

Global Strategy: Quadrant

Global Strategy: Quadrant | March 23, 2017

US Dollar: Waiting for the Crescendo

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- The inflation-adjusted value of **the US dollar (USD) has surged more than 25% since 2011, the third largest bull market in the last four decades**. We see specific US policies boosting the dollar further in 2017. However, tax cuts, changes to trade policies, and even a monetary policy tightening response are largely potential one-off adjustments rather than drivers of long-run trends. **We see a strong possibility that the USD could see its cycle peak in the coming year.**
- Inflation rates in emerging markets (EM) have subsided sharply, limiting a key driver of currency depreciation. In recent years, most EM currency zones have seen their real interest rates rise relative to US yields while their currencies have weakened against the USD. (In contrast, other developed markets have seen real yields fall.)
- The Fed has tightened monetary policy for a third time, and now vows a faster pace of “normalization.” However, we don’t expect a “historically normal” tightening cycle.
- The USD bull market has resulted in heavy underperformance of most foreign-currency denominated assets in recent years. Another lurch higher in the USD seems likely within twelve months, which would further challenge some markets. In the near term, global equities are soon to enter the seasonally-less-favorable mid-year period. However, **the valuation of EM equities has fallen to a historically large discount to the US** (ex: -45% as measured by the cycle-adjusted p/e ratio).
- Given the extended bull market in the “greenback,” we’ve begun reducing our USD overweight this month and anticipate continuing this process in the future. Given the strong performance in high yield US debt, we have trimmed this position by 0.5% and prefer loans to bonds. **We have raised our EM equity weighting 1.0%** (reducing our overweight in cash). This brings our Global Equity weighting back from -1% underweight to neutral. It deepens our underweight to global fixed income to -1.5% from -1.0%. US equities remain neutral or “fully invested.”
- While still remain constructive, the boost to high yield US debt and many other asset markets from the oil price rebound is likely to subside as US production rises. We suggest gravitating exposure to volume-linked, rather than oil price-linked assets.
- Eurozone markets seem tied to the fate of continental politics. The risk of a Le Pen-led French exit from the EU has held back markets and a relief rally could be at hand. However, an Italian election in 2018 will still leave markets in suspense.

GIC meeting - March 23rd

The Citi Private Bank Global Investment Committee (GIC) raised its allocation to Emerging Market Equities to overweight, thereby raising Global Equities to neutral. We raised the underweight to Global Fixed Income to -1.5% from -1.0% and reduced the Cash overweight to 1.0% from +1.5%.

We believe the powerful six-year rally in the US dollar (USD) is in its late stages, and is only likely to resume forcefully on prospective US fiscal policy steps and potential US monetary tightening in reaction. While we expect specific US tax reforms will pass this year and likely boost US real return prospects, this is largely a one-off event. Meanwhile, the Fed predicts its tightening cycle ahead will only be half the size of historic norms and is no longer seeking to push down the trend rate of inflation.

The USD bull market has had strong fundamental drivers, and as noted, we see incremental gains before yearend on policy actions. Yet fears of a massive USD surge akin to 1981-1985 are unfounded in our view. That period saw real interest rates surge to 9% as investors doubted that double-digit inflation was gone for good. US inflation is now running at a faster pace than the global average while the USD has risen about 25% in inflation-adjusted terms since mid-2011.

The USD bull market has weighed considerably on international equity returns, cutting their USD-denominated gains by more than half since mid-2011. Emerging Market Equity valuations have fallen towards a historically large discount to the US. Evidence is mounting that the global recovery will endure if the Federal Reserve does not raise rates too sharply.

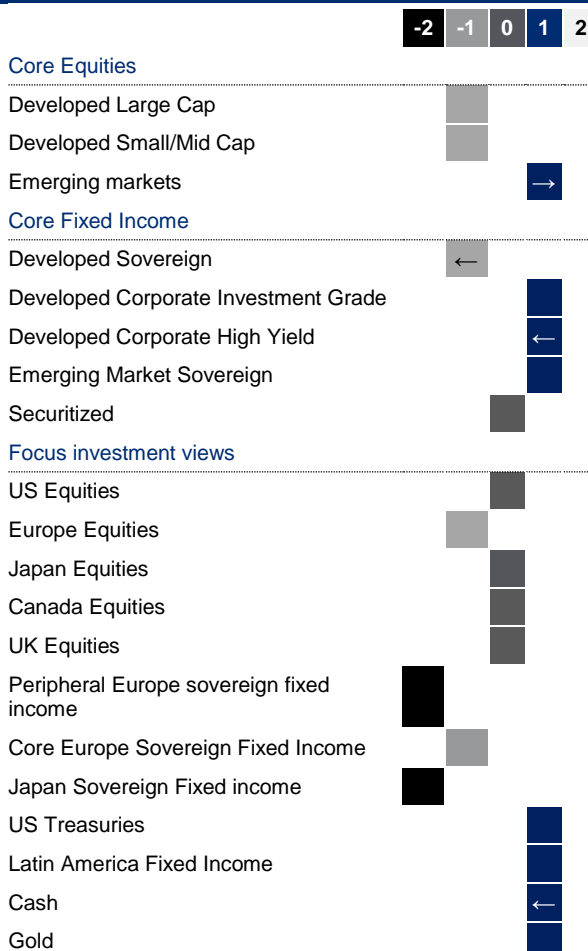
The GIC raised its EM Equity weighting to neutral from underweight in early 2016. Today, we added just slightly to an existing overweight in Latin America, but significantly raised allocations to Emerging Asia.

Eurozone Equity valuations have also fallen significantly and a relief rally could be at hand if political risks to the currency union recede. However, an Italian election in 2018 will keep markets in suspense.

To fund the increased allocation to EM Equity, we slightly reduced our substantial overweight to US High Yield debt. The asset class remains attractive on a global basis. However, yield spreads have tightened considerably. We continue to find less volatile high yield loans equally attractive.

Global Equities have performed strongly in the winter period, following seasonal norms. Summer weakness is common. We may consider further increases to our equity allocation if markets correct and fundamentals still suggest a broadening global expansion. We expect to make additional changes in the composition of USD and non-USD portfolio holdings over time, likely reducing the USD share over time.

Asset classes



Allocations as of March 23, 2017.
-2 = very underweight; -1 = underweight; 0 = neutral
1 = overweight; 2 = very overweight
Arrows indicate changes from previous GIC meeting.

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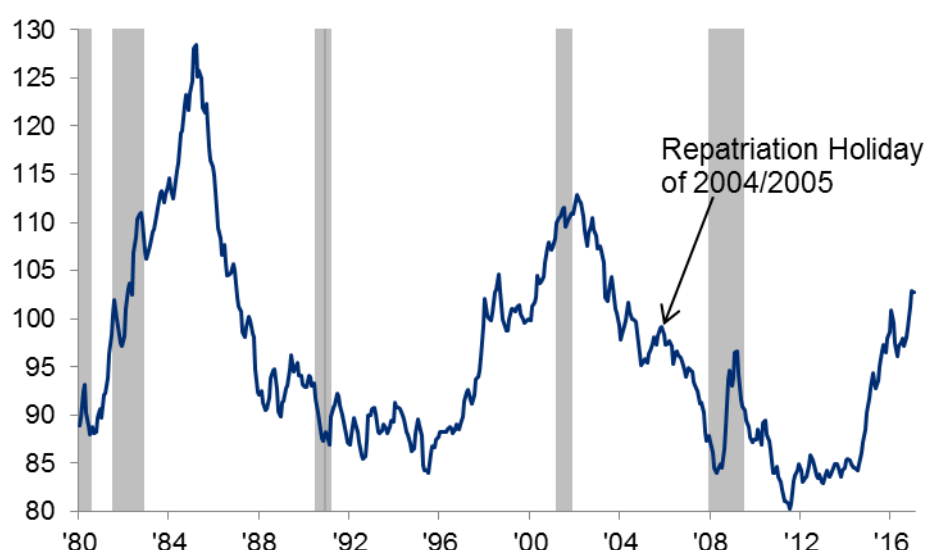
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US “home-biased” portfolios have benefited from a 6-year rally in the USD. We see this impact in the later stages despite prospective Fed tightening.

Given deep equity valuation discounts outside the US, we have begun to unwind our USD-linked portfolio overweight.

The US dollar has risen over a long period and for good reason. Adjusting away differences in the inflation rates between the US and its trading partners, the USD has risen more than 25% since reaching a historic low in July 2011 – **figure 1**. Before inflation, the rise was 33%. This already makes it the third largest extended bull market period for the dollar before or after inflation.

Figure 1: US Dollar Index vs All trading partners, inflation adjusted



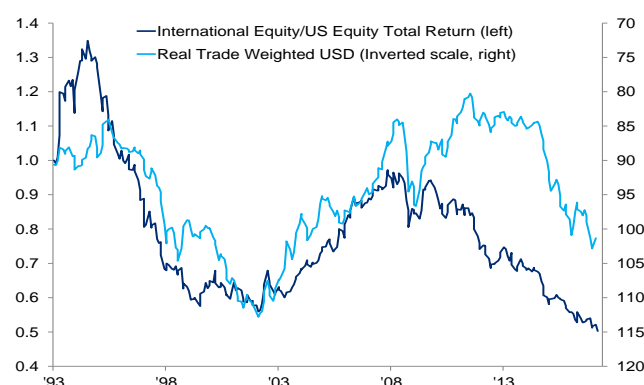
Source: Federal Reserve Jan-1973-February 2017. Note: Shaded region denotes recession as defined by the National Bureau of Economic Research.

The dollar's gains since 2011 might not sound as exciting as the 106% total return earned in US equities over the same period. However, we should remember that the exchange rate is a *relative* price, not an absolute one. Corporate equities, from whichever country, benefit from growth over time in corporate earnings and dividends. Therefore, equities can rise together in value, most of the time and across most of the world at once.

Relative returns, however, are a different matter. For non-US equities to have provided comparable gains in USD terms over the last six years, their return would have had to be 139% to offset the USD's rise. Their actual return was 55% in local currency terms, leaving relative returns far short – **figures 2-3**.

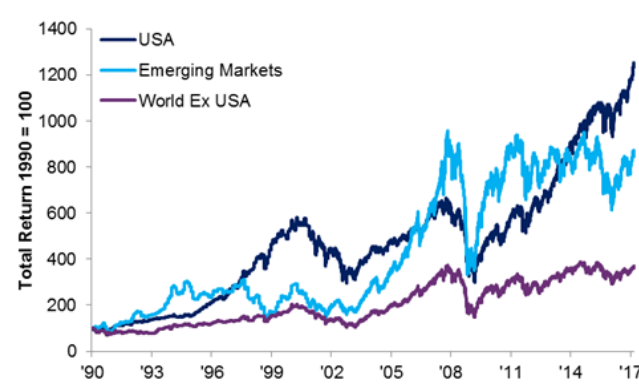
In the decade prior to 2011, the dynamics were just the opposite. Returns in non-US currency assets were unusually robust for USD-based investors, as the US currency fell. For US investors in that period, “staying at home” was the wrong choice.

Figure 2: International Equities total return relative to US and USD Index



Source: Federal Reserve Jan-1973-February 2017.

Figure 3: US, World Ex-US and EM Equity Total Return Indices in USD



Source: Factset as of March 17, 2017.

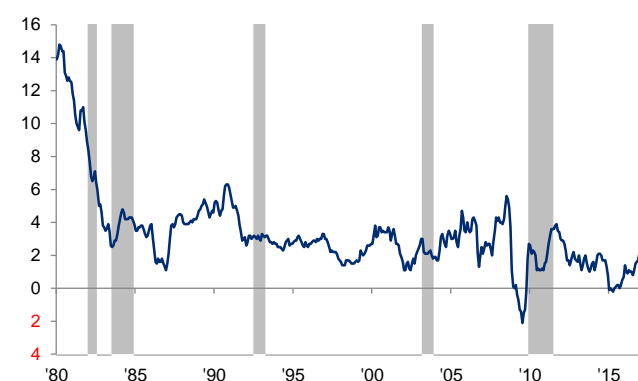
Are you worried about another early 1980s USD surge? Inflation-adjusted US interest rates jumped to 9% then, and we see no repeat coming.

As the Citi Private Bank Global Investment Committee met this month, we continued our ongoing analysis of new US policies and their implications for global markets. As we noted last November ([Quadrant: Reflation and Uncertainty](#)), US President Trump's policy proposals appear to closely follow those of former President Ronald Reagan, who took office at the start of 1981. This comparison seems true on a tax and regulatory view. There are even some similarities on trade policies. However, the current economic setting and market valuations offer far greater contrast than comparison.

As **figure 1** showed, not only did Reagan assume office with the US exchange rate at a historic trough, the US inflation rate was then declining double-digits, as opposed to rebounding from near-zero levels seen last year – **figure 4**.

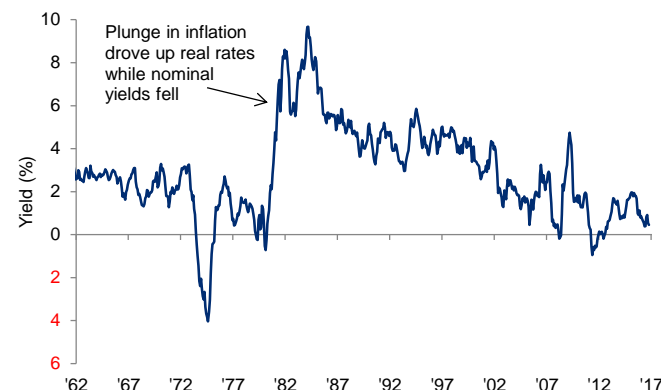
The remarkable strengthening of the US dollar in the four years that followed Reagan's election largely stemmed from lingering high real interest rates, as markets doubted that double-digit inflation had been defeated – **figure 5**. Today, we see no reason why US real interest rates will rise to anywhere near the 9% levels of the early 1980s or even those of the late 1990s, when real US economic growth exceeded 4% for five consecutive years.

Figure 4: US Inflation (CPI) Y/Y%



Source: Haver Analytics as of February 2017.

Figure 5: US Inflation-Adjusted 10-Year Treasury Yield (%)



Source: Haver Analytics as of February 2017.

So how does the USD compare?

As noted, exchange rates are relative value measures, and changes in relative fundamentals between countries drive their movement.

Particular trade and tax policies the US government may choose to pursue could drive up demand for the USD. These largely fiscal measures are discussed below. On the monetary side, an important part of our outlook for 2017 is a resumption of policy divergence between the US central bank and other central banks.

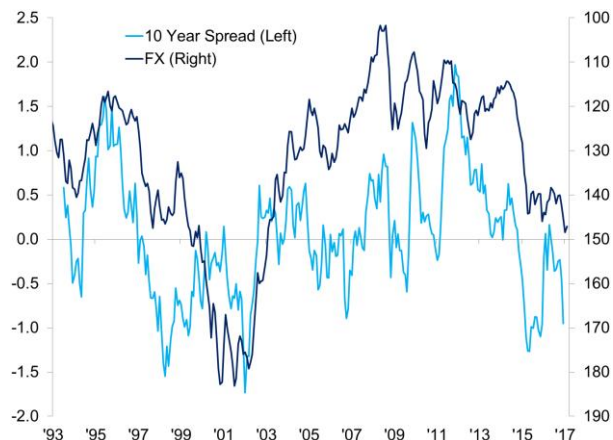
The Federal Reserve, which led the world with quantitative easing (QE) in 2008 and zero interest rate policy (ZIRP) thereafter, has now tightened for a third time. The European central bank's lowest policy rate is -0.4% and it has set a program to purchase €60 billion of private and public debt securities every month this year.

The Euro might indeed lurch lower still, merely as a result of the existing monetary policy divergence. However, as **figures 6-9** show, **currencies in most regions have meaningfully weakened against the USD in recent years, while their real interest rates have gone up by more than in the US.**

In the case of the three EM regions, real interest rates have risen relative to US rates, while EM currency values have *fallen* relative to the USD. In the case of Europe and Japan, comparative real interest rates have fallen, rather than risen. However, in a longer-term context, these DM currencies have also fallen quite far already, even accounting for their lower rates.

Subdued EM inflation and relatively high interest rates suggest the EM currency weakness of recent years will eventually be reversed.

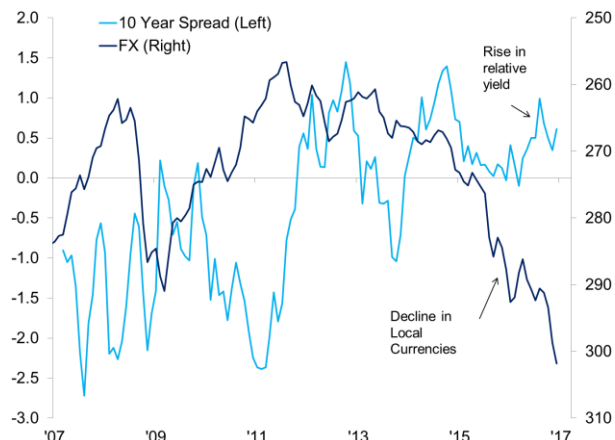
Figure 6: Europe Ex-UK: 10-year real interest rate spread to US and exchange rate (GDP weighted)



Source: Citi Private Bank, FactSet and Haver Analytics as of March 13, 2017.

Note: Countries included are Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden and Switzerland.

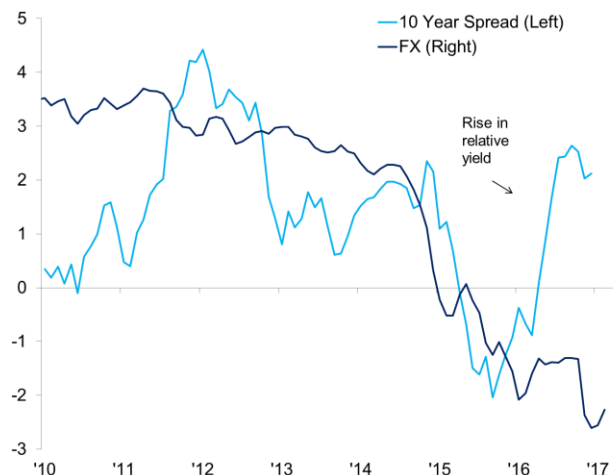
Figure 7: EM Asia: 10-year real interest rate spread to US and exchange rate (GDP weighted)



Source: Citi Private Bank, FactSet and Haver Analytics as of March 13, 2017.

Note: Countries included are China, India, Indonesia, Korea, Malaysia, the Philippines, Taiwan and Thailand.

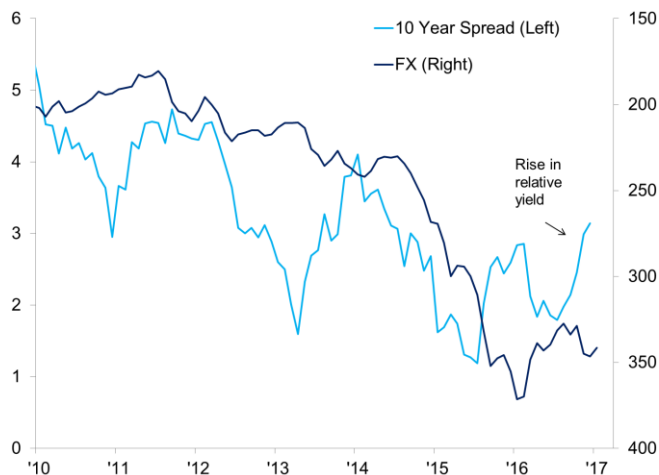
Figure 8: EM EMEA: 10-Year real interest rate spread to US and exchange rate (GDP weighted)



Source: Citi Private Bank, FactSet and Haver Analytics as of March 13, 2017.

Note: Countries included are the Czech Republic, Egypt, Greece, Hungary, Poland, Qatar, Russia, South Africa, Turkey and United Arab Emirates.

Figure 9: LATAM 10-year interest rate spread to US and exchange rate (GDP weighted)



Source: Citi Private Bank, FactSet and Haver Analytics as of March 13, 2017.

Note: Countries included are Brazil, Chile, Colombia, Mexico, and Peru.

Three USD bull periods led by three different factors:

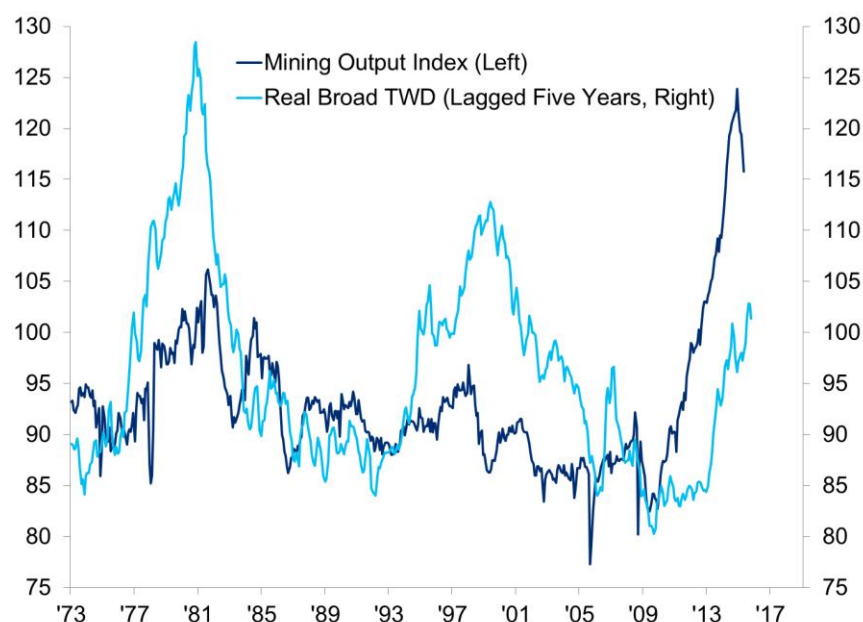
- 1) High real rates in the early 1980s
- 2) An aggregate investment boom in the late 1990s
- 3) A natural resources/technology boom in the current decade

Many factors drive speculative flows into and out of particular currencies. Yet in establishing a longer-term sustainable value, we see the more important drivers of exchange rates as: changes in relative inflation rates, changes in relative interest rates, the push and pull of capital flows (both portfolio and direct investment) needed to finance a country's current account balance.

A strong investment opportunity can drive large current account deficits in a country, simultaneously raising the value of its currency through capital inflows. This was the case during the US technology-led investment boom in the late 1990s.

Natural resources booms can change the composition of an economy's economic activity, as commodity exports may rise faster than domestic demand grows.¹ This impacts the aggregate current account balance. While hard to disentangle from other phenomenon, we believe this explains important changes in the US economy and the USD's exchange rates in the last few years with the breakthrough in shale oil and gas fracking technology – **figure 10**.

Figure 10: US Real Trade-Weighted Dollar Index vs US mining output (five-year Lead Time)



Source: Haver Analytics as of March 17, 2017.

Divergences in local purchasing power due to currency misalignments tend to put pressure on current account balances through competitive trade. The value

¹ In smaller, less-diversified economies, this can lead to such large foreign exchange impacts that industries apart from natural resources actually weaken, a phenomenon termed "Dutch disease," named for a period in the 1960s after the Netherlands made large natural gas discoveries.

Measured against all trading partners, US inflation chronically runs a bit faster, and higher returns (yields) are required to stabilize the USD.

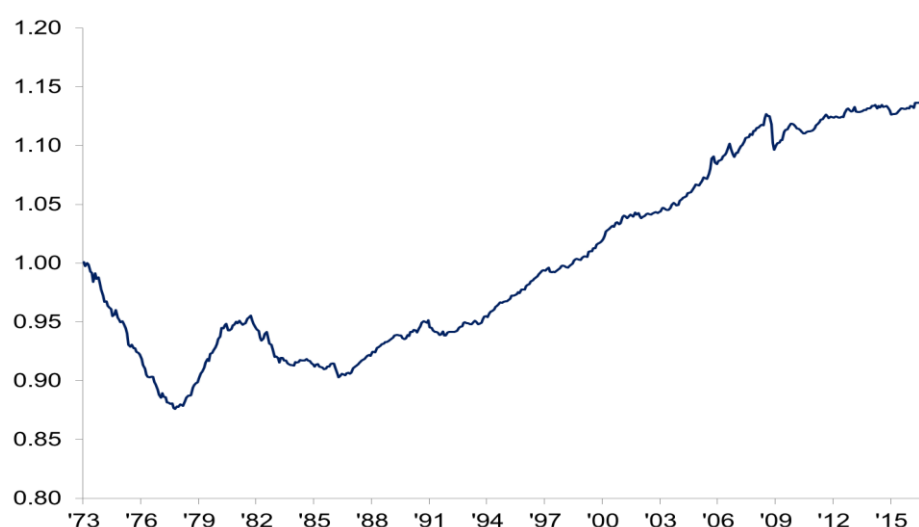
of currencies may play a role in rebalancing external accounts. Yet there are numerous rigidities and special influences. These include the home bias of international savers to avoid holding a high concentration of foreign assets, particularly in a single currency. Another is direct government intervention in various markets. Government policy actions can also have long-term influence on economic fundamentals, creating similar lasting currency valuation impacts.

Rather than provide an exhaustive analysis subject to reasonable argument, we summarize some high-level evidence on the major factors for current USD strength in the section below.

US inflation trending faster than the rest of the world

As **figure 11** shows, the US has long had a slightly faster inflation rate than the rest of the world.² An exception to this relative performance was around the time of the 1981-1984 USD surge. The pace of US *relative* inflation has also slowed somewhat since the Global Financial Crisis. In general, though, the US has had to attract foreign savings with high real interest rates and other forms of high investment returns in order to avoid depreciation of the USD. As **figure 1** suggests, the three bull markets in the USD were driven by a combination of high real interest rates and exceptional investment returns. In the absence of such factors, the USD has periodically gravitated lower.

Figure 11: US Consumer Price Index/Foreign Consumer Price Index Composite



Source: Haver Analytics as of March 17, 2017.

² The Federal Reserve prefers to reference the "personal consumption expenditures (PCE) deflator" as the best measure of US inflation rather than the Consumer Price Index, as this allows for faster shifts in the composition of actual consumer purchases than the slower changing basket of the CPI. The same PCE measure is not widely available abroad, although the impact on international inflation rates could be expected to be in the same direction. The domestic vs international inflation comparison shown in figures 11-13 are derived from Federal Reserve's data used to calculate real exchange rates.

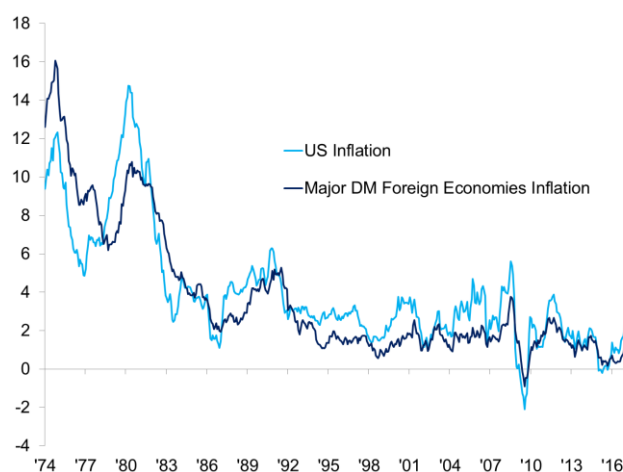
Lower EM inflation implies more durable currency values going forward. However, when EM inflation has risen rapidly in the past, local equities have actually been a good hedge.

As **figure 12** shows, US inflation has risen somewhat more than it has in other developed market economies in the past two years given the US's earlier and more robust business cycle recovery. While US inflation is somewhat more volatile than in other DMs, the divergence between US inflation and other DMs is unlikely to become significant. The most significant trend change, however, has been the very large drop in EM inflation compared to DMs – **figure 13**.

In the absence of a surge in EM inflation, the higher yields and investment return premiums in emerging markets are likely to assert themselves positively upon the value of EM currencies. This is distinct from the specific US policies that could drive another round of USD strength, discussed below.

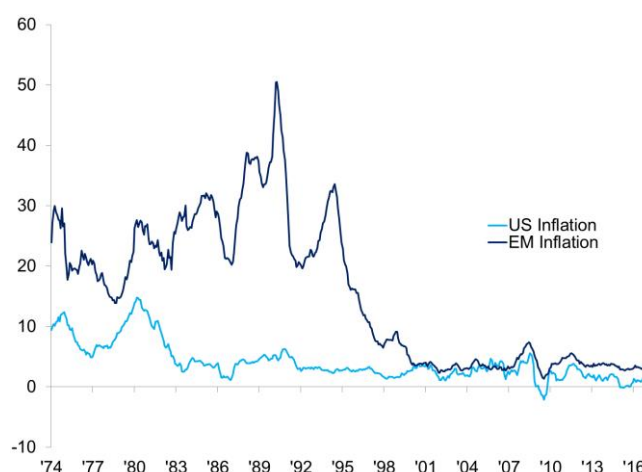
Meanwhile, in periods when EM inflation has been higher and currencies have depreciated, local EM equity markets have generally appreciated and provided a currency hedge – **figure 14**.

Figure 12: US vs DM Inflation Rates



Source: Haver Analytics, Citi Private Bank as of March 17, 2017.

Figure 13: US vs EM Inflation Rates



Source: Haver Analytics, Citi Private Bank as of March 17, 2017.

Figure 14: EM Equity Total Return Index (Local Currency) relative to EM Inflation (Real Return Index)



Source: Haver Analytics and Citi Private Bank as of March 17, 2017.

The extent of the US dollar's rally from here indeed depends on the Fed's policy approach to fighting inflation.

In our view, it will likely take more than just a mild tightening cycle to boost the USD substantially from a now elevated level.

The Fed expects its interest rate increases to amount to roughly half historical tightening cycle norms.

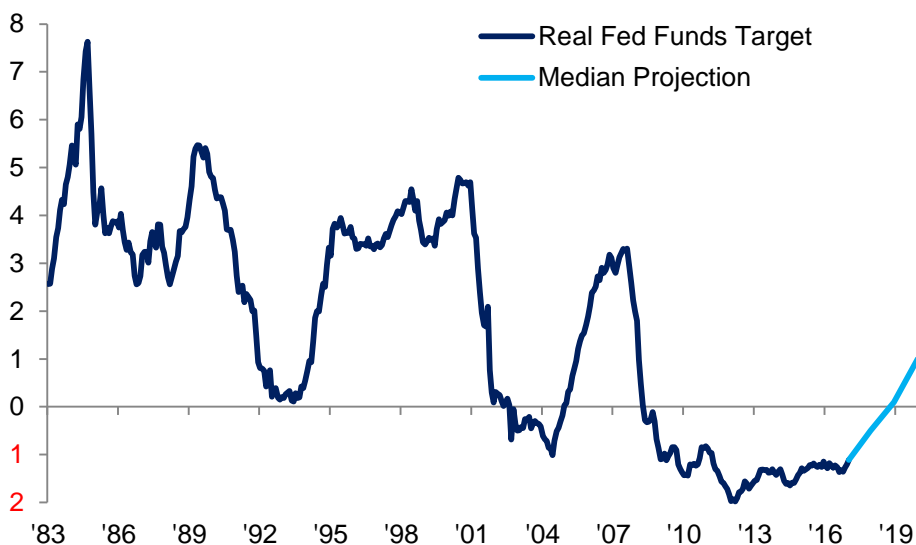
Expected US rate divergence far from dramatic

As we showed in **figures 6-9**, with the exception of Europe and Japan, US inflation-adjusted yields have generally fallen compared to other regions. But with the Federal Reserve unwinding its dramatic policy accommodation of the Global Financial Crisis period, what now?

Federal Reserve Chair Yellen took care to note on 3 March that special intervening factors in 2015 and 2016 had kept the Federal Reserve from "normalizing" monetary policy as it had planned. "Scaling back accommodation likely will not be as slow as it was during the past couple of years," she said. Yet even with a Fed that has chronically overestimated its tightening path and the one implied in bond markets, the Fed's forecast of its policy path going forward is significantly less aggressive than in past cycles - **figure 15**.

Taking the Fed's own forecast, the peak real Federal Funds Rate would rise 2.25 percentage points compared to 4.25 percentage points on average in past tightening cycles.

Figure 15: Real Federal Funds Rate Target and FOMC Member projections



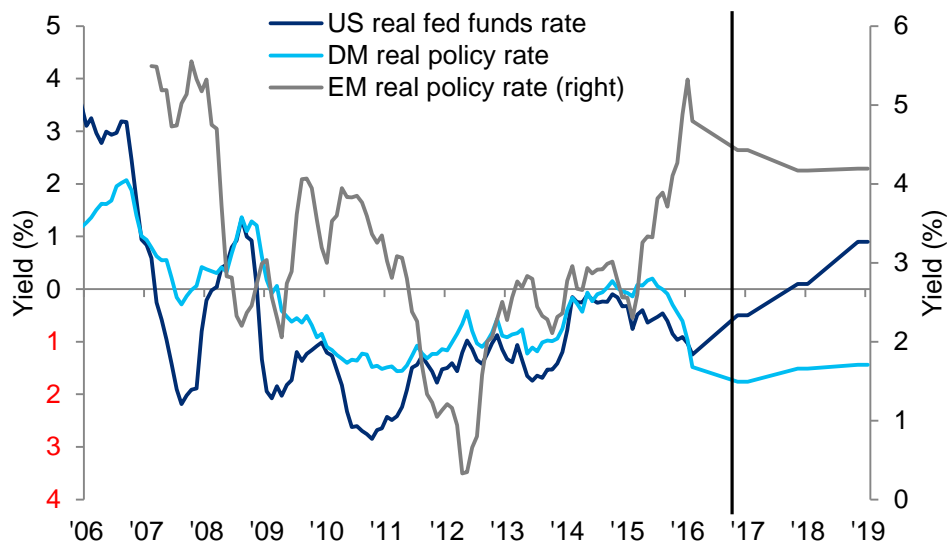
Source: Haver Analytics and Federal Reserve as of March 17, 2017.

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The Fed has said it is no longer trying to achieve lower trend inflation rates over time. It projects a peak rise in the real fed funds rate of 2.25% vs 4.25% on average in past cycles.

More importantly for the exchange rate, the Fed's interest rate moves do not occur in isolation. As **figure 16** shows, global bond market yields frequently rise and fall together, even when accounting for inflation. The real interest rate forecasts implied from inflation-linked bond markets around the world suggest that US policy divergence could indeed boost the USD further, particularly against DMs. However, with inflation expectations in the US rising faster than in other regions, the Fed should have more to do to lift the US dollar – **figure 17**.

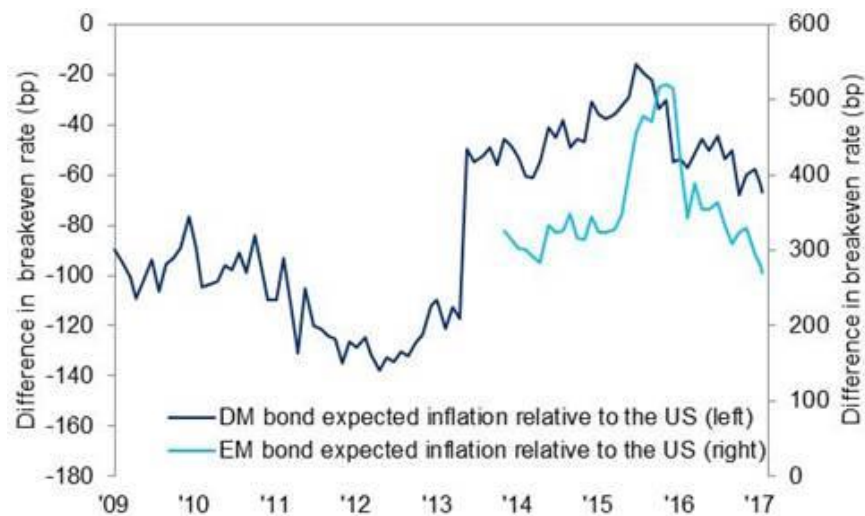
Figure 16: Expected international real interest rates: US, Other DM and EM (expectations derived from inflation-linked bond markets)



Source: Haver Analytics and Federal Reserve as of March 17, 2017.

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Figure 17: Expected international inflation relative to the US: DM and EM (expectations derived from inflation-linked bond markets)



Source: Haver Analytics and Federal Reserve as of March 17, 2017.

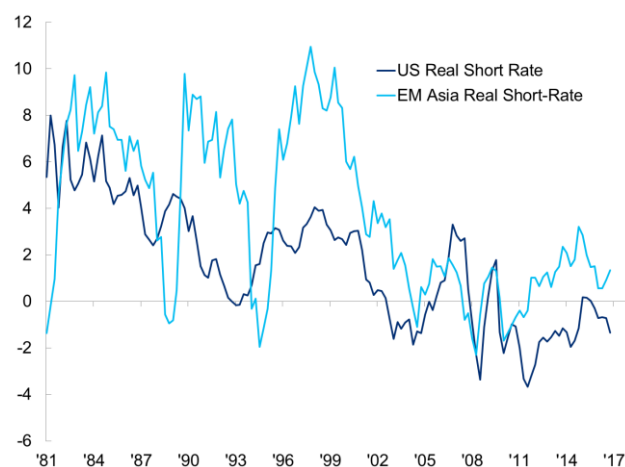
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The size of US interest rate “shocks” in EM Asia has been diminishing.

As we mentioned, interest rates vary together across the world. Many central banks have historically seen a need to match moves by the Fed. This is in order to avoid capital outflows, currency weakness and destabilizing inflation spikes. However, with the sharp decline in trend inflation in most EMs shown in **figure 11**, along with a large accumulation in foreign reserves in the two decades since the Asian financial crisis, interest rate sensitivity to the US appears to have fallen significantly in Asia – **figures 18-22**. This acts as an important counterweight to the rise in USD debt in the region in recent years and one of several important reasons why we have moved to now overweight the region’s largest equity markets (China, Hong Kong, India, Indonesia, and also now to neutral other regional equity markets. Please see our [Asia Strategist](#) for a complete discussion of China this month).

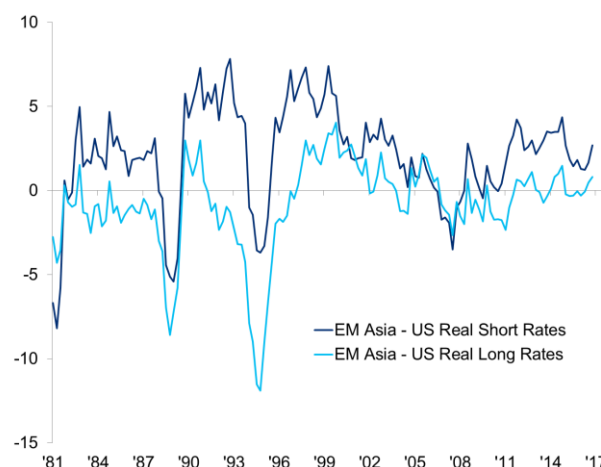
Meanwhile, given developments in currencies and crude oil – discussed below – we have added slightly to our existing overweight in Latin America by adding a Brazil equity overweight and a further small overweight throughout emerging markets in the Europe, the Middle East and Africa.

Figure 18: US and EM Asia inflation-adjusted short-term interest rate



Source: Haver Analytics and Citi Private Bank as of March 17, 2017.

Figure 19: Asia EM real interest rates less US real Rates (short- and long-term)



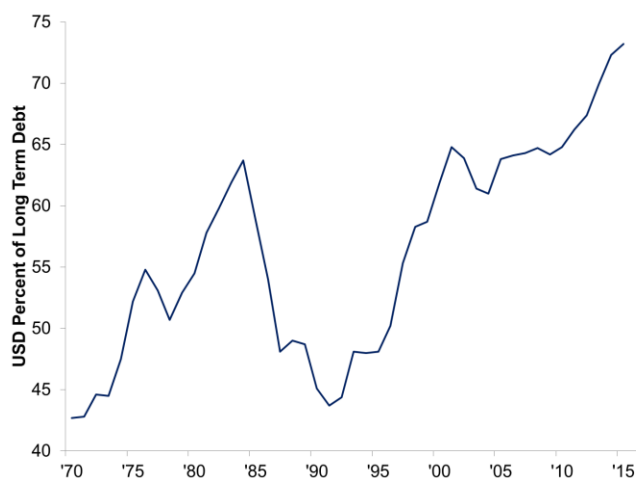
Source: Haver Analytics and Citi Private Bank as of March 17, 2017.

Figure 20: EM country foreign currency reserves as % of GDP



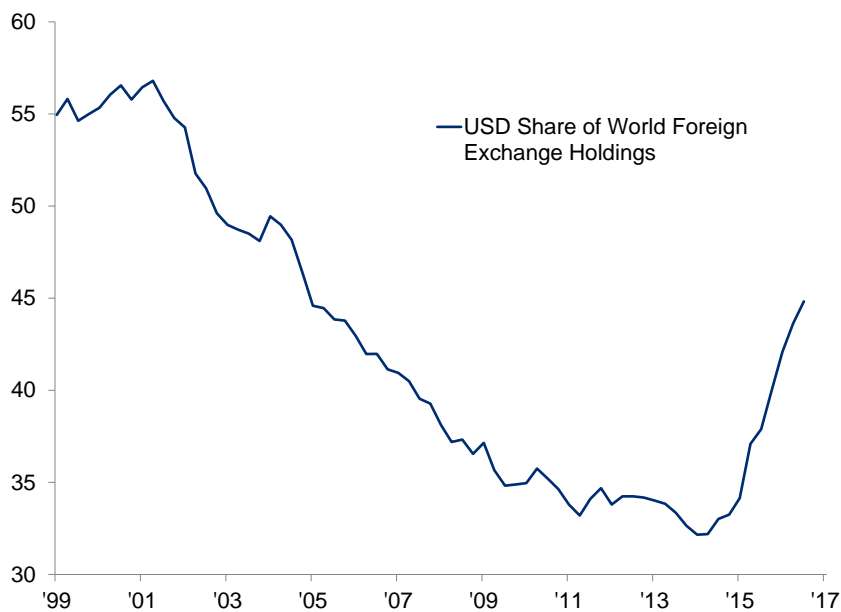
Source: Haver Analytics as of March 17, 2017.

Figure 21: EM: USD share of long-term external debt (%)



Source: Haver Analytics as of March 17, 2017.

Figure 22: US dollar share of international currency reserves (%)



Source: Haver Analytics and Federal Reserve as of March 17, 2017.

Border adjustment, tax repatriation and the US dollar

Finally, we would argue that specific US policies to be enacted this year suggest a further rise in the USD before a cycle peak is reached.

Following internal Republican Party disagreements over unrelated issues, the consensus in markets has wavered over the ability of the unified Republican government to pass significant tax reforms. Our own confidence remains higher. Action should occur after several months of contentious negotiations that may see waxing and waning confidence in eventual legislation's passage. But four months is an eternity for markets accustomed to a daily news cycle.

However, the extent to which tax cuts and other provisions provide net fiscal easing – boosting budget deficits and near-term growth – is still uncertain. As discussed in January's *Quadrant* and our *Strategy Bulletin* of March 1 (Quadrant: [Now, About Those Promises...](#), Strategy Bulletin: [US Tax Cuts, De-Regulation and Yes, Border Adjustment](#)), it is even less certain whether the US will seek to offset any revenue loss through some new form of tax on imports, be it a "border adjustment tax" or other measure. One thing, however, is certain for us: tax cuts, and their impact, will only occur once.

A tax policy package that somehow stimulates growth, yet boosts domestic production more than imports, should arguably produce upward pressure on the US exchange rate. (This is through adjustments in real interest rates, inclusive of a response from the Fed, and changes in current account balances). However, as discussed in our January *Quadrant*, we have far less confidence than some academics on both sides of the political spectrum that the US dollar would swiftly and efficiently rise by an equal amount to the tariff, keeping the net price of imports constant in USD.

To the extent that the exchange rate rigidities described earlier result in an idiosyncratic US consumer price spike, it would tend to pressure the US exchange rate lower. Between the opposing forces, we assume partial appreciation, but have little ability to quantify the extent.

Meanwhile, though, a second, highly likely policy step should boost the US dollar to some uncertain extent. A cut in the corporate tax rate for US profits retained abroad from 35% to 10% or thereabouts is highly likely this year in our view. Because this would be a highly competitive rate globally, and might be reversed at some future date, we would expect a significant rate of repatriation. This is possible even if the funds are ultimately invested outside the US, post taxation.

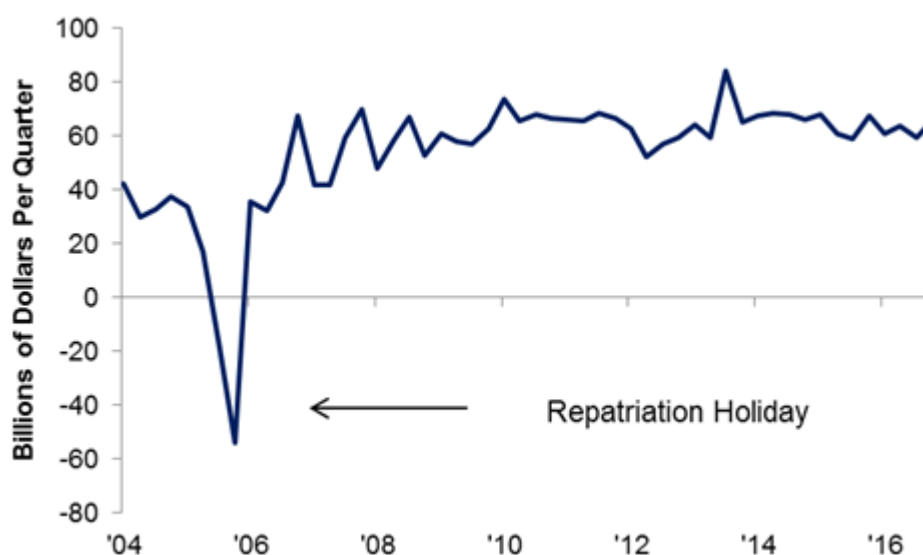
Untaxed US corporate profits retained abroad have risen by a massive \$2.8 trillion (excluding investment returns and currency movements) since the last "tax holiday" of 2004.

Even if most of this value is already held in USD, repatriation on a 10% corporate tax rate should likely boost the USD for a time.

As **figure 1** showed, a “foreign tax holiday” in 2004/2005 briefly changed the direction of the USD’s exchange rate, boosting it for a brief time during a secular bear market for the currency. As **figure 23** shows, Federal Reserve data show the level of untaxed profits of US firms held abroad has risen by a massive \$2.8 trillion – before any investment returns or currency revaluation – since that last opportunity for US firms to repatriate funds at a favorable tax rate.

The USD bull market of recent years has likely meant that a good share of foreign retained profits were already converted to USD or hedged. However, the size of the accumulated stock of retained profits abroad has swelled tremendously and therefore should meaningfully boost the dollar for a time.

Figure 23: US corporate profits retained abroad, quarterly increase/decline



Source: Haver Analytics as of March 17, 2017.

US potential economic growth seems likely to strengthen ahead. Yet isn't that already implied in a 25% rise in the inflation-adjusted USD Index?

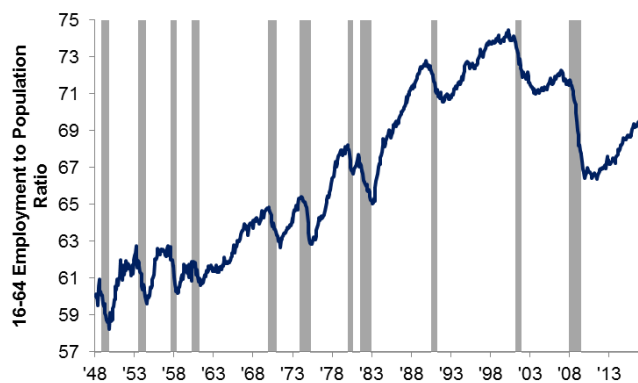
The higher trend inflation rate in the US and the chronic external deficits – **figure 24** – means higher real interest rates or other investment returns are needed to boost the US dollar. As we noted in our Outlook for 2017, we see the potential for both ([Late-cycle stimulus: Opportunities amid uncertainty](#)). A rebound in US labor force participation and productivity growth could raise trend interest rates and US returns – **figures 25-26**. However, a great deal of relative return strength now seems priced into value of the USD away from the one-off boosts that are likely from tax policy changes this year.

Figure 24: US current account deficit as % of GDP (including 1Q 2017 est)



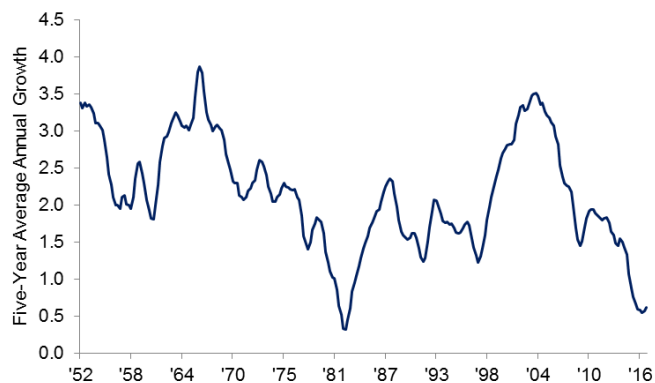
Source: Haver Analytics and Macro Economics as of March 17, 2017.

Figure 25: US employment to population ratio (ages 16-64)



Source: Haver Analytics, as of March 17, 2017.

Figure 26: US productivity growth, 5-year average



Source: Haver Analytics, as of March 17, 2017.

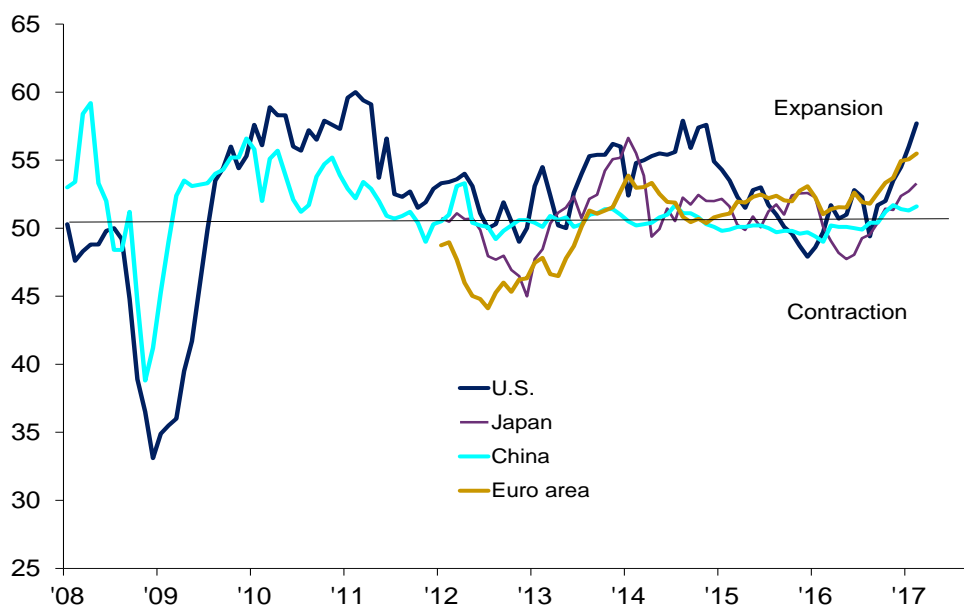
What a “final push” in USD means for asset allocation

Mid-year market corrections often follow strong winters. Plan to take advantage of any seasonal weakness.

With strong signs that the USD’s strengthening against other currencies is in its late stages, and further USD strength is dependent upon policy, the GIC decided to raise our allocation to international equities one percentage point, leaving us globally neutral – or fully invested – at our meeting this week. With signs of growth accelerating broadly across the world, we determined not to make this increase at the expense of US equities, which also remain at a neutral or “full” allocation – **figure 27**.

Meanwhile, with seasonal equity market strength usually quite concentrated in the fourth quarter of the year and first quarter that is now nearing its end, and given the strong seasonal tendency for negative economic “surprises” around mid-year, we would consider raising the Global Equity allocation further on a market correction, if one occurs – **figures 28-29**.

Figure 27: Select large economy manufacturing Purchasing Managers Indexes



Source: Haver Analytics as of March 17, 2017.

More importantly, we decided to raise Emerging Market Equity to overweight from neutral. We see an unusual moment when valuation looks positive broadly across EM regions – **figures 30-31**. The valuation discount of EM equities compared to US equities on a 10-year real average earnings valuation basis, has fallen to 45% - **figure 32**. This is not very far above the record discount achieved during the US’s late 1990s boom period. On a simple 2017 estimate basis, the valuation discount is 34%.

Figure 28: Seasonality of global and regional markets

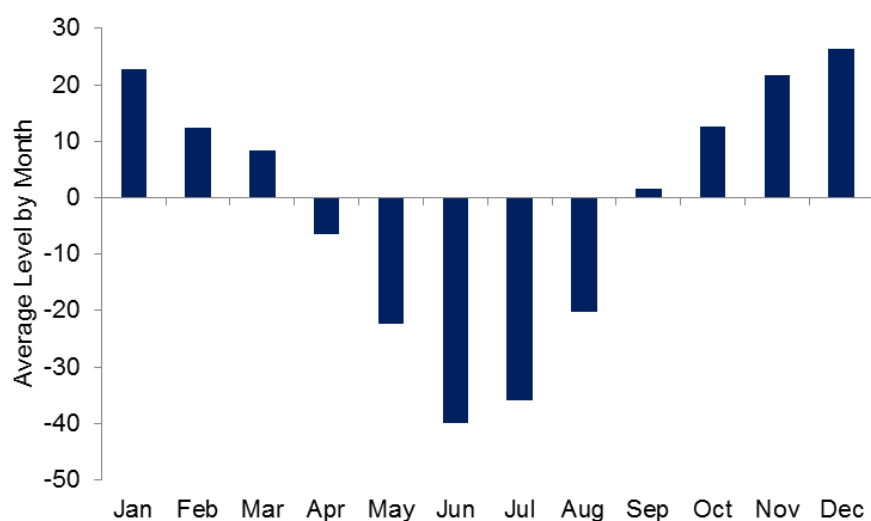
Seasonality of Global and Regional Share Market Performance (Total Returns By Calendar Quarter)							
Index	1Q Avg	2Q Avg	3Q Avg	4Q Avg	2Q Low Return	2Q High Return	Sample Period
MSCI World Index	2.4	2.5	-0.4	4.9	-12.6	17.6	26 years
US	2.6	2.4	0.5	4.9	-14.3	17.8	26 years
Europe	3.1	3.0	-0.6	4.8	-15.4	18.8	26 years
UK	1.9	1.4	1.1	5.1	-12.6	13.2	26 years
Japan	2.0	1.5	-2.1	1.6	-14.8	20.2	26 years
Asia Ex-Japan	3.5	3.0	-0.3	6.5	-27.8	31.0	26 years
China	-3.8	7.1	-0.1	3.9	-34.2	84.3	21 years
Latam	4.1	3.6	1.2	6.7	-17.6	23.1	19 years
EM EMEA	4.3	2.2	1.1	6.9	-12.0	19.6	17 years
Seasonality of Global Fixed Income Market Performance (Total Returns By Calendar Quarter)							
Index	1Q Avg	2Q Avg	3Q Avg	4Q Avg	2Q Low Return	2Q High Return	Sample Period
US Treasury	0.6	1.3	2.7	1.5	-3.1	6.2	25 years
German Bunds	1.3	0.7	2.4	1.8	-4.5	4.1	25 years
UK Gilts	0.5	1.1	3.4	3.0	-4.0	7.1	25 years
US MBS	1.2	1.4	2.1	1.6	-2.0	5.2	25 years
HG Corps (USD)	1.1	1.8	2.4	1.8	-3.2	9.5	25 years
HY Corps (USD)	3.2	2.4	1.1	2.1	-8.5	22.6	25 years
Seasonality of Commodity Market Performance (Total Returns By Calendar Quarter)							
Index	1Q Avg	2Q Avg	3Q Avg	4Q Avg	2Q Low Return	2Q High Return	Sample Period
WTI Crude Oil	6.8	6.6	1.8	-6.1	-17.5	40.7	25 years
Gold	2.2	0.1	2.8	0.7	-23.3	11.9	25 years
Nominal Broad TWD	1.3	0.1	0.2	0.7	-3.7	5.0	25 years
Real Broad TWD	0.7	-0.4	-0.1	0.1	-4.9	3.5	25 years

Source: Haver Analytics as of March 17, 2017.

Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment.

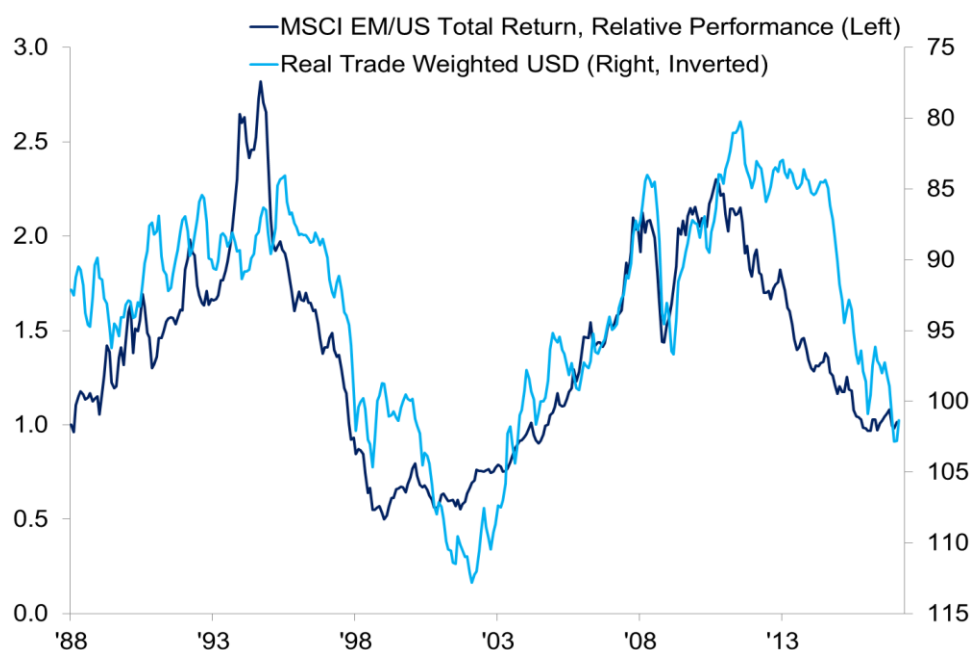
Past performance is no guarantee of future results, and future results may not meet our expectations due to a variety of economic, market and other factors.

Figure 29: Seasonality of Citi Economic Surprise Measure



Source: Haver Analytics and Citi Research as of March 17, 2017. Note: Average figure is since 2003.

Figure 30: EM Total Return relative to US and Real Trade Weighted Dollar



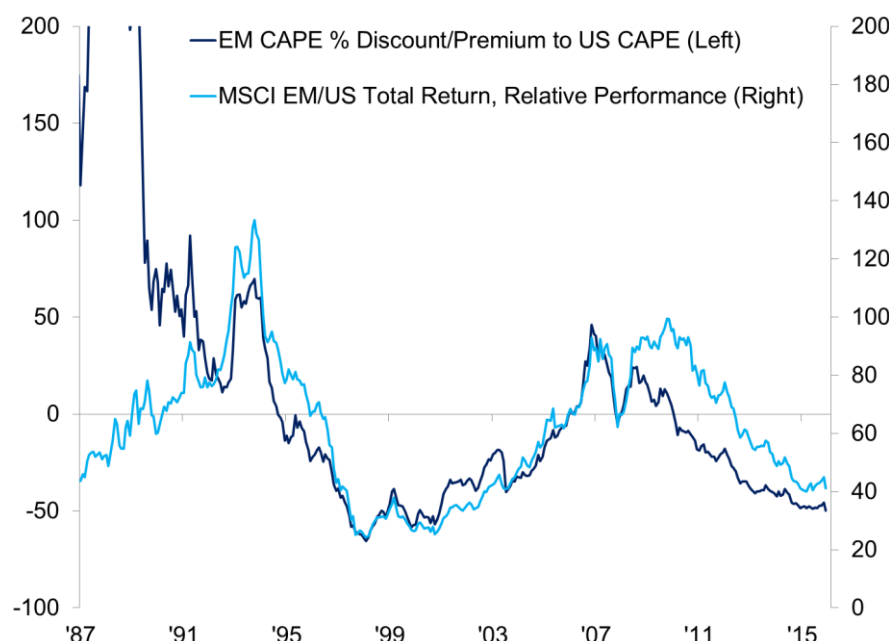
Source: Factset and Citi Private Bank as of March 17, 2017.

Figure 31: Regional Equity Valuation and Performance

	Current P/E	Historical avg P/E	Disc/premium to global equity	Disc/premium to US equity	2017 EPS growth**	2018 EPS growth**	MTD Total Return	3-Month Total Return	YTD Total return	12-Month Total Return
Global equities	20.8	20.0	N/A	-7.6%	13.7%	10.7%	1.5%	7.0%	7.0%	15.7%
Developed equities	22.5	17.7	8.5%	-2.7%	13.0%	10.6%	1.4%	6.4%	6.4%	15.0%
USA	24.4	16.9	17.4%	N/A	10.6%	12.1%	0.8%	6.5%	6.5%	17.8%
Canada	24.4	19.8	17.6%	5.4%	24.5%	11.0%	0.7%	2.5%	2.5%	16.5%
Japan	17.0	25.2	-18.1%	-26.6%	14.3%	8.6%	1.4%	6.3%	6.3%	15.2%
Euro Area	19.2	18.0	-7.7%	-17.2%	18.1%	10.3%	4.6%	6.6%	6.6%	9.8%
Australia	19.3	15.6	-7.0%	-16.6%	2.8%	7.9%	1.2%	8.8%	8.8%	17.8%
Emerging equities	15.1	15.2	-27.3%	-34.8%	16.5%	11.3%	-1.1%	7.4%	7.4%	17.1%
Brazil	20.8	13.5	0.2%	-10.2%	31.3%	12.3%	-4.5%	9.8%	9.8%	45.4%
Mexico	23.0	19.4	10.9%	-0.6%	32.8%	17.0%	2.1%	7.8%	7.8%	-4.3%
China	14.2	15.1	-31.8%	-38.9%	15.4%	13.4%	-0.4%	10.1%	10.1%	21.3%
India	21.4	17.8	3.2%	-7.5%	16.9%	17.2%	0.4%	10.8%	10.8%	15.2%
Korea	11.3	19.3	-45.9%	-51.5%	27.2%	7.3%	-1.4%	9.4%	9.4%	19.9%
Taiwan	16.0	30.2	-22.9%	-30.9%	11.9%	5.7%	-2.5%	7.1%	7.1%	19.0%
South Africa	21.2	15.5	2.1%	-8.5%	22.6%	17.7%	0.2%	4.8%	4.8%	16.9%
Russia	7.7	7.0	-63.0%	-66.8%	11.8%	9.5%	-3.3%	-9.7%	-9.7%	23.0%
Turkey	9.8	11.7	-52.9%	-57.8%	16.5%	13.0%	-0.7%	8.6%	8.6%	-13.2%

Source: Factset as of March 17, 2017. Opinions expressed herein may differ from the opinions expressed by other businesses or affiliates of Citigroup, Inc., and are not intended to be a forecast of future events, a guarantee of future results or investment advice, and are subject to change based on market and other conditions. Past performance is no guarantee of future results, and future results may not meet our expectations due to a variety of economic, market and other factors.

Figure 32: EM Stock valuation discount to US vs relative performance (cycle adjusted price/earnings)



Source: Factset and Citi Private Bank as of March 17, 2017.

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Past performance is no guarantee of future results, and future results may not meet our expectations due to a variety of economic, market and other factors.

What About Other DMs?

We maintain our Japan and UK large cap neutral or “full” weightings for now. In the case of the Eurozone, as **figure 31** showed, equity valuations also look historically appealing, if less so than for EMs. The Europe ex-UK CAPE shows a 32% discount to the US. On a simple 2017 estimate basis, the discount is -17%. However, the latter is not far below the long-run norm.

As discussed in Outlook 2017, we believe political developments in the Eurozone pose special risks this year. French Presidential candidate Marine Le Pen advocates French withdrawal from the Eurozone. Even if this is highly improbable, the impact has been felt in Eurozone government bond markets in 2017 and importantly in the larger debtor nation of Italy, where departure from the Eurozone seems less of a fantastic prospect - **figures 33-34**. Italy's own national elections are rarely mentioned as they are not on the 2017 calendar, but are likely less than twelve months away.

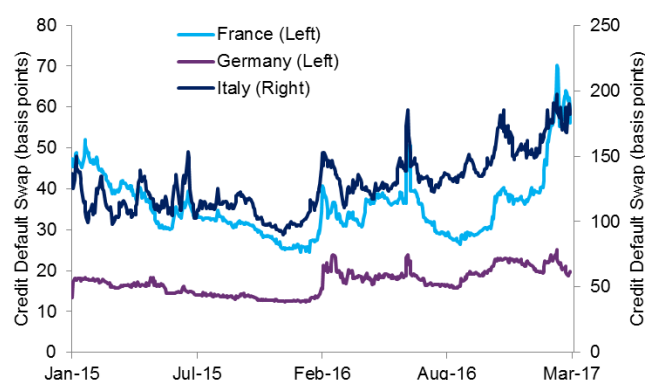
Re-denomination of European government bonds away from any small debtor would represent a very large financial shock for the region, and even for the

A political “relief rally” may be at hand for Eurozone shares, but risks also linger.

world in our view. Therefore, we have been inclined to take somewhat less Euro risk than valuations and the region's economic outlook would imply, even as we view redenomination as improbable.

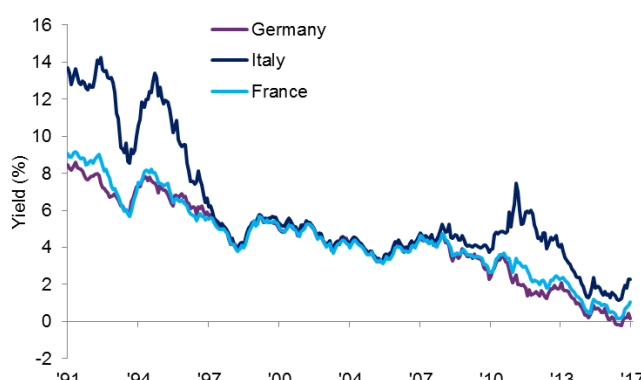
The defeat of a Dutch nationalist in the Netherlands election and some opinion poll slippage for Le Pen has helped boost confidence in the Eurozone in recent weeks. We see further gains on a mainstream candidate victory in France as most probable, yet polling data in the case of Brexit in the UK and Trump in the US suggest that such risks are easily underestimated. If these political risks recede, we would expect a solid performance in Eurozone equities.

Figure 33: Italy, France and Germany 5-year credit default swaps



Source: Bloomberg as of March 16, 2017.

Figure 34: Italy, France and Germany 10-year sovereign yields



Source: Haver Analytics as of February 2017.

Concluding word on equities

We began to gradually reallocate more positively in EM equities in early 2016. This was paused following the US election. We now resume.

We continue to view the global economic recovery as being in its late cycle, even if tax cuts and a recovery in potential economic growth in the US give it a “second wind.” We would not take a record-long US business cycle expansion through 2019 entirely for granted. However, we may choose to tactically exploit late-cycle strength through a further increase in the global equity weighting at some point. If Eurozone political risks pass, we may increase the region's weighting again to exploit valuation differences as we have during recent years.

Importantly for emerging markets, given our view of exchange rates, if we cut its weighting at some point, we believe it would be driven largely by factors common to Global Equity as an asset class, rather than as a result of exchange rate fears.

With that said, though, we continue to expect a policy-driven final push higher in the USD in the present cycle. The tendency for the USD to rise versus EM currencies during periods of falling risk appetite is unlikely to be erased entirely by the USD's current, high value. Historically, USD strength can persist beyond a peak in the US economy. For this reason, we would expect only to gradually increase our weighting in EM equities, a process we started in 2016 and resume now.

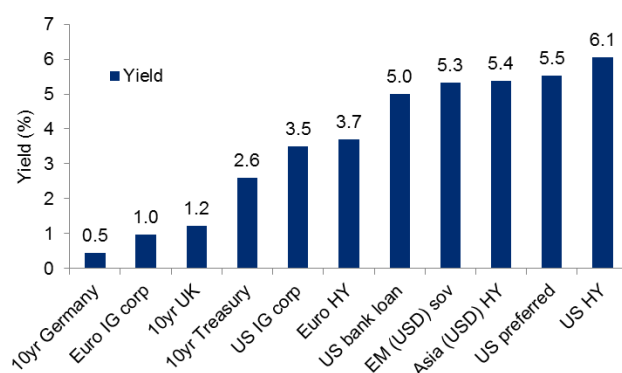
Modest profit taking in US High Yield, prefer loans

We continue to overweight US High Yield, which has among the strongest risk/return profiles among global fixed income markets. However, we took modest profits on our overweight, cutting it 0.5% to fund the increase in Emerging Equity along with a reduction of 0.5% in our cash overweight. (We continue to hold a 1.5% overweight in US High Yield, split between loans and bonds.)

US High Yield Fixed Income represents one of the most striking opportunities in the world in terms of absolute yield, particularly with defaults isolated to the energy sector and likely to fall – **figures 35-36**. At the same time, High Yield spreads over US Treasury yields have fallen below historic averages – **figure 37**. In other words, the strong relative return opportunity in High Yield is a function of low bond yields in other developed markets.

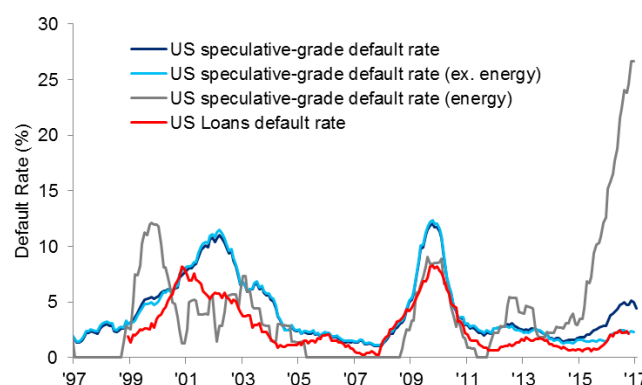
We continue to overweight US High Yield, but pare back slightly to help fund the EM equity overweight.

Figure 35: Yields on selected fixed income assets



Source: Bloomberg as of March 16, 2017.

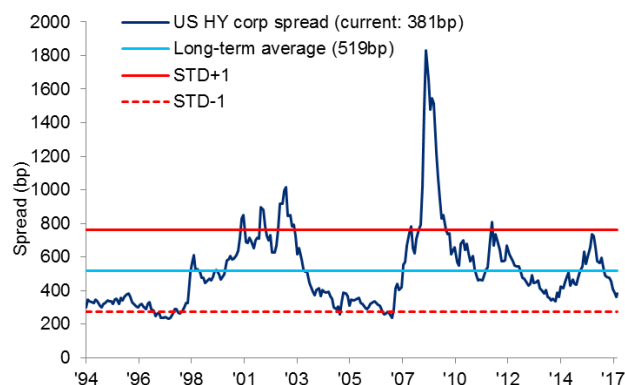
Figure 36: Default rates on selected assets



Source: Standard and Poor's, as of March 17, 2017.

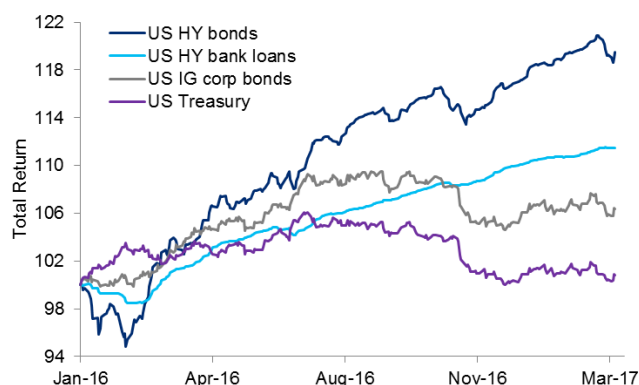
Meanwhile, US High Yield loans with variable rates yield just 100 basis points less than bonds, with significantly lower price volatility – **figure 38**. The loans step up in yield with LIBOR – **figure 39**. Therefore, the Fed's policy tightening planned this year should lower the yield gap between loans and bonds further – other things being equal – to the benefit of loan fund investors.

Figure 37: US High Yield Spread Over Treasuries



Source: Bloomberg as of March 17, 2017.

Figure 38: Bond Price Performance by asset class

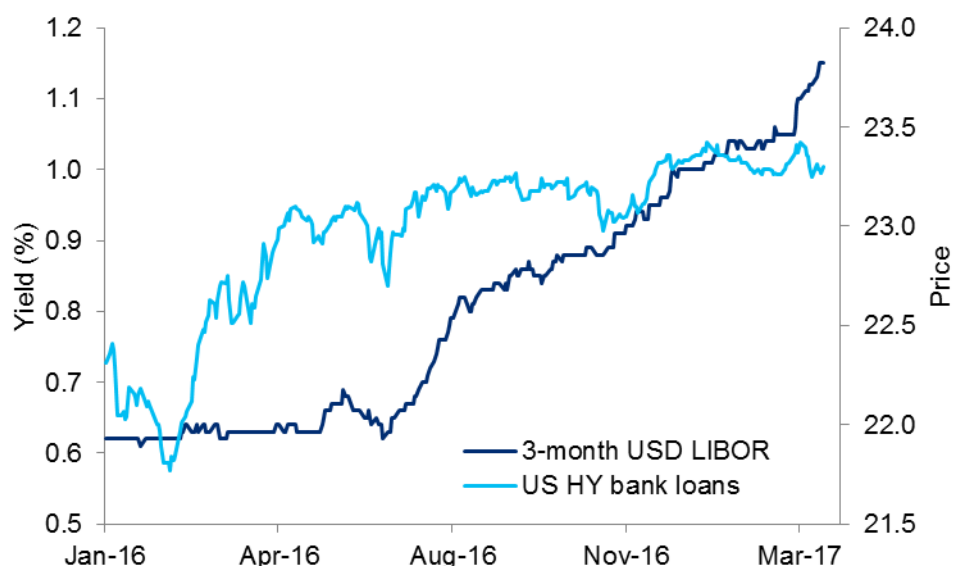


Source: Bloomberg as of March 17, 2017.

The advantage to overweighting High Yield energy is diminishing, though we don't fear for the the long-term recovery in petroleum sector.

The oil price recovery has been an important driver of many asset markets in the past year, not least of all High Yield bonds, where energy issuers account for nearly one fifth of the total – **figure 40**.

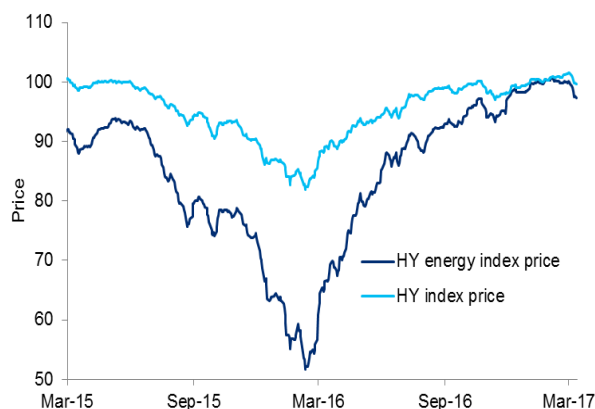
Figure 39: US bank loans get boost from higher LIBOR



Source: Factset as of March 17, 2017.

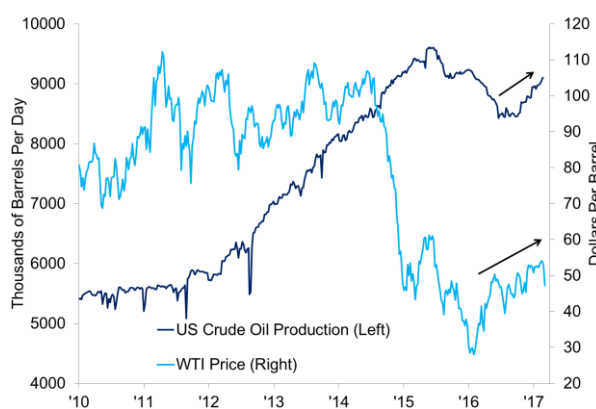
The recent 10% drop in the global crude oil price seems largely driven by US inventory fears. However, we see this largely as a function of the US getting a larger share of the global crude oil market over time. The recent rise in oil output is concentrated in the most profitable “fracking zones,” and is unlikely to broaden unless the oil price rises further – **figure 41**.

Figure 40: US HY and HY energy prices



Source: The Yield Book, as of March 17, 2017.

Figure 41: US oil production and price



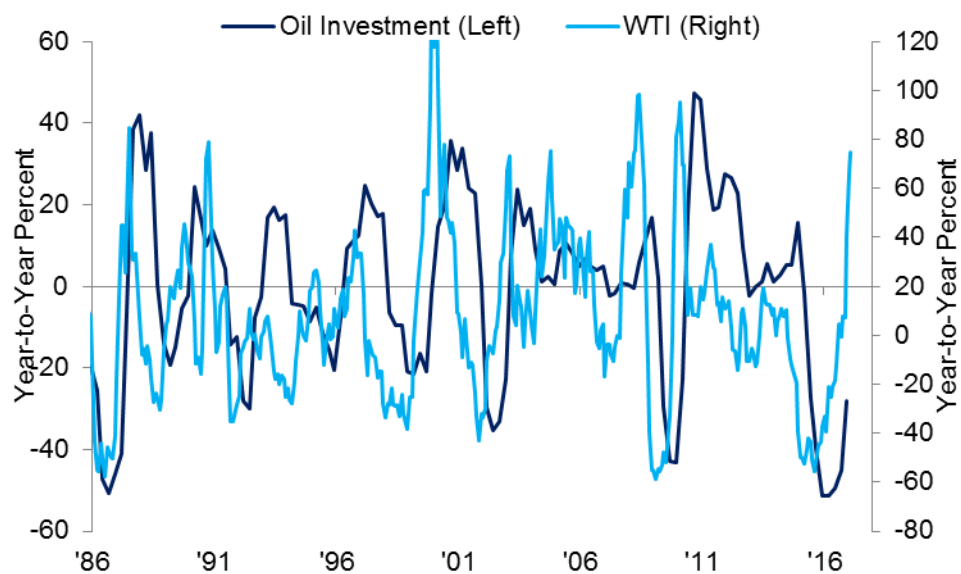
Source: Haver Analytics as of March 2017

High Yield loans seem likely to come close to HY bond returns at this point, with reduced volatility.

However, US shale oil supplies indeed represent a lasting positive supply shock, and coming oil price peaks should be far lower than the \$145 and \$125 peaks seen in 2008 and 2012.

In our view, the very sharp declines in exploration and maintenance investment globally has still set the stage for a rebalancing of supply demand and somewhat higher prices in a year's time – **figure 42**. The crude oil sector's recession has significantly de-risked energy-related investments. Nonetheless, the oil price is not deeply depressed as it was in early 2016, and we believe gradually shifting exposure to assets whose income was driven by business volume rather than the commodity prices make sense. This is even as we expect an ultimate peak in the oil price above \$60 per barrel.

Figure 42: US energy capex and WTI price



Source: Haver Analytics as of March 17, 2017.

S&P 500 Economic Sector Performance

Figure 43: S&P 500 Sector Total Returns

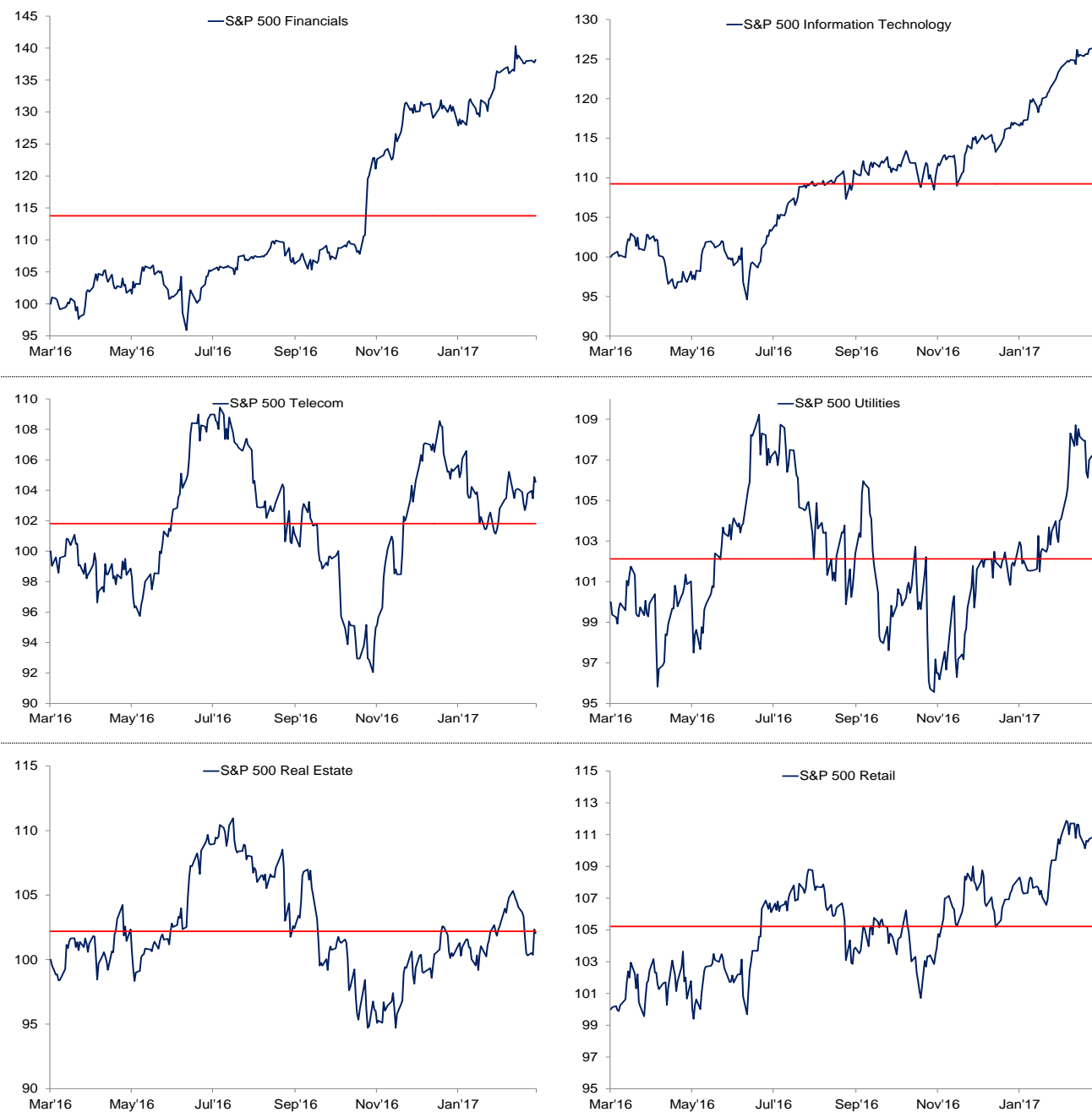
(Last Twelve Months) and Period Average



Source: Haver Analytics, as of 17 February 2017. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment.

Figure 44: S&P 500 Sector Total Returns

(Last Twelve Months) and Period Average



Source: Haver Analytics, as of 17 February 2017. Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment.

Portfolio allocations

This section shows the strategic and tactical asset allocations for Risk Levels 1 to 5 portfolios. The Quant Research & Global Asset Allocation (QRGAA) team creates strategic asset allocations using the CPB Adaptive Valuations Strategy (AVS) methodology on an annual basis. Global Investment Committee (GIC) provides underweight and overweight decisions to the AVS's Global USD with Hedge Funds Risk Level 3 portfolio. QRGAA then creates tactical allocations for other risk levels. The below tactical allocations are reflective of the March 23, 2017 GIC meeting.

Risk Level 1

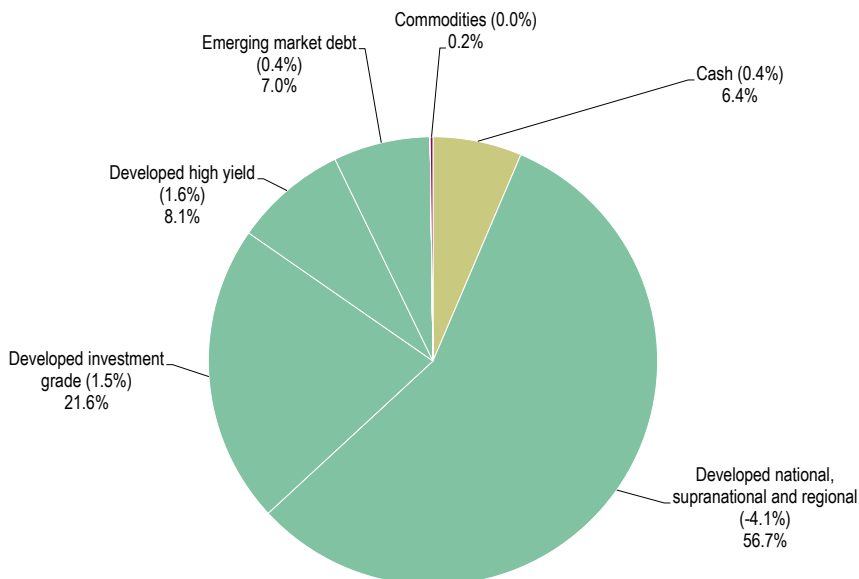
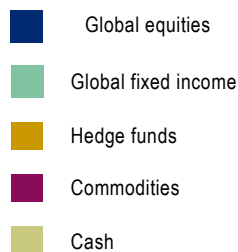
Risk Level 1 is designed for investors who have a preference for capital preservation and relative safety over the potential for a return on investment. These investors prefer to hold cash, time deposits and/or lower risk fixed income instruments.

Classification	Strategic (%)	Tactical* (%)	Active (%)
Cash	6.0	6.4	0.4
Fixed Income	94.0	93.4	-0.6
Developed Investment Grade	80.8	78.3	-2.6
Developed National, Supranational and Regional	60.8	56.7	-4.1
Americas	21.4	22.5	1.1
EMEA	24.4	22.3	-2.1
UK	4.5	4.5	-0.0
Core Europe	11.3	10.3	-1.0
Peripheral Europe	7.8	6.9	-1.0
Others	0.8	0.6	-0.2
Asia	13.8	10.7	-3.1
Asia (ex Japan)	0.4	0.6	0.1
Japan	13.4	10.1	-3.2
Supranational	1.2	1.2	0.0
Developed Corporate Investment Grade	20.0	21.6	1.5
Americas	13.8	15.1	1.4
US	13.2	14.6	1.4
Canada	0.6	0.6	0.0
EMEA	6.2	6.3	0.1
Europe (ex UK)	5.0	5.1	0.1
UK	1.2	1.2	0.0
Asia	0.1	0.1	0.0
Asia (ex Japan)	0.1	0.1	0.0
Japan	0.0	0.0	0.0

Classification	Strategic (%)	Tactical* (%)	Active (%)
Developed High Yield	6.6	8.1	1.6
Americas	5.2	6.3	1.1
EMEA	1.4	1.9	0.5
Emerging Market Debt	6.6	7.0	0.4
Americas	0.8	1.0	0.2
EMEA	0.7	0.7	0.0
Asia	5.1	5.3	0.2
Equities	0.0	0.0	0.0
Developed Equities	0.0	0.0	0.0
Emerging Equities	0.0	0.0	0.0
Hybrid Investments	0.0	0.0	0.0
Hedge Funds	0.0	0.0	0.0
Real Assets	0.0	0.2	0.2
Commodities	0.0	0.2	0.2
Total	100.0	100.0	0.0

Strategic = benchmark; tactical = the Citi Private Bank Global Investment Committee's current view; and active = the difference between strategic and tactical. MBS = mortgage-backed securities; ABS = asset-backed securities. All allocations are subject to change at discretion of the GIC of the Citi Private Bank. *The tactical allocation corresponds to a maturity of 7 to 10 years. Minor differences may result due to rounding.

Risk Level 1: tactical allocations



Figures in brackets are the difference versus the strategic benchmark

Strategic = benchmark; tactical = the Citi Private Bank Global Investment Committee's current view; and active = the difference between strategic and tactical. All allocations are subject to change at discretion of the GIC of the Citi Private Bank.

Core positions

Global equities have a neutral position with global fixed income underweight at -0.6%. Cash and gold are overweight by +0.4% and +0.2% respectively.

Within fixed income, developed government debt continues to be the largest underweight at -4.1%. Developed high yield bond has the largest overweight at +1.6% followed by developed corporate investment grade fixed income at +1.5% overweight positions.

EM fixed income remains at a small overweight position of +0.4% with both Latin America and Asia debt in overweight positions.

Within equities, both developed and EM equities remain at neutral allocation.

Risk Level 2

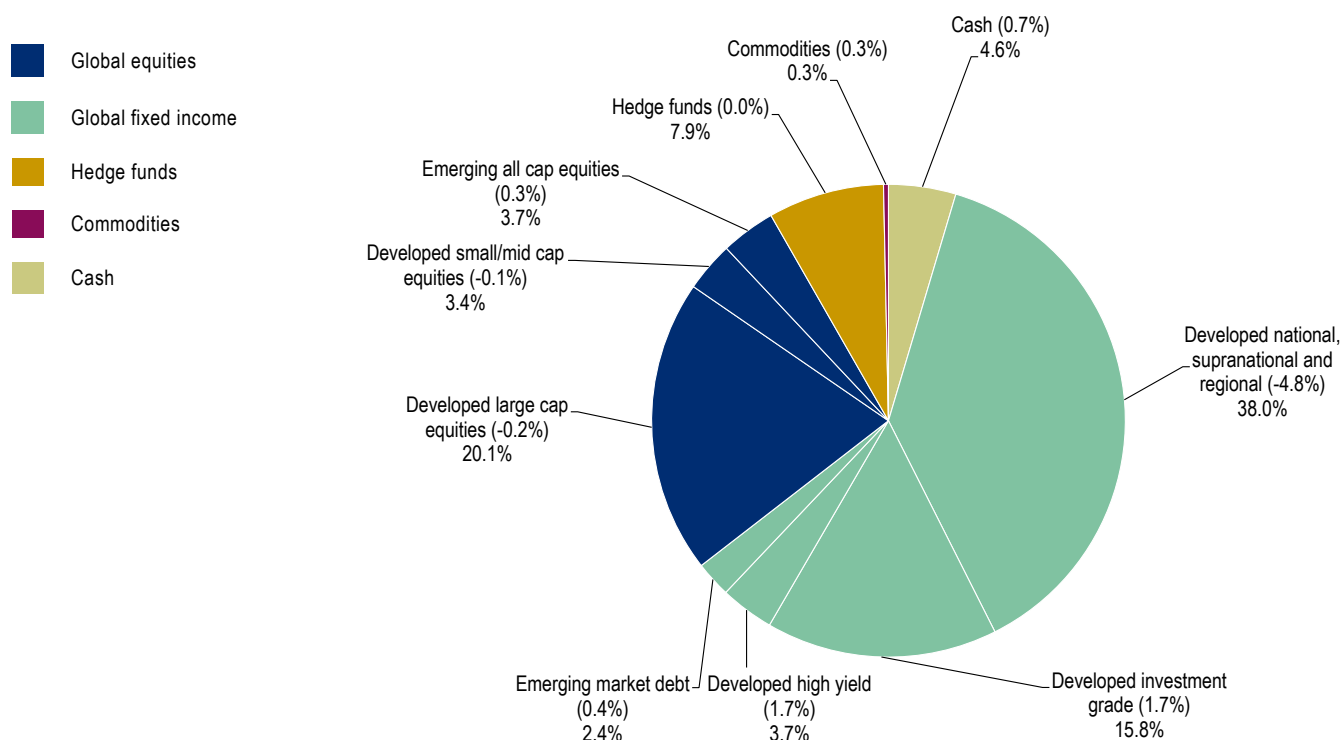
Risk Level 2 is designed for investors who emphasize capital preservation over return on investment, but who are willing to subject some portion of their principal to increased risk in order to generate a potentially greater rate of return on investment.

Classification	Strategic (%)	Tactical* (%)	Active (%)
Cash	3.9	4.6	0.7
Fixed income	60.9	59.9	-1.0
Developed Investment Grade	56.9	53.8	-3.1
Developed national, supranational and regional	42.8	38.0	-4.8
Americas	15.1	16.2	1.1
EMEA	17.2	14.7	-2.5
U.K.	3.2	3.1	-0.1
Core Europe	7.9	6.8	-1.1
Peripheral Europe	5.5	4.4	-1.1
Others	0.6	0.4	-0.2
Asia	9.7	6.2	-3.5
Asia (ex Japan)	0.3	0.5	0.2
Japan	9.4	5.7	-3.7
Supranational	0.9	0.9	0.0
Developed corporate investment grade	14.1	15.8	1.7
Americas	9.7	11.3	1.6
US	9.3	10.8	1.6
Canada	0.4	0.4	0.0
EMEA	4.4	4.5	0.1
Europe (ex U.K.)	3.5	3.6	0.1
U.K.	0.8	0.9	0.0
Asia	0.1	0.1	0.0
Developed high yield	2.0	3.7	1.7
Americas	1.6	2.8	1.2
EMEA	0.4	0.9	0.5
Emerging market debt	2.0	2.4	0.4
Americas	0.2	0.4	0.1
EMEA	0.2	0.2	0.0
Asia	1.6	1.8	0.3
Hybrid investments	7.9	7.9	0.0
Hedge funds	7.9	7.9	0.0
Real assets	0.0	0.3	0.3
Commodities	0.0	0.3	0.3

Classification	Strategic (%)	Tactical* (%)	Active (%)
Equities	27.2	27.2	0.0
Developed Equities	23.8	23.5	-0.3
Developed large cap equities	20.3	20.1	-0.2
Americas	13.1	13.1	0.0
US all	12.3	12.3	0.0
Canada	0.8	0.8	0.0
EMEA	4.3	4.1	-0.2
U.K.	1.3	1.3	0.0
Germany	0.6	0.5	-0.1
France	0.6	0.6	-0.1
Switzerland	0.6	0.6	0.0
Benelux	0.3	0.3	0.0
Scandi	0.4	0.4	0.0
Spain	0.2	0.2	0.0
Italy	0.1	0.1	0.0
Others	0.1	0.1	0.0
Asia	2.9	2.9	0.0
Australasia	0.6	0.6	0.0
Far East ex Japan	0.4	0.4	0.0
Japan	2.0	2.0	0.0
Developed small/ mid cap equities	3.5	3.4	-0.1
Americas	2.1	2.1	0.0
EMEA	0.9	0.8	-0.1
Europe (ex U.K.)	0.7	0.7	0.0
U.K.	0.2	0.1	-0.1
Asia	0.5	0.5	0.0
Asia (ex Japan)	0.1	0.1	0.0
Japan	0.4	0.4	0.0
Emerging all cap equities	3.4	3.7	0.3
Americas	0.4	0.5	0.1
Brazil	0.2	0.3	0.0
Mexico	0.1	0.1	0.0
Other	0.1	0.2	0.1
EMEA	0.5	0.5	0.0
Turkey	0.0	0.0	0.0
Russia and Eastern Europe	0.2	0.2	0.0
South Africa	0.2	0.2	0.0
Other	0.0	0.0	0.0
Asia	2.6	2.7	0.1
China	1.0	1.1	0.0
India	0.4	0.4	0.0
South Korea	0.5	0.5	0.0
Taiwan	0.4	0.4	0.0
Other Emerging Asia	0.3	0.4	0.0
Total	100.0	100.0	0.0

Strategic = benchmark; tactical = the Citi Private Bank Global Investment Committee's current view; and active = the difference between strategic and tactical. MBS = mortgage-backed securities; ABS = asset-backed securities. All allocations are subject to change at discretion of the GIC of the Citi Private Bank. *The tactical allocation corresponds to a maturity of 7 to 10 years. Minor differences may result due to rounding.

Risk Level 2: tactical allocations



Figures in brackets are the difference versus the strategic benchmark

Strategic = benchmark; tactical = the Citi Private Bank Global Investment Committee's current view; and active = the difference between strategic and tactical. All allocations are subject to change at discretion of the GIC of the Citi Private Bank.

Core positions

Global equities have a neutral position with global fixed income underweight at -1.0%. Cash has an overweight position of +0.7%.

Gold remains at a small overweight position of +0.3%.

Within fixed income, developed government debt remains the largest underweight at -4.8% and developed corporate investment grade fixed income has the largest overweight at +1.7% followed by developed high yield bond at +1.7%.

EM fixed income has a small overweight position of +0.4% with both Latin America and Asia debt at overweight positions and EMEA at neutral allocation.

Within equities, developed large cap equities have a small underweight at -0.2% while emerging market equities have an overweight position of 0.3%.

Risk Level 3

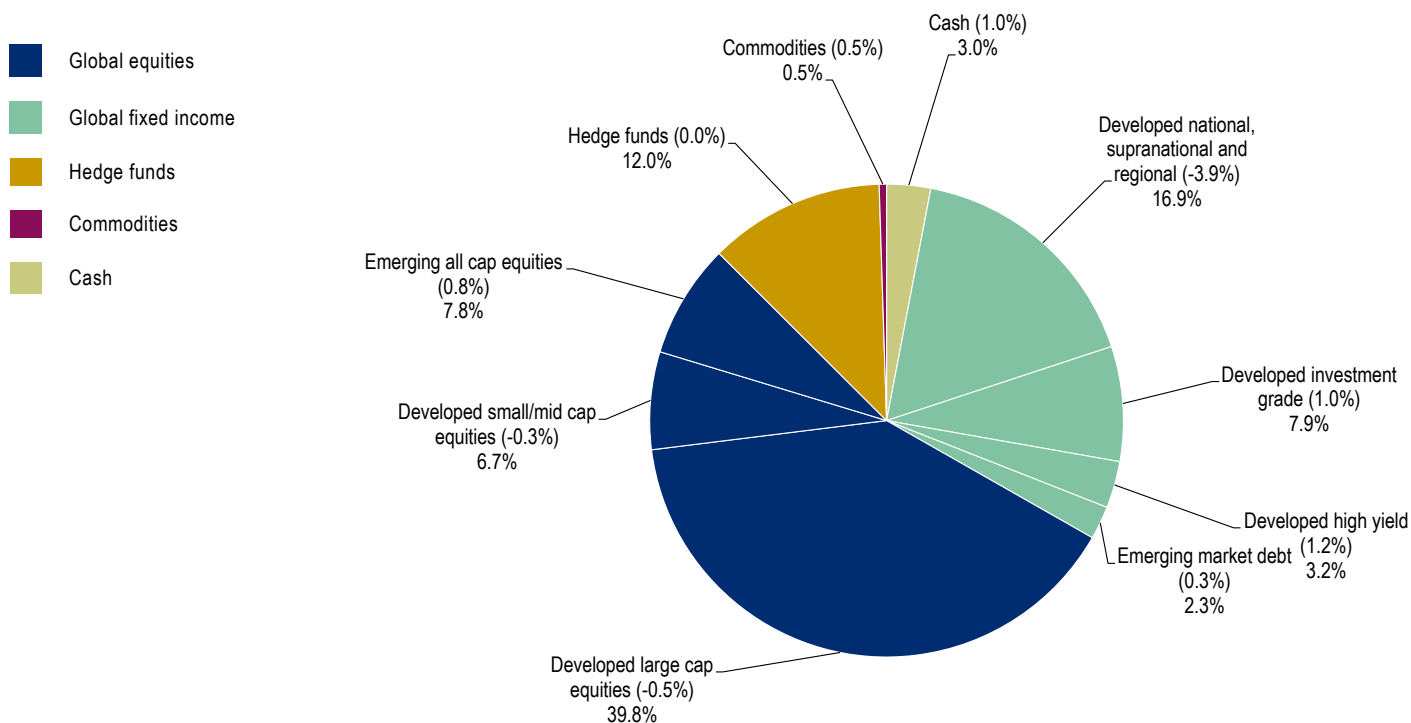
Risk Level 3 is designed for investors with a blended objective who require a mix of assets and seek a balance between investments that offer income and those positioned for a potentially higher return on investment. Risk Level 3 may be appropriate for investors willing to subject their portfolio to additional risk for potential growth in addition to a level of income reflective of his/her stated risk tolerance.

Classification	Strategic (%)	Tactical* (%)	Active (%)
Cash	2.0	3.0	1.0
Fixed income	31.8	30.3	-1.5
Developed Investment Grade	27.8	24.8	-3.0
Developed national, supranational and regional	20.9	16.9	-3.9
Americas	7.4	7.9	0.5
EMEA	8.4	6.4	-1.9
U.K.	1.5	1.4	-0.1
Core Europe	3.9	3.0	-0.9
Peripheral Europe	2.7	1.9	-0.8
Others	0.3	0.1	-0.1
Asia	4.7	2.2	-2.5
Asia (ex Japan)	0.1	0.2	0.1
Japan	4.6	2.0	-2.6
Supranational	0.4	0.4	0.0
Developed corporate investment grade	6.9	7.9	1.0
Americas	4.7	5.7	1.0
US	4.5	5.5	1.0
Canada	0.2	0.2	0.0
EMEA	2.1	2.1	0.0
Europe (ex U.K.)	1.7	1.7	0.0
U.K.	0.4	0.4	0.0
Asia	0.0	0.0	0.0
Developed high yield	2.0	3.2	1.2
Americas	1.6	2.4	0.8
EMEA	0.4	0.8	0.4
Emerging market debt	2.0	2.3	0.3
Americas	0.2	0.4	0.2
EMEA	0.2	0.2	0.0
Asia	1.6	1.7	0.1
Hybrid investments	12.0	12.0	0.0
Hedge funds	12.0	12.0	0.0
Real assets	0.0	0.5	0.5
Commodities	0.0	0.5	0.5

Classification	Strategic (%)	Tactical* (%)	Active (%)
Equities	54.2	54.2	0.0
Developed Equities	47.3	46.4	-0.8
Developed large cap equities	40.3	39.8	-0.5
Americas	26.1	26.1	0.0
US all	24.5	24.5	0.0
Canada	1.6	1.6	0.0
EMEA	8.5	7.9	-0.6
U.K.	2.7	2.7	0.0
Germany	1.1	1.0	-0.2
France	1.3	1.1	-0.2
Switzerland	1.3	1.2	-0.1
Benelux	0.6	0.6	0.0
Scandi	0.7	0.7	0.0
Spain	0.4	0.4	0.0
Italy	0.3	0.2	-0.1
Others	0.1	0.1	0.0
Asia	5.7	5.8	0.0
Australasia	1.1	1.1	0.0
Far East ex Japan	0.7	0.8	0.1
Japan	3.9	3.9	0.0
Developed small/ mid cap equities	7.0	6.7	-0.3
Americas	4.1	4.1	0.0
EMEA	1.8	1.5	-0.3
Europe (ex U.K.)	1.4	1.3	-0.1
U.K.	0.4	0.2	-0.2
Asia	1.1	1.1	0.0
Asia (ex Japan)	0.3	0.3	0.0
Japan	0.8	0.8	0.0
Emerging all cap equities	6.9	7.8	0.8
Americas	0.8	1.2	0.4
Brazil	0.5	0.6	0.1
Mexico	0.2	0.2	0.0
Other	0.1	0.4	0.3
EMEA	0.9	1.0	0.1
Turkey	0.1	0.1	0.0
Russia and	0.4	0.5	0.0
South Africa	0.4	0.4	0.0
Other	0.0	0.0	0.0
Asia	5.2	5.6	0.4
China	2.1	2.2	0.1
India	0.7	0.9	0.2
South Korea	0.9	0.9	0.0
Taiwan	0.8	0.8	0.0
Other Emerging Asia	0.6	0.7	0.1
Total	100.0	100.0	0.0

Strategic = benchmark; tactical = the Citi Private Bank Global Investment Committee's current view; and active = the difference between strategic and tactical. MBS = mortgage-backed securities; ABS = asset-backed securities. All allocations are subject to change at discretion of the GIC of the Citi Private Bank. *The tactical allocation corresponds to a maturity of 7 to 10 years. Minor differences may result due to rounding.

Risk Level 3: tactical allocations



Figures in brackets are the difference versus the strategic benchmark

Strategic = benchmark; tactical = the Citi Private Bank Global Investment Committee's current view; and active = the difference between strategic and tactical. All allocations are subject to change at discretion of the GIC of the Citi Private Bank.

Core positions

Global equities are neutral, global fixed income has an underweight of -1.5% with cash overweight at +1.0% and gold overweight at +0.5%.

Within fixed income, developed government debt remains the largest underweight at -3.9%, with US government debt at an overweight position. Developed high yield bond has the largest overweight at +1.2% followed by developed corporate investment grade fixed income at +1.0%.

EM fixed income has a small overweight position of +0.3% with both Latin America and Asia debt at overweight positions and EMEA at neutral allocation.

Within equities, developed large cap equities have an underweight of -0.5% followed by developed small/mid cap equities at -0.3% while EM equities have an overweight of +0.8%.

Risk Level 4

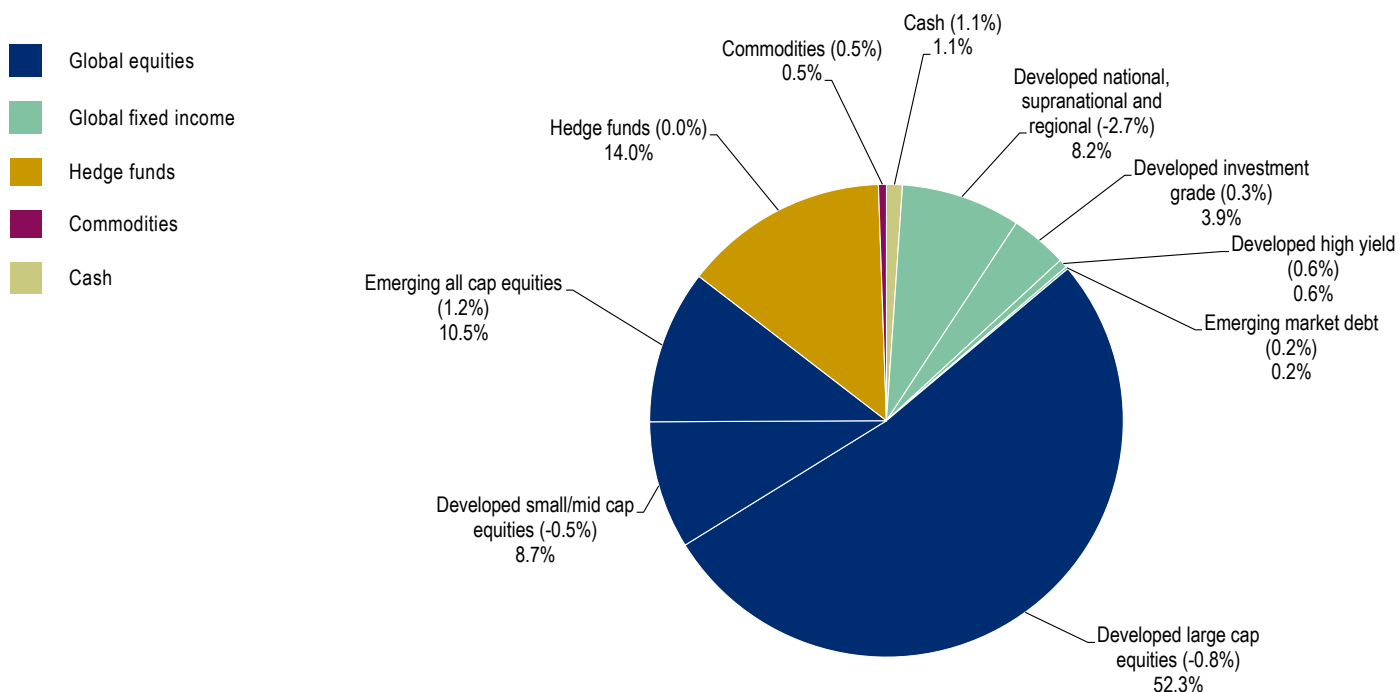
Risk Level 4 is designed for investors with a blended objective who require a mix of assets and seek a balance between investments that offer income and those positioned for a potentially higher return on investment. They are willing to subject a large portion of their portfolio to greater risk and market value fluctuations in anticipation of a potentially greater return on investment. Investors may have a preference for investments or trading strategies that may assume higher-than-normal market risks and/or potentially less liquidity with the goal (but not guarantee) of commensurate gains.

Classification	Strategic (%)	Tactical* (%)	Active (%)
Cash	0.0	1.1	1.1
Fixed income	14.4	12.8	-1.6
Developed Investment Grade	14.4	12.0	-2.4
Developed national, supranational and regional	10.9	8.2	-2.7
Americas	3.8	3.9	0.0
EMEA	4.4	3.1	-1.3
U.K.	0.8	0.7	-0.1
Core Europe	2.0	1.4	-0.6
Peripheral	1.4	0.9	-0.5
Others	0.1	0.1	-0.1
Asia	2.5	1.0	-1.5
Asia (ex Japan)	0.1	0.1	0.0
Japan	2.4	0.9	-1.5
Supranational	0.2	0.2	0.0
Developed corporate investment grade	3.6	3.9	0.3
Americas	2.5	2.8	0.4
US	2.4	2.7	0.4
Canada	0.1	0.1	0.0
EMEA	1.1	1.0	-0.1
Europe (ex U.K.)	0.9	0.8	-0.1
U.K.	0.2	0.2	0.0
Asia	0.0	0.0	0.0
Developed high yield	0.0	0.6	0.6
Americas	0.0	0.4	0.4
EMEA	0.0	0.2	0.2
Emerging market debt	0.0	0.2	0.2
Americas	0.0	0.0	0.0
EMEA	0.0	0.0	0.0
Asia	0.0	0.1	0.1
Hybrid investments	14.0	14.0	0.0
Hedge funds	14.0	14.0	0.0
Real assets	0.0	0.5	0.5
Commodities	0.0	0.5	0.5

Classification	Strategic (%)	Tactical* (%)	Active (%)
Equities	71.6	71.6	0.0
Developed Equities	62.3	61.0	-1.2
Developed large cap equities	53.1	52.3	-0.8
Americas	34.3	34.3	0.0
US all	32.3	32.3	0.0
Canada	2.1	2.1	0.0
EMEA	11.2	10.3	-0.8
U.K.	3.5	3.5	0.0
Germany	1.5	1.2	-0.2
France	1.7	1.4	-0.2
Switzerland	1.7	1.6	-0.1
Benelux	0.8	0.7	-0.1
Scandi	1.0	1.0	0.0
Spain	0.5	0.5	0.0
Italy	0.3	0.2	-0.1
Others	0.2	0.1	0.0
Asia	7.6	7.6	0.1
Australasia	1.5	1.4	-0.1
Far East ex Japan	1.0	1.1	0.1
Japan	5.1	5.1	0.0
Developed small/mid cap equities	9.2	8.7	-0.5
Americas	5.4	5.4	0.0
EMEA	2.4	1.9	-0.5
Europe (ex U.K.)	1.8	1.7	-0.2
U.K.	0.6	0.3	-0.3
Asia	1.4	1.4	0.0
Asia (ex Japan)	0.4	0.4	0.0
Japan	1.1	1.1	0.0
Emerging all cap equities	9.3	10.5	1.2
Americas	1.1	1.6	0.5
Brazil	0.6	0.8	0.1
Mexico	0.3	0.3	0.0
Other	0.2	0.6	0.4
EMEA	1.2	1.4	0.1
Turkey	0.1	0.1	0.0
Russia and Eastern Europe	0.6	0.6	0.1
South Africa	0.5	0.6	0.1
Other	0.1	0.1	0.0
Asia	7.0	7.5	0.6
China	2.8	2.9	0.1
India	1.0	1.3	0.3
South Korea	1.2	1.2	0.0
Taiwan	1.1	1.1	0.0
Other Emerging Asia	0.9	1.0	0.1
Total	100.0	100.0	0.0

Strategic = benchmark; tactical = the Citi Private Bank Global Investment Committee's current view; and active = the difference between strategic and tactical. MBS = mortgage-backed securities; ABS = asset-backed securities. All allocations are subject to change at discretion of the GIC of the Citi Private Bank. *The tactical allocation corresponds to a maturity of 7 to 10 years. Minor differences may result due to rounding.

Risk Level 4: tactical allocations



Figures in brackets are the difference versus the strategic benchmark

Strategic = benchmark; tactical = the Citi Private Bank Global Investment Committee's current view; and active = the difference between strategic and tactical. All allocations are subject to change at discretion of the GIC of the Citi Private Bank.

Core positions

Global equities are neutral, global fixed income has an underweight of -1.6% with cash overweight at +1.1% and gold overweight at +0.5%.

Within fixed income, developed government debt has the largest underweight at -2.7% and developed high yield bond largest overweight at +0.6%.

EM fixed income has a small overweight position with allocations to Asia.

Within equities, developed large cap equities have the highest underweight at -0.8% followed by developed small/mid cap equities at -0.5%.

Emerging equities have an overweight of +1.2% with a focus in Latam and Asia.

Risk Level 5

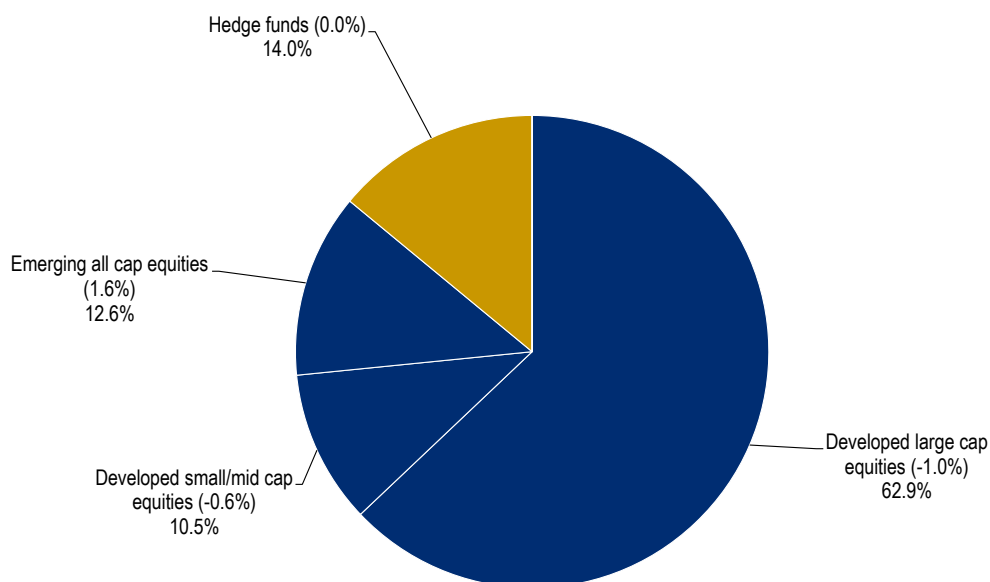
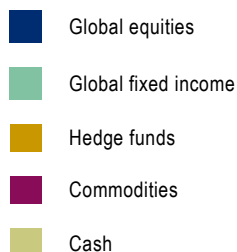
Risk Level 5 is designed for investors who emphasize return on investment. They are willing to subject their entire portfolio to greater risk and market value fluctuations in anticipation of a potentially greater return on investments. Investors may have a preference for investments or trading strategies that may assume higher-than-normal market risks and/or potentially less liquidity with the goal (but not guarantee) of commensurate gains. Clients may engage in tactical or opportunistic trading, which may involve higher volatility and variability of returns.

Classification	Strategic (%)	Tactical* (%)	Active (%)
Cash	0.0	0.0	0.0
Fixed income	0.0	0.0	0.0
Developed Investment Grade	0.0	0.0	0.0
Developed national, supranational and regional	0.0	0.0	0.0
Developed Corporate Investment Grade	0.0	0.0	0.0
Americas	0.0	0.0	0.0
EMEA	0.0	0.0	0.0
Europe (ex U.K.)	0.0	0.0	0.0
U.K.	0.0	0.0	0.0
Asia	0.0	0.0	0.0
Asia (ex Japan)	0.0	0.0	0.0
Japan	0.0	0.0	0.0
Developed high yield	0.0	0.0	0.0
Americas	0.0	0.0	0.0
EMEA	0.0	0.0	0.0
Asia	0.0	0.0	0.0
Emerging market debt	0.0	0.0	0.0
Americas	0.0	0.0	0.0
EMEA	0.0	0.0	0.0
Asia	0.0	0.0	0.0
Equities	86.0	86.0	0.0
Global Developed Equities	75.0	73.4	-1.6
Developed large cap equities	63.9	62.9	-1.0
Americas	41.4	41.4	0.0
US all	38.9	38.9	0.0
Canada	2.5	2.5	0.0
EMEA	13.4	12.4	-1.1
U.K.	4.3	4.2	0.0
Germany	1.8	1.5	-0.3
France	2.0	1.7	-0.3
Switzerland	2.0	1.9	-0.2
Benelux	1.0	0.9	-0.1
Scandi	1.2	1.2	0.0
Spain	0.6	0.6	-0.1
Italy	0.4	0.2	-0.2
Others	0.2	0.2	0.0

Classification	Strategic (%)	Tactical* (%)	Active (%)
Asia	9.1	9.2	0.1
Australasia	1.8	1.7	-0.1
Far East ex Japan	1.1	1.3	0.2
Japan	6.1	6.1	0.0
Developed small/mid cap equities	11.1	10.5	-0.6
Americas	6.5	6.5	0.0
EMEA	2.9	2.3	-0.6
Europe (ex U.K.)	2.2	2.0	-0.2
U.K.	0.7	0.3	-0.4
Asia	1.7	1.7	0.0
Asia (ex Japan)	0.4	0.4	0.0
Japan	1.3	1.3	0.0
Emerging all cap equities	11.0	12.6	1.6
Americas	1.3	2.0	0.7
Brazil	0.7	0.9	0.2
Mexico	0.4	0.4	0.0
Other	0.2	0.7	0.5
EMEA	1.5	1.6	0.2
Turkey	0.1	0.1	0.0
Russia and Eastern Europe	0.7	0.7	0.1
South Africa	0.6	0.7	0.1
Other	0.1	0.1	0.0
Asia	8.2	9.0	0.7
China	3.3	3.4	0.2
India	1.2	1.5	0.4
South Korea	1.5	1.5	0.0
Taiwan	1.3	1.3	0.0
Other Emerging Asia	1.0	1.2	0.2
Hybrid investments	14.0	14.0	0.0
Hedge funds	14.0	14.0	0.0
Real assets	0.0	0.0	0.0
Commodities	0.0	0.0	0.0
Gold	0.0	0.0	0.0
Total	100.0	100.0	0.0

Strategic = benchmark; tactical = the Citi Private Bank Global Investment Committee's current view; and active = the difference between strategic and tactical. MBS = mortgage-backed securities; ABS = asset-backed securities. All allocations are subject to change at discretion of the GIC of the Citi Private Bank. Minor differences may result due to rounding.

Risk Level 5: tactical allocations



Figures in brackets are the difference versus the strategic benchmark

Strategic = benchmark; tactical = the Citi Private Bank Global Investment Committee's current view; and active = the difference between strategic and tactical. All allocations are subject to change at discretion of the GIC of the Citi Private Bank.

Core positions

Global equities, global fixed income, cash and commodities are all at neutral position.

Within global equities, developed equities have an underweight position of -1.6% while emerging equities at an overweight position of +1.6%.

Underweight in developed equities are driven by underweight in EMEA equities, both large cap and small/mid cap.

Overweight in emerging equities are driven by overweight in Latam and Asia equities.

Asset allocation definitions

Asset classes	Benchmarked against
Global equities	MSCI All Country World Index, which represents 48 developed and emerging equity markets. Index components are weighted by market capitalization.
Global bonds	Barclays Capital Multiverse (Hedged) Index, which contains the government -related portion of the Multiverse Index, and accounts for approximately 14% of the larger index.
Hedge funds	HFRX Global Hedge Fund Index, which is designed to be representative of the overall composition of the hedge fund universe. It comprises all eligible hedge fund strategies; including but not limited to convertible arbitrage, distressed securities, equity hedge, equity market neutral, event driven, macro, merger arbitrage and relative value arbitrage. The strategies are asset-weighted based on the distribution of assets in the hedge fund industry.
Commodities	Dow Jones-UBS Commodity Index, which is composed of futures contracts on physical commodities traded on US exchanges, with the exception of aluminum, nickel and zinc, which trade on the London Metal Exchange (LME). The major commodity sectors are represented including energy, petroleum, precious metals, industrial metals, grains, livestock, softs, agriculture and ex-energy. The Thomson Reuters / Core Commodity Index is designed to provide timely and accurate representation of a long-only, broadly diversified investment in commodities through a transparent and disciplined calculation methodology.
Cash	Three-month LIBOR, which is the interest rates that banks charge each other in the international inter-bank market for three-month loans (usually denominated in Eurodollars).
Equities	
Developed market large cap	MSCI World Large Cap Index, which is free-float adjusted and weighted by market capitalization. The index is designed to measure the equity market performance of the large cap stocks in 23 developed markets. Large cap is defined as stocks representing roughly 70% of each market's capitalization.
US	Standard & Poor's 500 Index, which is a capitalization-weighted index that includes a representative sample of 500 leading companies in leading industries of the US economy. Although the S&P 500 focuses on the large cap segment of the market, with over 80% coverage of US equities, it is also an ideal proxy for the total market.
Europe ex U.K.	MSCI Europe ex U.K. Large Cap Index, which is free-float adjusted and weighted by market capitalization. The index is designed to measure large cap stock performance in each of Europe's developed markets, except for the U.K.
U.K.	MSCI U.K. Large Cap Index, which is free-float adjusted and weighted by market capitalization. The index is designed to measure large cap stock performance in the U.K.
Japan	MSCI Japan Large Cap Index, which is free-float adjusted and weighted by market capitalization. The index is designed to measure large cap stock performance in Japan.
Asia Pacific ex Japan	MSCI Asia Pacific ex Japan Large Cap Index, which is free-float adjusted and weighted by market capitalization. The index is designed to measure the performance of large cap stocks in Australia, Hong Kong, New Zealand and Singapore.
Developed market small and mid-cap (SMID)	MSCI World Small Cap Index, which is a capitalization-weighted index that measures small cap stock performance in 23 developed equity markets.
Emerging market	MSCI Emerging Markets Index, which is free-float adjusted and weighted by market capitalization. The index is designed to measure equity market performance of 22 emerging markets.
Bonds	
Developed sovereign	Citi World Government Bond Index (WGBI), which consists of the major global investment grade government bond markets and is composed of sovereign debt, denominated in the domestic currency. To join the WGBI, the market must satisfy size, credit and barriers-to-entry requirements. In order to ensure that the WGBI remains an investment grade benchmark, a minimum credit quality of BBB-/Baa3 by either S&P or Moody's is imposed. The index is rebalanced monthly.
Emerging sovereign	Citi Emerging Market Sovereign Bond Index (ESBI), which includes Brady bonds and US dollar -denominated emerging market sovereign debt issued in the global, Yankee and Eurodollar markets, excluding loans. It is composed of debt in Africa, Asia, Europe and Latin America. We classify an emerging market as a sovereign with a maximum foreign debt rating of BBB+/Baa1 by S&P or Moody's. Defaulted issues are excluded.
Supranationals	Citi World Broad Investment Grade Index (WBIG)—Government Related, which is a subsector of the WBIG. The index includes fixed rate investment grade agency, supranational and regional government debt, denominated in the domestic currency. The index is rebalanced monthly.
Corporate investment grade	Citi World Broad Investment Grade Index (WBIG)—Corporate, which is a subsector of the WBIG. The index includes fixed rate global investment grade corporate debt within the finance, industrial and utility sectors, denominated in the domestic currency. The index is rebalanced monthly.
Corporate high yield	Bloomberg Barclays Global High Yield Corporate Index. Provides a broad-based measure of the global high yield fixed income markets. It is also a component of the Multiverse Index and the Global Aggregate Index.
Securitized	Citi World Broad Investment Grade Index (WBIG)—Securitized, which is a subsector of the WBIG. The index includes global investment grade collateralized debt denominated in the domestic currency, including mortgage -backed securities, covered bonds (Pfandbriefe) and asset-backed securities. The index is rebalanced monthly.

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