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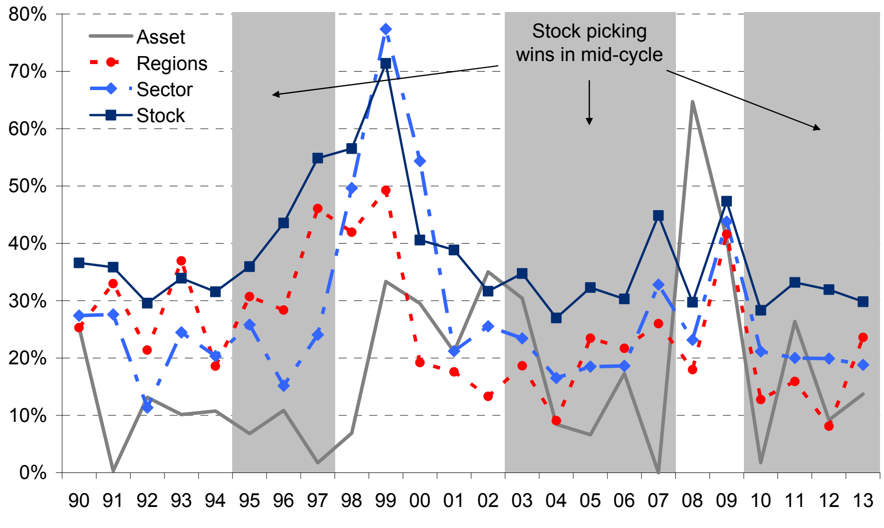
Equity Strategy (Citi)
Global

Global Equity Strategist

Back To Stock-Picking

- **Old Alpha Obsessives** — The highly correlated 2008-09 bear market swamped an equity fund management industry that had become overly focused on relative performance. Beta trounced alpha. There was nowhere to hide.
- **New Beta Obsessives** — As a result, investors now want diversification and small draw-downs. They are turning to asset allocation strategies. Multi-asset funds have benefited accordingly.
- **Falling Correlations Mean Less Top-down**— But global equity correlations are falling from extended levels. As this happens, the importance of top-down strategies such as asset allocation or regional/sector equity strategies usually fades.
- **Back To Bottom-Up** — Lower correlations and mid-cycle global economic conditions typically help good stock-pickers generate the best returns. While increased emphasis on beta is understandable, we think it's too late to give up on alpha.
- **Style Neutral** — Global equity markets are likely to remain on a less correlated style-neutral path. We highlight global regions, sectors and stocks that offer good value/growth trade-offs.

Figure 1. Annual Returns – Spreads Between Good And Bad Investment Decisions (% Points)



Source: Citi Investment Research and Analysis, Datastream

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Back To Stock-Picking

We look at four key investment decisions for global investors — asset allocation, equity regions, sectors and stock-picking. Which has been most important? How does that change over time? What might be most important next? An increased focus on asset allocation is the understandable reaction to the highly correlated 2008-09 bear market. However, we suspect that the current point in the cycle is more suited to bottom-up strategies. It's too late to give up on stock-picking.

The Four Big Calls

Four big calls

First we need to measure the performance contribution from getting the four key decisions right. To do this, we take a simple approach first used by our European strategy team. We split the four key calls into binary decisions. One is the most right, the other most wrong. We then measure the return spread between these two decisions. For consistency, all performance figures are measured in US$.

1. **Asset allocation**: we choose the best performer between the MSCI AC World index and US 10-year treasuries. For example, at the start of 2013 the good decision was to buy global equities (+9%). The bad decision was to buy US 10-year Treasuries (-5%). The good decision has beaten the bad decision by 14%.

2. **Regional equity selection**: we rank the five key calls — US, UK, Europe ex-UK, Japan and Emerging Markets (we use Asia Pac ex Japan as a proxy for EM before 1995). We then consider the average performance of the best and worst two regions. For 2013YTD, the good decision has been to favour US and Japan equities (average +20%). The bad decision was to choose EM and UK (average -4%). The good decision has beaten the bad decision by 24%.

3. **Global sector selection**: we rank the MSCI sectors by performance and then look at the average performance of the best three and the worst three. In 2013 so far the good decision has been to pick Health Care, Consumer Discretionary and Industrials (average +18%). The bad decision was to pick Materials, Energy and Utilities (average -1%). The good decision has beaten the bad decision by 19%.

4. **Global stock selection**: to produce meaningful comparisons we select the largest 10% of S&P Global BMI (where we have more history) stock constituents by name each year. We then rank these stocks by performance against their respective GICs sectors. The good call was to pick the top half of these stocks (average absolute performance 25% in 2013). The bad call is to pick the bottom half (average absolute performance -5% in 2013). In effect we are measuring the value added by choosing the best stocks in each sector, which in our experience is what stock-pickers are most comfortable doing. The good decision has beaten the bad decision by 30% so far this year.

Of course, this approach is very stylised and overly simplistic. We do not consider other asset classes or equity style factors (large/mid, value/growth etc). Nevertheless, we hope that this is a valid attempt to measure which decisions really matter.

Four magic envelopes

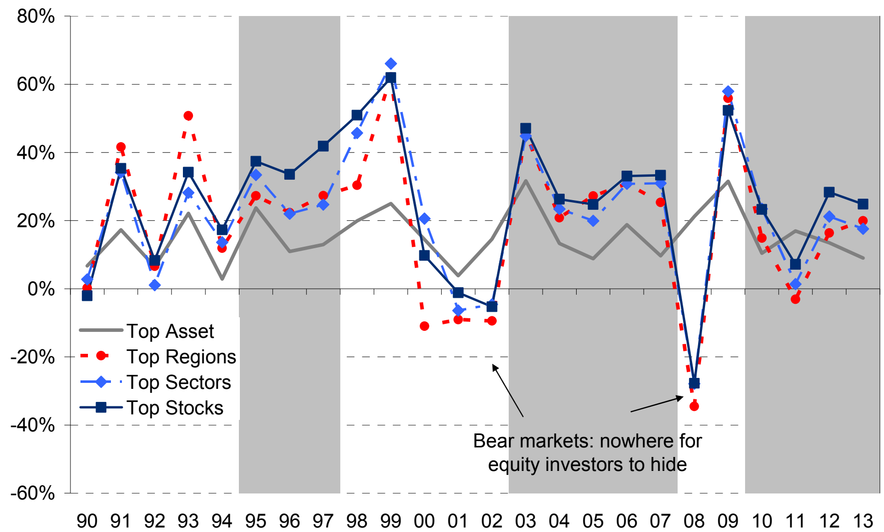
In short, imagine we are offering a global portfolio manager four sealed envelopes at the beginning of each year. The first offers perfect foresight on asset allocation, the second the correct regional calls, the third the ideal global sector strategy and

the fourth shows the best/worst stocks within sectors. Clearly, all would be very valuable. But which would be the *most* valuable? And how does that change over time?

Long-Only Returns

First, we take a long-only perspective. Each envelope contains just the best-performing decision. Which envelope the best pay-off? To measure this, Figure 2 shows the performance of each perfect foresight decision since 1990.

Figure 2. Annual Absolute Return From Good Calls (%)



Source: Citi Investment Research and Analysis, Datastream, Grey bars are mid-cycle years.

Equities highly correlated

The annual gains from being the best stock, sector or region picker look remarkably similar over time — equities have always been highly correlated. The performance gaps between the three best equity calls are still narrower now than they were in the 1990s when the absolute returns to good stock-pickers were strongest. Over the whole period, stock-picking seems to be most important.

So far in 2013, the absolute returns to the best region, sector and stock calls have again been similar — equities remain highly correlated, if less so than in 2008 and 2009. This year, our top stock strategy returned 25%, regions 20% (long US and Japan) and global sectors 18% (long Health Care, Consumer Discretionary and Industrials). Regional strategy seems to have become more important than sector strategy this year, but only just. The heyday of the regional strategist was 1993 when Asia Pac rose sharply. Regional strategy also prevailed in 2005, the last time that Japan outperformed strongly.

2000-03 bear market less correlated than 2008-09

When the MSCI AC World index fell by 50% in 2000-03, the best equity region, sector or stock-pickers were able to limit much of the damage. Their annual losses were less than 10%. However, the 2008-09 bear market was much more brutal. Even though the drop in global equities (60%) was not that much worse than 2000-03, the correlation was much greater. Even our perfect foresight equity strategies lost around 30% each. There really was nowhere to hide.

Nobody worries about high correlations in a bull market, but everyone cares in a bear market. 2000-03 and especially 2008-09 suggested that equities did not offer sufficient diversification to prevent significant capital losses. Alternatively, Figure 2 also shows that asset allocation away from equities towards bonds did allow the prospect of capital gains in 2008. Treasuries returned +21% versus global equities -44%. That's proper diversification.

From Alpha To Beta

Beta swamped alpha

Equities have failed to deliver the absolute returns that investors seem to crave. Correlations have been too high and the draw-downs too big. The asset management industry's obsession with relative equity performance looked increasingly irrelevant in the face of two ferocious bear markets. Too much buyside (and sellside) resource was dedicated towards finding equity alpha. Not enough was invested in managing beta. Even the most benchmark-obsessed equity manager must feel guilty telling investors that he/she has lost "only" 40% when the market is down 50%.

These pressures have reshaped the fund industry. Money has left traditional long-only equity funds in search of better risk-adjusted absolute returns elsewhere. This has benefited bond managers, hedge funds, ETFs/passive and multi-asset managers.

Bonds have offered the great Sharpe ratios and low drawdowns that investors seem to crave. Billions of dollars has poured out of equities into fixed income over the past 10 years. Some of the largest equity asset managers have fallen away. New bond houses have risen to take their place. From here, however, we would be concerned that bonds have also become a bull market beta trade. Not as beguiling as the equity bull market that eventually blew up in 2000, but a bull market nonetheless. Fixed income Sharpe ratios may not look so good in the future.

From 2003-07, hedge funds also enjoyed inflows from traditional long-only equity strategies. Here were highly talented stock-pickers who would be able to generate healthy, low volatility absolute returns whatever the prevailing market conditions. However, the 2008-09 bear market exposed the hedge fund industry to be almost as directional as the long-only fund managers they were hoping to replace. With a few exceptions, hedge funds have not proven to be the answer.

ETFs and other forms of passive investing have also benefited from the problems of the long-only equity industry. In particular, they offer retail investors with a cheap way to make their own diversified asset allocation decisions. This was not present just ten years ago. ETFs offer many new ways to capture beta.

Rise of the multi-asset funds

Finally, we have also noticed the rise of the multi-asset absolute return funds. Asset allocation skills, which had been neglected since the 1990s, seem to be back in demand again. This makes sense given the historical performance data. Out of our four strategies, only a (good) asset allocator would have been able to generate absolute returns every year since 1990. Sure, in some of the years the returns would have lagged well behind a skilful long-only equity manager, but that is presumably a price that absolute return investors are willing to pay in order to avoid losses.

However, even these asset allocators may not offer future diversification. The negative correlation between US treasuries and global equities since 2000 has been very helpful — at least one of the two asset classes was always rising. US treasury returns were positive in 2008, as equities plummeted. Equities rose sharply in 2009 as US treasuries sold off sharply. This allowed skilful asset allocators to

generate absolute returns (most will have an optimized mixture of equities and bonds).

QE could create problems

From here the risk could be that equities and bonds start to become positively correlated again. This is not a problem if they rise both together, but it could become much more troublesome if they fall together. This is what worries us about QE. It is intended to re-correlate bonds and equity prices on the upside, which it achieved in 2012. But maybe QE withdrawal also re-correlates them on the downside. Asset allocators would find it very difficult to generate positive absolute returns if bonds and equities fell together. The last year we could find where this happened was 1969, when US treasuries generated a -6% return and the S&P -8%. Even skilful asset allocators had nowhere to hide in 1969.

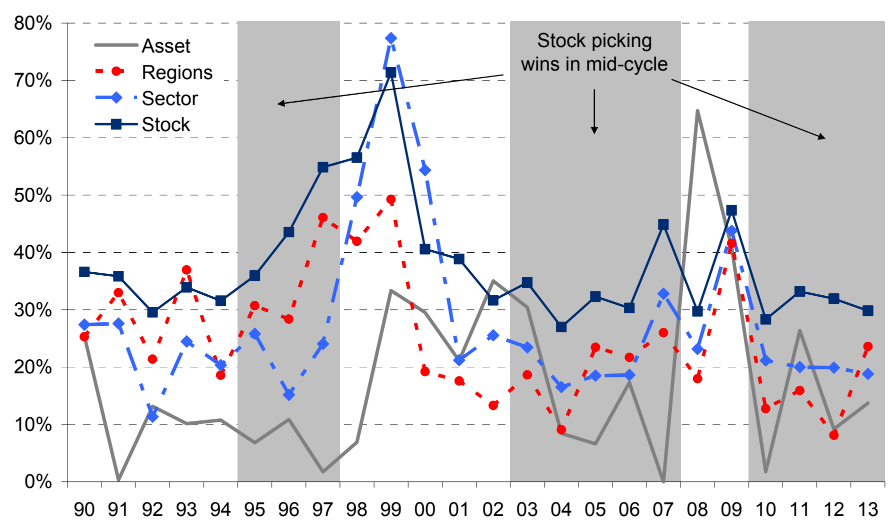
Back To Alpha

An increased focus on beta looks like a healthy response to an asset management industry that had become overly focused on alpha, especially in the equity market. However, we are realists; we understand that the obsessive search for equity alpha is not going away. And of course, just as it's technically unfair to praise equity-only managers if they are up 30% when the market is up 40%, so it is wrong to criticise them if they are down 30% when the market is down 40%. To really compare the value that can be added over and above what markets are offering, we also need to include the other precious information in our four sealed envelopes — the bad calls.

Long minus short

Figure 3 measures the spread between the good and bad decisions already described on page 3. This reduces the beta impact, and should help to focus on the true value added by a fund manager. And as a comparison, we also show the spread between picking the best and worst performing asset class (global equities or US treasuries) in each year.

Figure 3. Annual Returns – Spreads Between Good And Bad Investment Decisions (% Points)



Source: Citi Research, Datastream

Ironically, this chart does actually support a long-term focus on stock selection. It has been the most consistent source of alpha, winning 19 out of the 24 years. So in

the average year, we should always choose the stock-picking envelope. In mid-cycle conditions when equity correlations and volatility are lower, bottom-up stock-pickers prevail over more top-down regional, sector or asset allocation calls. These mid-cycle conditions were seen in 1994-97 and 2003-2007. They have also been present since 2010 in this cycle.

Top-down matters more at extremes

However, at more extreme points in the market cycle (e.g. 1999-2000 and 2008) top-down calls are more important. Sector strategy added the most value in 1999 and 2000. This reflected the rise and fall of the Tech bubble. Regional strategy was more important in the early 1990s as the Japan bubble burst and EM equities boomed. Regional strategy was also important in the late 1990s as EM equities crashed and the US market boomed.

In 2013, there has been a revival in the importance of regional strategy. It has not returned to its early 1990s heyday but this is its most important year (relative to other strategies) since 2005. Our perfect foresight strategy has generated a 24% (US$) regional spread by being long US/Japan and short EM/UK. Indeed, the big years for regional strategy often involve Japan. A bursting bubble in the early 1990s made Japan an important underweight. Idiosyncratic rallies by Japanese equities in 2005 and now 2013 made it an important overweight. The lacklustre performance of EM equities this year has also increased regional alpha.

For consistency, we measure the regional return spreads in US$ terms. We have also looked at regional strategy in local currency terms. Over time, this has not made a huge difference, but it can be important in individual years. This has been the case in 2013. In local terms the spread between our winning (Japan, US) and losing (EM, UK) regional trades is 28%, compared to 24% points in US$. In local terms, the alpha available from regional strategy has matched that from stock-picking in 2013.

Asset allocators dominated in 2008

Figure 3 may also suggest why asset allocation went out of fashion in the 1990s. Before 1997 equity and government bond returns were closely correlated, so there was not much to be gained through picking one over the other. However, as the correlation between government bonds and equities moved negative in the late 1990s so the return spread between the two asset classes widened. It took 2002's bear market for asset allocators to prove really useful. But their truly exceptional opportunity was in 2008 when global equities returned -44% and bonds 21%. This 65% spread between the two asset classes was unprecedented.

Where next?

The rise of absolute multi-asset funds is a logical and desirable response to the previous excess focus on equity alpha. At last investors can buy into funds where the managers can invest across a more diversified set of asset classes. This should get closer to producing the positive absolute returns that many investors seem to crave.

While anything that broadens the choice of strategies available to investors is welcome, it is ironic that the rise of multi-asset funds is occurring at a time when our analysis suggests that the importance of macro factors is fading. At the same time, the returns from increasingly unfashionable stock-picking are back to the fore. This is usually the case in mid-cycle conditions.

We are now in the mid-cycle

Citi's economic and market forecasts imply that these mid-cycle conditions are likely to continue for some time yet. This suggests that good stock-picking should continue to generate the best returns. Macro strategies may rise in importance (regions this year) but they tend to come and go. Of course, everything could

change if we head into another end-cycle boom and subsequent bust, but that still seems some way off. In the meantime, multi-asset strategies may not offer the best returns but they should provide some reassurance to those that fear a sudden return to much more volatile markets.

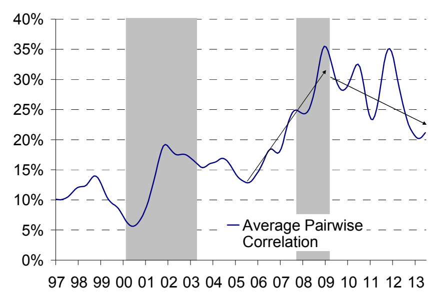
Bottom-Up, Style-Neutral

The 2008-09 bear market sharply increased stock correlations. However, this was not a new theme — global pair-wise correlations had actually been rising since 2005 (Figure 4). But nobody worries about rising correlation in a bull market.

Correlations are high but falling

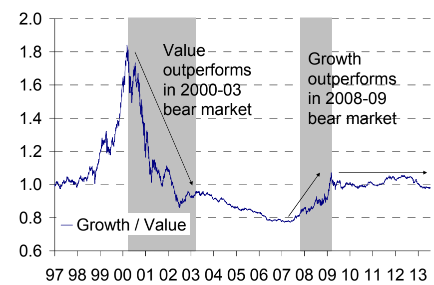
Global equity correlations are still high, which explains continued focus on asset allocation strategies, but there is evidence that they are starting to fall. Sure, there are periodic bursts usually associated with intra-year corrections, but the general trend seems to be downwards. Market conditions are slowly becoming more helpful for equity-alpha strategies.

Figure 4. Global Pairwise Stock Correlation



Source: Citi Research, Factset, Grey bars are global bear markets

Figure 5. Perf of Growth vs Value

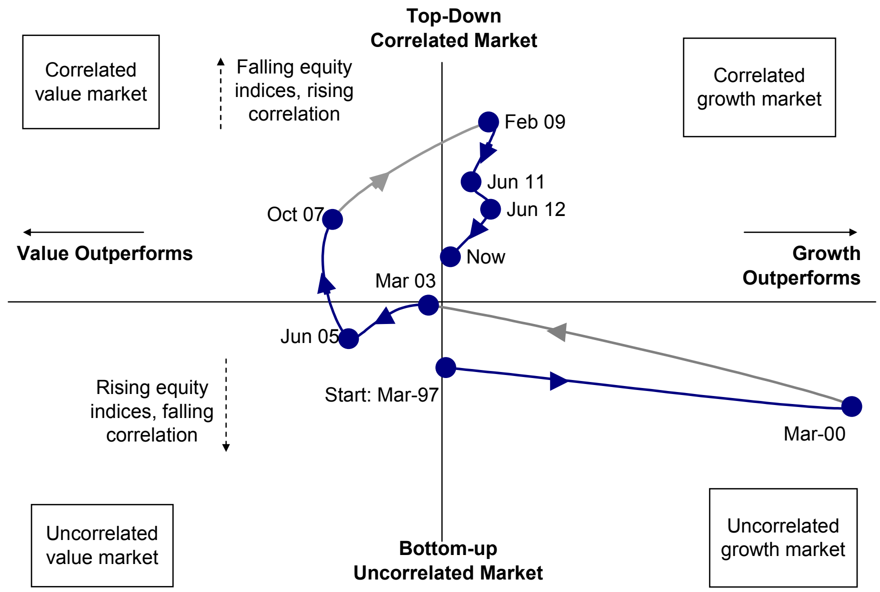


Source: Citi Research, Factset, Grey bars are global bear markets

But what equity-alpha strategies have worked over time? Figure 5 shows the relative performance of the two classic investment styles — value and growth. It can be seen how different the two bear markets were. Value outperformed growth enormously in 2000-03. Growth outperformed (but by much less) in 2008-09. Since then, neither style has meaningfully prevailed.

We bring these two crucial factors (correlation and style performance) together in Figure 6. The x-axis measures the relative performance of growth against value indices in the global equity market. The y-axis shows the level of pair-wise correlation, which tends to be highest in a bear market. Both are from series measured by Citi's quant analysts.

Figure 6. Global Equity Market Returns- Top-Down vs. Bottom-Up and Value vs. Growth



Source: Citi Research, Factset, Grey lines are global bear markets

What a ride

It shows the extraordinary odyssey that global equity markets have followed since 1997. The late 1990s was characterised by low correlations and significant outperformance by growth strategies (the rise of TMT). In the subsequent 2000-03 bear market, correlations rose and value outperformed even more (the demise of TMT). From 2003-07 value continued to outperform, but correlations only started to pick up from 2005. In the 2008-09 bear market, correlations rose sharply and value strategies underperformed (Financials were value traps after all). Since 2010, correlations have been falling (from high levels) but there has been little difference between value and growth strategies.

Where is this chart going next? For now, we suspect that it will stay close to the axis (ie undecided between value and growth) and correlations will continue to fall. So we could see a return towards the start-point last seen in March 1997. This would suggest pursuing a bottom-up strategy with a reasonable balance between value and growth factors.

What could be the next big growth trade?

Maybe once we have got back nearer the March 1997 point, the cycle could kick off all over again. We could see a lurch back towards the bottom-up growth strategies that drove the late-1990s bull market. This makes us wonder what the growth stocks of this cycle could be. Surely it won't be tech stocks all over again. This time round it could be the "defensive growth" stocks currently favoured by many of Citi's regional strategists. More like the nifty fifty of the early 1970s than the Tech boom of the late 1990s.

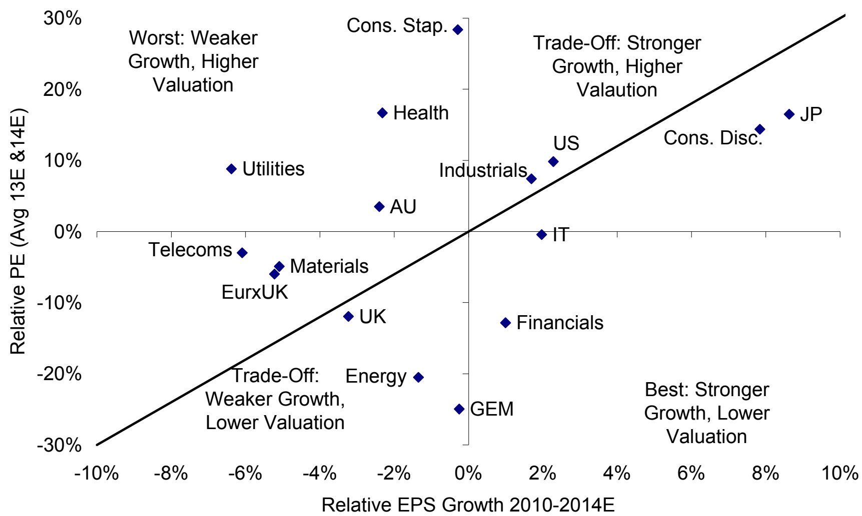
The PE/Growth Trade-Off

A PE/Growth strategy

Our best guess is that a bottom-up style-neutral strategy will work best over the next couple of years. Investors should not chase growth at any price, but they should also be wary of value traps where growth is weak. What regions and global sectors look best or worst on this balanced growth/value basis? To investigate this, Figure 7

plots current relative valuations (Average 2013 and 2014 P/E) against earnings growth from 2010-2014. This is a classic PE/Growth trade-off strategy.

Figure 7. Global Region And Sector PE/Growth Trade-off



Source: Citi Research, Factset

There are four quadrants. The bottom-right is best. Sectors or regions here trade on discount multiples but offer premium EPS growth. The global Financials sector offers these ideal characteristics right now. Alternatively, the top-left quadrant offers the worst combination of premium valuations and weaker EPS growth. Utilities, Health Care and Australia currently appear here.

The PE/growth trade-off

Other global sectors and regions are located in the “trade-off” areas. In the top-right quadrant, they have premium EPS growth but trade on expensive relative valuations. In the bottom-left, they have slower EPS growth but trade on discount multiples. The PE/Growth strategy would prefer those sectors and regions that trade below the 50:50 line. For regions it favours GEMs, Japan and the UK over the US and Europe ex-UK. For sectors, it would prefer Energy, IT and Consumer Discretionary to Materials and Telecoms.

A global stock screen

We can take this strategy down to a stock level. We screen the largest 250 global stocks to find those that trade at a discount to their sectors but offer premium EPS growth (Figure 8). These are located in the ideal bottom-right quadrant of Figure 7.

This presents a broad mix. Some of the Emerging Markets stocks such as Samsung Electronics and Sberbank trade at more than a 50% discount relative to their global sector average, but also offer premium EPS growth. Stocks like EADS and Japan Tobacco offer only single digit discount on valuation but they have been growing their EPS over 25% more than their sector average. US Consumer stocks, which include Philip Morris, Walmart and CVS, offer a combination of both: decent valuation discount (10-20%) and EPS growth premium (2-5%).

Figure 8. Stocks with >5% PE Discount, > 1.5% EPS Growth Premium Relative to Their Global Sector

RIC	Name	Country	Sector	Mcap ($bn)	PE 13-14E	PE Sector	PE Rel to Sector	EPS Grwth 10-14E	EPS Grwth Sector 10-14E	EPS Grwth Rel to Sector	Price (local)	Rating
7203.T	Toyota	Japan	Cons Disc	179.5	12.8	15.3	-16%	48%	16%	32%	6500	1
DTV.O	DirecTV	US	Cons Disc	35.4	11.9	15.3	-22%	25%	16%	9%	65.43	1
005380.KS	Hyundai Motor	Korea	Cons Disc	29.4	5.8	15.3	-62%	18%	16%	2%	219000	1
PM.N	Philip Morris	US	Cons Stap	148.2	15.3	17.1	-11%	13%	8%	5%	90.21	2
WMT.N	Wal Mart	US	Cons Stap	129.4	14.1	17.1	-18%	9%	8%	2%	77.45	1
CVS.N	CVS	US	Cons Stap	75.0	14.5	17.1	-15%	13%	8%	6%	60.71	1
WAG.N	Walgreen	US	Cons Stap	44.2	14.1	17.1	-17%	13%	8%	5%	49.35	1
2914.T	Japan Tobacco	Japan	Cons Stap	40.7	15.5	17.1	-9%	36%	8%	28%	3605	1
RDSa.L	RD Shell Class A	UK	Energy	126.4	8.0	10.6	-25%	10%	7%	3%	22.225	2
LKOH.MM	Lukoil	Russia	Energy	31.4	4.4	10.6	-58%	9%	7%	2%	1990.6	1
JPM.N	JP Morgan Chase	US	Financials	210.5	9.3	11.6	-20%	11%	9%	2%	54.94	1
HSBA.L	HSBC	UK	Financials	203.0	10.6	11.6	-9%	11%	9%	2%	7.286	1
RY.TO	Royal Bank of Canada	Canada	Financials	87.1	10.9	11.6	-7%	12%	9%	3%	62.58	2
0939.HK	CCB	China	Financials	50.9	5.0	11.6	-57%	15%	9%	6%	5.49	1
1398.HK	ICBC	China	Financials	46.5	5.1	11.6	-56%	15%	9%	6%	4.93	2
SBER.MM	Sberbank	Russia	Financials	33.1	5.7	11.6	-51%	23%	9%	14%	99.3	1
3988.HK	BoC	China	Financials	30.6	4.7	11.6	-60%	11%	9%	2%	3.17	1
BAYGn.DE	Bayer	Germany	Health Care	90.9	13.8	15.6	-11%	12%	6%	6%	83.79	1
AMGN.O	Amgen Inc	US	Health Care	77.9	13.5	15.6	-14%	12%	6%	7%	104.67	1
UNH.N	UnitedHealth	US	Health Care	68.6	12.0	15.6	-23%	10%	6%	4%	66.45	1
ESRX.O	Express Scripts	US	Health Care	53.1	14.2	15.6	-9%	19%	6%	13%	65.4	
VRX.N	Valeant Pharm	Canada	Health Care	28.4	13.5	15.6	-13%	43%	6%	38%	91.78	
CAT.N	Caterpillar Inc	US	Industrials	57.8	12.0	14.3	-16%	17%	10%	8%	88.45	2
EAD.PA	EADS	France	Industrials	31.8	13.5	14.3	-6%	50%	10%	40%	41.81	1
DE.N	Deere and Co	US	Industrials	31.1	9.7	14.3	-32%	15%	10%	6%	84.12	1
AAPL.O	Apple	US	IT	404.1	10.1	13.3	-24%	25%	10%	15%	430.64	2
IBM.N	IBM	US	IT	205.2	11.0	13.3	-17%	12%	10%	2%	194.183	1
005930.KS	Samsung Elec	Korea	IT	128.3	6.1	13.3	-54%	23%	10%	13%	1320000	1
6501.T	Hitachi	Japan	IT	32.4	12.6	13.3	-5%	16%	10%	6%	677	1
LYB.N	LyondellBasell	US	Materials	29.9	10.6	12.7	-17%	27%	3%	24%	69.25	1

Source: Citi Research, Factset

Strategy Outlook

Our analysis suggests that equity markets have always been highly correlated, but correlations rose to extreme levels in the 2008-09 bear market. The equity industry's excessive focus on alpha was swamped by a tidal wave of beta. Understandably, the consequent search for diversification and absolute returns has pushed investors towards multi-asset funds. However, we suspect that current mid-cycle market conditions should see lower correlations and the best returns from stock-picking. There's nothing wrong with giving more attention to beta, but we think it's the wrong time to give up on alpha.

We suggest that a balanced style strategy will be most suited to current market conditions. So we screen for those regions, sectors and stocks which offer the best PE/Growth trade-offs. Within regional equity markets, this favours EM, Japan and the UK over Australia, Europe ex-UK and the US. Within global sectors it favours Financials, Consumer Discretionary and Energy over Utilities, Health Care and Consumer Staples.

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Global Market Intelligence

Figure 9. Global Market Intelligence by Region

12 Jul 13	Free MC US$bn	Wgt %	P/E 12E	P/E 13E	P/E 14E	EPS YoY % 12E	EPS YoY % 13E	EPS YoY % 14E	P/B 13E	ROE 13E	Div Yld 13E	CAPE 10Yr	Perf % (local) Weekly	Perf % (local) YTD	Perf % (USD) Weekly	Perf % (USD) YTD
Global	**32,273**	**100**	**15.5**	**14.1**	**12.6**	**1.6**	**11.2**	**11.7**	**1.8**	**12.9**	**2.6**	**19.2**	**2.7**	**12.5**	**3.4**	**9.0**
Developed World	28,743	89.1	16.1	14.7	13.1	2.3	10.9	11.8	1.9	12.9	2.6	19.7	2.7	15.3	3.4	11.9
Emerging World	3,531	10.9	11.8	10.5	9.5	-2.7	13.1	11.2	1.4	13.1	3.0	16.2	2.2	-5.8	3.0	-10.4
North America	**16,964**	**52.6**	**16.5**	**15.3**	**13.8**	**6.1**	**7.8**	**10.7**	**2.3**	**15.1**	**2.1**	**22.9**	**3.0**	**16.3**	**3.1**	**15.9**
USA	15,757	48.8	16.6	15.4	13.9	6.8	8.2	10.7	2.4	15.5	2.0	23.3	3.0	17.7	3.0	17.7
Canada	1,207	3.7	14.6	14.2	12.8	-1.6	2.7	10.9	1.7	11.8	3.2	18.5	2.8	0.5	4.7	-3.7
Europe	**7,542**	**23.4**	**14.2**	**13.0**	**11.6**	**-5.6**	**10.1**	**12.1**	**1.6**	**12.0**	**3.7**	**14.7**	**2.8**	**8.2**	**4.5**	**4.3**
United Kingdom	**2,567**	**8.0**	**13.1**	**12.3**	**11.2**	**-7.0**	**7.2**	**9.2**	**1.7**	**14.2**	**3.8**	**14.9**	**2.7**	**10.8**	**4.3**	**3.0**
Europe ex UK	**4,976**	**15.4**	**14.8**	**13.3**	**11.7**	**-4.7**	**11.8**	**13.7**	**1.5**	**11.1**	**3.7**	**14.8**	**2.9**	**6.9**	**4.6**	**5.0**
France	1,104	3.4	14.0	12.5	11.1	-10.5	11.8	13.0	1.3	10.0	3.8	14.1	2.7	6.1	4.5	5.0
Switzerland	1,077	3.3	18.5	15.3	13.8	-0.4	20.9	11.2	2.4	15.5	3.2	21.8	2.6	16.7	4.1	12.7
Germany	1,012	3.1	12.1	12.0	10.7	13.0	1.4	11.6	1.4	12.0	3.3	17.2	5.1	5.1	6.9	4.1
Sweden	374	1.2	16.2	15.6	13.6	-1.5	3.8	14.7	2.3	14.8	3.9	19.2	4.1	9.8	5.8	6.9
Spain	320	1.0	16.8	11.7	10.1	-49.3	54.4	15.6	1.0	8.8	6.9	8.8	-0.5	-5.6	1.2	-6.6
Netherlands	314	1.0	14.9	14.2	12.4	-13.8	16.9	14.2	1.6	11.0	2.6	15.1	3.0	11.3	4.8	10.2
Italy	225	0.7	11.2	11.0	9.1	-2.4	1.1	21.6	0.7	6.4	4.3	7.8	-0.6	-9.0	1.1	-9.9
Belgium	134	0.4	16.2	15.6	14.1	41.0	4.3	10.2	1.8	11.4	3.1	13.3	3.5	7.3	5.3	6.2
Denmark	133	0.4	18.4	16.8	14.2	32.0	10.0	18.3	2.4	14.1	2.3	26.8	2.1	5.3	3.9	4.3
Norway	98	0.3	11.3	11.3	9.8	4.3	0.3	15.4	1.5	13.1	5.0	13.2	2.8	5.6	5.9	-3.2
Finland	94	0.3	19.6	16.4	13.9	-28.8	19.6	18.2	1.6	9.9	4.2	11.9	4.0	8.8	5.8	7.7
Ireland	37	0.1	-115.7	57.5	21.0	51.5	301.4	174.1	1.3	3.1	1.9	7.5	1.7	12.1	3.5	11.0
Austria	32	0.1	11.3	10.9	9.2	103.0	3.5	18.5	0.9	8.2	3.5	8.9	2.3	-4.0	4.1	-5.0
Portugal	19	0.1	14.1	14.8	12.1	-2.5	-4.8	22.4	1.2	8.3	5.0	9.6	-0.9	-5.6	0.8	-6.6
Greece	4	0.0	5.0	10.3	10.1	15.6	-51.4	2.0	1.6	15.3	2.0	2.5	-5.5	-3.4	-3.9	-4.4
Japan	**2,695**	**8.4**	**23.6**	**16.9**	**14.1**	**18.0**	**54.8**	**19.8**	**1.3**	**7.9**	**1.8**	**24.9**	**1.1**	**40.4**	**2.6**	**22.1**
Asia Pac ex Jp	**3,702**	**11.5**	**13.4**	**12.1**	**10.8**	**2.1**	**11.7**	**12.0**	**1.5**	**12.6**	**3.3**	**18.1**	**2.4**	**-0.3**	**2.8**	**-5.8**
Pacific ex Jp	**1,484**	**4.6**	**15.2**	**14.6**	**13.3**	**-2.5**	**3.5**	**10.1**	**1.6**	**11.0**	**4.2**	**18.4**	**2.5**	**4.9**	**2.6**	**-4.3**
Australia	925	2.9	15.3	14.4	13.2	-2.9	6.0	9.6	1.9	13.0	4.8	18.0	2.7	7.6	2.7	-6.1
Hong Kong	350	1.1	15.8	15.2	13.6	-7.6	3.6	12.0	1.2	8.1	3.0	21.5	1.8	-0.6	1.7	-0.6
Singapore	195	0.6	13.4	14.5	13.3	8.2	-7.3	9.3	1.4	9.9	3.5	16.5	2.6	1.5	4.0	-1.7
New Zealand	14	0.0	18.4	16.9	15.0	-3.8	8.7	12.9	1.9	11.4	4.9	15.8	1.5	5.9	2.8	0.1
Em Asia	**2,218**	**6.9**	**12.5**	**10.8**	**9.6**	**4.9**	**16.3**	**12.9**	**1.5**	**13.5**	**2.6**	**17.7**	**2.3**	**-3.7**	**2.9**	**-6.8**
China	646	2.0	9.7	8.7	7.9	1.3	12.0	10.1	1.3	14.7	3.7	16.1	2.3	-12.2	2.3	-12.2
Korea	519	1.6	10.1	8.4	7.3	8.1	19.3	16.6	1.0	12.1	1.2	14.8	2.4	-8.2	4.1	-12.6
Taiwan	425	1.3	18.5	15.0	13.4	1.3	33.4	12.1	1.7	11.6	3.1	19.0	2.7	6.2	3.1	3.2
India	243	0.8	17.0	15.3	13.3	9.4	11.1	14.6	2.4	15.4	1.6	26.7	2.9	2.1	3.7	-6.6
Malaysia	142	0.4	16.9	16.5	14.9	11.4	2.9	10.2	2.1	13.0	3.0	23.6	0.7	7.8	1.1	3.8
Indonesia	107	0.3	17.0	15.1	13.0	4.9	12.9	15.7	3.2	21.0	2.6	27.6	1.6	3.3	1.1	-0.4
Thailand	99	0.3	15.0	13.1	11.6	12.4	14.4	13.0	2.2	16.8	3.3	20.2	2.2	1.2	2.1	-0.7
Philippines	37	0.1	22.3	20.2	18.8	13.6	10.5	7.7	3.1	15.4	2.1	31.7	1.4	14.7	1.4	8.5
Latin America	**692**	**2.1**	**14.8**	**12.6**	**11.2**	**-21.1**	**20.3**	**13.2**	**1.6**	**11.9**	**3.1**	**15.7**	**0.7**	**-13.3**	**1.4**	**-18.6**
Brazil	379	1.2	12.6	10.4	9.3	-29.4	26.0	12.1	1.3	11.5	4.0	12.4	2.0	-14.9	2.1	-23.0
Mexico	193	0.6	19.7	18.2	15.7	21.3	8.0	15.9	2.6	14.1	1.6	27.1	-0.6	-7.0	1.4	-5.7
Chile	63	0.2	22.4	17.0	14.1	-32.4	32.0	20.5	1.7	10.2	2.5	22.9	-1.9	-13.2	-1.3	-17.5
Colombia	41	0.1	16.1	15.1	13.7	-5.0	6.9	9.9	1.6	10.4	3.9	29.7	0.4	-14.7	1.5	-20.9
Peru	15	0.0	9.8	10.7	10.0	-8.6	-8.4	6.7	1.9	17.7	2.8	15.8	-3.4	-34.0	-3.4	-34.0
CEEMEA	**621**	**1.9**	**8.4**	**8.3**	**7.9**	**-5.8**	**1.1**	**5.1**	**1.1**	**13.1**	**3.9**	**14.0**	**3.7**	**-3.5**	**5.5**	**-12.8**
South Africa	256	0.8	15.0	14.1	12.5	4.8	6.9	12.6	2.2	15.4	3.5	23.9	4.2	-1.0	6.3	-15.7
Russia	215	0.7	5.1	5.1	5.0	-11.0	0.3	1.5	0.7	12.5	4.3	8.2	4.9	-3.6	6.6	-8.7
Turkey	65	0.2	10.8	9.9	9.2	18.8	9.5	7.6	1.5	15.0	3.3	16.6	1.3	-6.3	2.0	-14.4
Poland	57	0.2	10.0	12.7	12.2	-15.3	-21.2	3.7	1.2	9.8	4.6	11.9	2.2	-8.0	4.3	-13.5
Egypt	9	0.0	13.8	10.5	8.8	-10.6	31.7	19.9	1.4	13.2	2.8	14.9	-1.9	-4.6	-1.5	-12.6
Hungary	9	0.0	10.0	9.2	8.2	4.4	7.9	13.2	0.8	9.0	3.9	9.7	3.6	7.2	6.6	5.8
Czech Republic	8	0.0	8.0	8.7	9.4	6.5	-8.1	-7.2	1.2	13.3	8.1	9.8	-0.7	-21.2	1.0	-24.6
Morocco	3	0.0	11.3	10.3	10.1	-4.0	9.7	1.9	2.0	19.4	5.2	15.4	0.0	-8.9	1.4	-9.6
Israel	**58**	**0.2**	**8.2**	**8.8**	**8.1**	**-3.9**	**-6.2**	**9.0**	**1.3**	**15.3**	**3.2**	**13.5**	**0.8**	**-0.2**	**2.6**	**3.5**

Source: Citi Research, MSCI, World Scope, Factset Consensus estimates

Figure 10. Global Market Intelligence by Global Sectors

12 Jul 13	Free MC	Wgt	P/E			EPS YoY %			P/B	ROE	Div Yld	CAPE	Perf % (local)		Perf % (USD)	
	US$bn	%	12E	13E	14E	12E	13E	14E	13E	13E	13E	10Yr	Weekly	YTD	Weekly	YTD
Global	**32,273**	**100**	**15.5**	**14.1**	**12.6**	**1.6**	**11.2**	**11.7**	**1.8**	**12.9**	**2.6**	**19.2**	**2.7**	**12.5**	**3.4**	**9.0**
Sectors - Level 1																
Energy	3,217	10.0	11.2	11.0	10.2	-8.0	1.8	8.6	1.4	12.5	3.2	13.4	3.0	5.8	3.7	2.9
Materials	1,943	6.0	15.4	13.7	11.6	-27.6	11.9	17.9	1.5	11.1	2.9	15.2	3.6	-8.2	4.6	-12.6
Industrials	3,410	10.6	16.8	15.3	13.4	3.2	9.3	14.8	2.1	14.0	2.4	20.9	2.7	14.8	3.5	10.9
Consumer Disc.	3,779	11.7	19.3	16.3	14.2	18.5	21.5	14.4	2.5	15.7	1.8	27.9	3.0	23.8	3.6	19.8
Consumer Staples	3,363	10.4	19.5	18.0	16.3	5.5	8.7	10.3	3.4	19.1	2.7	27.3	2.5	14.8	3.2	11.4
Health Care	3,310	10.3	16.9	16.3	14.8	3.6	3.5	9.8	3.2	19.5	2.2	26.4	3.0	23.5	3.6	20.9
Financials	6,947	21.5	14.3	12.2	11.0	8.4	17.8	10.5	1.2	9.5	3.1	13.5	2.4	13.1	3.1	8.7
IT	3,894	12.1	15.6	14.1	12.5	8.1	11.3	12.8	2.6	18.5	1.7	26.5	2.6	10.3	2.9	8.5
Telecoms	1,331	4.1	14.3	13.4	12.5	-2.4	6.6	6.8	1.9	14.5	4.6	17.0	1.0	9.9	1.9	6.2
Utilities	1,079	3.3	15.9	15.5	13.5	0.0	15.2	14.9	1.3	8.6	4.3	15.1	2.8	6.8	3.4	4.0
Sectors - Level 2																
Energy	3,217	10.0	11.2	11.0	10.2	-8.0	1.8	8.6	1.4	12.5	3.2	13.4	3.0	5.8	3.7	2.9
Materials	1,943	6.0	15.4	13.7	11.6	-27.6	11.9	17.9	1.5	11.1	2.9	15.2	3.6	-8.2	4.6	-12.6
Capital Goods	2,469	7.6	15.7	14.6	12.8	1.0	7.2	14.0	2.1	14.2	2.5	20.1	3.0	13.6	3.8	10.2
Comm Svc & Supp	272	0.8	21.3	19.2	17.1	8.2	11.3	12.1	3.0	15.8	2.2	23.2	2.5	15.4	3.2	10.7
Transport	669	2.1	20.3	17.1	14.3	13.1	18.5	19.2	2.1	12.5	2.0	23.8	1.8	18.8	2.5	13.8
Autos	944	2.9	12.3	11.0	9.5	23.0	12.4	15.4	1.5	13.5	2.1	21.6	2.6	28.7	3.8	20.3
Consumer Durables	545	1.7	32.7	20.6	15.6	49.5	120.7	32.0	2.4	11.8	1.8	28.0	3.0	19.6	4.0	15.5
Consumer Services	483	1.5	22.0	20.1	17.6	4.9	9.1	14.6	4.0	19.8	2.4	28.7	1.9	16.6	2.3	14.1
Media	846	2.6	20.4	16.4	16.2	24.0	24.4	1.6	2.9	18.8	1.6	33.2	3.4	26.5	3.9	24.3
Retailing	962	3.0	24.6	21.9	18.7	6.9	12.6	16.9	4.3	19.6	1.3	31.0	3.4	23.1	3.7	20.8
Food & Staples	740	2.3	17.7	16.6	14.9	9.4	6.8	11.1	2.4	14.4	2.4	24.9	3.3	16.0	3.9	11.7
Food Bev & Tobac.	2,038	6.3	19.7	18.0	16.3	3.9	9.6	10.2	3.8	21.3	2.9	27.8	2.2	13.1	3.0	9.8
Household Products	585	1.8	21.8	20.2	18.4	5.7	8.1	9.4	4.3	21.1	2.5	29.5	2.5	19.5	3.1	17.3
Health Care	825	2.6	16.6	15.7	14.2	10.9	5.7	10.4	2.5	15.9	1.2	25.8	2.0	18.6	2.3	17.2
Pharma & Biotech	2,485	7.7	16.9	16.5	15.1	1.3	2.7	9.5	3.5	21.2	2.5	26.5	3.3	25.2	4.1	22.2
Banks	2,937	9.1	11.9	10.5	9.5	2.2	13.4	10.2	1.1	10.5	3.9	11.2	1.8	8.1	2.8	2.2
Div Financials	1,631	5.1	16.9	12.9	11.2	5.5	32.1	14.4	1.1	8.5	1.7	14.4	3.1	22.9	3.5	20.6
Insurance	1,415	4.4	14.1	12.0	11.2	38.6	20.0	7.3	1.2	9.9	2.7	15.4	3.1	19.7	3.8	16.2
Real Estate	965	3.0	22.8	21.6	19.6	-0.3	5.6	10.2	1.4	6.7	3.2	24.2	2.1	5.4	2.6	1.4
Software & Services	1,842	5.7	18.4	16.6	14.7	9.2	10.7	12.8	3.9	23.7	1.2	33.2	2.8	15.8	3.0	14.9
Tech	1,344	4.2	13.0	12.3	11.1	8.2	6.9	10.8	1.9	15.7	2.1	22.4	2.3	3.7	2.7	1.1
Semi & Semi Equip	708	2.2	15.3	12.5	10.7	5.5	22.0	16.8	2.1	17.1	2.1	23.6	2.4	11.0	3.0	8.4
Telecom	1,331	4.1	14.3	13.4	12.5	-2.4	6.6	6.8	1.9	14.5	4.6	17.0	1.0	9.9	1.9	6.2
Utilities	1,079	3.3	15.9	15.5	13.5	0.0	15.2	14.9	1.3	8.6	4.3	15.1	2.8	6.8	3.4	4.0

Source: Citi Research, MSCI, World Scope, Factset Consensus estimates

Figure 11. 2013 P/E Estimates by Region and Sector

12 Jul 13 P/E 13E	Global	DM	GEM	US	Eur ex UK	UK	Jap	Dev Asia	Em Asia	Lat Am	CEEMEA
Region	**14.1**	**14.7**	**10.5**	**15.4**	**13.3**	**12.3**	**16.9**	**14.6**	**10.8**	**12.6**	**8.3**
Sectors - Level 1											
Energy	11.0	12.2	6.6	13.1	9.7	9.1	9.3	17.1	9.4	8.5	4.6
Materials	13.7	14.1	12.1	15.5	15.4	10.4	18.2	12.3	13.2	10.8	12.0
Industrials	15.3	15.4	14.4	15.7	15.1	15.7	14.3	15.7	14.1	18.1	11.7
Consumer Disc.	16.3	16.9	11.4	18.6	13.0	16.1	16.7	17.7	9.5	19.6	18.8
Consumer Staples	18.0	17.5	23.4	17.7	18.3	15.5	19.5	17.0	23.4	23.4	23.4
Health Care	16.3	16.2	23.2	16.5	16.0	13.1	22.7	21.8	24.0	19.9	22.2
Financials	12.2	12.9	9.1	13.9	10.8	11.5	14.9	13.9	8.7	10.8	9.1
IT	14.1	14.9	10.4	14.2	20.9	30.3	18.8	17.5	10.3	17.2	
Telecom Services	13.4	13.5	12.9	17.2	10.0	12.5	13.6	16.2	14.0	11.2	12.3
Utilities	15.5	16.2	11.5	16.2	9.6	14.1	-24.5	16.8	13.2	11.6	7.0
Sectors - Level 2											
Energy	11.0	12.2	6.6	13.1	9.7	9.1	9.3	17.1	9.4	8.5	4.6
Materials	13.7	14.1	12.1	15.5	15.4	10.4	18.2	12.3	13.2	10.8	12.0
Capital Goods	14.6	14.7	13.3	15.3	14.8	15.0	13.1	12.6	12.9	18.0	12.3
Comm Svc & Supp	19.2	19.2	21.4	20.0	18.7	17.5	21.2	18.2	21.8	20.0	
Transport	17.1	17.0	18.4	16.2	15.6	15.3	18.0	20.8	20.5	18.2	9.5
Autos & Components	11.0	11.7	7.7	12.6	9.0	12.5	13.3		7.7		13.7
Consumer Durables	20.6	21.5	11.7	18.7	17.8	19.0	134.6	16.7	13.8	7.3	9.1
Consumer Services	20.1	20.2	18.0	21.0	19.0	18.5	22.9	18.5	17.1	22.2	
Media	16.4	16.0	25.8	16.0	16.1	15.0	27.5	19.1	23.0	22.1	28.8
Retailing	21.9	22.4	16.3	23.1	23.1	15.2	23.1	11.8	14.3	23.1	14.7
Food & Staples Retailing	16.6	15.8	24.8	16.4	15.7	10.8	19.2	17.4	23.5	24.4	26.4
Food Bev & Tobacco	18.0	17.6	22.2	17.7	18.2	16.6	18.1	15.3	22.2	22.9	17.2
Household Products	20.2	19.8	26.8	19.4	21.4	17.4	26.6		27.8	24.2	
Health Care Equip & Svc	15.7	15.6	22.0	14.8	20.6	15.2	23.7	20.8	23.6	24.3	19.0
Pharma & Biotech	16.5	16.4	23.8	17.6	15.6	13.0	22.5	22.2	24.1	16.0	25.6
Banks	10.5	11.5	8.2	12.0	11.4	10.9	11.1	12.8	7.8	9.7	8.1
Div Financials	12.9	12.8	13.6	12.7	11.7	12.9	15.6	19.4	13.5	17.8	11.4
Insurance	12.0	11.9	13.7	12.4	9.1	11.8	19.1	16.3	13.7	14.1	13.5
Real Estate	21.6	23.9	10.5	36.3	16.4	22.1	32.0	14.5	9.3	20.6	12.7
Software & Services	16.6	16.4	20.3	16.3	17.4	16.0	21.9	15.9	20.8	17.2	
Tech Hardware & Equip	12.3	12.4	11.9	11.3	22.5		17.1	15.0	11.9		
Semi & Semi Equip	12.5	18.8	8.5	16.5	32.7	43.0	67.0	28.8	8.5		
Telecom	13.4	13.5	12.9	17.2	10.0	12.5	13.6	16.2	14.0	11.2	12.3
Utilities	15.5	16.2	11.5	16.2	9.6	14.1	-24.5	16.8	13.2	11.6	7.0

Source: Citi Research, MSCI, World Scope, Factset Consensus estimates

Notes

Notes

Appendix A-1

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