

## Equities

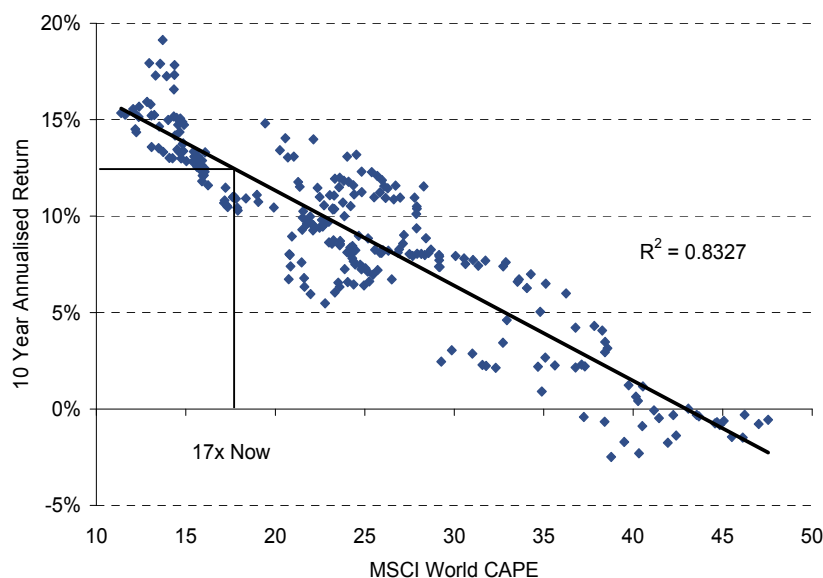
29 February 2012 | 24 pages

# Global Equity Strategist

## Around The CAPE

- **Welcome To The CAPE** — The cyclically adjusted PE (CAPE) measures current share prices against 10 year average EPS. Compared to more pro-cyclical spot PEs, it understates EPS at the top of the cycle and overstates them at the bottom.
- **CAPE Success** — The CAPE was flagging caution in 2007, a time when trailing and forecast PEs still suggested that global equities looked cheap. It also kept investors out of Japan at a time when deep value metrics were saying buy. So CAPEs are popular now.
- **CAPE Says Buy For The Long Run** — The starting CAPE has not had much predictive power for one year equity returns. But it has had a strong relationship with longer term equity performance. Using the current MSCI World CAPE of 17x, the historical relationship suggests double digit annual returns for global equities to 2022.
- **CAPE Now** — Right now, CAPE investors would favour European over US equities. Amongst global sectors, they would prefer Energy, Utilities and Financials to IT, Consumer Staples and Consumer Discretionary. They would favour European and US Financials to Japan and Emerging Market Financials.

Figure 1. MSCI World 10 Year Annual Return Against Starting CAPE



Source: CIRA, Factset, MSCI World data since 1970

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See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

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# Contents

<b>Around The CAPE</b>	<b>3</b>
<b>Cyclically Adjusted PE</b>	<b>3</b>
<b>CAPE cautious in 2007</b>	<b>4</b>
<b>CAPE stayed cautious on Japan</b>	<b>4</b>
<b>CAPE and market returns</b>	<b>5</b>
<b>CAPE since 1882</b>	<b>7</b>
<b>CAPE picks</b>	<b>8</b>
<b>Strategy Outlook</b>	<b>9</b>
<b>Macro Out-takes</b>	<b>11</b>
Regional Strategy	12
<b>Market Outlook</b>	<b>14</b>
Regional Strategy	14
Sector Strategy	14
Risk	14
<b>Global Market Intelligence</b>	<b>15</b>
<b>Appendix A-1</b>	<b>20</b>

## Around The CAPE

Cyclically adjusted or Shiller PEs are not new inventions, but seem to have become more popular in recent years. This is probably because they were both giving a more cautious steer than spot PEs back in 2007.

In this note we take a look at the cyclically adjusted PE (CAPE). We find that it has little use in forecasting shorter term returns, but it has been good at predicting longer term equity performance. This has been the case across all the major equity markets, even Japan. Right now, CAPEs are predicting double digit annual returns from global equities to 2022.

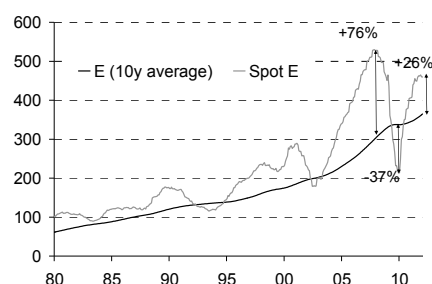
## Cyclically Adjusted PE

### Cyclically adjusted and Shiller PE

The cyclically adjusted PE was first associated with Ben Graham and David Dodd. By comparing current share prices to a ten year average EPS, they looked to strip the cyclical out of spot PEs and so improve the predictive powers for future returns. The Shiller PE, associated with Robert Shiller of Yale University, is an extension of this valuation tool which also adjusts for inflation.

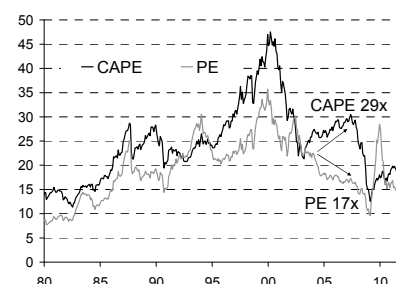
Figure 2 shows the trailing and ten year average EPS of the MSCI World benchmark. Trailing EPS peaked 76% above trend in November 2007 and troughed 37% below in January 2010. Right now, the MSCI World trailing EPS is back 26% above its ten year average.

Figure 2. MSCI World Trailing & 10 Yr Ave EPS



Source: CIRA, Factset

Figure 3. MSCI World CAPE & Trailing PE



Source: CIRA, Factset

CAPE valuations have the benefit of being counter-cyclical. At the peak of the economic cycle, the measure reverts EPS down to the ten year trend, so making the market look more expensive. At the bottom of the cycle, it reverts EPS up and so makes the market look cheaper. By contrast, a more current PE (whether trailing or 12m forward based on analysts' forecasts) tends to be more pro-cyclical. It makes the market look too cheap at the top of the cycle and too expensive at the bottom.

CAPE called 2007 peak, trailing PE did not

This is shown in Figure 3. At its peak in October 2007, the MSCI World traded on a worrying CAPE of 29x, compared to a more reassuring trailing PE of 17x. At that time, the CAPE was trading 16% expensive against its post-1980 average compared to the trailing PE which was 16% cheap.

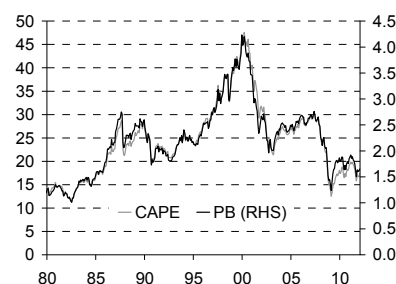
## CAPE cautious in 2007

This helps to explain why we get asked more about CAPEs nowadays. These metrics were giving an increasingly cautious steer on markets in 2007 while others, especially trailing or forward PEs, still looked cheap. This is hardly surprising given that trailing EPS was much higher than the 10 year average EPS at the time. The global corporate sector was over-earning. That trailing EPS proved unsustainable and subsequently halved. With hindsight, 2007 was an EPS bubble more than a valuation bubble. CAPE picks this up, spot PEs do not.

### CAPE not as unique as many think

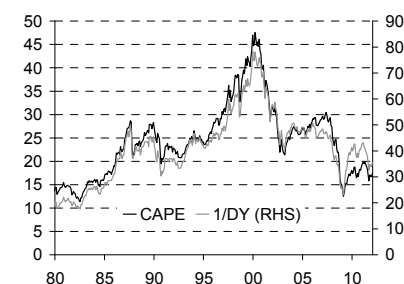
But CAPE was not the only valuation metric flashing amber back in 2007. The MSCI World P/BV also looked more cautious. At 2.7x, it was 16% expensive compared to its post 1980 average of 2.3x. In fact, P/BV gives an almost identical valuation profile to CAPE since 1980 (Figure 4). This is unsurprising since P/BV reflects cumulative retained EPS over time which ought to look very similar to trend EPS if payout ratios remain fairly constant. The same is true for dividend yields (Figure 5). In effect all three (CAPE, P/BV and DY) look at current share prices against a product of trend corporate profits. Maybe CAPEs aren't quite as original as we all think.

Figure 4. MSCI World CAPE & P/BV



Source: CIRA, Factset

Figure 5. MSCI World CAPE & 1/DY



Source: CIRA, Factset

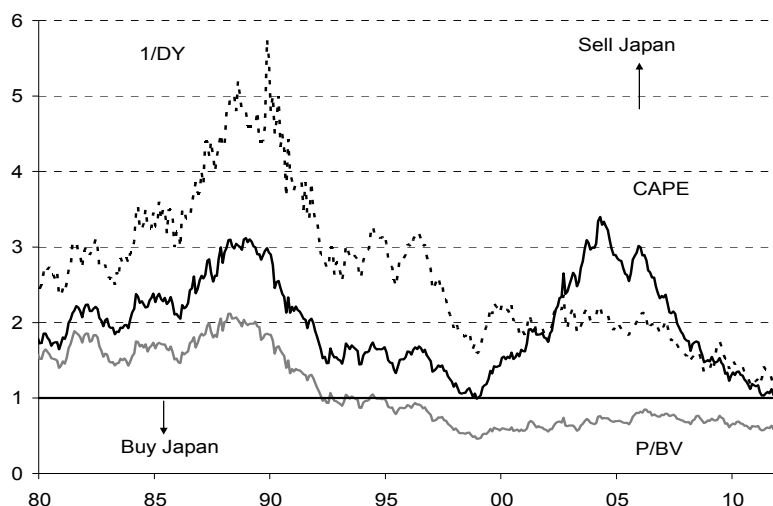
By comparison, at the market peak in 1999, all valuation measures were flagging caution. The MSCI World CAPE was 100% above its long run average. But DY, P/BV, even trailing and 12m fwd PEs were also all well above their long run average. Whichever measure you use, 1999 was an extreme valuation bubble.

## CAPE stayed cautious on Japan

### CAPE stayed away from Japan, P/BV dived in

So why bother to calculate CAPE if P/BV gives almost identical signals? Perhaps one reason is that spanner in the works of any global equity valuation model – Japan. P/BV valuations there have looked cheap against global equities since the bubble burst. Japan peaked at 5x P/BV in the late 1980s bubble. As the bubble burst, so Japan moved to a significant P/BV discount. It has been there ever since. Japan P/BV is now 1.0x compared to the MSCI World on 1.7x. Many deep value investors, who often favour “unfulfilled potential” valuation metrics like P/BV, have tried to call the turn since then. All have failed.

Figure 6. MSCI Japan/ World CAPE, P/BV & 1/DY



Source: CIRA, Factset

CAPE has been much less enthusiastic on Japan. It peaked at 83x in the late 1980s, a 212% premium to the MSCI World (Figure 6). It has derated since then, but the ongoing weak relative EPS trend means it never moved to a discount. In effect, CAPE would have kept a global investor out of Japan at a time when P/BV would have been trying to get him/her in. This helps to explain why Kenji Abe, our Japan strategist, is a fan. He now highlights that Japan, at last, is starting to look decent value on a CAPE of 17x, in-line with the global market.

#### Japan valuation bubble has finally burst

Figure 6 also shows the inverted dividend yield of Japan against the MSCI World. Like CAPE, this has remained cautious on Japan for the past 20 years. But, like CAPE, it is also suggesting that Japan's premium valuation has, at last, gone. It trades on a dividend yield of 2.4% compared to the MSCI World on 2.8%. The Japan real dividend yield now looks very attractive (3% versus World 0%). It's taken over 20 years but, finally, Japan's valuation bubble has burst. We are currently Overweight Japanese equities.

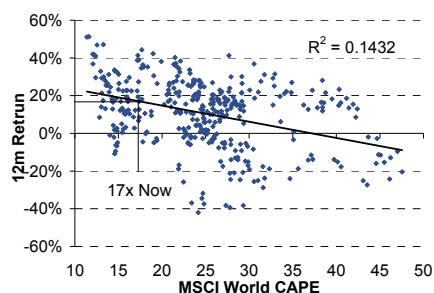
## CAPE and market returns

So the increased popularity of CAPE can largely be attributed to more cautious signals prior to the financial crisis, especially compared to the various spot PE measures. It has also helped to keep investors cautious on Japan at times when more deep value signals had turned positive.

But does CAPE work consistently? To examine this we look at the CAPE of global equities and subsequent returns using MSCI World data since 1970 (and so a CAPE since 1980). Figure 7 shows the starting CAPE against 12m forward returns. The relationship is fairly tenuous, with an R-squared<sup>1</sup> of only 14%. At extremes, the CAPE is more useful. Since 1980, an investor has always made money in global equities over 12 months by buying below 14x and always lost money by buying above 43x. The current CAPE (17x) is towards the bottom of the post-1980 valuation range, but there have been plenty of 12 month losses associated with even lower multiples. Investors looking to make money over the next 12 months should not be buying global equities on CAPE valuations alone in our view.

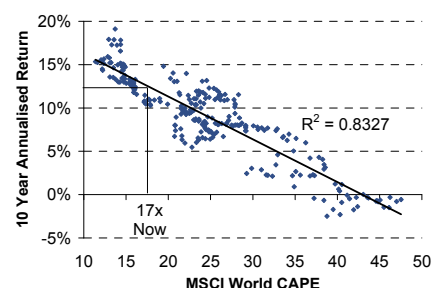
<sup>1</sup> The R-squared is the proportion of variability in a data set that is accounted for by a statistical model of that data set. Based on historic relationships, it provides a measure of how well future outcomes are likely to be predicted by that model.

Figure 7. MSCI World CAPE & 12m Return



Source: CIRA, Factset

Figure 8. MSCI World CAPE & 10Y Ann Return



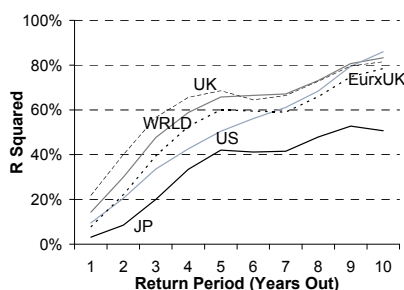
Source: CIRA, Factset

### CAPE bad for trading, good for investing

While CAPE has not been a good predictor of 12 month returns, it is much better at calling equity markets over ten years. Figure 8 shows a close relationship between the starting CAPE for the MSCI World and the subsequent annualized return. On this historic relationship, the current MSCI World CAPE of 17x would imply a very healthy annualized return of 13% for global equities until 2022. The message for long term investors is clear: buy now. You might not be rewarded over the next 12 months, but data since 1980 suggest a good probability of double digit annual returns over the longer term.

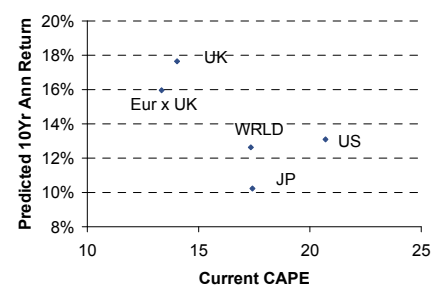
This improving predictive power of CAPE as investors look out further is consistent across global equity markets. Using data since 1980, Figure 9 plots the R-squared of equity returns to CAPE looking out over 1-10 years. This rises sharply as investors look five years out, especially in the UK. All rise to around 80% R-squared if we look at 10 years out. For Japan, CAPE's predictive power is generally lower but still meaningful for longer term future returns.

Figure 9. CAPE & Future Return R Squared



Source: CIRA, Factset

Figure 10. CAPE Now & Projected 10Y Ann Rtn



Source: CIRA, Factset

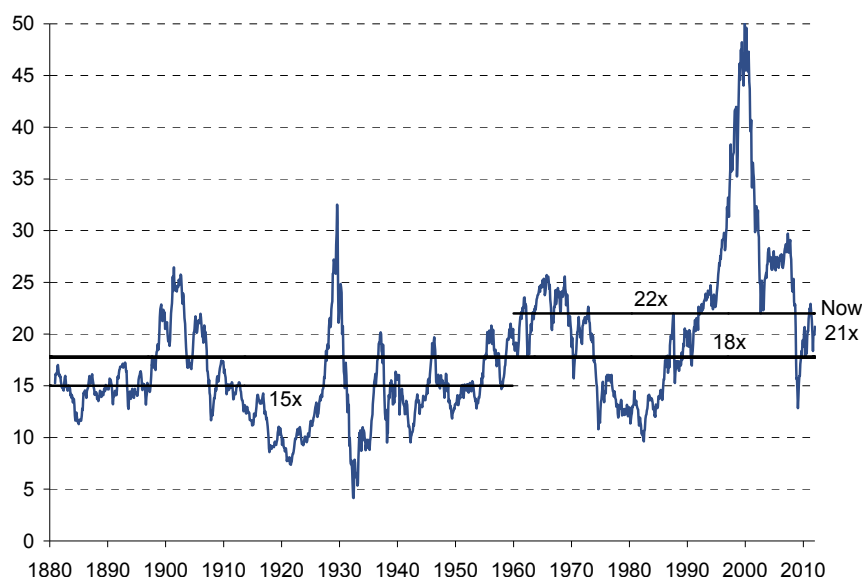
### CAPE predicts best returns from UK equities

The next step is to use CAPE to predict future returns from global equities. Figure 8 uses the linear relationship similar to that shown in Figure 8 to predict the 10 year forward annualized returns for each market given the current level of CAPE. On this simple basis, the UK is forecast to return a formidable 18% per year over the next ten years. That would turn £100 into £523. The lowest predicted return is for Japan at 10% per year. Even the more highly rated US market is predicted to return 13% per annum if this historical relationship holds.

## CAPE since 1882

So we could use CAPE to build a compelling case for long term, if not short term, returns from global equities from current levels. However, the bears suggest that post-1980 data is deceptive. Current CAPEs look cheap because the comparative data sample includes a big equity bubble. They would argue that it makes more sense to look at the current CAPE against a much longer term sample. Figure 11 looks at the US CAPE where we have data going back to 1882.

Figure 11. US CAPE Since 1882



Source: CIRA, Factset, Global Financial Data

### US CAPE not cheap against 130 year average

On this basis, the current US CAPE looks less attractive. At 21x, it is 17% above the 130 year average. However, the CAPE has been very unstable (ranging from 4x in the 1930s to 50x in the 1990s) and not especially mean-reverting. We also split the long-run average into pre-1960 (15x) and post-1960 (22x) levels. Against the pre-1960 average, US equities look 29% expensive. Against the post-1960 experience they are still 5% cheap.

But CAPE hasn't always worked. The R-squared between the ten year US equity return and the starting CAPE is just 12% for 1882-1960. It is just 19% for the whole 1882-2012 sample. However, the CAPE generally works as a predictive tool after 1960 (R-squared to 10 year return 62%). This linear relationship between US CAPE and returns since 1960 predicts an 11% annualized return from US equities over the next 10 years.

### You can't blame CAPE if you lose money in the future

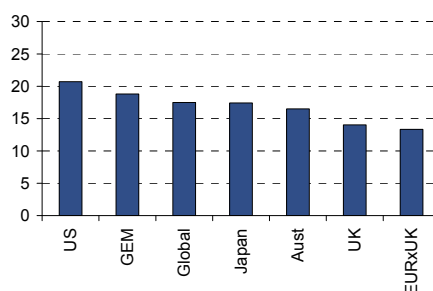
So we can see why bears would suggest that the current CAPE should be compared to the long term data samples. After all, this makes the market look expensive. But the CAPE has had little predictive power over these very long run samples. Historical analysis of the valuation/return relationship suggests that either the CAPE can be used to say that the market looks reasonable long run value right now, or not used at all. Of course, that doesn't mean that the market can't generate poor returns over the next ten years, it is just that an overvalued CAPE should not be blamed for those poor returns. There are plenty of challenges for the asset class as we look ahead, but valuation (as indicated by the CAPE at least) is not one of them in our view.

## CAPE picks

### European trades at a 35% CAPE discount to US

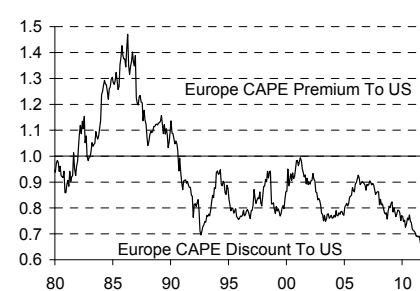
We would argue that CAPE still gives a very reasonable case for long term investment in global equities. But which equities look most reasonable? Figure 12 shows the major regions ranked by CAPE. Right now, a diehard CAPE value investor would favour Europe (including UK) over the US. Sure, Europe may face Japan-style economic pressures over the next 10 years, but the big difference is valuation. Europe now trades at a CAPE 35% below the US (Figure 13), but Japan never traded at such a discount to the US in the two last decades since 1990. We all know that the EMU crisis represents a major challenge for European companies, but CAPE suggests that much bad news is already in the price. We are currently Overweight European equities against the US.

Figure 12. Current Regional CAPE



Source: CIRA, Factset

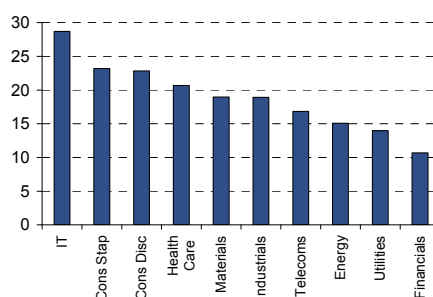
Figure 13. MSCI Europe/US CAPE



Source: CIRA, Factset

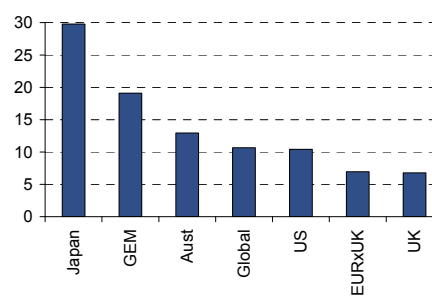
We also look at global sectors on a CAPE basis. Our CAPE investor would favour Financials, Utilities and Energy over IT, Consumer Staples and Consumer Discretionary. We put Figure 14 on the same scale as Figure 12 to show that the spread of global sector CAPEs (18 points) is greater than the regional spread (just 7 points). So our CAPE investor would currently be running a more aggressive sector than regional strategy.

Figure 14. Global Sector CAPE



Source: CIRA, Factset

Figure 15. Global Financials CAPE



Source: CIRA, Factset

### US and European Financials look cheapest on CAPE

Finally, Figure 15 breaks the global Financials CAPE down by region. This favours Europe and US Financials over Japan and GEMs. European and US Financials look cheap because their EPS is still well below the ten year trend. Alternatively, Japan and EM Financials look more expensive because their EPS is well above the 10 year average.



## Strategy Outlook

The increased popularity of the CAPE is understandable given that it was flashing amber before global equities halved in 2007-09. This is not a tool for traders but does have good predictive powers for longer term investors. Right now it is suggesting double digit annual returns from global equities to 2022. Within the global equity market CAPE favours Europe over the US. There is already much bad news priced into European equities.

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# Macro Out-takes

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*We provide brief summaries compiled by Bruce Rolph in The Globaliser presenting our colleagues' most recent work. Please let us know if you would like more detail.*

## Regional Strategy

Asia Pacific  
Markus Rosgen  
27-Feb-12

### [Pan Asia Strategy: So, Where Are We in the Cycle Again?](#)

'The average up-cycle in Asia ex is 5 years', *reminds Citi's "Pan Asia Strategy"*, 'and we are in year 3 of the recovery with trough-to-trough is a "lucky" eight years...In year 3 of the cycle, historically, valuation multiples expand...The average earnings growth during bull markets stands at 13% vs. market increases of 3.5 times that...so, don't look to earnings growth for performance...rather, to maximize returns, focus on value and not quality or growth...excessive issuance can derail cycles, but as yet there are few signs that this is occurring'.

US  
Tobias Levkovich  
24-Feb-12

### [US Equity Strategy: Monday Morning Musings- From Five Degrees of Separation to Five Degree of Suspicion](#)

'Five indicators are flashing reasons for concern about a market correction', *announces US Strategist Tobias M Levkovich*, 'the Economic Surprise Index appears to have peaked recently rather than having troughed which was the case in late 3Q11; the Panic/Euphoria Model is showing elevated levels of complacency now versus "panic" previously; and earnings estimate revision momentum has not kept pace with stock price gains... in addition, margin pressures are becoming quite evident; and Presidential election uncertainty is likely to become more crucial to the investment community as summer approaches...possible catalysts for a market pullback include rising energy prices and the news of a second LTRO in Europe'.

Europe  
Jonathan Stubbs & Adrian Cattley  
23-Feb-12

### [European Portfolio Strategist: UK/Pan European- Are We Nearly There Yet?](#)

'Synchronized global liquidity has driven pull-back free rally of 20%+ since November-2011 for European equities. On track to hit our 15-20% 2012 return target. There have only been three rallies of more than 25% without a 5% pull-back since 2000. We will buy dips. How far through the risk/beta trade are we? Seven pieces of evidence suggest we are two-thirds there. Time for investors to lower 'pure' beta exposure, but too early to fully ditch risk so combine beta with +ve fundamentals. And finally, investors should differentiate between the intra-market risk trade and the inter-market risk trade. The former can end without derailing equity market gains.

Emerging Markets  
Geoffrey Dennis  
28-Feb-12

### [Global Emerging Markets Strategy: The Emerging Markets Vote](#)

'Adding in Egypt, the 2012 elections cover 71% of GDP of Global Emerging Markets', reports Equity strategist Geoffrey Dennis, 'as well as 73% of market cap and 78% of population...in recent years, EM markets have tended to do better in the three months after elections (+0.6%, on average, v. MSCI GEMs) than in the six months before (=4.6% v. GEMs)...although the rally in EM equities have flattened off with year-to-date gains of 15-16%...this should only be a pause...the conditions supporting the rally early in the year (notable ample liquidity and attractive valuations) remain in place, while sentiment is not yet euphoric...we expect a further 15% upside to year-end'.

CEEMEA  
Andrew Howell  
22-Feb-12

### [CEEMEA Equity Strategy: Notes from the frontier- Vietnam: A Strong Start to 2012, but Still a 'Complicated' Story](#)

'Tops in frontier this year. Vietnam's equity market has sprinted out of the gate in 2012, rallying 23%. Vietnam is benefitting from the rebound in global risk appetite, as well as signs that inflation has peaked and expectations that economic policymaking is improving. Despite the risks, Vietnam should be a core frontier holding. The market ranks well among frontier markets in terms of long-term economic prospects and should form a core part of a frontier market portfolio.'

Japan  
Kenji Abe  
22-Feb-12

### [Japan Equity Strategist: The Debate on the Big Long](#)

'Japanese equities have turned in a startling rally', *nods Japanese analyst Kenji Abe*, 'with TOPIX up 12% YTD and outperforming global equities since the start of February...it seems that some investors are getting alarmed at elevated indexes...we too think there will be a temporary correction caused by profit taking...however, we think the uptrend is likely to continue through to before Golden Week at the end of April as...1) globally, central banks are bolstering monetary easing measures, 2) Foreigners turned net buyers in January 2012 for the first time in three months, and 3) Spring is coming, when Japanese equities perform best...'

Russia  
Kingsmill Bond  
22-Feb-12

### [Russia Equity Strategist: The Russian Hunter- Into the Elections](#)

'The Russian market is up 20% year to date', *impresses Strategist Kingsmill Bond*, 'outperforming emerging markets which are up 14%...but with Moscow characterized by protests for and against the government...we expect a period of uncertainty which has the potential to drag down the market if the handling of election on 4 March sparks major additional protests...we believe the greatest opportunity at present lies with Russia's deep value commodity asset plays...in the period of change to the Russian rentier system the companies which benefit most from the system are most at risk...'

Economics  
Willem Buiter  
22-Feb-12

### [Global Economic Outlook & Strategy: February 2012](#)

'We are edging up our global growth forecast for 2012', enthuses Citi's "Global Economic Outlook & Strategy", 'from 2.3% to 2.4%... only a small upward revision, but a marked contrast to the repeated downgrades since early 2011... while retaining our 3.0% growth forecast for 2013... however, for Greece, despite the latest package – which cuts the risks of immediate disorderly default and EMU exit – we continue to forecast further prolonged economic depression... with further debt restructuring likely... and the chance of a Greek EMU exit in the next year or two is still around 50%... growth will also disappoint, and deficits overshoot, in Portugal, Ireland, Italy and Spain'.

Economics  
Willem Buiter  
27-Feb-12

### [Global Economics View: Why Does The ECB Not Put Its Mouth Where Its Money Is? The ECB As Lender Of Last Resort For Euro Area Sovereigns And Banks](#)

'We have studied three key aspects of the financial strength of the Eurosystem', *confides Global Chief Economist Willem Buiter*, 'first detailing the conventional loss absorption capacity; second presenting estimates of the – much larger – total non-inflationary loss absorption capacity of the Eurosystem; and thirdly analysing the asset side of the ECB and Eurosystem balance sheet and its resulting exposures... to conclude that ECB default and hyperinflation in the euro area are not material risks... but "Roublezonefication", balkanization of the EA monetary and financial system, and banking systems with too many insolvent but liquid zombie banks are material risks'

Figure 16. Strategists' forecasts

Region	Index	Current Level (28 Feb)	End 2012 Target	Exp Gain (%)
US	S&P 500	1372	1425	4
Pan Euro	DJ Stoxx600	264	285	8
UK	FTSE 100	5928	6200	5
Japan	Topix	838	870	4
Asia x Jpn	MSCI	530	575	8
Australia	S&P/ASX 200	4263	4750	11
GEMs	MSCI EM	1069	1225	15
LATAM	MSCI Latam	4276	4900	15
CEEMEA	MSCI EM EMEA	362	350	-3
<b>World</b>	<b>MSCI ACWI</b>	<b>332</b>	<b>360</b>	<b>8</b>

Source: MSCI, Citi Investment Research and Analysis

## Market Outlook

Global equities are up 22% from their October lows. While stock markets are due a period of consolidation we expect more upside by year-end. While equities have rallied, core government bond yields have remained low. So higher bond yields are not yet choking off the rally like we have seen in the past. Current valuations imply equity investors are pricing in a 10% decline in global EPS. Our outlook is for profits to stall in 2012 and then resume growth in 2013, not turn down as markets imply. Our MSCI ACWI 2012 year-end target remains at 360 (currently 332).

## Regional Strategy

Our key regional and global sector recommendations are summarised in Figure 19. We remain Overweight Global Emerging Markets. Despite a strong start to 2012, valuations are still attractive in EM and the asset class should benefit from easier monetary policy this year. We are also Overweight Japan. Despite the strong rally YTD Japanese stocks are only trading at 1x book value. We are Overweight the UK. UK companies have large international businesses and should continue to generate solid EPS growth, even if the UK economy falls into recession. Aggressive monetary policy from the BoE should also help. We remain Neutral on Europe ex UK. While sovereign concerns will continue to weigh on growth, ongoing liquidity provisions by the central bank should help support equity markets. We also remain Neutral Australia. We are Underweight the US. Stock prices should continue to rise but we see better gains elsewhere. US equities look expensive compared to other regions.

## Sector Strategy

Our global sector strategy has a more cyclical/pro-beta tilt. This is consistent with our positive view on markets. We are Overweight Financials. Despite the strong rally YTD, the sector continues to trade at a discount to book value. We remain Overweight IT and Consumer Staples. These sectors have solid earnings momentum and they are strong de-equitisers. Consumer Discretionary is our least preferred cyclical. We are also Underweight Healthcare as valuations look unattractive. We are Underweight the Utilities sector. This defensive sector, hampered by regulatory issues, should continue to be left behind as markets rise.

## Risk

The main risks to our outlook stem from Europe and potential secondary consequences for global growth.

GDP	2011F	2012F	2013F
Global	3.0	2.4	3.0
US	1.7	2.0	1.8
Euro Zone	1.5	-1.3	-0.3
Japan	-0.9	1.2	1.4
EM	6.1	5.3	5.9
Asia	7.2	6.9	7.3
CPI	2011F	2012F	2013F
Global	3.6	3.0	2.9
US	2.4	2.2	1.8
Euro Zone	2.7	2.3	1.4
Japan	-0.3	-0.4	-0.1
EM	6.1	5.1	5.2
Asia	5.8	4.1	4.3
Interest Rates	Current	3Q12	2Q13
US Fed Funds	0.25	0.25	0.25
ECB	1.00	0.50	0.50
UK Base	0.50	0.50	0.50
Japan Call	0.10	0.10	0.10
10Yr Yield	Current	3Q12	2Q13
US	1.95	2.20	2.65
Euro Zone	1.82	1.50	1.50
UK	2.03	1.70	1.60
Japan	0.97	1.00	1.40
Ex Rates	Current	3Q12	1Q13
US\$/€	1.35	1.30	1.26
£/US\$	1.59	1.58	1.57
€/£	0.84	0.82	0.80
US\$/¥	81	80	78

Source: Factset, Citi Investment Research

Figure 17. Regional And Global Sector Recommendations

<b>Overweight</b>	<b>Neutral</b>	<b>Underweight</b>
Global Emerging Markets	Australia	US
Asia Pac ex-Japan	Europe ex-UK	
Japan		
UK		
<b>Overweight</b>	<b>Neutral</b>	<b>Underweight</b>
Consumer Staples	Energy	Consumer Disc
Financials	Industrials	Health Care
IT	Materials	Utilities
	Telecoms	

Source: CIRA

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# **Global Market Intelligence**

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Figure 18. Global Market Intelligence by Region

24 Feb 12	Free MC	Wgt	P/E			EPS YoY %			P/B	ROE	Div Yld	EV/ Sales	EV/ EBITDA	Perf % (local)	
	US\$bn	%	11E	12E	13E	11E	12E	13E	12E	12E	12E	11	11	Weekly	YTD
<b>Global</b>	<b>28,523</b>	<b>100</b>	<b>13.3</b>	<b>12.1</b>	<b>10.8</b>	<b>7.8</b>	<b>10.1</b>	<b>12.9</b>	<b>1.6</b>	<b>13.3</b>	<b>2.9</b>	<b>1.4</b>	<b>7.6</b>	<b>0.6</b>	<b>9.4</b>
Developed World	24,746	86.8	13.6	12.4	11.0	7.1	10.4	13.1	1.6	13.1	2.9	1.4	7.7	0.7	9.1
Emerging World	3,777	13.2	11.5	10.7	9.5	11.4	8.0	12.2	1.5	14.4	3.0	1.4	6.9	0.0	11.1
<b>North America</b>	<b>14,172</b>	<b>49.7</b>	<b>14.3</b>	<b>13.0</b>	<b>11.6</b>	<b>14.8</b>	<b>9.7</b>	<b>12.6</b>	<b>2.0</b>	<b>15.3</b>	<b>2.2</b>	<b>1.6</b>	<b>8.3</b>	<b>0.5</b>	<b>8.7</b>
USA	12,907	45.3	14.3	13.0	11.6	14.3	9.5	12.5	2.0	15.6	2.1	1.6	8.3	0.3	9.0
Canada	1,265	4.4	14.4	12.9	11.3	20.4	11.4	13.6	1.7	13.2	2.8	2.3	8.3	2.1	6.5
<b>Europe</b>	<b>6,850</b>	<b>24.0</b>	<b>11.7</b>	<b>10.9</b>	<b>9.7</b>	<b>-1.0</b>	<b>8.0</b>	<b>11.6</b>	<b>1.4</b>	<b>12.8</b>	<b>4.2</b>	<b>1.3</b>	<b>7.1</b>	<b>0.2</b>	<b>8.2</b>
United Kingdom	2,391	8.4	11.0	10.5	9.5	12.7	5.0	10.3	1.6	15.0	4.0	1.2	8.0	0.5	6.4
Europe ex UK	4,459	15.6	12.2	11.1	9.9	-7.6	9.7	12.3	1.3	11.8	4.2	1.4	6.7	0.0	9.2
France	983	3.4	10.9	10.4	9.3	-1.6	4.8	11.3	1.1	10.5	4.4	1.1	6.3	0.9	10.0
Germany	897	3.1	11.4	10.5	9.4	-1.5	8.6	11.0	1.3	12.4	3.7	1.2	6.2	0.3	16.1
Switzerland	895	3.1	14.4	12.8	11.5	-10.4	12.2	11.0	1.9	15.2	3.7	2.2	10.6	-0.8	4.6
Sweden	344	1.2	14.7	13.2	11.9	-13.5	11.7	11.1	2.0	15.3	4.0	1.4	8.4	0.2	12.1
Spain	323	1.1	10.0	9.5	8.3	-14.8	5.0	13.7	1.1	11.5	7.4	1.8	6.0	-1.6	-0.5
Netherlands	256	0.9	11.1	10.4	9.3	-3.1	6.9	11.5	1.3	12.9	3.8	1.3	7.4	-1.1	4.4
Italy	253	0.9	11.1	9.1	7.9	-19.9	21.9	16.0	0.7	8.1	4.9	1.4	5.3	-0.4	9.6
Denmark	120	0.4	22.8	17.6	14.0	-17.2	29.3	26.2	2.1	12.1	2.0	1.6	6.4	1.3	16.5
Norway	104	0.4	11.4	10.6	9.6	13.2	7.5	10.9	1.5	13.9	4.5	1.1	4.5	2.5	10.2
Belgium	101	0.4	16.0	12.4	11.0	-10.4	29.3	12.5	1.4	11.1	3.5	2.7	8.3	-0.8	8.3
Finland	96	0.3	13.6	14.8	12.1	-18.3	-8.4	22.1	1.5	10.2	4.7	1.6	5.4	2.1	16.0
Ireland	29	0.1	23.0	20.7	16.6	27.9	11.2	24.1	1.6	7.8	2.5	1.0	10.1	0.2	2.3
Austria	28	0.1	17.3	9.2	7.8	-45.0	87.9	17.4	0.8	9.2	3.8	0.9	5.8	0.7	17.5
Portugal	21	0.1	12.2	11.3	10.0	-7.0	7.8	12.8	1.1	9.9	6.2	1.7	8.2	-1.2	-1.1
Greece	9	0.0	18.7	8.3	7.0	-70.8	126.9	17.6	0.7	9.0	3.1	1.0	4.6	-10.4	12.2
<b>Japan</b>	<b>2,250</b>	<b>7.9</b>	<b>18.0</b>	<b>14.0</b>	<b>11.6</b>	<b>-8.3</b>	<b>35.6</b>	<b>24.3</b>	<b>1.0</b>	<b>6.9</b>	<b>2.4</b>	<b>1.0</b>	<b>7.1</b>	<b>2.9</b>	<b>15.1</b>
<b>Asia Pac ex Jp</b>	<b>3,615</b>	<b>12.7</b>	<b>12.9</b>	<b>11.8</b>	<b>10.4</b>	<b>5.0</b>	<b>10.7</b>	<b>13.4</b>	<b>1.6</b>	<b>13.4</b>	<b>3.4</b>	<b>1.4</b>	<b>7.4</b>	<b>0.4</b>	<b>11.0</b>
<b>Pacific ex Jp</b>	<b>1,409</b>	<b>4.9</b>	<b>13.0</b>	<b>12.5</b>	<b>11.3</b>	<b>7.7</b>	<b>3.9</b>	<b>10.7</b>	<b>1.5</b>	<b>12.0</b>	<b>4.5</b>	<b>2.0</b>	<b>8.1</b>	<b>1.7</b>	<b>9.0</b>
Australia	902	3.2	12.5	11.5	10.5	10.1	8.8	9.9	1.6	14.0	5.2	1.9	7.4	2.7	5.7
Hong Kong	308	1.1	14.1	15.8	14.0	4.6	-10.7	13.2	1.3	8.2	2.9	2.6	14.9	0.0	16.4
Singapore	186	0.7	13.9	13.7	12.3	1.5	1.4	11.2	1.4	10.4	3.6	1.7	8.7	0.3	14.6
New Zealand	12	0.0	14.3	14.1	12.4	-2.1	1.6	13.9	1.5	10.3	5.8	1.5	7.7	1.1	2.6
<b>Em Asia</b>	<b>2,206</b>	<b>7.7</b>	<b>12.9</b>	<b>11.4</b>	<b>9.9</b>	<b>3.3</b>	<b>15.0</b>	<b>15.0</b>	<b>1.6</b>	<b>14.4</b>	<b>2.7</b>	<b>1.2</b>	<b>7.2</b>	<b>-0.4</b>	<b>12.3</b>
China	673	2.4	10.9	9.7	8.6	16.0	12.1	12.6	1.6	16.2	3.3	1.3	7.2	0.0	16.4
Korea	552	1.9	11.3	9.9	8.6	-0.2	17.8	14.6	1.2	12.8	1.4	0.8	5.9	-0.3	10.8
Taiwan	404	1.4	16.9	15.4	12.5	-25.1	18.4	23.6	1.8	11.5	3.8	1.3	7.3	0.6	11.1
India	255	0.9	16.5	14.3	12.5	12.8	15.3	15.1	2.3	16.3	1.5	2.2	10.4	-2.6	17.6
Malaysia	123	0.4	16.6	14.6	13.2	8.6	13.5	10.9	2.0	14.0	3.6	2.3	9.5	-0.2	2.0
Indonesia	96	0.3	14.6	12.9	11.2	21.2	13.0	15.4	3.0	23.4	3.0	2.6	8.2	-3.3	-1.3
Thailand	75	0.3	13.4	11.7	10.1	18.3	14.9	15.2	2.1	17.7	3.6	2.1	8.9	1.9	14.8
Philippines	28	0.1	17.9	16.3	14.7	2.0	9.7	10.9	2.5	15.3	2.3	2.7	9.5	0.8	13.5
<b>Latin America</b>	<b>882</b>	<b>3.1</b>	<b>12.3</b>	<b>11.9</b>	<b>10.5</b>	<b>10.4</b>	<b>3.5</b>	<b>12.2</b>	<b>1.7</b>	<b>14.0</b>	<b>3.2</b>	<b>1.9</b>	<b>6.7</b>	<b>0.2</b>	<b>8.6</b>
Brazil	587	2.1	10.6	10.6	9.5	10.2	0.4	11.2	1.4	13.6	3.7	1.7	6.1	0.3	11.0
Mexico	167	0.6	19.4	16.2	13.4	7.8	19.9	17.5	2.4	14.9	1.9	2.1	7.6	0.3	1.7
Chile	67	0.2	17.3	16.2	14.9	5.6	6.8	11.7	2.3	13.6	2.7	2.6	11.5	-1.0	6.8
Colombia	37	0.1	17.7	16.2	12.8	28.0	9.2	11.1	2.4	17.7	3.4	3.1	12.5	-0.9	5.3
Peru	24	0.1	13.0	12.0	10.6	22.5	8.1	12.6	3.0	25.1	3.2	7.5	15.9	1.6	11.3
<b>CEEMEA</b>	<b>689</b>	<b>2.4</b>	<b>8.1</b>	<b>8.1</b>	<b>7.6</b>	<b>33.6</b>	<b>-2.0</b>	<b>5.8</b>	<b>1.2</b>	<b>14.8</b>	<b>3.8</b>	<b>1.5</b>	<b>5.9</b>	<b>1.0</b>	<b>10.9</b>
South Africa	286	1.0	13.7	11.2	9.9	20.7	22.6	12.6	2.1	18.5	4.0	1.6	7.8	1.2	5.9
Russia	258	0.9	5.2	5.8	5.7	48.1	-12.1	1.3	0.8	13.7	3.2	1.3	4.7	2.1	15.6
Poland	52	0.2	8.1	10.1	10.2	39.8	-19.5	-0.5	1.2	11.6	5.5	1.6	4.9	-1.8	7.4
Turkey	50	0.2	10.5	9.5	8.3	-3.1	11.1	13.9	1.5	15.4	3.4	1.5	8.1	-2.7	15.3
Egypt	13	0.0	10.7	9.6	9.1	6.3	11.8	9.1	1.2	12.4	3.9	2.4	7.5	3.2	42.4
Czech Republic	13	0.0	11.6	10.7	10.5	-14.2	8.2	2.7	1.8	16.3	6.6	2.7	5.4	-0.6	5.5
Hungary	12	0.0	9.9	8.9	7.4	-1.9	11.6	19.4	0.9	10.6	4.0	1.0	6.2	1.2	16.0
Morocco	5	0.0	14.4	12.8	14.1	-2.8	12.1	2.5	4.1	28.1	5.6	4.4	7.6	0.2	4.1
<b>Israel</b>	<b>65</b>	<b>0.2</b>	<b>8.7</b>	<b>8.2</b>	<b>7.5</b>	<b>8.9</b>	<b>6.2</b>	<b>9.1</b>	<b>1.4</b>	<b>16.9</b>	<b>3.3</b>	<b>2.8</b>	<b>9.2</b>	<b>-1.5</b>	<b>5.1</b>

Source: Citi Investment Research and Analysis, MSCI, Worldscope, Factset Consensus Estimates



Figure 19. Global Market Intelligence by Sector

24 Feb 12	Free MC	Wgt	P/E			EPS YoY %			P/B	ROE	Div Yld	EV/ Sales	EV/ EBITDA	Perf % (local)	
	US\$bn	%	11E	12E	13E	11E	12E	13E	12E	12E	12E	11	11	Weekly	YTD
Global	28,523	100	13.3	12.1	10.8	7.8	10.1	12.9	1.6	13.3	2.9	1.4	7.6	0.6	9.4
<b>Sectors- Level 1</b>															
Energy	3,442	12.1	10.5	10.4	9.4	27.0	1.2	10.4	1.5	14.3	2.8	1.1	6.5	1.8	8.9
Materials	2,379	8.3	12.1	11.5	10.0	19.2	4.9	15.7	1.6	14.0	2.6	1.6	7.0	1.8	13.0
Industrials	3,035	10.6	14.4	13.0	11.4	11.7	10.8	13.8	1.9	14.3	2.6	1.3	8.6	0.9	11.9
Consumer Disc.	2,923	10.2	16.4	14.0	11.7	10.7	18.4	18.9	1.9	14.1	2.0	1.3	7.6	0.2	12.9
Consumer Staples	2,838	9.9	16.6	15.2	13.7	6.5	9.5	10.3	2.8	18.5	3.2	1.5	9.8	-0.1	1.8
Health Care	2,499	8.8	12.5	12.2	11.3	9.2	2.9	8.0	2.3	19.2	2.8	1.9	9.0	-0.1	3.3
Financials	5,508	19.3	12.3	10.5	9.3	-3.3	16.9	12.8	1.0	9.4	3.5	NA	NA	0.0	13.4
IT	3,589	12.6	15.0	13.3	11.6	6.7	13.9	14.6	2.4	18.4	1.4	1.7	7.6	1.1	14.2
Telecoms	1,273	4.5	12.6	11.4	10.9	-1.5	5.9	9.4	1.6	13.6	6.0	1.9	5.7	0.1	-0.2
Utilities	1,037	3.6	14.8	13.9	12.4	-16.6	14.5	18.0	1.2	8.1	4.7	1.6	7.6	-0.1	0.8
<b>Sectors- Level 2</b>															
Energy	3,442	12.1	10.5	10.4	9.4	27.0	1.2	10.4	1.5	14.3	2.8	1.1	6.5	1.8	8.9
Materials	2,379	8.3	12.1	11.5	10.0	19.2	4.9	15.7	1.6	14.0	2.6	1.6	7.0	1.8	13.0
Capital Goods	2,262	7.9	13.4	12.3	10.9	17.4	9.1	12.7	1.9	15.2	2.7	1.2	8.9	0.8	13.5
Comm Svc & Supp	210	0.7	17.6	16.2	14.5	8.4	8.5	12.0	2.4	14.6	2.8	1.4	9.1	2.6	9.3
Transport	564	2.0	18.7	15.4	12.8	-11.5	21.6	20.4	1.7	11.2	2.3	1.6	7.8	0.5	6.9
Autos	745	2.6	10.9	10.1	8.5	17.6	10.7	19.3	1.2	12.2	2.1	0.9	6.3	0.2	21.7
Consumer Durables	415	1.5	41.1	18.8	13.6	-38.7	119.3	38.8	1.8	9.8	1.9	1.5	7.6	0.5	16.2
Consumer Services	414	1.5	18.9	17.5	15.4	16.8	7.9	14.2	3.3	19.0	2.3	2.0	10.5	-0.1	6.2
Media	622	2.2	16.1	13.6	11.8	17.8	18.2	15.2	2.1	16.2	2.1	2.0	8.1	0.2	10.0
Retailing	727	2.6	18.4	16.5	14.2	12.9	11.9	14.9	3.0	18.1	1.8	1.2	9.2	0.5	9.3
Food & Staples	614	2.2	14.8	13.4	12.1	5.9	10.4	10.5	1.9	14.1	3.0	0.7	7.6	-1.5	-0.2
Food Bev & Tobac.	1,772	6.2	17.1	15.6	14.1	7.6	9.4	10.6	3.2	20.5	3.3	2.2	10.6	0.2	2.5
Household Products	452	1.6	17.7	16.3	15.1	3.1	8.0	8.6	3.5	21.4	3.0	2.1	10.9	0.6	1.8
Health Care	642	2.3	14.4	13.3	11.9	11.1	8.6	11.0	2.2	16.7	1.2	1.1	8.6	0.5	8.6
Pharma & Biotech	1,857	6.5	12.0	11.8	11.0	8.6	1.3	7.1	2.4	20.2	3.4	2.5	9.2	-0.3	1.6
Banks	2,543	8.9	10.4	9.5	8.5	5.7	9.2	11.6	1.0	10.6	4.1	NA	NA	-0.2	12.2
Div Financials	1,166	4.1	12.7	10.3	8.7	-16.8	23.1	17.9	0.8	7.9	2.2	NA	NA	0.0	18.5
Insurance	1,062	3.7	14.5	10.1	9.1	-15.6	43.3	10.9	1.0	9.7	3.6	NA	NA	0.3	11.9
Real Estate	737	2.6	18.9	18.9	17.1	9.2	0.4	10.5	1.3	6.8	3.7	NA	NA	0.2	12.3
Software & Services	1,482	5.2	16.1	14.4	12.8	13.6	11.7	12.8	3.5	24.1	1.3	2.7	9.8	1.6	11.4
Tech	1,455	5.1	14.3	12.2	10.7	11.2	19.0	13.7	2.0	16.3	1.2	1.2	6.8	1.6	18.3
Semi & Semi Equip	653	2.3	14.2	13.5	11.3	-12.4	6.9	20.8	2.1	15.4	2.1	1.6	5.5	-1.2	11.9
Telecom	1,273	4.5	12.6	11.4	10.9	-1.5	5.9	9.4	1.6	13.6	6.0	1.9	5.7	0.1	-0.2
Utilities	1,037	3.6	14.8	13.9	12.4	-16.6	14.5	18.0	1.2	8.1	4.7	1.6	7.6	-0.1	0.8

Source: Citi Investment Research and Analysis, MSCI, Worldscope, Factset Consensus Estimates

Figure 20. 2012 P/E Estimates by Region and Sector

24 Feb 12

P/E 12E	Global	DM	GEM	US	Eur ex UK	UK	Jap	Dev Asia	Em Asia	Lat Am	CEEMEA
Region	12.1	12.4	10.7	13.0	11.1	10.5	14.0	12.5	11.4	11.9	8.1

**Sectors- Level 1**

Energy	10.4	11.2	7.5	11.5	9.5	9.1	10.2	17.7	9.8	10.3	5.2
Materials	11.5	11.9	10.2	13.1	13.5	8.9	14.5	10.7	11.2	9.8	9.3
Industrials	13.0	13.1	12.6	13.5	13.1	12.7	11.2	15.8	12.2	17.6	10.4
Consumer Disc.	14.0	14.4	11.3	15.3	11.2	12.5	16.6	15.5	10.2	15.0	14.3
Consumer Staples	15.2	14.8	19.1	15.0	15.3	13.6	16.0	13.8	18.0	20.3	18.9
Health Care	12.2	12.1	17.5	12.1	12.4	10.2	17.1	16.1	18.8	20.6	14.2
Financials	10.5	10.7	9.6	11.6	8.4	10.1	12.0	11.8	9.4	10.8	9.4
IT	13.3	13.2	14.0	12.7	16.1	25.1	16.0	20.1	13.9	16.3	12.0
Telecom Services	11.4	11.2	12.1	15.4	9.1	10.1	8.9	12.1	13.0	11.5	11.2
Utilities	13.9	14.2	12.4	14.6	9.8	11.9	-65.7	15.0	14.0	12.0	10.3

**Sectors- Level 2**

Energy	10.4	11.2	7.5	11.5	9.5	9.1	10.2	17.7	9.8	10.3	5.2
Materials	11.5	11.9	10.2	13.1	13.5	8.9	14.5	10.7	11.2	9.8	9.3
Capital Goods	12.3	12.4	11.6	13.3	12.7	11.4	10.1	13.4	11.4	15.5	10.3
Comm Svc & Supp	16.2	16.2	14.2	16.1	15.9	15.6	18.5	16.9	14.2		
Transport	15.4	15.1	18.3	13.7	15.3		16.9	20.0	17.9	19.7	12.0
Autos & Components	10.1	10.4	8.9	9.2	7.9	9.4	14.0		8.9		9.1
Consumer Durables	18.8	20.5	10.4	18.1	16.2	20.4	57.9	10.1	14.3	7.8	8.5
Consumer Services	17.5	17.7	14.2	19.1	13.6	14.0	16.8	15.8	13.9	17.3	
Media	13.6	13.4	19.2	13.7	11.8	12.4	18.2	12.3	19.7	18.6	19.3
Retailing	16.5	16.5	15.8	17.1	19.3	10.5	13.8	17.4	13.3	26.8	12.9
Food & Staples Retailing	13.4	12.7	22.3	13.6	11.3	9.5	13.0	13.7	19.4	24.1	22.5
Food Bev & Tobacco	15.6	15.4	17.4	15.3	15.9	14.7	17.2	14.3	16.3	19.2	14.0
Household Products	16.3	16.0	23.2	16.0	16.3	14.0	18.4		25.1	19.3	
Health Care Equip & Svc	13.3	13.2	17.5	12.5	18.0	13.0	19.7	15.8	20.0	20.6	12.7
Pharma & Biotech	11.8	11.8	17.5	11.9	11.8	10.1	16.6	16.3	18.5		15.2
Banks	9.5	9.8	8.9	10.4	8.4	9.9	9.0	10.5	8.6	10.0	8.6
Div Financials	10.3	10.1	12.9	10.2	8.3	12.4	17.7	17.0	12.1	18.3	11.3
Insurance	10.1	9.9	13.3	10.0	7.9	9.3	23.1	12.6	14.4	10.2	10.6
Real Estate	18.9	20.7	9.9	36.1	13.7	17.3	19.1	13.8	8.9	20.9	12.4
Software & Services	14.4	14.1	18.8	13.9	15.3	14.5	20.1	15.2	19.6	16.3	12.0
Tech Hardware & Equip	12.2	11.9	15.1	11.4	17.6		14.7	55.3	15.1		
Semi & Semi Equip	13.5	14.5	12.2	13.7	15.6	41.0	31.2	21.7	12.2		
Telecom	11.4	11.2	12.1	15.4	9.1	10.1	8.9	12.1	13.0	11.5	11.2
Utilities	13.9	14.2	12.4	14.6	9.8	11.9	-65.7	15.0	14.0	12.0	10.3

Source: Citi Investment Research and Analysis, MSCI, Worldscope, Factset Consensus Estimates

## **Notes**

## Appendix A-1

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