bond yields and the ERP shown in Exhibit 5 and 7, and the sensitivities we estimate holding everything else equal in Exhibit 12 below.

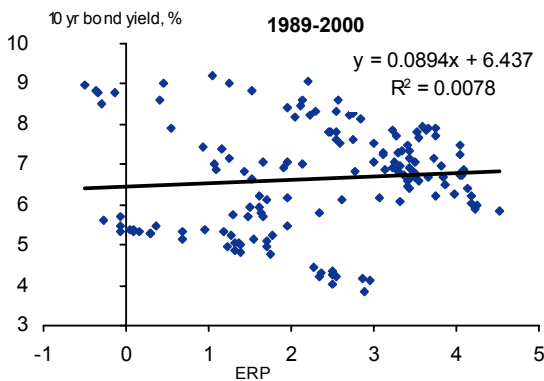
Exhibit 9: There has been a degree of offset between the ERP and 10-year bond yield



Source: Haver Analytics, Worldscope, Goldman Sachs Global ECS Research.

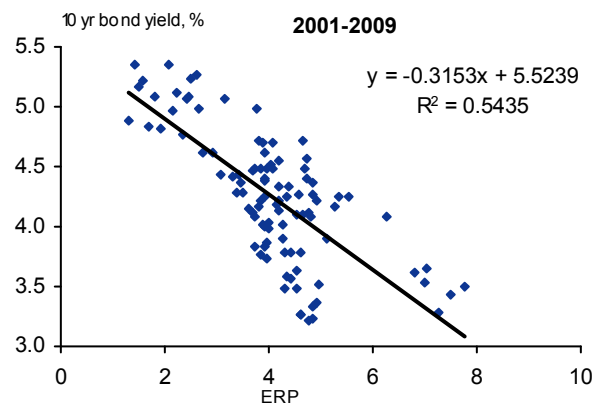
This offset is not stable, however. There was virtually no relationship between the ERP and the 10-year nominal bond yield from 1989 (where our ERP time series begins) until the end of 2000 (Exhibit 10), but a strong relationship from 2001 to 2009 (Exhibit 11). We believe that the difference is related to the sources of shocks to the economy. Inflation shocks should push both the ERP and yields up, whereas growth shocks should increase yields and decrease the ERP. It is likely that growth shocks have become relatively more important, as central bank credibility has improved, and led to a larger degree of observed offset between bond yields and the ERP. This interpretation is consistent with the findings in our May 22 *Strategy Matters*, "The bond-equity correlation: Not a threat to equities", where we showed that the correlation between bond yields and equities prices had shifted upwards over the last cycle.

Exhibit 10: The offset was absent in 1989-2000



Source: Haver Analytics, Worldscope, Goldman Sachs Global ECS Research.

Exhibit 11: But was strong in 2001-2009



Source: Haver Analytics, Worldscope, Goldman Sachs Global ECS Research.

Sensitivity analysis

We estimate the sensitivity of our P/E multiple and index level forecasts to changes in the ERP and the 10-year nominal bond yield in Exhibits 12 and 13. For a fixed 10-year bond yield of 5%, an ERP of 2% would lead to a market value of 551 whereas an ERP of 4% would give a value of 332. We consider both of these values for the ERP within the set of reasonable possibilities, but as noted in the previous section, any valuation impact of a higher or lower ERP is likely to be partly offset by changes in the 10-year bond yield.

Exhibit 12: P/E sensitivity to ERP and 10-year bond yield

ERP	10 year bond yield				
	4.0%	4.5%	5.0%	5.5%	6.0%
2.0%	26.9	22.8	19.6	17.0	14.9
2.5	22.8	19.6	17.0	14.9	13.2
3.0	19.6	17.0	14.9	13.2	11.8
3.5	17.0	14.9	13.2	11.8	10.6
4.0	14.9	13.2	11.8	10.6	9.6

Source: Goldman Sachs Global ECS Research.

Exhibit 13: Year-end 2013 market level sensitivity to ERP and 10-year yield

ERP	10 year bond yield				
	4.0%	4.5%	5.0%	5.5%	6.0%
2.0%	759	642	551	478	420
2.5	642	551	478	420	372
3.0	551	478	420	372	332
3.5	478	420	372	332	298
4.0	420	372	332	298	270

Source: Goldman Sachs Global ECS Research.

What will the level of earnings per share be when the ROE has normalized?

Our base case is for year-end 2013 earnings per share to be €28 for the DJ Stoxx 600. This is derived assuming that the index level ROE will return to its long-run average of 11.4% on a net income basis. To understand the risks to this estimate we analyze the drivers of the ROE. For non-Financials we divide the ROE into its three components: margins, asset turn and leverage. We believe that asset turn and leverage in the next cycle will be comparable to the last, whereas margins could surprise on the upside by around 150 bp versus the long-run average. For the market ex financials, that could push trend ROE up to 14.6%. For Financials, we expect the ROE to decline. Our analysis suggests that an 11.4% ROE for the index overall is conservative.

In our GS DDM framework the long-term average ROE is used as an anchor for earnings. The reason is that the ROE has a strong tendency to mean revert (see Exhibit 19 below), and therefore provides a guide to the catch-up earnings growth that can reasonably be expected from the trough of the cycle.

We model the catch-up earnings growth as the growth rate that will bring the ROE back to its long-run average by the end of 2013, assuming that the part of earnings which are not paid out as dividends each period will be added to common equity.

We believe that the long-term average ROE is a good starting point to assess mid-cycle earnings, but the forces of globalization and restructuring of the financial system raise the question of whether the ROE could be structurally different over the next cycle. We analyze the components of the ROE in detail, and conclude that while an ROE of 11.4% is within the set of reasonable possibilities, the risks to that estimate are skewed to the upside. This upside risk is reflected in our upside scenario of an index level of 480.

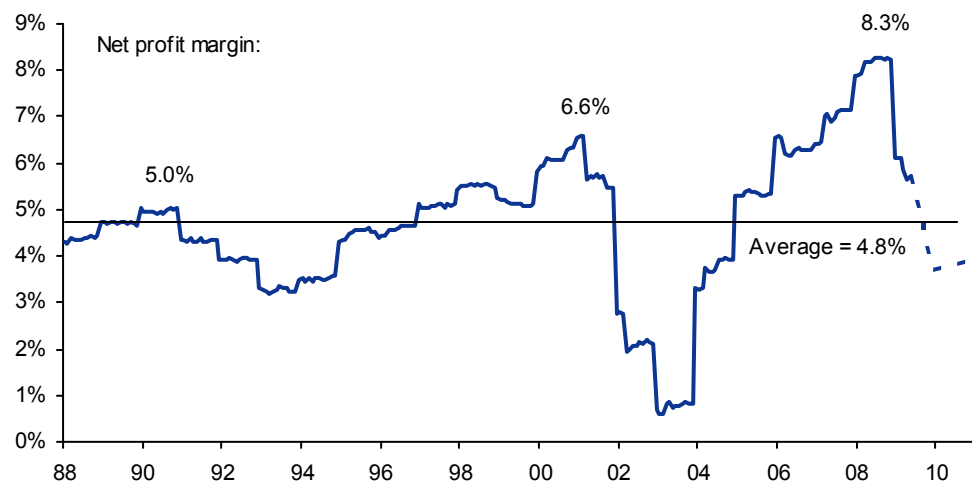
Net margins in non-Financials could average 6.3% in the next cycle

Net profit margins have averaged 4.8% since 1988 for the DJ Stoxx companies (Exhibit 14). We feel comfortable with the idea that margins in the non-Financial sectors have structurally improved, but it is difficult to assess exactly where margins may trend to in the next few years. Margins peaked in 2007/08 at 170 bp above their 2000 peak and 330 bp above their 1990 peak. We expect the trough in margins this time to be higher than in 2002 and slightly higher than in 1993. Given these improvements, we think a rise of 150 bp through the cycle seems reasonable. This would give an average margin of 6.3%.

Given what has happened to profits in the last year and what is likely to happen over this year to talk of a structural rise in company margins seem absurd. However, there are a numbers of factors that steer one to that conclusion:

(1) The peak margin has moved sequentially higher in each cycle. The peak in net income margins for the market (ex financials) was higher in 2000 than in the previous peak in 1990 and was higher in 2007/08 than in the 2000 peak (Exhibit 14). The same is not so clearly true of the troughs, the current trough is still unknown (although we have added our forecasts and this suggests something comparable to the early 1990s) but the real outlier is 2002-03. Net margins fell almost to zero. The sharp fall in 2002-03 is largely a function of the write-downs in tech and telecoms however, and can be seen as more exceptional than structural.

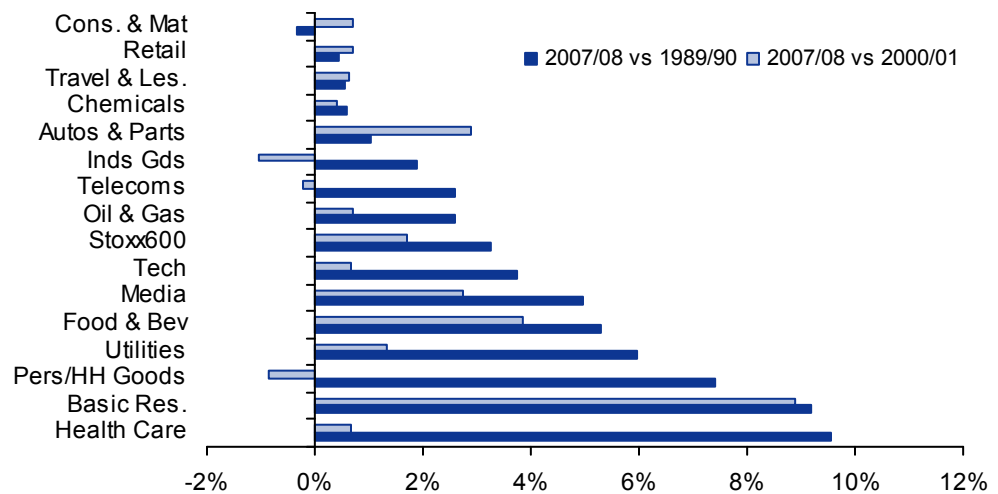
Exhibit 14: Net profit margin over time



Source: *Worldscope, Goldman Sachs Global ECS Research.*

(2) The improvement in margins has been broad-based. One potential explanation for the expansion of margins during the 2006 to 2008 period is the boost given to the commodity-related sectors, which benefited from high demand in the developing world and an inelasticity of supply which meant prices rose fast.

And it is certainly true that these sectors saw a huge uplift to margins. But it is also true that nearly all sectors in the market benefited from margin improvement when comparing this peak to the last one (Exhibit 15). The same is also true when comparing this cycle with the 1989/90 peak in margins; only construction and building materials experienced a peak for margins in this cycle lower than achieved in 1989/90.

Exhibit 15: 2007/08 peak margins were higher than the 2000/01 and the 1989/90 peaks

Source: *Worldscope, Goldman Sachs Global ECS Research.*

The broad-based nature of the improvements in margins across sectors, and the pattern of margins in the 2007/08 peak beating margins in the 2000/01 peak which again beat margins in the 1989/90 peak increase the likelihood that these improvements are structural rather than driven by transitory events.

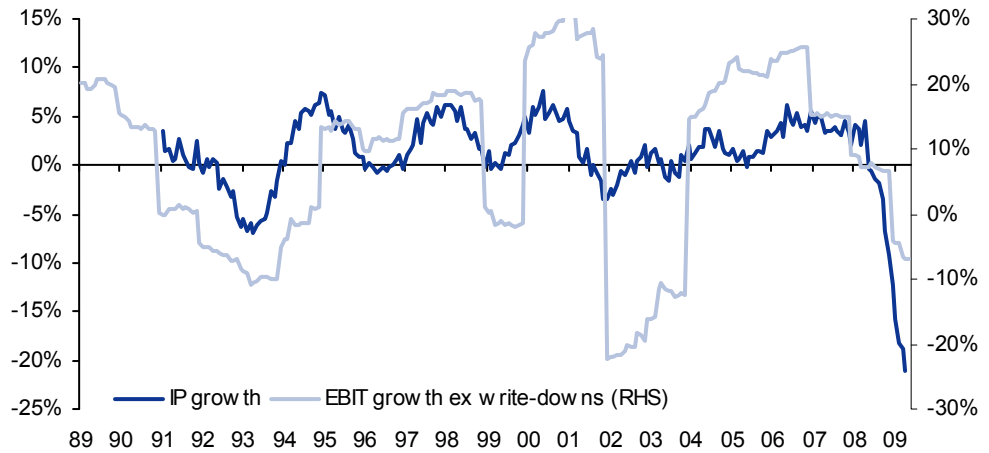
(3) Globalization and technology. This structural improvement is probably related to the changes in the labour market. The bargaining power of labour in Europe has fallen; globalization has meant companies can move production to Eastern Europe or Asia where costs are lower and new technologies have made relocation or substitution of the workforce easier. Wage growth has reflected these trends.

Globalization has also meant higher sales growth for many European companies as it has opened up large, fast-growing, markets. To the extent that companies have fixed costs this should mean higher margins through the cycle.

In addition to the idea that margins may have themselves structurally improved they may also have become less volatile. So costs are both structurally lower and more flexible. This was a theme we picked up in 4Q2008 and 1Q2009 company statements (see *Strategy Matters: Key takeaways from 1Q09 outlook statements*, May 29, 2009). Companies discussed how quickly they had reacted to the economic slowdown; reducing headcounts, closing capacity, working down inventories and slashing spending.

Exhibit 16 shows industrial output growth for Euroland together with EBIT growth for DJ Stoxx companies. IP has fallen by 21% year on year, by far the worst cycle in recent history, but the drop so far in EBIT is just 9%, not significantly worse than several other dips in the past 15-20 years. The greater flexibility of costs may account for this to some extent (although it is worth noting that the EBIT growth line tends to lag IP growth by about one to two quarters so the biggest year-on-year falls in EBIT are probably still to come).

Exhibit 16: The fall so far in EBIT has been small when compared with the collapse in IP

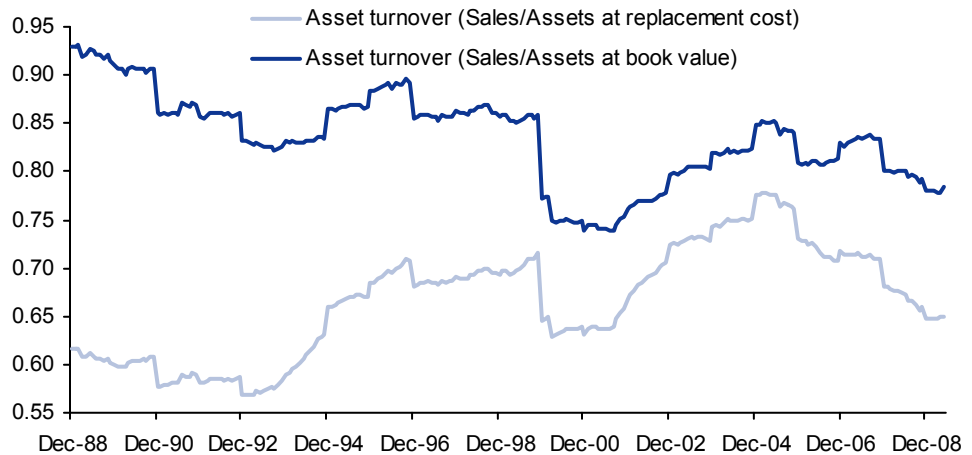


Source: *Worldscope, Haver Analytics, Goldman Sachs Global ECS Research.*

Asset turn – on par with the recent history at 0.77x

Asset turnover has declined sharply since the 1980s; companies are making fewer sales for each unit of assets on their balance sheets (Exhibit 17).

Exhibit 17: Adjusting asset turnover for the replacement costs of assets



Source: *Worldscope, Goldman Sachs Global ECS Research.*

This seems strange, given that one would expect improved productivity over time. However, two factors have affected the measurement of assets, effectively resulting in more assets being recognized on company balance sheets:

- **Accounting changes.** There has been an ongoing push by accounting standards authorities and regulators to recognize more assets on company balance sheets. One

example is the move to IFRS accounting where goodwill is not amortized but subject to an impairment test/review every year.

- **Falling inflation.** Inflation affects the value of assets on the balance sheet because assets are held at historical cost (book value) rather than replacement cost. Inflation was higher on average in the 1980s and early 1990s and this means that the assets as valued on the balance sheet in say 1990 or 1995 would underestimate pretty substantially what it would have cost back then to replace those assets.

In the light blue line in Exhibit 17, we have estimated replacement cost of assets at each point in time and compared this with sales. This is a rough measure only but it shows that on a replacement cost basis there has been no downward trend. (This measure will always be lower so long as inflation has been positive as the replacement value of assets is higher than the historical book value.)

In the future we would expect asset turnover to be similar to the average since 2006 (0.77x) when inflation rates and accounting standards have been relatively stable.

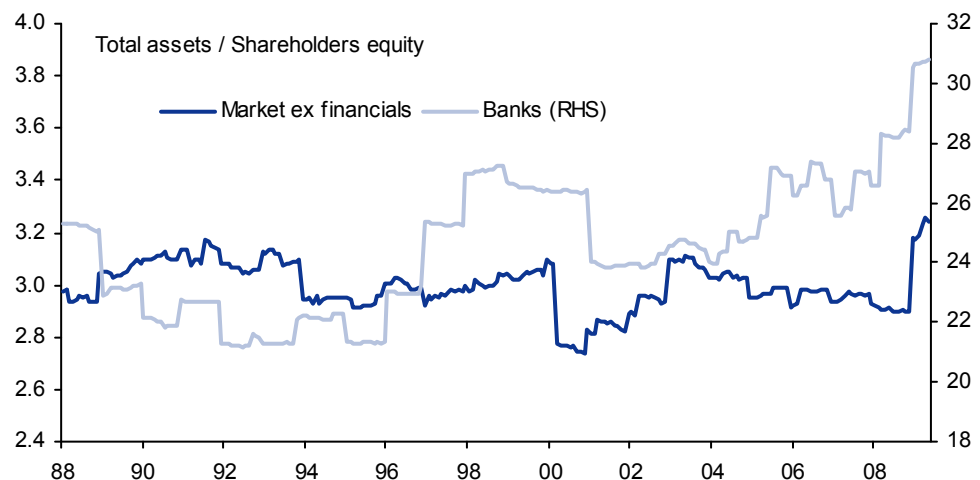
Financial leverage (outside the financials) has been stable

In contrast to the banks where financial leverage expanded rapidly from 2003 onwards, for the market ex financials the ratio of assets on the balance sheet to common equity has remained pretty constant over the last 20 years in a range between 2.8x and 3.2x.

We are currently toward the top of that historical range, but that is due to a sudden tick-up in financial leverage that has been driven to a large extent by big moves in about six companies rather than a widespread increase across the entire market (see Exhibit 18). Whatever the underlying cause, we would expect financial leverage to come down relatively quickly in the next year as companies carry out more rights and new equity issues to restore balance sheet strength.

For the average over the next cycle we would regard 3x common equity as an appropriate leverage ratio for the non-financials. There are, however, some downside risks to this if companies de-leverage more in this cycle given the problems they have experienced gaining access to the credit markets and bank debt over the last 18 months.

Exhibit 18: Financial leverage for Europe



Source: *Worldscope, Datastream, Goldman Sachs Global ECS Research.*

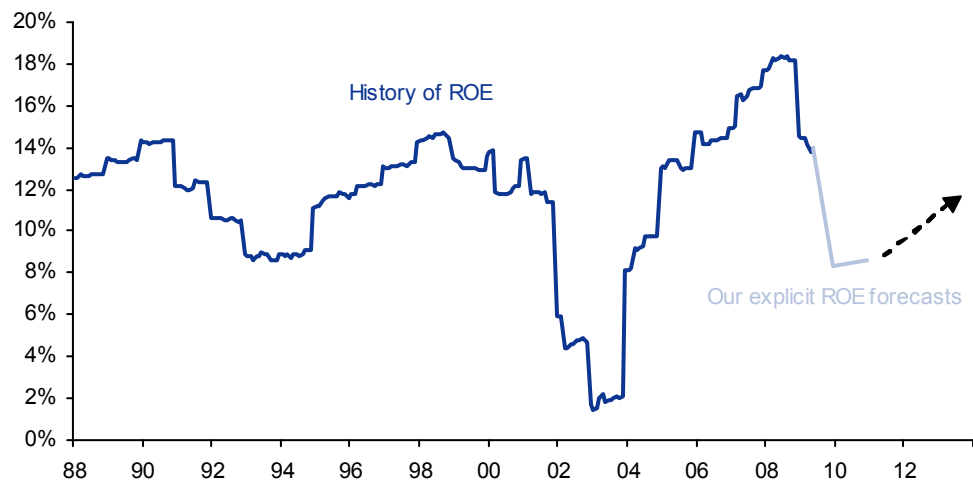
Could trend ROE have risen in the non-financial sectors?

The average ROE ex Financials has been 11.9% but if margins have improved the mid-cycle or trend level in the next cycle could be as high as 14%-15%.

Based on the analysis above we make the following assumptions for trend of mid-cycle ROE for non-financials: (1) financial leverage falls slightly to 3x as companies rebuild balance sheets; (2) asset turnover stays at 0.77x, the average of the last three years, a point since which inflation and accounting standards have not moved markedly; and (3) net profit margins return to their long-run average of 4.8%. This would give us a mid-cycle ROE of 11.1% for the market ex financials.

But this may understate the true level at which ROE could trend to as it doesn't allow for any structural improvement in margins. From the discussion above, we think a rise in margins of 150 bp on average through the cycle is not implausible; this would push margins up to 6.3% and, without changing asset turn or financial leverage, that would mean a mid-cycle ROE of 14.6%, which we would expect to be achieved by around 2013.

Exhibit 19: ROE ex financials with forecasts



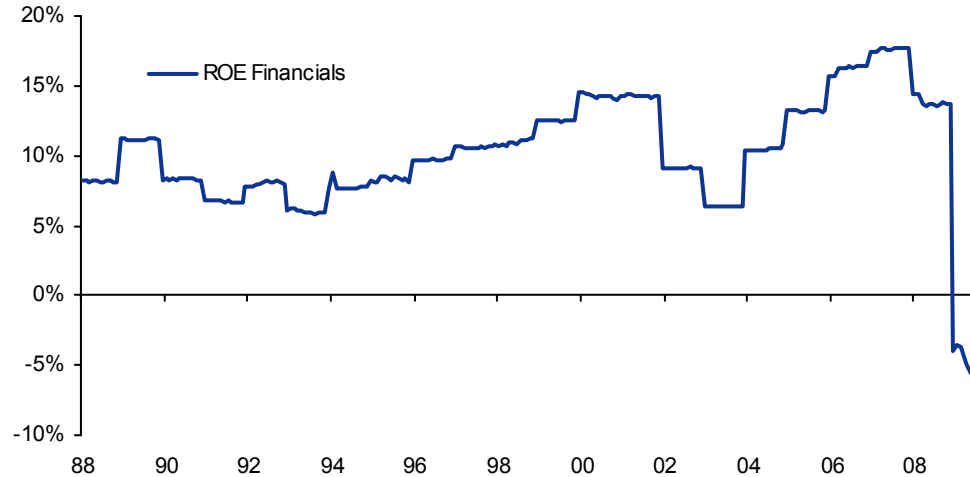
Source: *Worldscope, Goldman Sachs Global ECS Research.*

But it may be that financial leverage of the non-Financial sector falls below the long-term average of 3x – companies have been badly impacted by the effective closing down of the credit markets for some months and this may discourage many from gearing up their balance sheets. The low in terms of financial leverage in recent years has been about 2.8x. Using this, but assuming higher margins (6.3%), would give us a mid-cycle ROE of 12.4% for the market ex financials.

ROE of Financials is likely to decrease

The largest question mark over long-term earnings for the Stoxx 600 index is the earnings power of Financials.

During 2003-2007, Financials contributed on average 33% on the total earnings of the Stoxx 600 index. This was significantly above the average contribution of 25.6% of total index level earnings in 1993-2000. This rise in earnings was matched by a significant increase in the ROE of the Financial sector (Exhibit 20).

Exhibit 20: The ROE of Financials was higher in the last cycle

Source: *Worldscope, Goldman Sachs Global ECS Research.*

The increase in earnings contribution and ROE was fuelled by an increase in leverage as shown in Exhibit 18 above. Going forward there is significant uncertainty about the regulatory framework but it is reasonable to expect that leverage and earnings will be lower.

Given the level of uncertainty, the precise impact is very hard to estimate and we therefore limit ourselves to a back of the envelope calculation. To assess whether our base case of an ROE for the index of 11.4% is realistic, we assume that the ROE of Financials falls back to the 1993-2000 average and then ask what the ROE of non-Financials has to be in order for the market ROE (which would be the common equity weighted average of the two) to be 11.4%.

In 1993-2000, the average ROE of the Financial sector was 10.1%, much lower than the 12.9% average during 2003-2007. Currently the common equity of Financials constitutes 35% of the total common equity of the index. If we assume that the ROE on Financials falls back to the 10.1% average, we would need an ROE of 12.1% for the Stoxx 600 ex Financials in order for the ROE of the Stoxx 600 index overall to equal 11.4% ($0.35 \times 10.1\% + 0.65 \times 12.1\% = 11.4\%$).

A 12% ROE in the non-Financial sectors is within the range of possible ROEs discussed in the previous section. If margins in non-Financials increase 150 bp so that the ROE in the non-Financial sectors reach the high-end of the range at 14.6%, and the ROE of Financials still fall to 10.1% the ROE for the market overall would be 13.0%. This possibility is the basis for our upside scenario of an index level of 480.

Crises often see the earnings power of particular sectors reduced. Yet, the ROE of the index overall has had a strong tendency to mean revert as new sectors have taken over the generation of earnings from the sectors in decline.

In the next cycle we believe that there will be stronger than average earnings in the commodities sector and in companies with high exposure to the faster growth of the BRICs economies. Our analysis suggests that this will more than compensate for the drop in the earnings of Financials. **We therefore see our assumption of a historical average ROE for the index overall as somewhat conservative.**

ROE sensitivity analysis

Exhibits 21 and 22 provide a more detailed analysis of the sensitivity of the year-end 2013 index level to changes in the long-run ROE. As stressed above, the main effect of a higher ROE is an increase in earnings. That is the reason why the ROE has a limited effect on the P/E multiple but still a significant impact on the market level (see Exhibit 22). For example, a change in long-run ROE from 9.4% to 13.4% at an 8% discount rate will increase the P/E multiple only one point, but move the value of the Stoxx 600 from 342 to 505.

Exhibit 21: P/E sensitivity to the discount rate and ROE

Discount Rate	Long Run ROE				
	9.4	10.4	11.4	12.4	13.4
6%	26.1	26.5	27.0	27.4	27.9
7	18.9	19.2	19.6	19.9	20.2
8	14.4	14.7	14.9	15.2	15.4
9	11.4	11.6	11.8	12.0	12.2
10	9.3	9.4	9.6	9.7	9.9

Source: Goldman Sachs Global ECS Research.

Exhibit 22: Year-end 2013 market level sensitivity to the discount rate and ROE

Discount Rate	Long Run ROE				
	9.4	10.4	11.4	12.4	13.4
6%	618	684	759	834	913
7	449	497	551	605	663
8	342	379	420	461	505
9	271	300	332	365	399
10	220	244	270	297	325

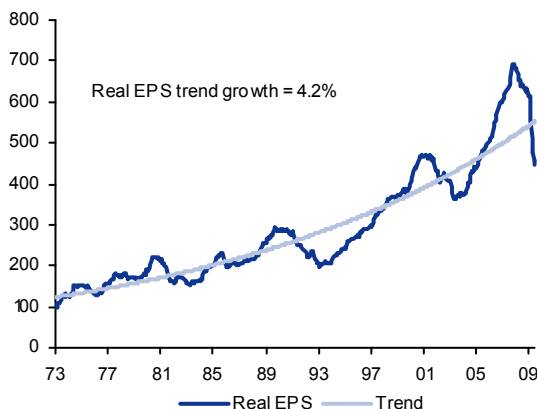
Source: Goldman Sachs Global ECS Research.

What is the time frame to fully reach the normalized index level?

To assess the timing of the return to the averages that feed into our valuation we look at the times from the trough in earnings that have historically been needed for earnings, ERP and ROE to catch up. We expect earnings to trough in the end of 2009 and our year end 2013 forecast therefore allow 48 months for the ERP and the ROE to mean revert. This is longer than needed in the aftermath of the last 3 recessions.

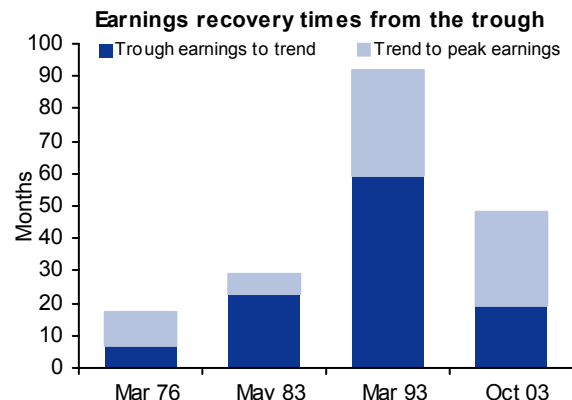
Since the 1970s, earnings have been fluctuating around a long-term real trend growth rate of 4.2% (Exhibit 23). For each episode where earnings fell below trend, Exhibit 24 shows how long it took for them to recover from the trough back to the trend as well as the time needed to reach the next peak. These times vary substantially, with the worst case occurring in the aftermath of the 1990-91 recession, where it took 60 months.

Exhibit 23: European earnings move around a 4.2% real trend growth rate



Source: Datastream, Goldman Sachs Global ECS Research.

Exhibit 24: Earnings recovery time from through to trend varies significantly

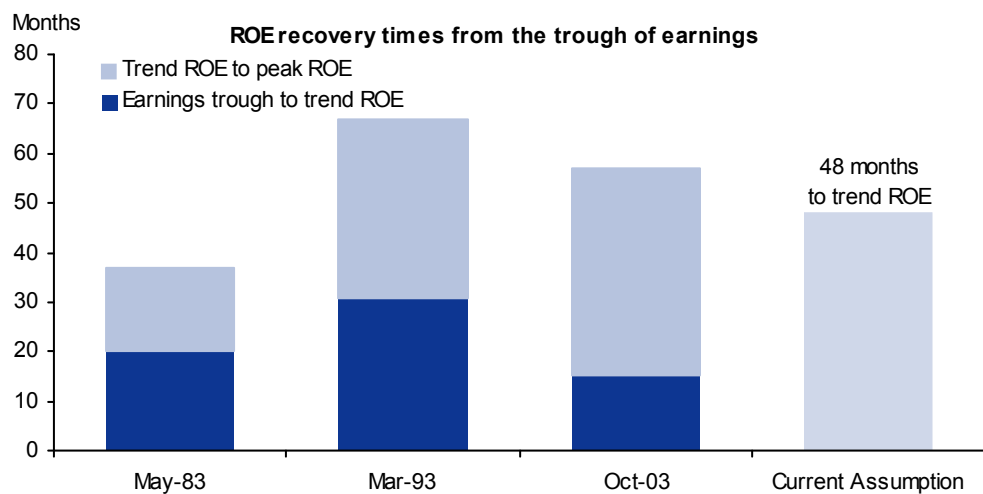


Source: Datastream, Goldman Sachs Global ECS Research.

Our valuation analysis does not assume that earnings recover to trend, but merely that the ROE has. To the extent that the equity position of firms is damaged during recessions it could be that the ROE catches up to trend before earnings, as it takes time to rebuild the equity base. This has generally been the case as can be seen by comparing the recovery times in Exhibit 24 and 25.

Last week's *Strategy Matters* "Bumper supply shouldn't derail recovery" showed that 2009 has so far seen €98 bn of equity raised. We expect the total equity issuance this year excluding Financials to fall in the €100-300 bn range. This rapid pace of issuance will speed up the rebuilding of the equity base and is, in our view, likely to lead to a relatively short lag between the mean-reversion of the ROE and the catch-up of earnings to their long-run trend.

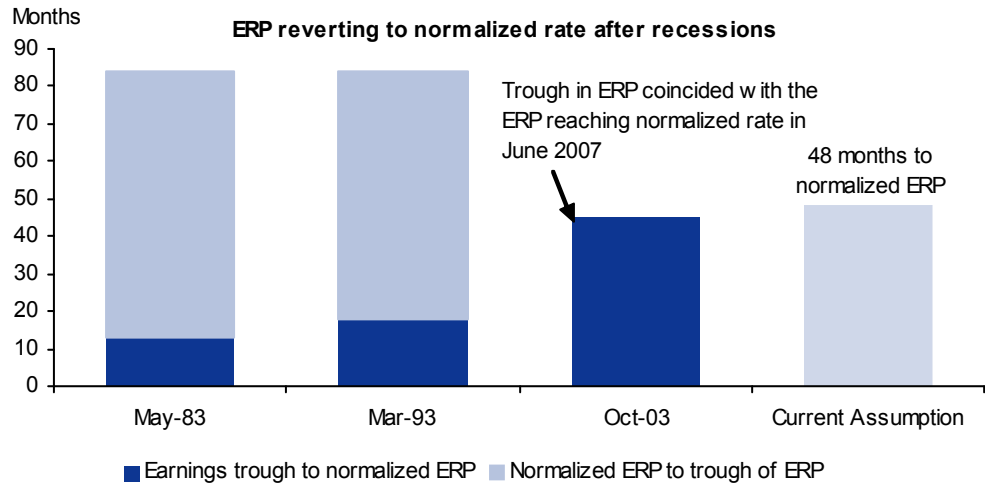
Exhibit 25: The ROE recovered faster after the 1990-91 recession than earnings did



Source: *Worldscope, Datastream, Goldman Sachs Global ECS Research.*

Our valuation also assumes that the ERP will revert to its long-run average by the end of 2013. Exhibit 26 shows how long it has historically taken for the ERP to reach its long-run average from the trough of earnings, as well as the time needed for the ERP to reach its trough of the cycle. The recovery time was particularly long in the aftermath of the 2001 recession. We believe that this time around it will again be a long way back to a 3% ERP, but that investor confidence eventually will re-emerge, as the economy and earnings recover.

Exhibit 26: Our 48 months catch-up time for the ERP is conservative



Source: *Worldscope, Goldman Sachs Global ECS Research.*

A counter-argument to our timing analysis is that the recession this time is deeper and the expected economic recovery slower than in any of the prior cases we are comparing with. We have chosen a recovery horizon that is longer than the historical experience for both the ROE and the ERP to allow for this. Exactly how much longer should be allowed is hard to say, but as mentioned above, if the ERP is not back at its trend level, we believe that part of the valuation impact of a higher ERP will be offset by a lower interest rate.

In terms of timing it is also worth noting that, due to strong growth outside of the developed world, our Economists expect world GDP growth to be close to its long-run average already in 2010 (Exhibit 27). This should support the valuation of the BRICs-exposed sectors that we think will lead earnings growth in the next cycle.

Exhibit 27: World GDP growth forecast



Source: *Worldscope, Goldman Sachs Global ECS Research.*

Reg AC

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