Strategy Update

Investment Research – general market conditions

28 November 2012

ESN Fundamental Value Monitor

:

Conventional valuation measures for equity markets can be deceptive whenever earnings are significantly at variance to their long term trend lines and/or whenever real interest rates / bond yields are significantly at variance to their long run equilibrium levels. We see equity markets as being fair value for the long run when the trend line level of earnings is yielding 6%, consistent with a mean reverting required real total return of 6% per annum and decomposing into a mean reverting required real risk free return of 3% plus a required equity risk premium of 3%.

The recent "great recession" pushed earnings down well below long run trend levels, while also supporting valuation by depressing interest rates / bond yields. A cyclical earnings recovery has been evident over recent years as global economic recovery proceeds (albeit erratically), but the trend in real interest rates and bond yields has continued downwards. Looking beyond immediate cyclical forces, more important structural forces will determine the propensity for earnings and real interest rates / bond yields to reside above or below their long term trend / equilibrium levels over the medium to longer term.

We see excess global labour supply (stemming from globalisation and closely linked to excess global savings) as the common factor linking the tendency over recent years towards structurally low interest rates and structurally high corporate margins. Although probably underway on an underlying basis, we expect the structural mean reversionary process for profitability and interest rates to remain slow and tentative, suggesting that the current global cyclical economic recovery can push earnings back up above trend levels in a relatively benign structural interest rate environment. This suggests that, over the medium term, conventional valuation models could be making equity markets look cheaper than will ultimately prove to have been sustainable over the longer term.

Hypothetically assuming immediate mean reversion of both earnings and bond yields to their long run trend levels, prospective long run equity risk premiums across four of the main European markets (UK, France, Germany and Italy) are currently averaging at 6.65%, way above the long run mean reverting required level of 3% per annum and consistent with expected long run real total returns averaging 9.65% compared to the required level of 6.0%. These figures are consistent with the main European markets having potential upsides to fair value of about 61% on average. On the same mean reversionary assumption, the prospective risk premium for the US equity market is still somewhat inadequate at 1.85%, consistent with a prospective long run real total return of 4.85% and implying downside to fundamental fair value of 19%.

A significant caveat is that the data shows trend growth rates for the main European markets' earnings significantly higher than could be considered sustainable/credible, implying the potential for progressive overstatement of fair market value from some point in the past or future. However, the margin of comfort is wide since estimates for the underlying sustainable trend levels of earnings for the four main European markets would have to be revised down to below 62% of currently indicated levels on average to bring average expected long run prospective equity risk premiums into over-valued territory (i.e. below 3%, implying prospective long run real total returns below the required 6% level). Furthermore, our measures of current earnings for the four European markets are still 26% below the trend lines on average and 35% below the most recent cyclical peaks on average. Even when we use these still cyclically depressed current earnings levels, we find that the four European markets offer an earnings yield of about 7.1% on average at present, which is already consistent with upside of 18% to long run fair value if we only assume that earnings grow at the required underlying trend rate of say 3% real per annum from this point forward.

We conclude that European equities are very undervalued, but given our reservations that the index data might be overstating the trend earnings growth rate and level, we would conservatively scale our model's estimate of the upside to fair value back to about 30% on average. Our confidence in the US earnings and index data inclines us to the trend earnings based indication that this market is now moderately overvalued for the longer term, although it could continue to look very cheap on conventional valuation measures for some time to come.

Bernard McAlinden, ESN, +353 87 241 4826, bernard.mcalinden@esnpartnership.eu
Emmet Gaffney, NCB Stockbrokers, +353 1 611 5717, emmet.gaffney@ncb.ie

Our Approach to Fundamental Value

Fundamental value is always, by its very nature, a long term concept. **Our Fundamental Value Monitor for equity markets is not a market timing tool** over the short or medium terms. However, it does help us to assess the risk/reward proposition in equity markets at any point in time, while also providing a sound framework within which to address the matter of timing.

The concept of underlying sustainable fundamental value (often at significant variance to current market levels) is based on the principle that **the key drivers of sustainable value are subject to mean reversionary forces over the long run**. We observe long run historic data to identify mean reversionary tendencies for the key drivers.

Because equities are a "real" asset, **we always track the key drivers in real inflation adjusted terms.** The valid comparison is always between the earnings yield on equities and the level of real (not nominal) government bond yields.

The key drivers of equity markets are always interest rates on the one hand and earnings on the other. Structural as well as cyclical factors can be responsible for the divergence of both interest rates and earnings from their long term trend levels. Where structural forces are at work, the extent and duration of the variance from trend can be very significant and this in turn can lead to sustained divergences between actual market valuation and the long run fundamentally sustainable level.

Our models assume that **the Real "Risk Free" Interest Rate mean reverts around a 3% central tendency over the long run,** based on observation of historic data. We use the ten-year inflation protected government bond yield as our measure of this risk free rate.

We also assume that **the Equity Risk Premium mean reverts around a 3% central tendency over the long run,** based on historic observation.

Taking the mean reverting levels for the real risk free rate and the equity risk premium together, we get 6% as the (Required) mean reverting Real Return on Capital (consistent with long run historic data)**.** Over the long term, through the operation of market forces, **this required rate of return acts as a regulator of margins and returns on capital and this in turn, causes real earnings per share at overall market level to mean revert around a trend line.** This trend line rises exponentially and sustainably over time as retained earnings augment the capital base while earning the required 6% real return on capital at the margin. We estimate the trend line by taking the exponential line of best fit to the actual history of real earnings per share at market level.

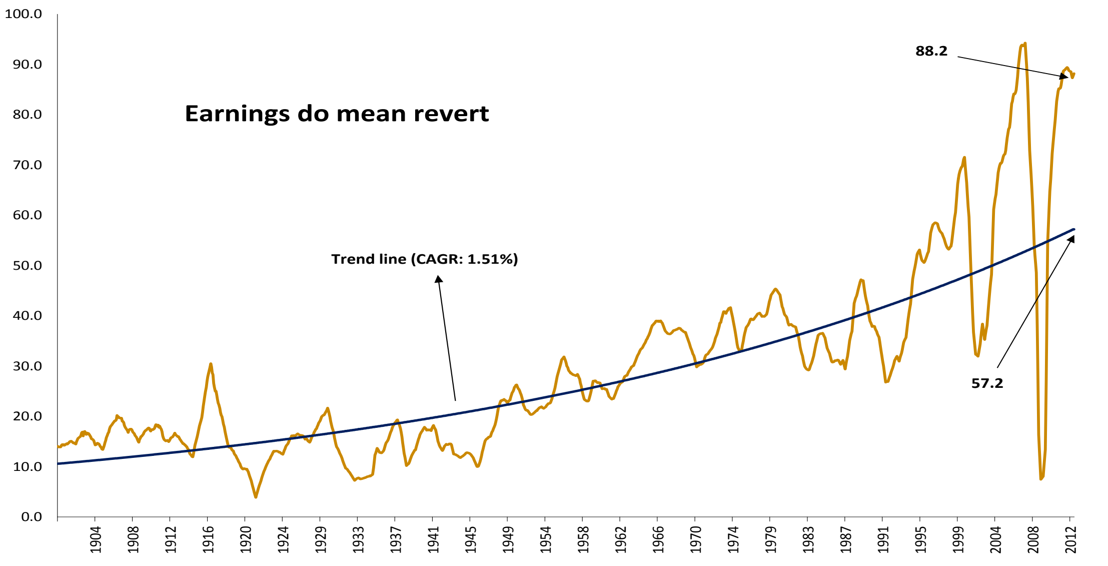
Market earnings per share are in long run equilibrium when they are on the long run trend line for real earnings per share. Interest rates are in long run equilibrium when they are in the region of the 3% long run central tendency. **A broad equity market is trading at its long run fundamentally sustainable fair value level when the trend/equilibrium level of market earnings divided by the current market value is equal to the 6% underlying real required return on capital** (i.e. when the "trend-earnings" yield equals 6%). Taking the inverse of 6% to express it as a multiple, **an equity market is therefore fairly valued for the long run when it trades at a multiple of approximately 16.7 times the level of earnings currently observed on the long run earnings trend line. ***

*****Footnote: For a more detailed description of our model/approach for fundamental valuation of equity markets see "Our Approach to Fundamental Valuation" (NCB/ESN May 2002) and "Fundamental Valuation Update" (NCB/ESN August 2002).

Looking at Earnings Relative to the Long Run Trend Line

Chart 1 shows the history of real inflation adjusted earnings per share for the S&P500 index over the past 112 years.

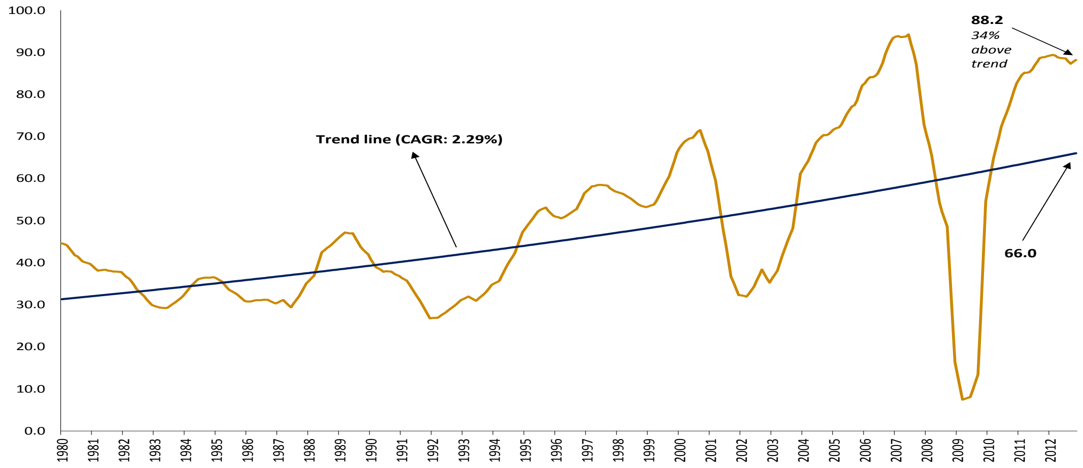
Chart 1: S&P 500 Real Earnings (1900-2012)



It is clear that real earnings per share at overall market level do indeed mean revert around the exponential trend line and that this line is therefore predictive of the eventual path for such earnings.

Charts 2, 3, 4, 5, and 6 show the 32-year histories of real inflation adjusted earnings for the US, UK, French, German and Italian (26 years) equity markets, together will exponential trend lines. Our US index data comes from S&P and Shiller. Our European index data is from Datastream.

Chart 2: S&P 500 Real Earnings (1980-2012)



Current S&P 500 Index: 1360

Chart 3: UK Market Real Earnings (1980-2012)

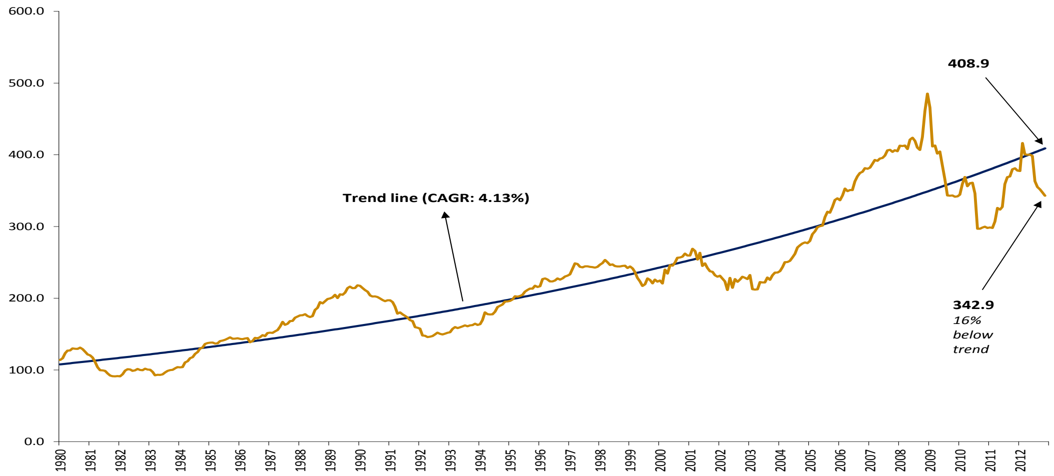


Chart 4: France Market Real Earnings (1980-2012)

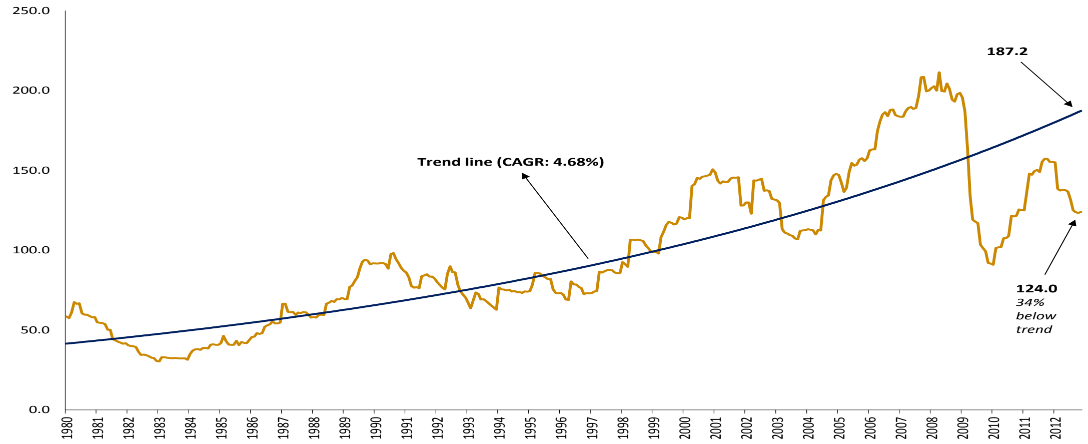


Chart 5: Germany Market Real Earnings (1980-2012)

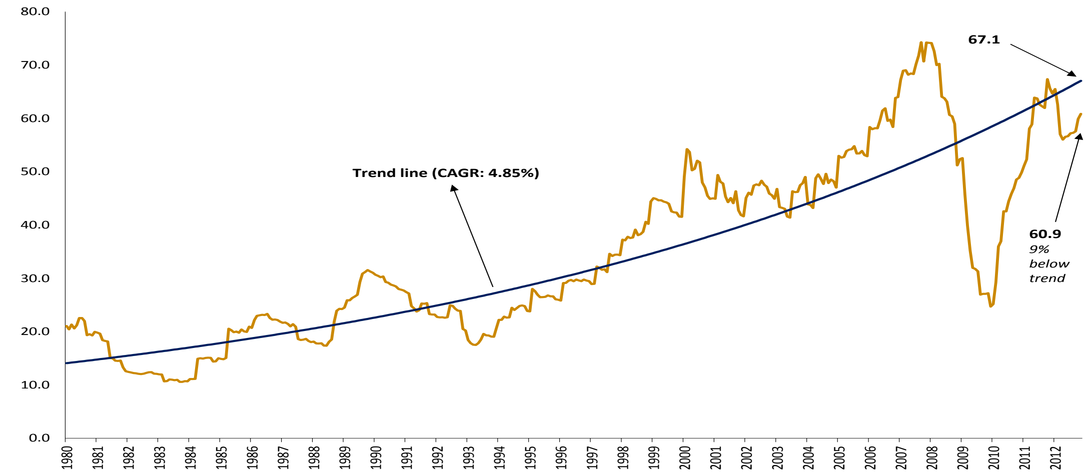
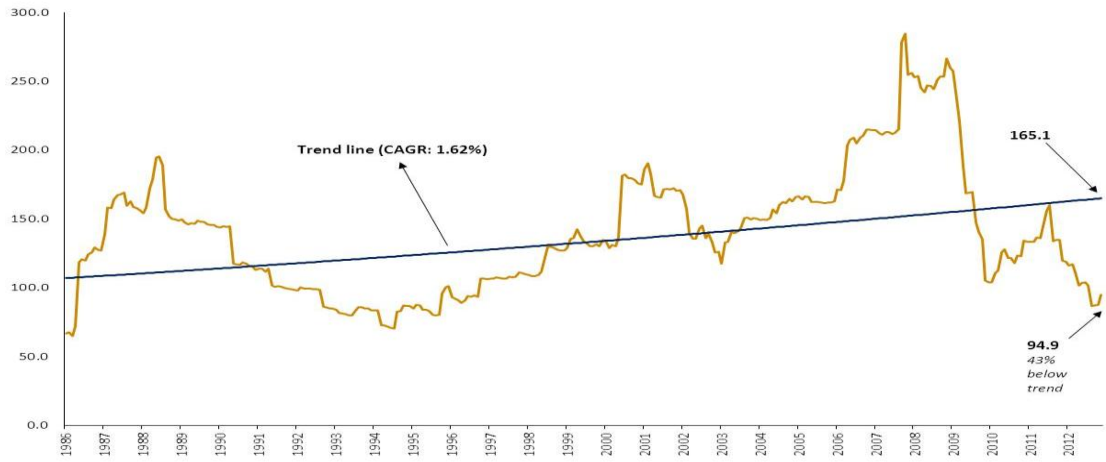


Chart 6: Italy Market Real Earnings (1986-2012)



The key drivers of earnings per share at market level are top-line growth, post-tax margins, and the level of re-invested retained earnings.

Market earnings per share can be at variance from the long run sustainable trend level for both cyclical and structural reasons. Cyclical influences reflect the ebb and flow of economic growth and the impact of this on capacity utilisation and optimisation of unit costs over the short/medium term. They can also reflect the ebb and flow in the bargaining power of labour relative to capital and the impact of this on margins. There are also cycles in the use of financial leverage by the corporate sector and growth in earnings per share can be enhanced or impeded as companies alternate between the issuance of debt or equity to fund ongoing growth. Cyclical strength and weakness in prices for energy and other hard and soft commodities can also respectively impart a net negative or positive impact on margins for the overall quoted corporate sector.

Structural drivers of variances between actual earnings and their long run trend lines come under the same headings as these shorter term cyclical forces, but are distinguished as “structural” when their impact is considerably more enduring, resulting in a longer cycle and more sustained variance from trend.

Earnings have recently been seeing a cyclical recovery as severe recessionary conditions in the global economy have given way to a renewed expansion (albeit erratic and geographically uneven). Underlying structural developments will be key to the extent of the earnings recovery as global cyclical conditions continue to improve (albeit erratically).

Over recent years, corporate earnings have benefited from major sustained structural forces. Globalisation, free trade, migration, the opening of China, technology advance, the spread of capitalism, etc have greatly enhanced the supply and productivity of labour on a worldwide basis progressively since around the mid 1990’s. The bargaining power of capital relative to labour has therefore seen major sustained improvement and margins / returns on capital have expanded accordingly. In the current global economic expansion, earnings have again been benefiting considerably from the combination of structural margin expansion and renewed cyclical growth in global demand (albeit erratic and geographically uneven).

In the established environment of increasingly free and efficient global markets, **it is inevitable that market forces would eventually compete margins and returns back down to the long run required levels**, whereupon earnings would structurally revert to the long run trend line. On the assumption that the forces of globalisation etc are unlikely to go into reverse, it would take ongoing reflation of the global economy to achieve such structural mean reversion. Global final/consumer demand would have to expand to the point where global labour markets tighten sufficiently to allow labour to claw back some pricing power at the expense of capital. Meanwhile, the outlook needs to be bright enough to tempt the global corporate sector to more aggressively chase the supernormal returns on offer by stepping up capital spending to create sufficient new capacity to eventually compromise the pricing power of capital relative to labour. **Periods of cyclical economic weakness such as the recent “great recession”, when worries focused on the risk of**

demand deflation, put earnings under significant downward cyclical pressure, but also delay any structural mean reversionary process because they weaken the labour market while restraining investment in new capacity by the corporate sector.

The success of companies in aggressively managing costs and defending margins in the recent recession suggests that the structural environment is still quite favourable for earnings as they recover cyclically with capital maintaining pricing power at the expense of labour**.** US earnings had recently been recovering surprisingly quickly from their headlong collapse below the 32-year trend line. They are already back well above trend but are now suffering from more recent deceleration in the economy. However, they can yet make new highs if, as we expect, the economy continues its cyclical recovery. European earnings are once again under recessionary pressure due to the Eurozone debt crisis, but will ultimately be governed by the same global structural and cyclical forces that pertain to the US.

Prices for energy and other hard and soft commodities have been structurally strong for over a decade now as rapid growth in the economically active global population challenges the physical resources of the planet. This structural strength accelerated into a speculative mini-bubble which burst in 2008 when recession fears spurred a major cyclical reversal. The structural strength in commodity prices had since been re-surfacing as global economic growth recovered, but has more recently abated alongside the slowdown in Chinese growth. Although commodity price strength is a force for redistribution rather than destruction of earnings globally, it also tends to be a source of net redistribution away from the quoted stock markets towards national governments, farmers and other private interests. So, the more recent abatement in commodity prices is a net positive for broader equity market earnings. In any event, it must be remembered that commodities account for only 10%-15% of GDP, whereas labour accounts for approximately 75%. So, structural trends in the pricing power of labour will continue to dominate the structural outlook for corporate margins and earnings.

It is clear that positive cyclical forces have been pushing earnings back up towards and above trend-lines (notwithstanding recent deceleration in economic growth, particularly in Eurozone), and there are few signs yet that mean reversionary forces have begun to undermine the structurally favourable environment for margins. We nonetheless consider it prudent to assume that the structural benefit to margins has peaked. However, we also believe that the structural mean reversionary process is likely to be slow in nature and this gives us comfort about the potential for earnings to move back above the trend-lines as global cyclical conditions continue to improve (albeit erratically).

(Note: We are aware that the 32-year trend earnings lines for some continental European markets show compound annual real earnings growth rates that look too high to be sustainable / credible (see Charts 4 and 5 for France and Germany in particular). This might reflect a protracted but nonetheless once-off process whereby returns on capital and margins played catch-up towards Anglo Saxon norms. Any such trend probably started in the early 1990's and has most likely run its course by now. Albeit that any such structural improvement is unlikely to unwind, its finite nature nonetheless dictates that extrapolation of these faster growing trend earnings lines could (from some point in the past or future) progressively overstate the degree to which these markets appear fundamentally cheap. There may also be some bias in the long run historic index data and we are inclined to have greater confidence in the consistency of the index data available for the US by comparison with Europe (see further comment below).

Looking at Interest Rates Relative to Long Run Trend Levels

We use the 10-year inflation protected government bond yield as our measure of the real "risk-free" interest rate. Table 1 below shows the recent evolution of this measure of real interest rates for the US, UK, France and Europe since January 2006 at various dates on which we updated our fundamental valuation report . See charts 7, 8 and 9 also.

Table 1: Ten-Year Inflation Protected Real Government Bond Yields

Date	US %	UK %	France %	Europe (E.U.) * %
Nov 2012	-0.81	-0.80	0.25	0.53
June 2012	-0.58	-0.85	0.41	0.70
Nov 2011	-0.05	-0.39	2.32	1.97
Jun 2011	0.72	0.42	0.90	1.21
Dec 2010	0.73	0.77	1.10	1.44
May 2010	1.33	0.35	1.13	1.14
Oct 2009	1.44	0.61	1.40	1.27
June 2009	1.84	1.21	1.80	1.96
Mar 2009	1.34	1.05	1.74	2.33
Jan 2009	1.90	1.85	2.10	2.33
Oct 2008	2.57	2.25	2.48	2.42
Jul 2008	1.34	0.95	2.00	1.72
Jun 2008	1.43	1.35	2.03	1.85
May 2008	1.45	1.31	1.93	1.76
Mar 2008	0.97	1.25	1.59	1.50
Jan 2008	1.32	1.44	1.86	1.74
Nov 2007	1.90	1.69	1.96	1.89
Sep 2007	2.33	1.95	2.26	2.18
Jun 2007	2.74	2.27	2.45	2.40
Feb 2007	2.41	1.85	1.93	1.91
Nov 2006	2.33	1.53	1.72	1.67
Jul 2006	2.52	1.73	1.87	1.83
May 2006	2.36	1.37	1.95	1.79
Jan 2006	2.14	1.5	1.31	1.36

** weighted average of Eurozone & UK*

Chart 7: US Real Inflation Protected 10-Year Government Bond Yield (2003-2012)

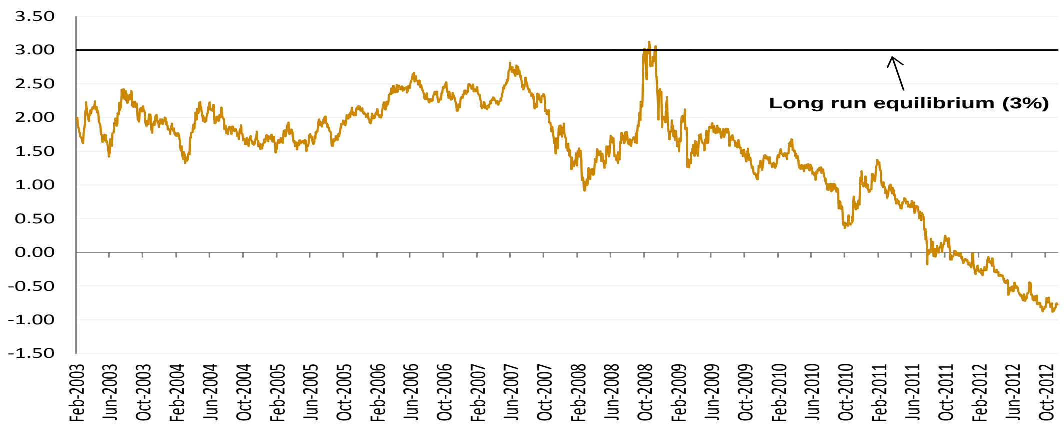


Chart 8: UK Real Inflation Protected 10-Year Government Bond Yield (2003-2012)

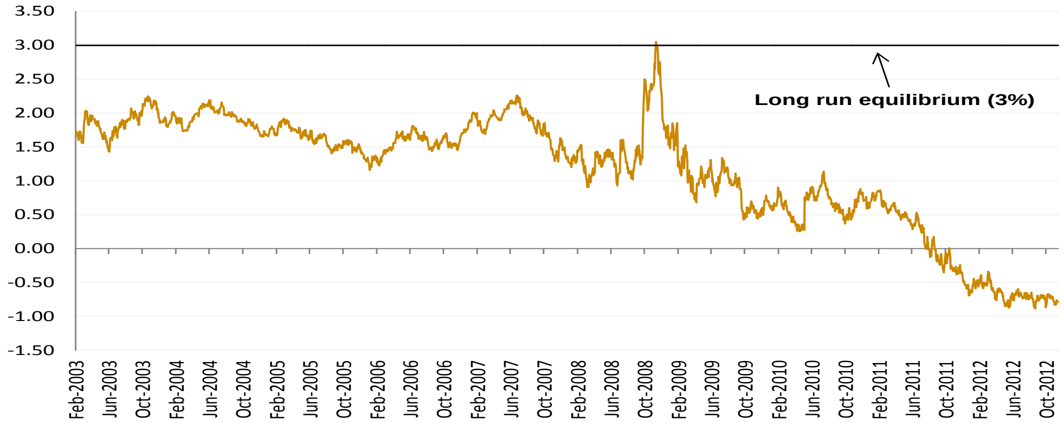
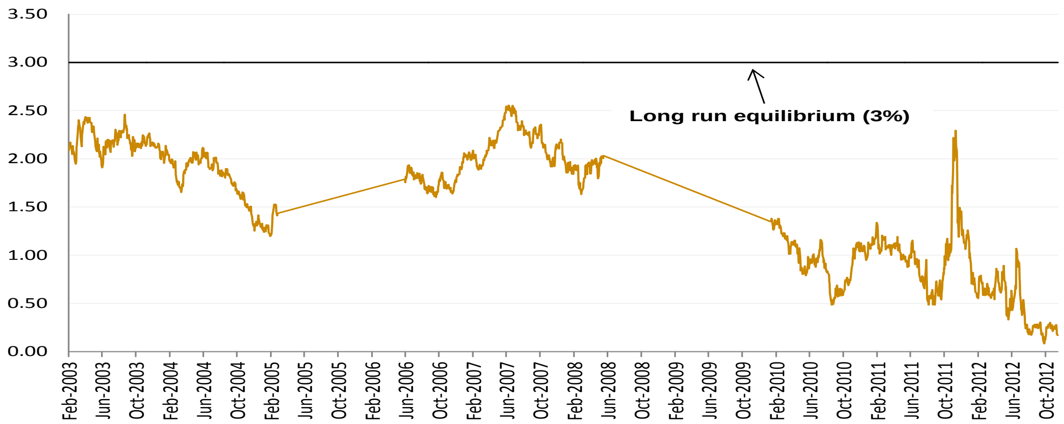


Chart 9: France Real Inflation Protected 10-Year Government Bond Yield (2003-2012)



Structural forces have been keeping real interest rates / bond yields well below our 3% long run mean reversionary guideline over recent years. This downward structural pressure has been greatly reinforced by the cyclical impact of the recent "great recession" and the ensuing sub-par recovery. Real yields have recently turned negative in the US and UK and Germany, but they have diverged markedly higher in the fiscally challenged Eurozone economies as the related debt crisis has cast doubt over their risk free status. Real yields can be expected to eventually come under some upward cyclical pressure as global economic recovery gradually closes the global output gap (albeit erratically).

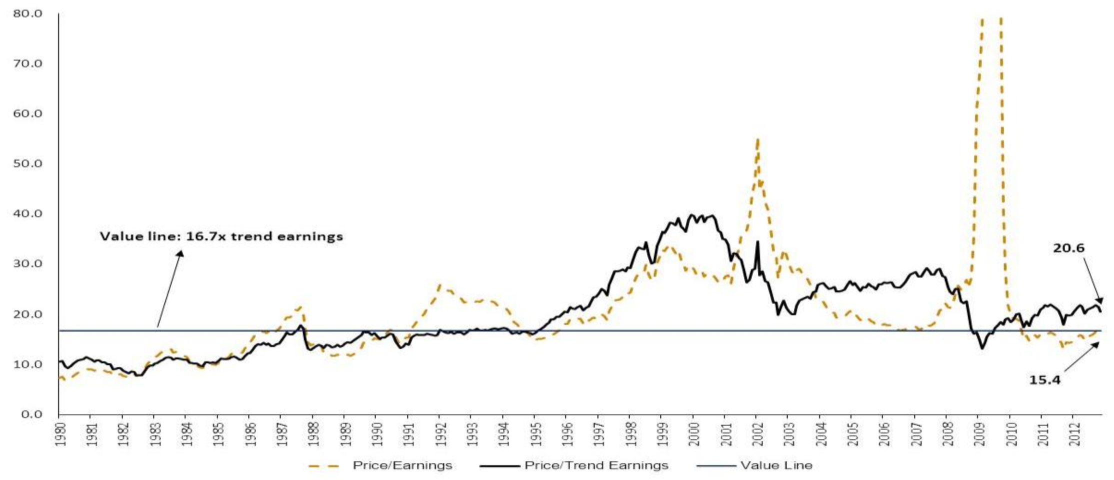
The structural forces that have pushed real global interest rates to unusually low levels relative to trend over recent years are in many respects one and the same as those that have pushed margins and returns on capital to very high levels relative to trend. Since the mid 1990's, the massive growth in global labour supply that stems from globalisation, free trade, technology/productivity advance etc has greatly expanded the output potential of the global economy. Growth in global final / consumer demand has lagged growth in global output potential because global savings / consumption habits are naturally slow to adapt in an era of major positive productivity surprise. This results in a major surplus in non-inflationary financial liquidity that pushes interest rates lower to levels required to stimulate faster growth in global consumption relative to savings. Structural Equilibrium would eventually be restored whenever global consumer demand expands to the point where global labour markets begin to come into supply/demand balance, giving labour some modicum of renewed pricing power and requiring a more normal level for interest rates to avert the emergence of inflationary pressures.

We believe that the underlying structural mean reversionary process for real interest rates is slowly taking root, having been sent into abatement as the global cyclical environment turned particularly negative in 2008. We see structural mean reversion of interest rates as an ongoing gradual and easily interrupted process and, as in the case of earnings, it requires renewed and sustained reflation of global demand to resume. Subsiding savings rates from current high levels in the emerging economies would be a signal that the process is underway. Transient deflationary shocks and/or cyclical setbacks in growth (such as more recently) have the effect of delaying this mean reversionary process as they push real and nominal bond yields lower again for a time. **Gradual cyclical economic recovery can eventually bring interest rates up from their current extreme lows, but in an environment that will remain structurally conducive to lower than normal rates for some time yet, albeit not indefinitely.**

Applying Our Fundamental Valuation Model to Equity Markets

Charts 10, 11, 12, 13 and 14 below show the 32-year histories of the price to trend earnings ratios for the US, UK, French, German and Italian (26 years) equity markets relative to our fair value line. Price to current earnings ratios are included for comparison purposes.

Chart 10: S&P 500 Price/Earnings and Price/Trend Earnings (1980-2012)



Current S&P 500 Index: 1360

Chart 11: UK Price/Earnings and Price/Trend Earnings (1980-2012)

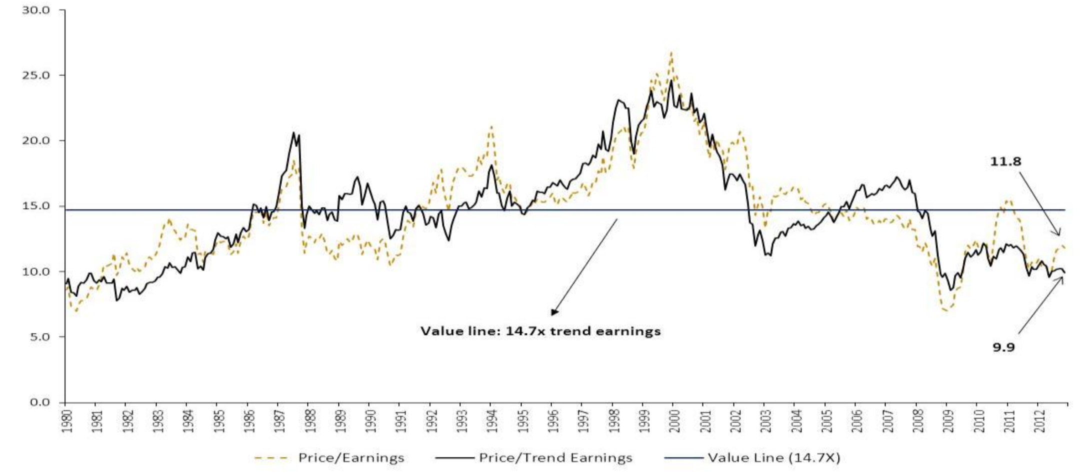


Chart 12: France Price/Earnings and Price/Trend Earnings (1980-2012)

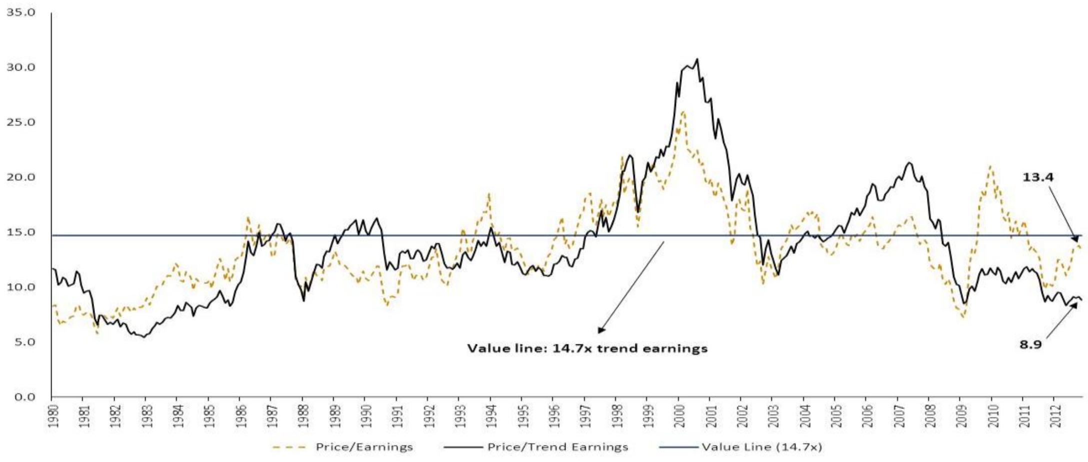


Chart 13: Germany Price/Earnings and Price/Trend Earnings (1980-2012)

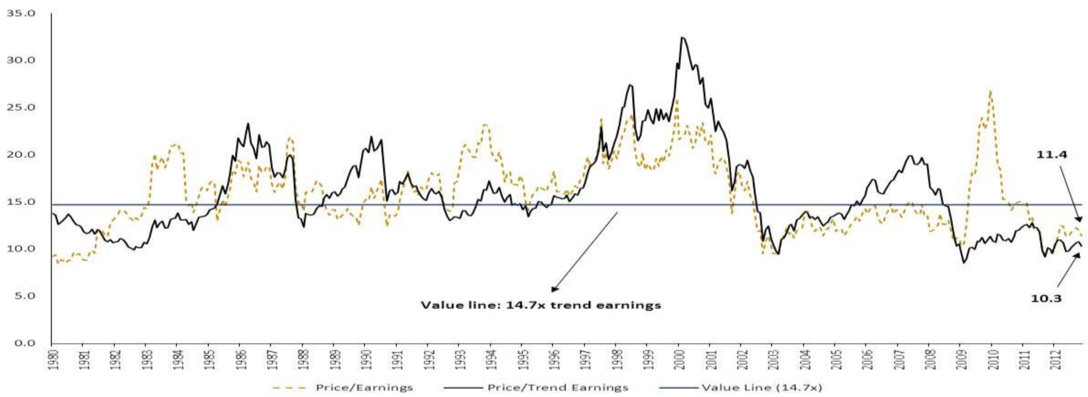
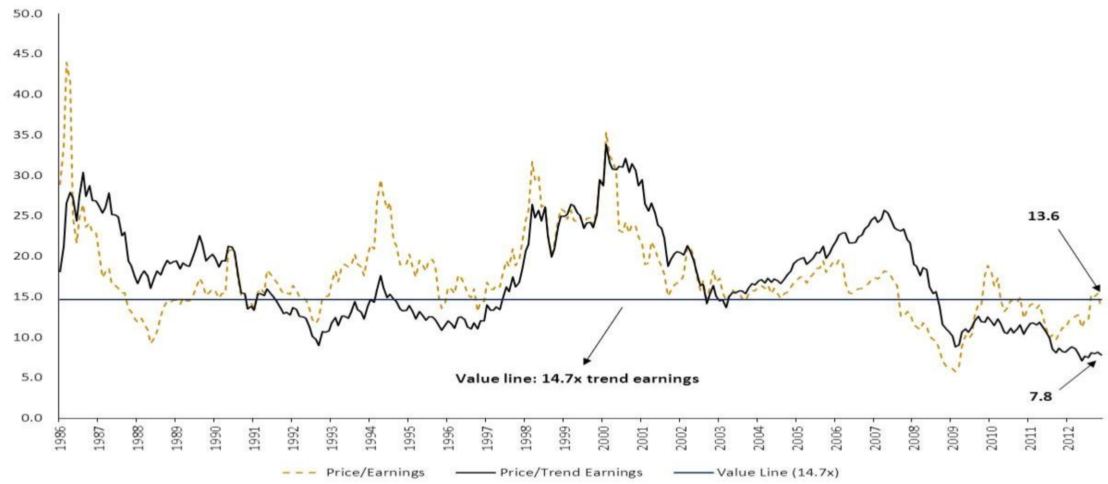


Chart 14: Italy Price/Earnings and Price/Trend Earnings (1986-2012)



(Note: For the US market, we use the history of S&P500 "reported" earnings (i.e. before any "adjustment" for "non-recurring" cost or revenue items at company level). Accordingly, our fair value line is drawn at approximately 16.7 times the trend level of these real reported earnings, as discussed earlier in this report. For the European equity markets, we use Datastream indices for which individual company earnings are recorded in "adjusted" form (i.e. to strip out the impact of some "non-recurring" cost or revenue items at company level). However the concept of "adjustment" is not appropriate at overall market level because unanticipated cost and revenue items will always be impacting overall market earnings. The "adjustment" process typically flatters market earnings systematically to the extent of about 12%-15% in any year. To correct for this therefore, our fair value line for the European equity markets is drawn commensurately lower at 14.7 times the trend level of these real "adjusted" earnings.)

As can be seen from the charts, **the price to current earnings ratio for the US equity market has recently come back down from the stratosphere to a modest level, reflecting a very speedy recovery in reported earnings from an extremely severe cyclical low. The price to trend earnings ratio has moved from moderate under-valuation to moderate over-valuation, reflecting the cyclical recovery in equity prices**.

After the recent major share price correction on worries about the Eurozone debt crisis and growth, European price to trend earnings ratios are once again signaling major fundamental under-valuation. Price to current earnings ratios have more recently been rebounding from historically low levels as earnings are impacted by renewed recessionary forces in Europe.

We are aware that the 32-year trend earnings lines for the main European markets show compound annual real earnings growth rates that look too high to be sustainable / credible (see Charts 4 and 5 for France and Germany in particular). This might reflect a protracted but nonetheless once-off process whereby returns on capital and margins played catch-up towards Anglo Saxon norms. Any such trend probably started in the early 1990's and has most likely run its course by now. Albeit that any such structural improvement is unlikely to unwind, its finite nature nonetheless dictates that **extrapolation of these faster growing trend earnings lines could (from some point in the past or future) progressively overstate the degree to which these markets appear fundamentally cheap.** Furthermore, there may be some bias in the historic European index data towards overstatement of the underlying earnings growth rate. We are reluctant to subjectively adjust the trend earnings data to reflect these caveats. **We take comfort from the fact that estimates for the average underlying sustainable trend level of earnings for the four leading European markets we analyse would have to be revised down below 62% of currently indicated levels on the trend line before the prospective long run total return from European markets would fall into overvalued territory below the required level of 6% real.** Furthermore, our measures of current earnings for the four European markets are still 26% below the trend lines on average and 35**%** below the most recent cyclical peaks on average. Even when we use these still depressed current earnings levels, we find that the four European markets offer an earnings yield of about 7.1% on average at present, which is already consistent with 18% upside to long run fair value if we only assume that earnings grow at the required underlying trend rate of say 3% per annum from this point forward.

The caveat about the trend growth rate for earnings in these European markets remains nonetheless significant. Whereas our model indicates that the European markets have average fundamental upside potential of 61%, we would conservatively advise scaling this back to about 30% on average.

Interpolating the Prospective Equity Risk Premium

Equity markets are typically priced, over the long run, to provide a very substantial equity risk premium of 3% per annum in excess of the return on cash and bonds. Even when equities are fundamentally over-valued, they are usually still priced to earn a positive equity risk premium over the long run relative to cash and bonds. Over-valuation in equity markets is nearly always a matter of sub-optimisation of the long run equity risk premium rather than it being zero or negative and undervaluation is about the extent to which it exceeds the mean reverting required level.

Our approach is to use mean reversionary rather than current/actual levels for earnings and real bond yields in assessing the prospective long run equity risk premium on offer. However, the rate at which these key variables actually mean revert will also have some influence on the size of the premium eventually realized.

It is impossible to be sufficiently precise about the likely rate of sustained mean reversion in earnings and real bond yields to allow the current level of effective over or under valuation in equity markets to be predicted accurately. We can, however, compare the scenario of immediate mean reversion with the alternative scenario of no mean reversion from current levels and then use our judgment to interpolate between the two to assess the likely adequacy of future equity returns.

In the upper section of Table 2 below we quantify the prospective equity risk premium on offer in the US and European equity markets as calculated by the ESN mean reversionary fundamental valuation model. The sustainable earnings yield is calculated using the latest level of trend earnings on the trend line rather than actual current earnings and the sustainable real bond yield is assumed to be the mean reversionary 3% level rather than the current (much lower) level. The excess of the mean reversionary earnings yield over the mean reversionary real bond yield would represent the sustainable equity risk premium on offer from equities. So, **on the assumption that earnings and real bond yields mean revert quickly, US equities should earn a total return of 1.85% per annum in excess of the return on US government bonds over the long term. This falls short relative to the required 3% long run equity risk premium. On the same assumption of immediate mean reversion in earnings and real bond yields, the prospective equity risk premiums from the UK, French, German and Italian markets are very significantly above the required 3% level at 5.90%, 6.92%, 5.51% and 8.27% respectively.**

Table 2: Interpolating the Prospective Equity Risk Premium

Fundamental	(%) Trend E/P	less	(%) Mean Reverting RRFR	=>	(%) Sustainable ERP
US	4.85		3.00		1.85
UK	8.90		3.00		5.90
France	9.92		3.00		6.92
Germany	8.51		3.00		5.51
Italy	11.27		3.00		8.27
Current/Apparent	**(%) Current E/P**	**less**	**(%) Current RRFR**	**=>**	**(%) Apparent ERP**
US	6.49		-0.81		7.30
UK	7.46		-0.80		8.26
France	6.58		+0.25		6.33
Germany	7.73		-0.49		8.22
Italy	6.48		+3.07		3.41

RRFR = Real Risk Free Rate on 10-year inflation protected government bond.

ERP = Equity Risk Premium

Whereas the upper section of Table 2 calculates prospective equity risk premiums based on the assumption of immediate mean reversion of earnings and real bond yields, the lower section of Table 2 calculates equity risk premiums using the current levels for earnings and real bond yields. As can be seen, **the apparent prospective risk premium from US equities has recently shot up to 7.30% if the current levels of earnings and real bond yields are assumed to be representative of future long run equilibrium. This would be way more than adequate relative to the required risk premium of 3%. On these assumptions, the apparent risk premiums on offer from the European equity markets are similarly impressive at**

8.26%, 6.33% and 8.22% for the UK, France and Germany respectively. The outlier is Italy, where the recent big rise in the real bond yield to 4.26% has brought the apparent equity risk premium down to an only moderately attractive 3.41% despite a major drop in equity prices.

The risk premiums likely to be achieved in equity markets will most likely lie somewhere in between the two opposing scenarios as set out in Table 2, but the mean reversionary scenario in the upper section would be the dominant predictor over the longer run.

Strategy co-ordinator

Bernard McAlinden	ESN	Dublin	+353 87 241 4826	bernard.mcalinden@esnpartnership.eu

Strategy team

Benoit Rodriguez	CM – CIC Securities	Paris	+33 1 45 96 81 56	Benoit.rodriguez@cmcics.com
Etienne de Callatay	Bank Degroof	Brussels	+32 2 287 91 09	etienne.decallatay@degroof.be
Damien Petit	Bank Degroof	Luxembourg	+352 453545 2242	damien.petit@degroof.lu
Francesco Previtera	Banca Akros	Milan	+39 02 4344 4302	francesco.previtera@bancaakros.it
Francois Duhen	CM – CIC Securities	Paris	+33 1 4596 7942	francois.duhen@cmcics.com
Holger Schmidt	Equinet Bank	Germany	+49 69 5899 7432	holger.schmidt@equinet-ag.de
Jarkko Soikkeli	Pohjola Bank	Finland	+358 10 252 8685	Jarkko.soikkeli@pohjola.fi
Joao Lourenco	Caixa BI	Lisbon	+351 21 389 6841	joao.lourenco@caixabi.pt
Cees Rijsdijk	SNS Securities	Netherlands	+312 0 550 8521	cees.rijsdijk@snssecurities.nl
Sep Van de Voort	SNS Securities	Netherlands	+312 0 5508821	sep.vandevoort@snssecurities.nl
Victor Peiro Perez	Bankia Bolsa	Madrid	+34 91 436 7812	vpeirope@bankia.com
Yann Belvisi	CM-CIC Securities	Paris	+331 45 968 646	yann.belvisi@cmcics.com
Camille de Williencourt	Cm-CIC Securities	Paris	+331 45 967 731	Camille.dewilliencourt@cmcics.com
Sophie Mametz	Cm-CIC Securities	Paris	+33 1 45 96 77 57	sophie.mametz@cmcics.com

ESN Recommendation system

The ESN Recommendation System is **Absolute**. It means that each stock is rated on the basis of a **total return**, measured by the upside potential (including dividends and capital reimbursement) over a **12 month time horizon**.

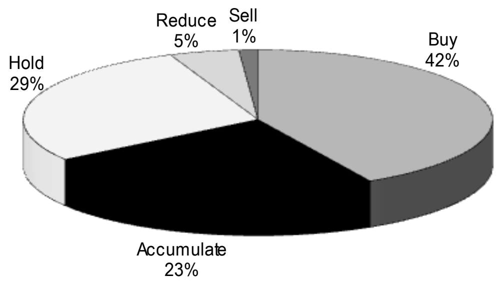
The ESN spectrum of recommendations (or ratings) for each stock comprises 5 categories: **Buy, Accumulate (or Add), Hold, Reduce and Sell (in short: B, A, H, R, S)**.

Furthermore, in specific cases and for a limited period of time, the analysts are allowed to rate the stocks as **Rating Suspended (RS)** or **Not Rated (NR)**, as explained below.

Meaning of each recommendation or rating:

- **Buy**: the stock is expected to generate total return of **over 20%** during the next 12 months time horizon
- **Accumulate:** the stock is expected to generate total return of **10% to 20%** during the next 12 months time horizon
- **Hold**: the stock is expected to generate total return of **0% to 10%** during the next 12 months time horizon.
- **Reduce**: the stock is expected to generate total return of **0% to -10%** during the next 12 months time horizon
- **Sell**: the stock is expected to generate total return **under -10%** during the next 12 months time horizon
- **Rating Suspended**: the rating is suspended due to a capital operation (take-over bid, SPO, …) where the issuer of the document (a partner of ESN) or a related party of the issuer is or could be involved or to a change of analyst covering the stock
- **Not Rated**: there is no rating for a company being floated (IPO) by the issuer of the document (a partner of ESN) or a related party of the issuer

ESN Ratings Breakdown

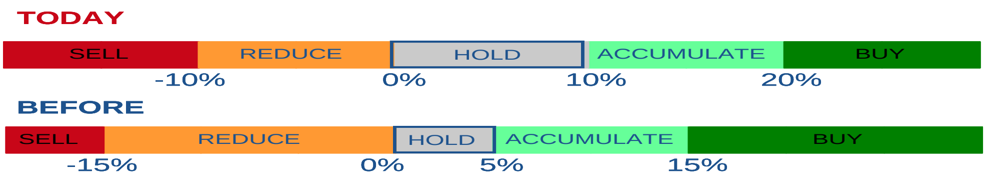


History of ESN Recommendation System

Since 18 October 2004, the Members of ESN are using an Absolute Recommendation System (before was a Relative Rec. System) to rate any single stock under coverage.

Since 4 August 2008, the ESN Rec. System has been amended as follow.

- Time horizon changed to 12 months (it was 6 months)
- Recommendations Total Return Range changed as below:



Disclaimer:

These reports have been prepared and issued by the Members of European Securities Network LLP ('ESN'). ESN, its Members and their affiliates (and any director, officer or employee thereof), are neither liable for the proper and complete transmission of these reports nor for any delay in their receipt. Any unauthorised use, disclosure, copying, distribution, or taking of any action in reliance on these reports is strictly prohibited. The views and expressions in the reports are expressions of opinion and are given in good faith, but are subject to change without notice. These reports may not be reproduced in whole or in part or passed to third parties without permission. The information herein was obtained from various sources. ESN, its Members and their affiliates (and any director, officer or employee thereof) do not guarantee their accuracy or completeness, and neither ESN, nor its Members, nor its Members' affiliates (nor any director, officer or employee thereof) shall be liable in respect of any errors or omissions or for any losses or consequential losses arising from such errors or omissions. Neither the information contained in these reports nor any opinion expressed constitutes an offer, or an invitation to make an offer, to buy or sell any securities or any options, futures or other derivatives related to such securities ('related investments'). These reports are prepared for the clients of the Members of ESN only. They do not have regard to the specific investment objectives, financial situation and the particular needs of any specific person who may receive any of these reports. Investors should seek financial advice regarding the appropriateness of investing in any securities or investment strategies discussed or recommended in these reports and should understand that statements regarding future prospects may not be realised. Investors should note that income from such securities, if any, may fluctuate and that each security's price or value may rise or fall. Accordingly, investors may receive back less than originally invested. Past performance is not necessarily a guide to future performance. Foreign currency rates of exchange may adversely affect the value, price or income of any security or related investment mentioned in these reports. In addition, investors in securities such as ADRs, whose value are influenced by the currency of the underlying security, effectively assume currency risk.
ESN, its Members and their affiliates may submit a pre-publication draft (without mentioning neither the recommendation nor the target price/fair value) of its reports for review to the Investor Relations Department of the issuer forming the subject of the report, solely for the purpose of correcting any inadvertent material inaccuracies. Like all members employees, analysts receive compensation that is impacted by overall firm profitability For further details about the specific risks of the company and about the valuation methods used to determine the price targets included in this report/note, please refer to the latest relevant published research on single stock or contact the analyst named on the front of the report/note. Research is available through your sales representative. ESN will provide periodic updates on companies or sectors based on company-specific developments or announcements, market conditions or any other publicly available information. Unless agreed in writing with an ESN Member, this research is intended solely for internal use by the recipient. Neither this document nor any copy of it may be taken or transmitted into Australia, Canada or Japan or distributed, directly or indirectly, in Australia, Canada or Japan or to any resident thereof. This document is for distribution in the U.K. Only to persons who have professional experience in matters relating to investments and fall within article 19(5) of the financial services and markets act 2000 (financial promotion) order 2005 (the "order") or (ii) are persons falling within article 49(2)(a) to (d) of the order, namely high net worth companies, unincorporated associations etc (all such persons together being referred to as "relevant persons"). This document must not be acted on or relied upon by persons who are not relevant persons. Any investment or investment activity to which this document relates is available only to relevant persons and will be engaged in only with relevant persons.
The distribution of this document in other jurisdictions or to residents of other jurisdictions may also be restricted by law, and persons into whose possession this document comes should inform themselves about, and observe, any such restrictions. By accepting this report you agree to be bound by the foregoing instructions. You shall indemnify ESN, its Members and their affiliates (and any director, officer or employee thereof) against any damages, claims, losses, and detriments resulting from or in connection with the unauthorized use of this document.
For disclosure upon "conflicts of interest" on the companies under coverage by all the ESN Members and on each "company recommendation history", please visit the ESN website (www.esnpartnership.eu) **For additional information and individual disclaimer please refer to www.esnpartnership.eu and to each ESN Member websites:**

www.bancaakros.it regulated by the CONSOB - Commissione Nazionale per le Società e la Borsa

www.bankiabolsa.es regulated by CNMV - Comisión Nacional del Mercado de Valores

www.caixabi.pt regulated by the CMVM - Comissão do Mercado de Valores Mobiliários

www.cmcics.com regulated by the AMF - Autorité des marchés financiers

www.degroof.be regulated by the FSMA - Financial Services and Markets Authority

www.equinet-ag.de regulated by the BaFin - Bundesanstalt für Finanzdienstleistungsaufsicht

www.ibg.gr regulated by the HCMC - Hellenic Capital Market Commission

www.ncb.ie regulated by the Central Bank of Ireland

www.pohjola.com regulated by the Financial Supervision Authority

www.snssecurities.nl regulated by the AFM - Autoriteit Financiële Markten

Members of ESN (European Securities Network LLP)

Banca Akros S.p.A.
Viale Eginardo, 29
20149 Milano
Italy
Phone: +39 02 43 444 389
Fax: +39 02 43 444 302

Equinet Bank AG
Gräfstraße 97
60487 Frankfurt am Main
Germany
Phone:+49 69 – 58997 – 410
Fax:+49 69 – 58997 – 299

Bank Degroof
Rue de l'Industrie 44
1040 Brussels
Belgium
Phone: +32 2 287 91 16
Fax: +32 2 231 09 04

Investment Bank of Greece
24B, Kifisias Avenue
151 25 Marousi
Greece
Phone: +30 210 81 73 000
Fax: +30 210 68 96 325

Bankia Bolsa
Serrano, 39
28001 Madrid
Spain
Phone: +34 91 436 7813
Fax: +34 91 577 3770

NCB Stockbrokers Ltd.
3 George Dock,
Dublin 1
Ireland
Phone: +353 1 611 5611
Fax: +353 1 611 5781

Caixa-Banco de Investimento
Rua Barata Salgueiro, 33-5
1269-050 Lisboa
Portugal
Phone: +351 21 389 68 00
Fax: +351 21 389 68 98

Pohjola Bank plc
P.O.Box 308
FI- 00013 Pohjola
Finland
Phone: +358 10 252 011
Fax: +358 10 252 2703

CM - CIC Securities
6, avenue de Provence
75441 Paris
Cedex 09
France
Phone: +33 1 4596 7940
Fax: +33 1 4596 7748

SNS Securities N.V.
Nieuwezijds Voorburgwal 162
P.O.Box 235
1000 AE Amsterdam
The Netherlands
Phone: +31 20 550 8500
Fax: +31 20 626 8064