

The Era of Global Imbalances

Chapter 3: The aftermath – a period of de-correlation and macro differentiation

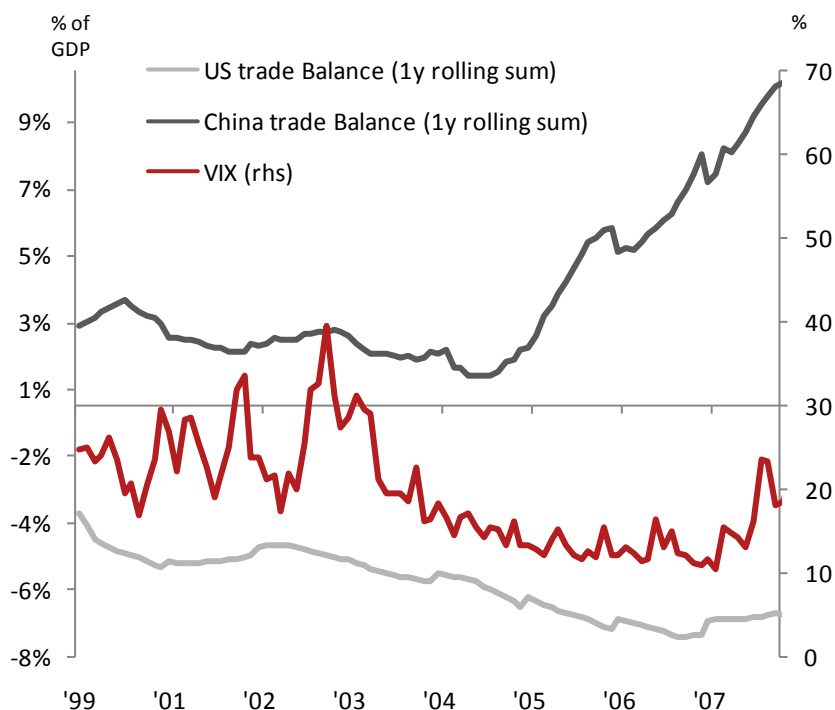
Jim McCormick

Head of Fixed Income Research, EMEA

Amsterdam, March 2010

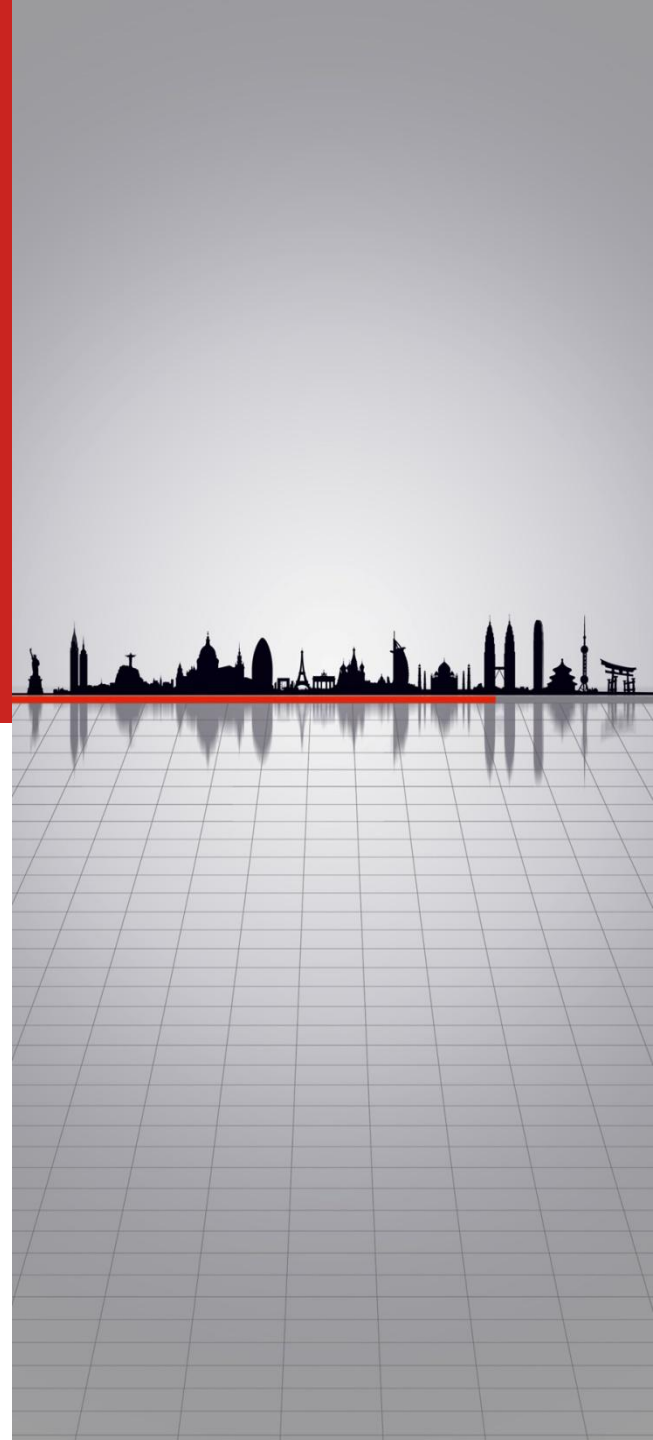
Global imbalances: Chapter 1: The build-up

US vs. China trade balances and equity volatility



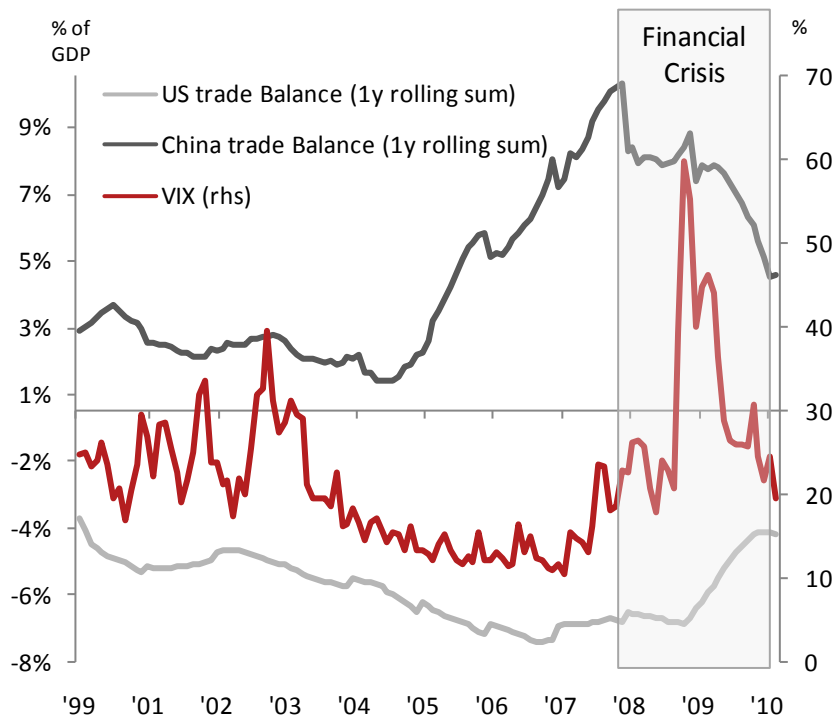
- The great global imbalance story of recent years will probably have three distinct chapters
- Chapter 1 was the build up
- From early 2000s to 2007 global imbalances – illustrated most vividly in China’s surplus and the US deficit - built to levels never seen before
- During this time financial markets enjoyed one of the greatest periods in modern history:
 - Global stock prices more than doubled
 - Global credit expanded at unprecedented levels, while spreads fell to record lows
 - Market volatility plunged

**The past two years: the
unwind/crisis period**



Global imbalances: Chapter 2: The crisis/unwind

US vs. China trade balances and equity volatility

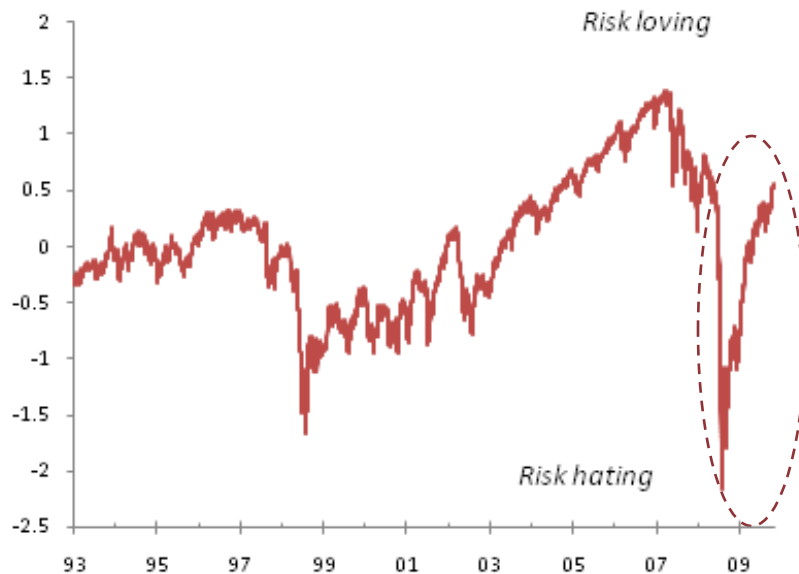


- Chapter 2 of the global imbalance story – the unwind/crisis phase – began in the middle of 2007, as the plunge in the US subprime market started to spread across financial markets
- Since that time, the two main imbalances – the US deficit and China surplus – have narrowed sharply
- At the same time, financial markets have seen an unprecedented cycle of crisis then recovery

A risk appetite cycle like no other

Nomura's long-run GRAM¹ index

standard score

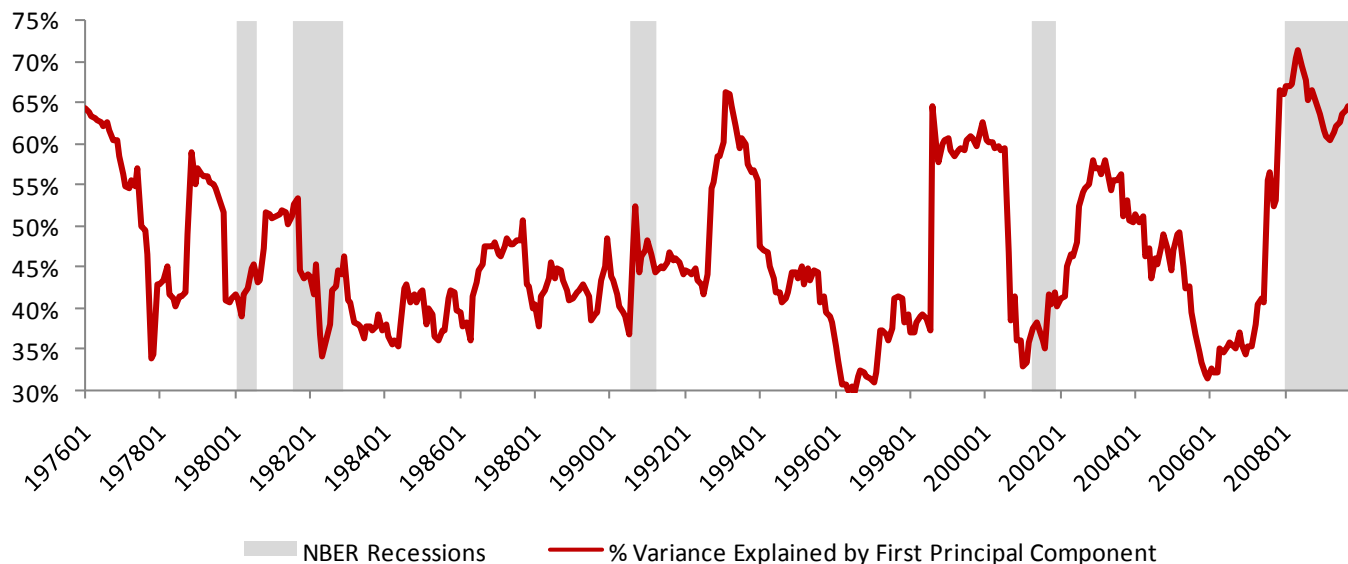


- Since the middle of 2007, we have witnessed a cycle in risk appetite without comparison in modern history

1. GRAM consists of 10 normalised risk factors (see chart on right for list of factors).

Source: Nomura; Bloomberg.

Markets have been more interconnected than ever

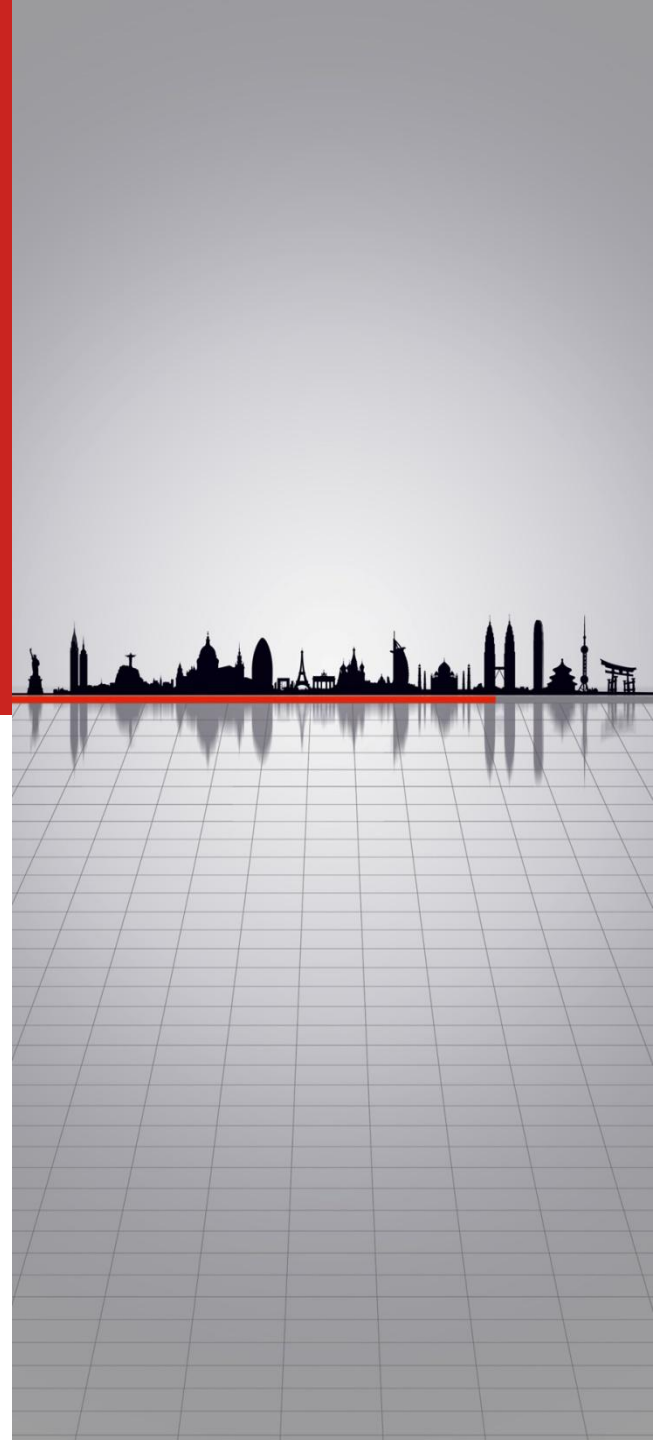


- Principal Component analysis to understand the extent of correlation of returns of the following asset classes: Treasuries, equities, credit, commodities and trade weighted dollar
- The above chart illustrates the explanatory power of the first component from the PCA – larger values indicate asset returns driven by a single common factor

Source: Nomura Research, Bloomberg, Kenneth French Data Library

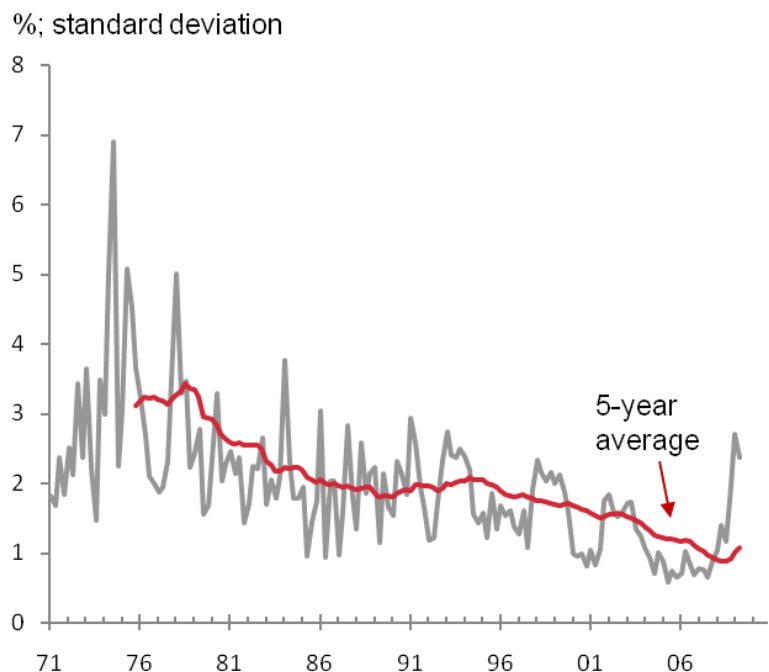
Note: Asset classes included are: US 1-10 year Treasuries, US Equities (from French), US BBB Credit, S&P GSCI and trade weighted dollar. Volatility is estimated with a 2-year rolling window and returns are scaled to have unit volatility.

Chapter 3: The aftermath: a new macro paradigm



The long view: an end to the “great moderation”?

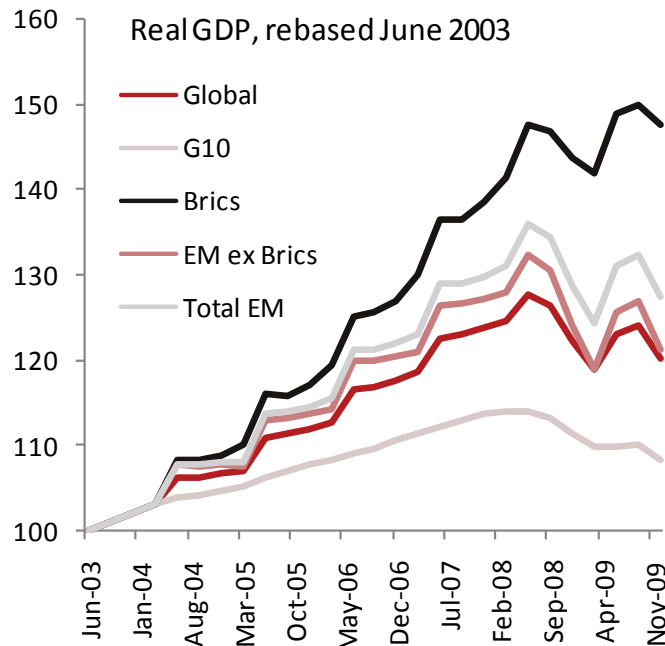
The standard deviation of GDP growth across OECD countries



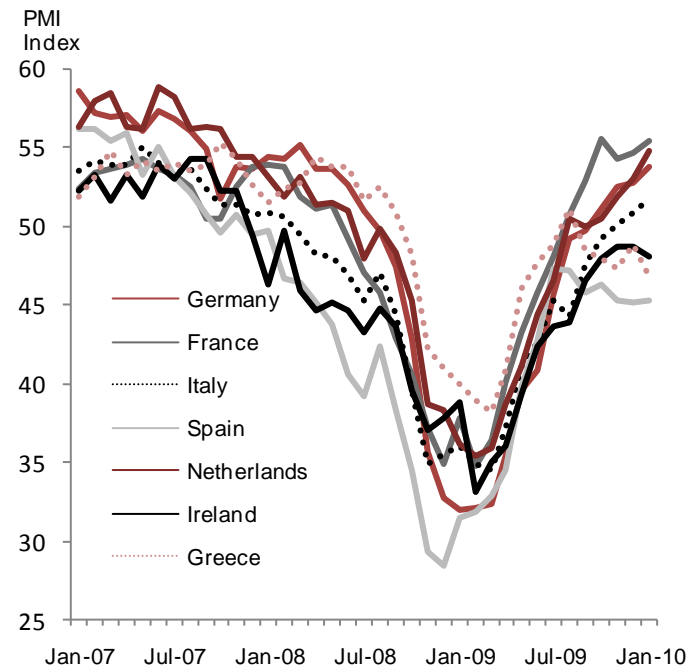
- G10 country differentiation has been falling for the past 20 years
- Presumably, the decline has been helped by convergence toward inflation targets, falling overall inflation and “outsourcing” of manufacturing to EM countries
- The financial shock has left economic conditions in countries in different places
- Three factors should dominate: fiscal positions, health of banking sectors and household balance sheets
- As markets “settle” country differentiation will be more obvious and tradeable
- A good environment for cross-country rates, FX and emerging markets

The short view: varying speeds and location of growth

Current GDP levels relative to June 2003

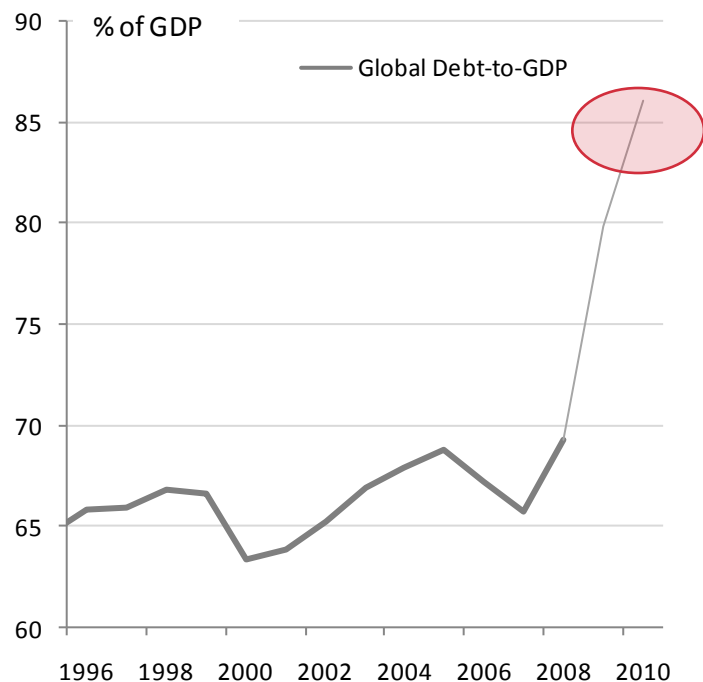


Euro zone PMI : divergence continues



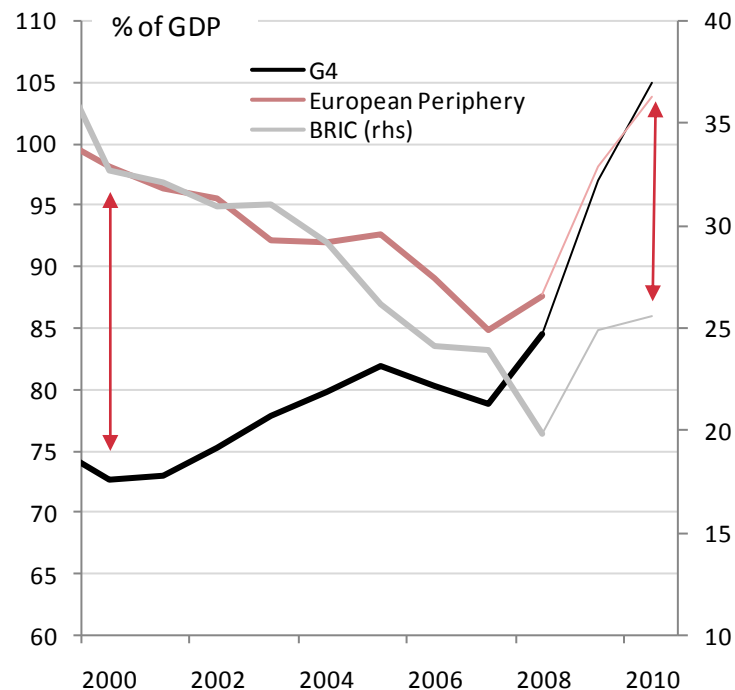
Fiscal policy is back on the radar screen

Global Debt-to-GDP



Note: GDP weighted global debt-to-GDP ratio

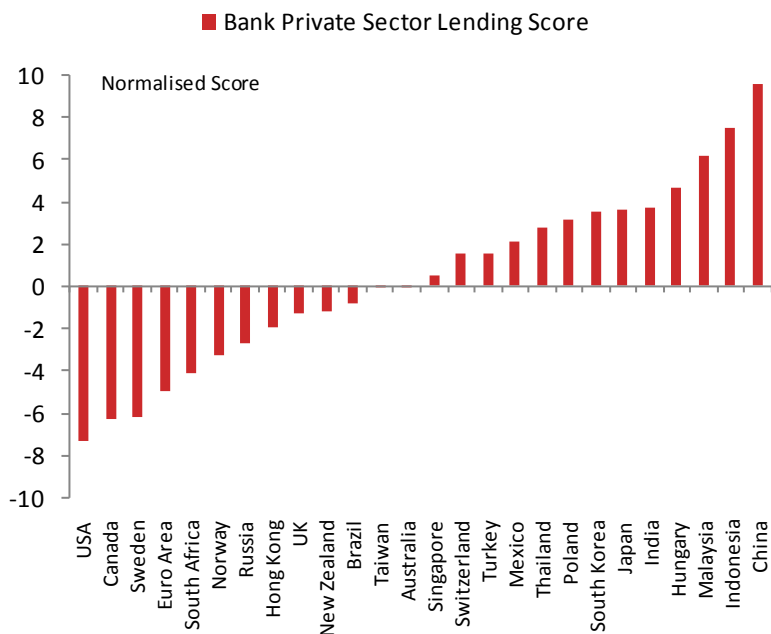
Debt-to-GDP breakdown



Note: European Periphery comprises Italy, Spain, Portugal and Greece

Central bank challenges are extremely diverse

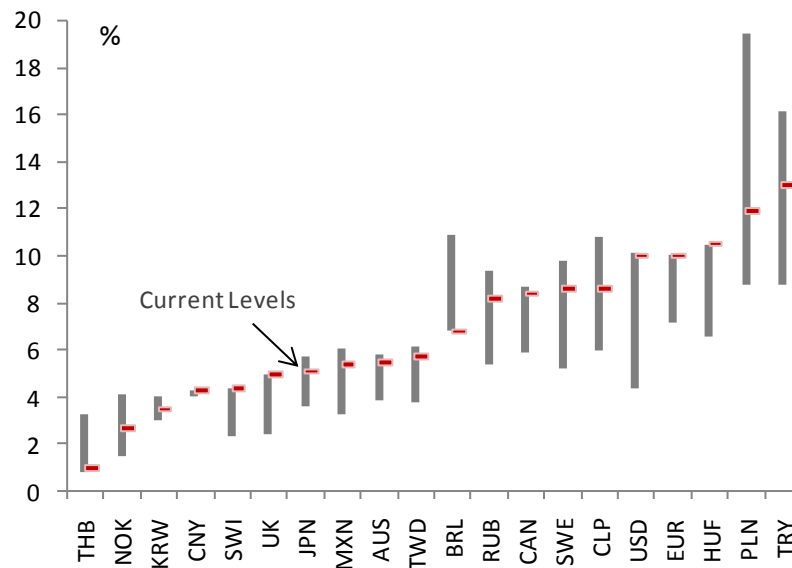
Private Sector Lending Trends



Note: Bank lending to private sector score is a combination of two factors:

- Current y-o-y Growth relative to the universe of countries
- Current y-o-y growth vs. pre-crisis levels (2007 average growth)

Unemployment levels from trough

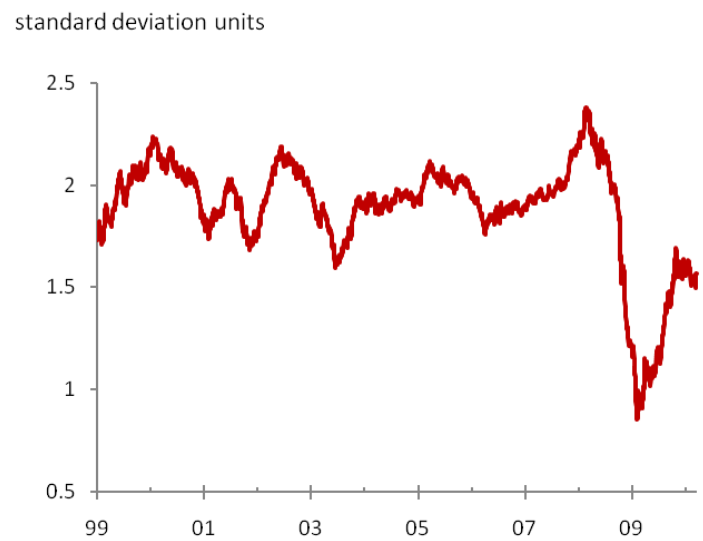
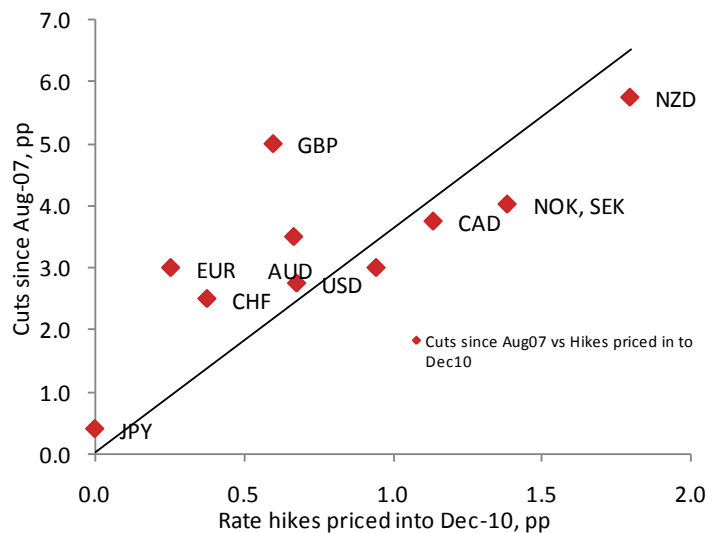


Note: top and bottom end of the bar represent min and max levels over the 2005-2009 period.

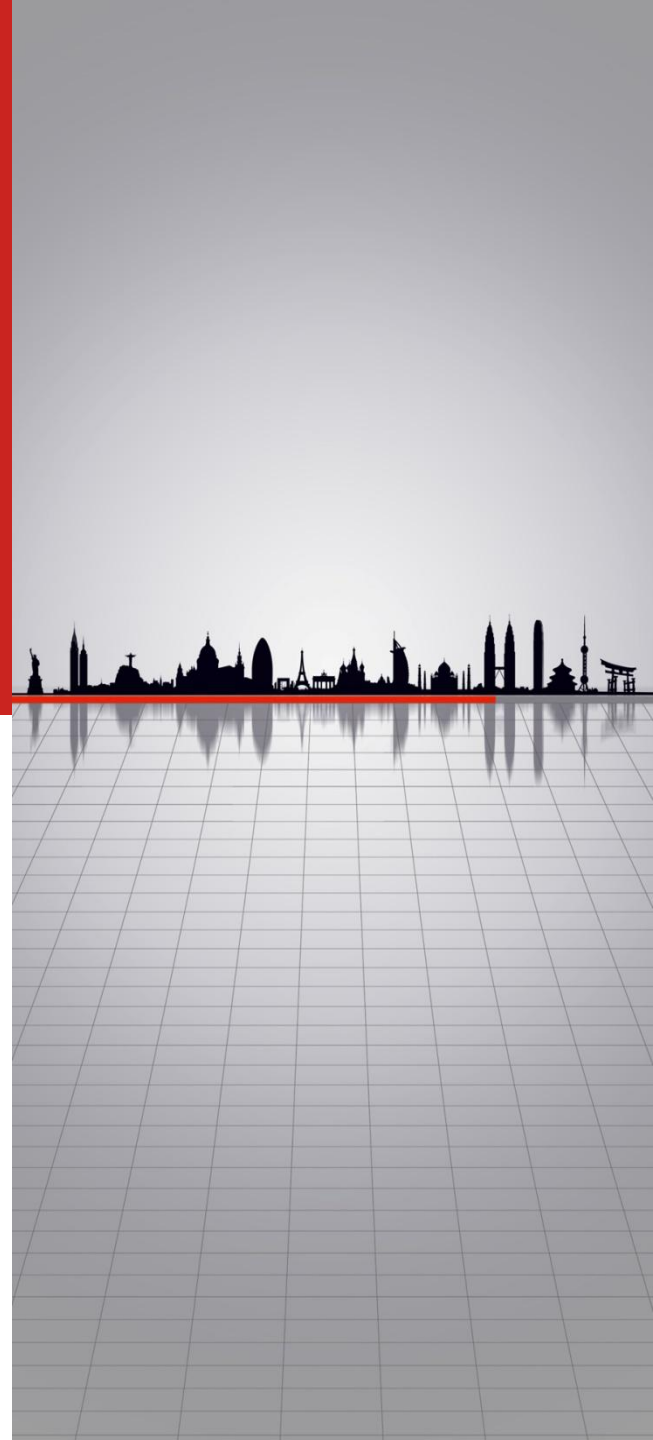
Is monetary policy divergence priced in?

Exit strategy is priced to be a direct unwind of policy easing¹

The rolling standard deviation of G10 2-year swap yield

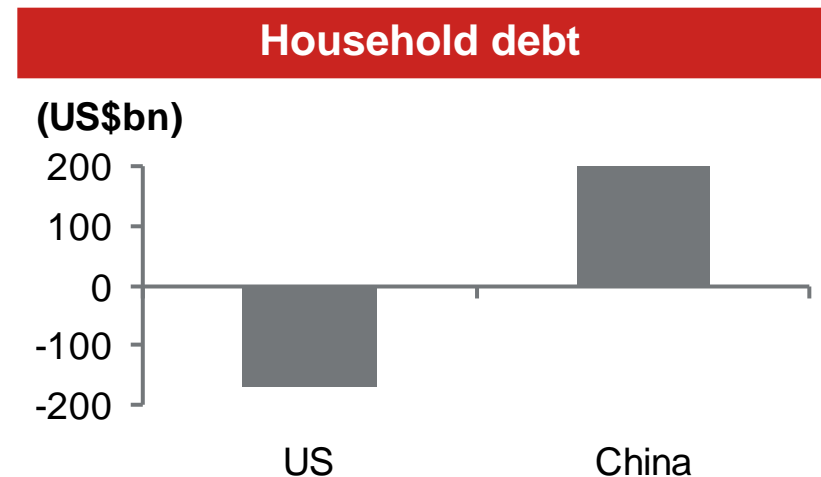
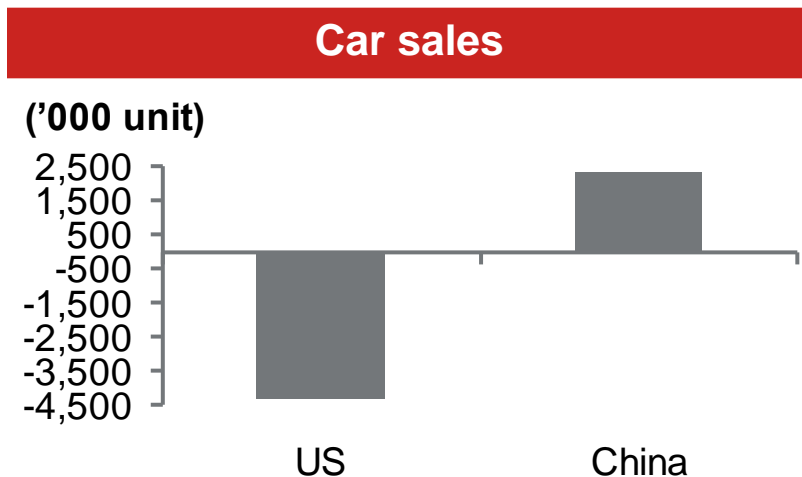
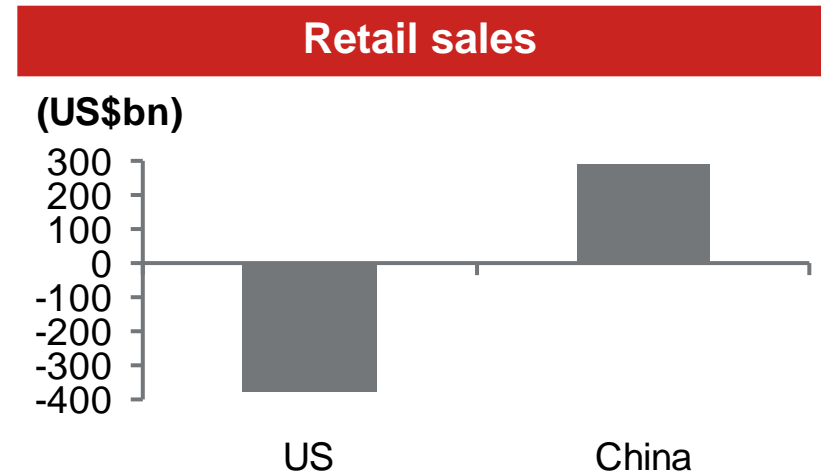
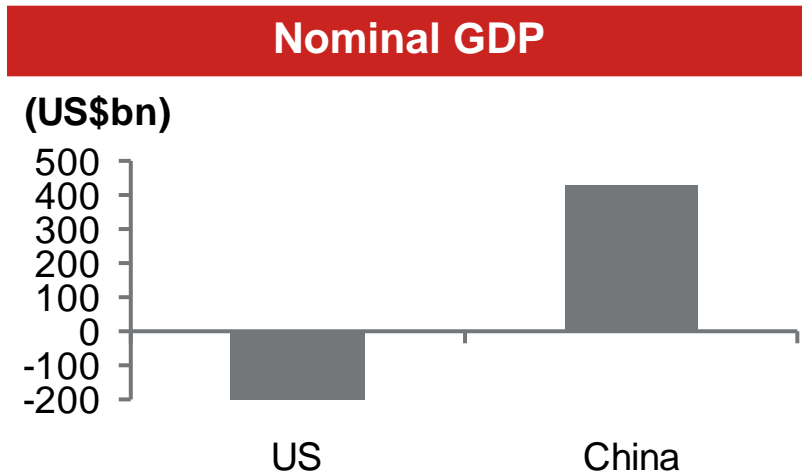


China's impact on capital markets is growing



China's global impact can no longer be ignored

Growth in China offset declines in the US in 2009

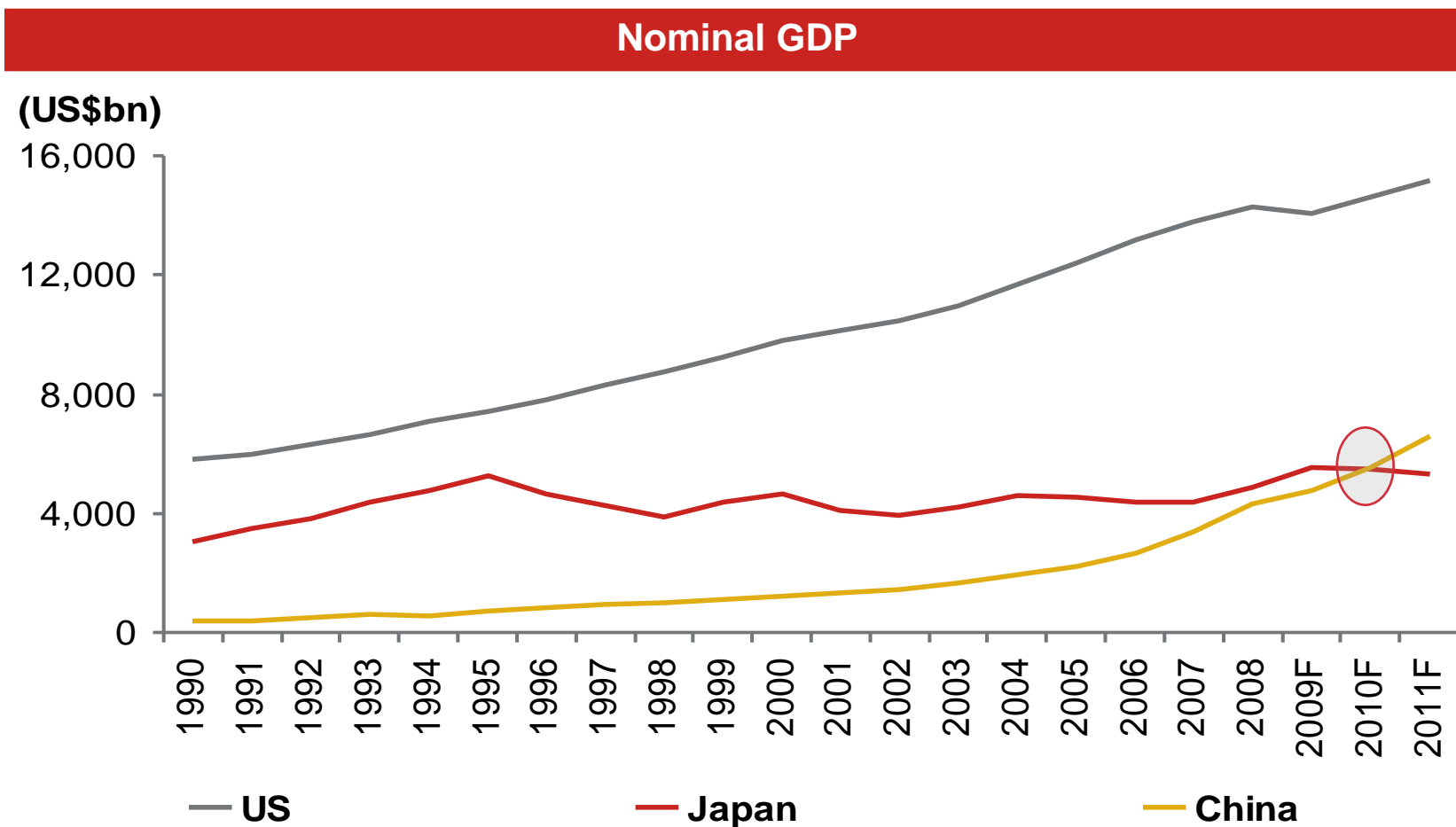


Source: CEIC and Nomura Global Economics.

Note: Data refer to changes over the past 12 months.

China is becoming the 2nd largest economy

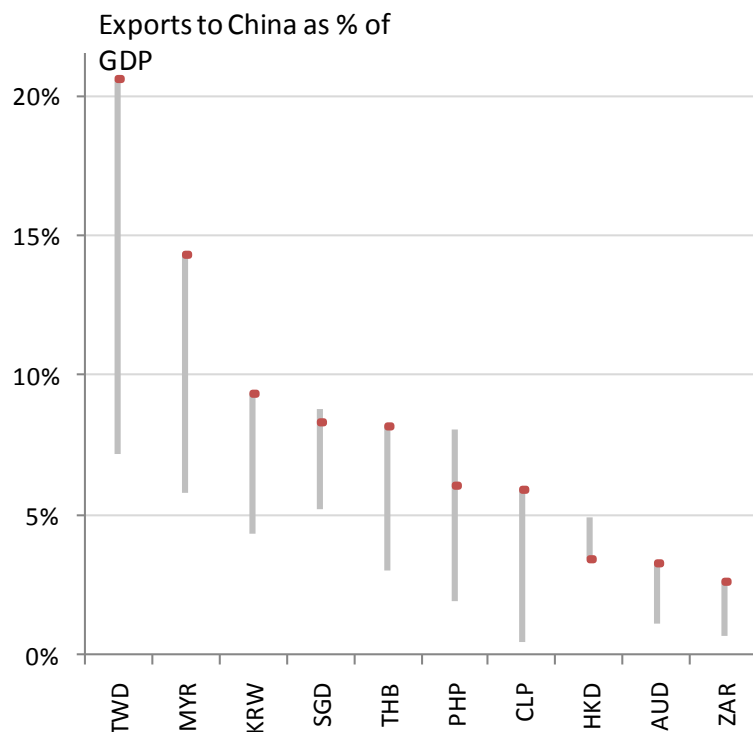
Barring a sharp appreciation of Yen/US\$, this should happen in 2010



Source: CEIC and Nomura Global Economics.

The *direct* trade beneficiaries of China's growth

Exports to China as a share of GDP



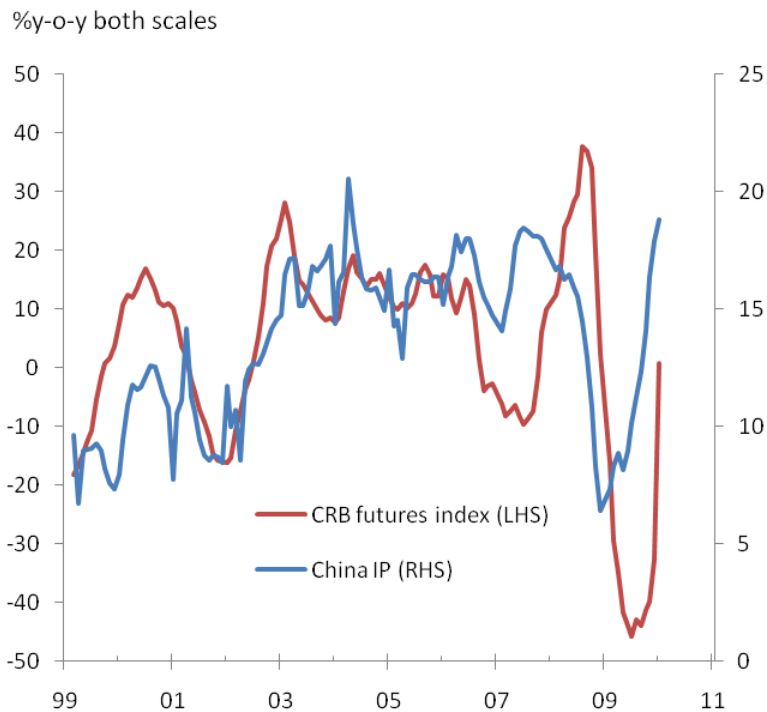
Note: High and low of bars represent minimum and maximum levels in the period from 2000 to 2009. The current level is indicated by the horizontal tab on each bar.

Source: Nomura economics, Bloomberg;

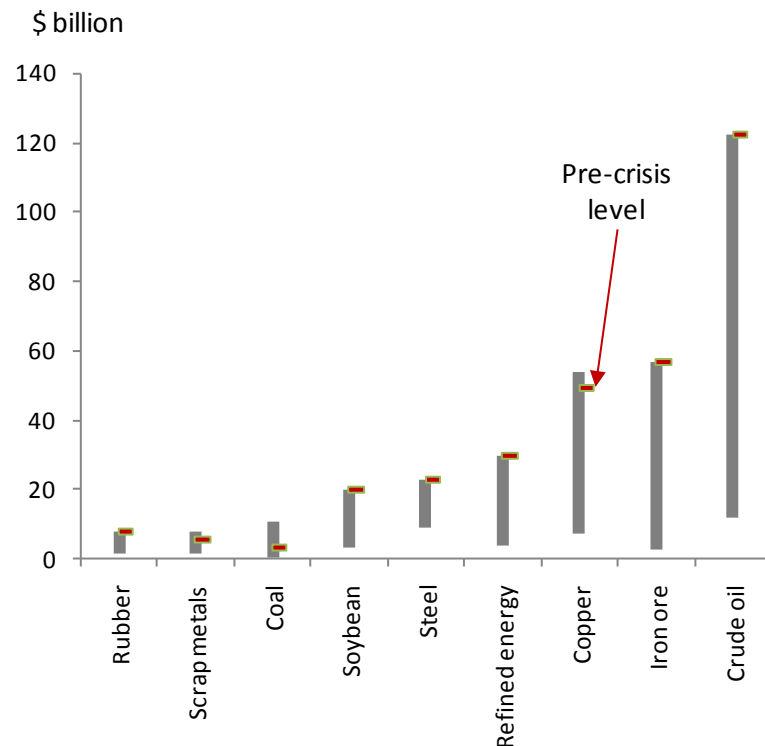
- China's growth has created huge direct benefits to many countries via the trade channel
- Unsurprisingly, the biggest beneficiaries have been the rest of Asia, most notably Taiwan and Malaysia
- But China's role as a consumer of raw materials has also transformed many commodity exporting economies
 - Today, China's imports account for more than 5% of Chile's economy and just under 5% in Australia and South Africa

The *indirect* trade beneficiaries of China's growth: the shock to global commodity prices

China IP and the CRB futures index



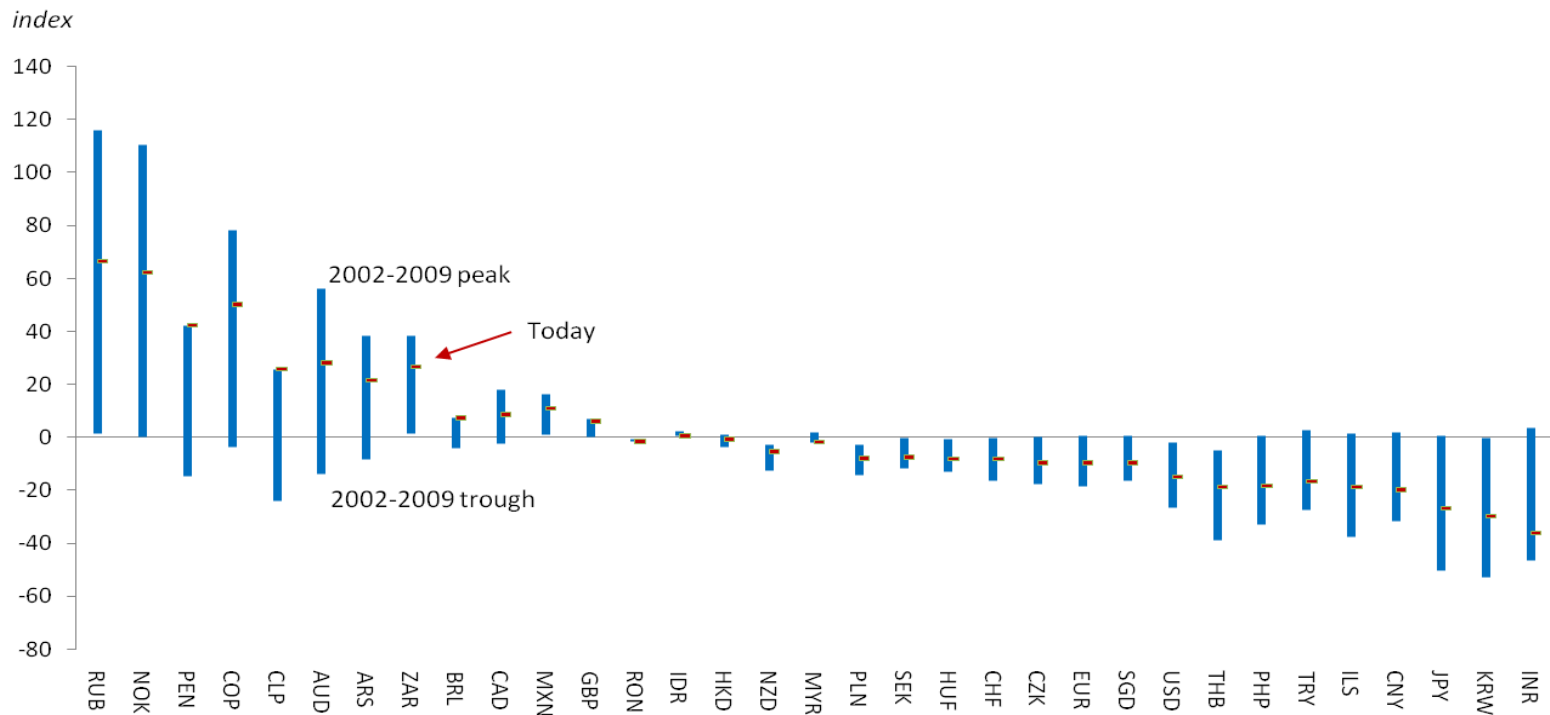
China's largest raw material imports



Note: High and low of bars represent 2009 to 2011 levels respectively. The pre-crisis level is indicated by the horizontal tab on each bar.

The size of the terms of trade shocks since 2002

Shifts in Terms of Trade indices since 2001

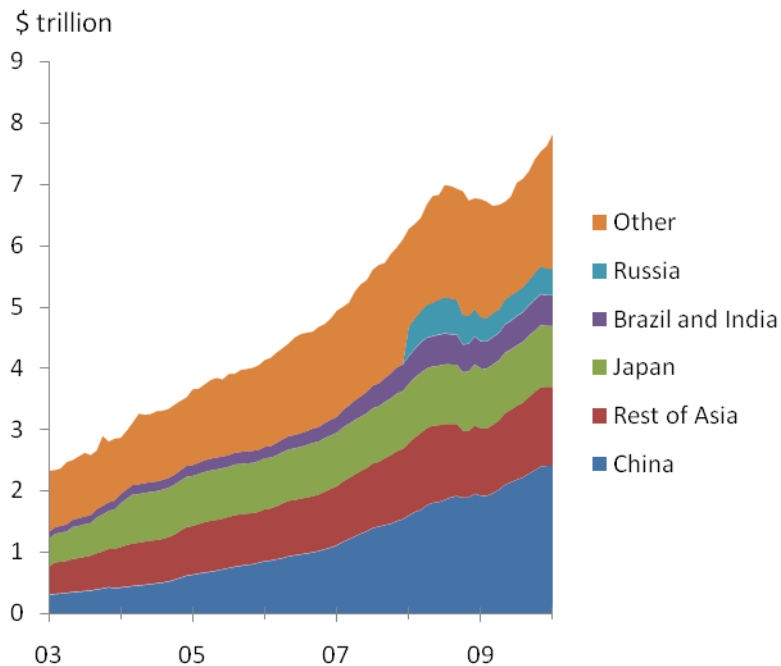


Note: High and low of bars represent minimum and maximum levels in the period from 2002 to 2009. The current level is indicated by the horizontal tab on each bar.

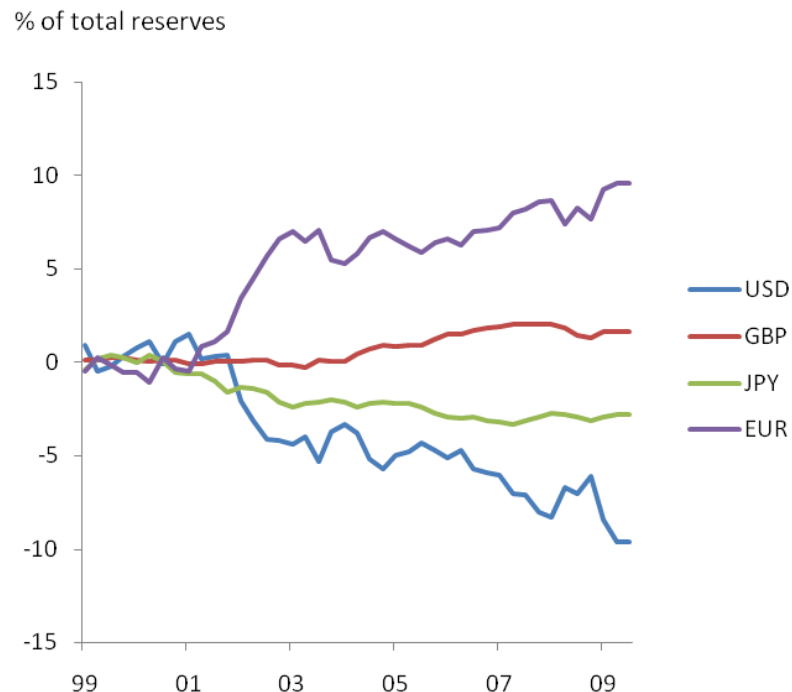
Source: Nomura; Bloomberg

Another asset market beneficiary of China's growth surge: reserve currencies, especially the euro

Global FX reserves



Change in share of FX reserves since 1999



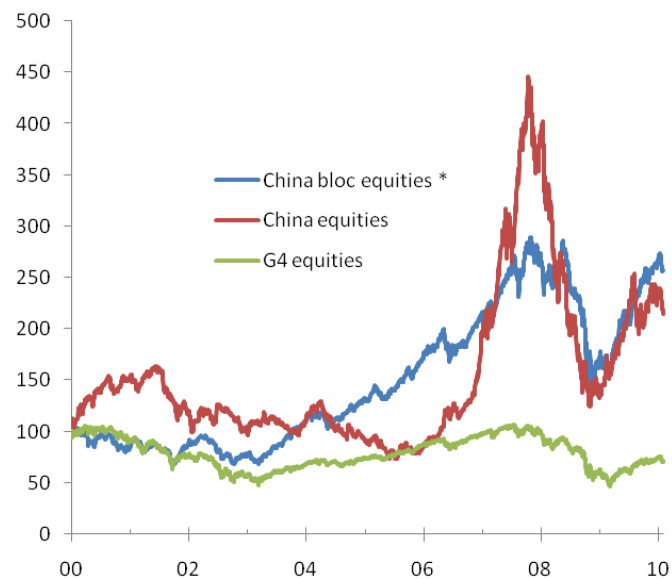
Source: Nomura; IMF, Bloomberg

A “China bloc” is emerging in the post crisis world

- 10 countries that are benefitting most directly (trade flows) or indirectly (terms of trade effects) from China’s boom::
- *C-Bloc = Taiwan, Malaysia, South Korea, Singapore, the Philippines, Chile, Australia, South Africa, Norway and Brazil*

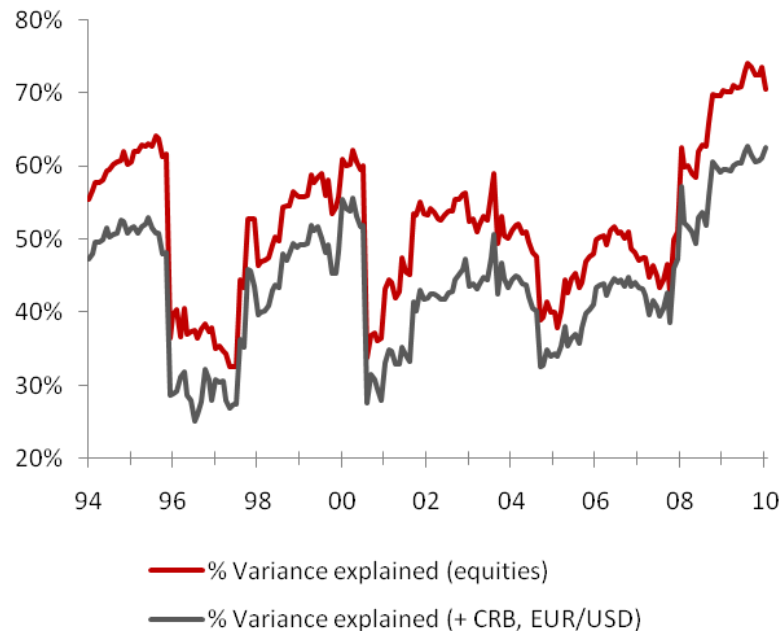
Asset prices are moving more closely together *

index, Jan 1 2000 = 100; baskets are GDP weighted



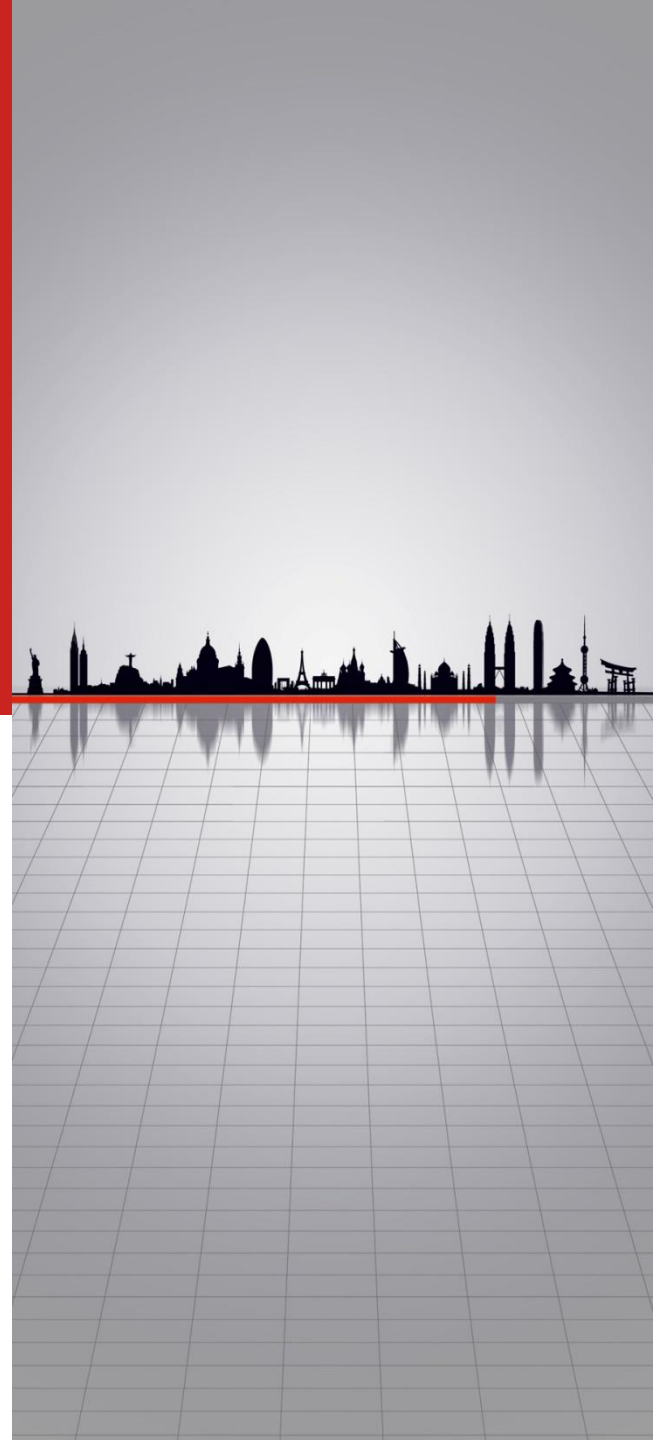
* China bloc is Taiwan, Malaysia, South Korea, Singapore, the Philippines, Chile, Australia, South Africa, Norway and Brazil

Principal component analysis for China bloc equities, CRB and EUR/USD

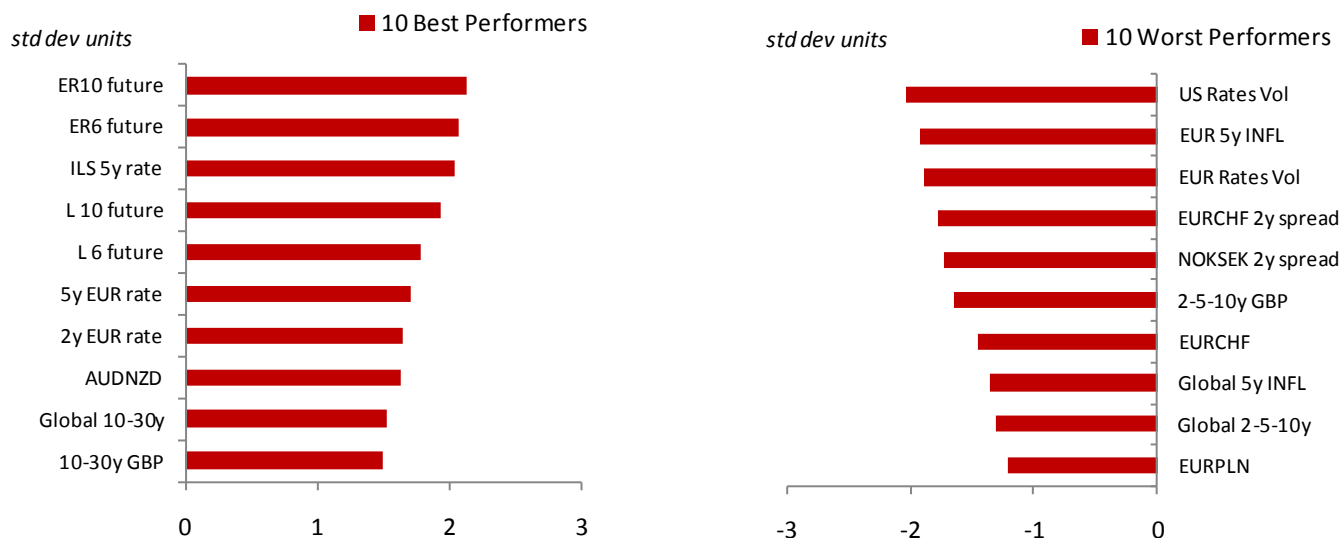


* China-bloc equities are Australia, Taiwan, South Korea, Malaysia, Singapore, the Philippines, Norway, South Africa, Brazil, Chile and China

**Five trade ideas for a new phase of
de-correlation and country
differentiation**



The macro assets picture in Q1



- What happened so far this year? While our start-of-year client survey painted a picture of modest optimism in 2010, led by strength in emerging markets, equities and commodities, the reality has been quite different.
- Conversely, the first quarter of the year have brought the worst bout of risk aversion since spring 2009, led by concerns about sovereign defaults in Europe and fears of an early policy tightening in China.
- Short end is leading the table of the best performers, while on the negative side, inflation and rates vol have come off substantially

Note: Top and bottom YTD macro market movers (vol adjusted return using 100-day volatility window)

Source: Nomura, Bloomberg.

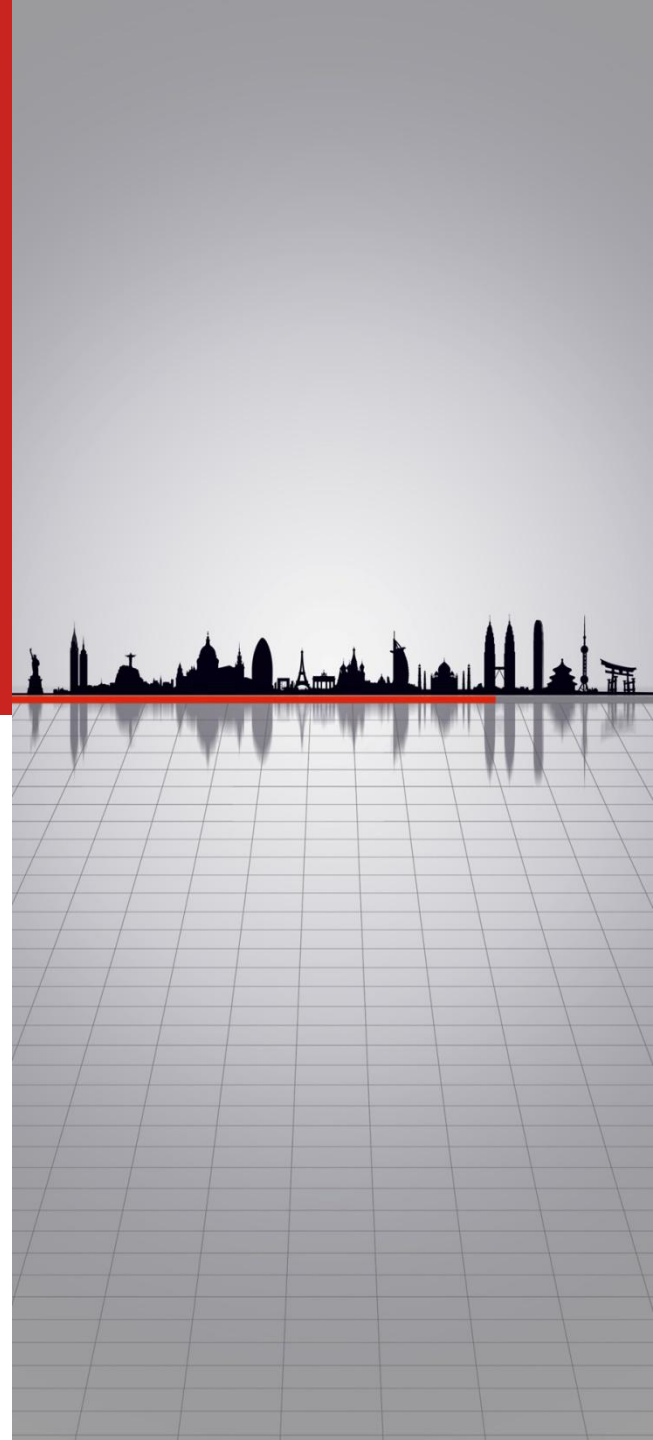
Trading themes

- **Duration: G4 short ends**
 - Medium-term: Long G4 duration
 - Tactical short-term: Sell 3y Treasuries
- **Fiscal sustainability – shifting risk EM/Peripheral to core**
 - Look for the gap between EM/European periphery and core countries to contract in CDS and bond space
 - The next fiscal trade: the UK election
- **Long a “China Bloc” value basket**
 - Buy the undervalued parts of the China bloc growth story
- **Sell G3 interest rate volatility vs. EM FX volatility**
- **Long Carry in 2010 via 1y1y forwards**
 - Hold a dynamically adjusted basket of the best three vol-adjusted carry trades, currently long front ends of CLP, MXN and SEK

Trade idea 1:

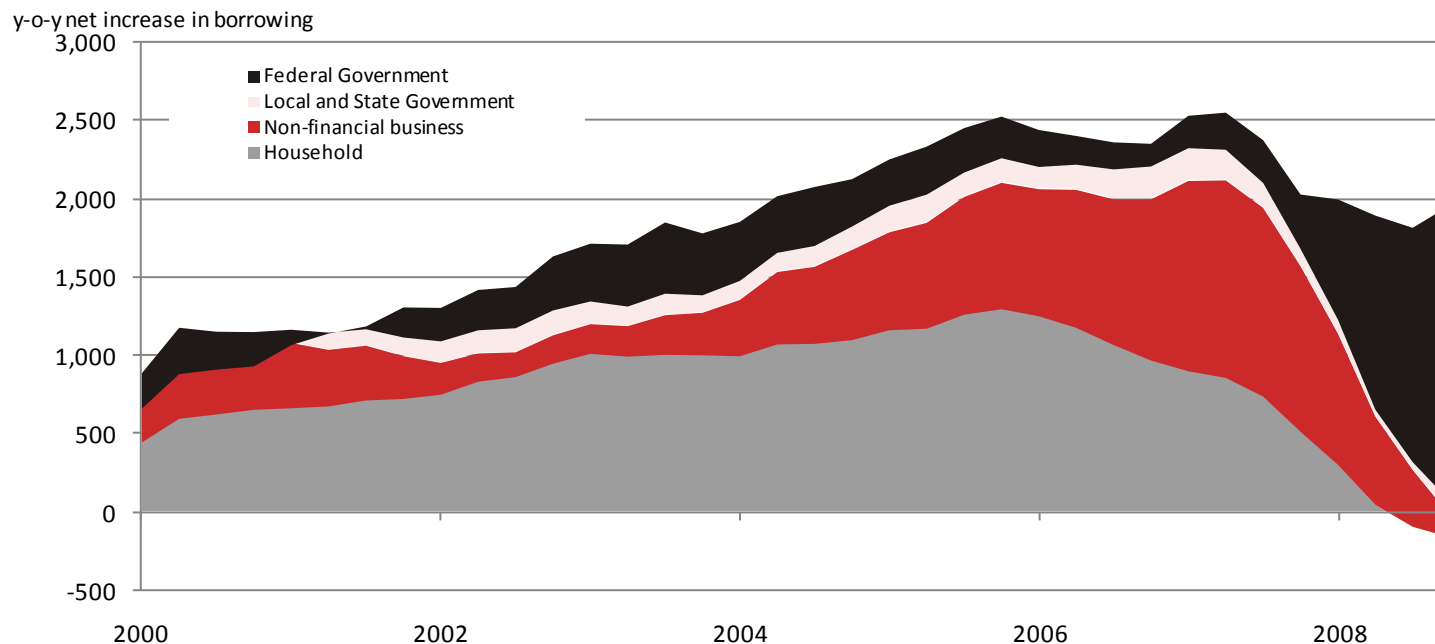
Medium-term: Long G4 duration

Tactical short-term: Sell 3y Treasuries



We are mildly bullish global duration

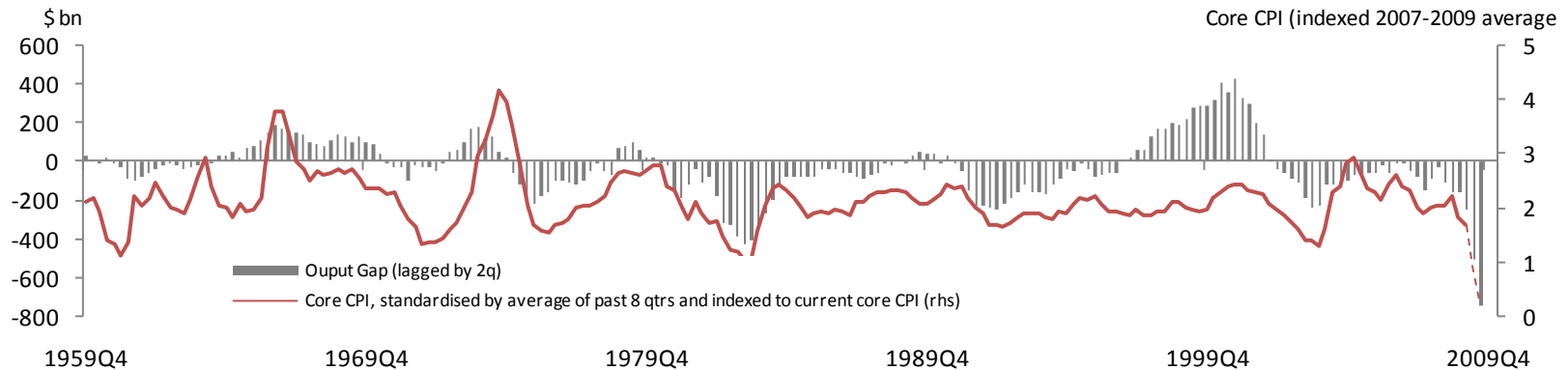
The increase in government borrowing is only offsetting the decline in private sector borrowing. Net increase in borrowing from US economy is slowing



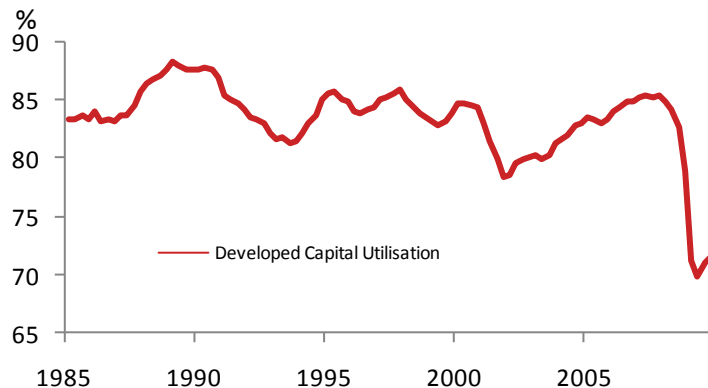
- Until private sector borrowing increases the rise in Treasury borrowing is unlikely to be a problem
- The net increase in US borrowing is slowing, although all of the increase is now in treasuries

Inflation pressures nowhere to be seen

Output gap has been a significant driver of core CPI¹



G10 capacity utilisation at multi-decade lows²



US unemployment rate

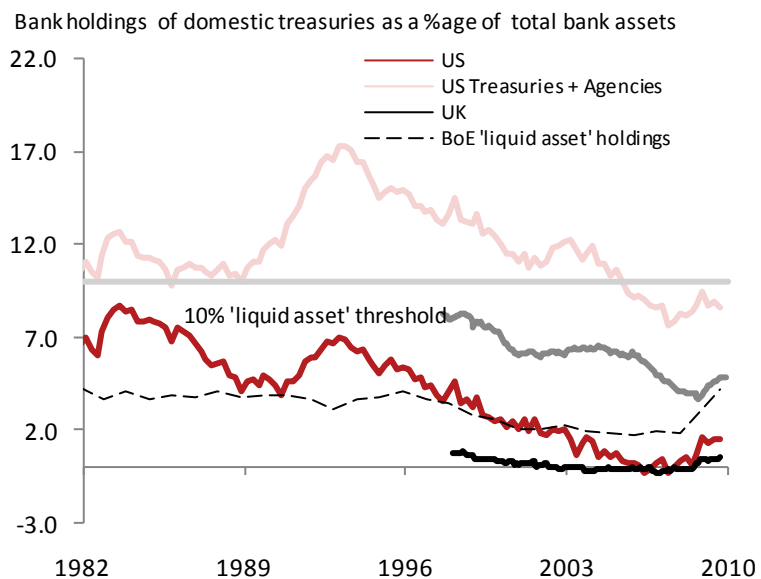


1. Source: CBO, Nomura, Bloomberg.

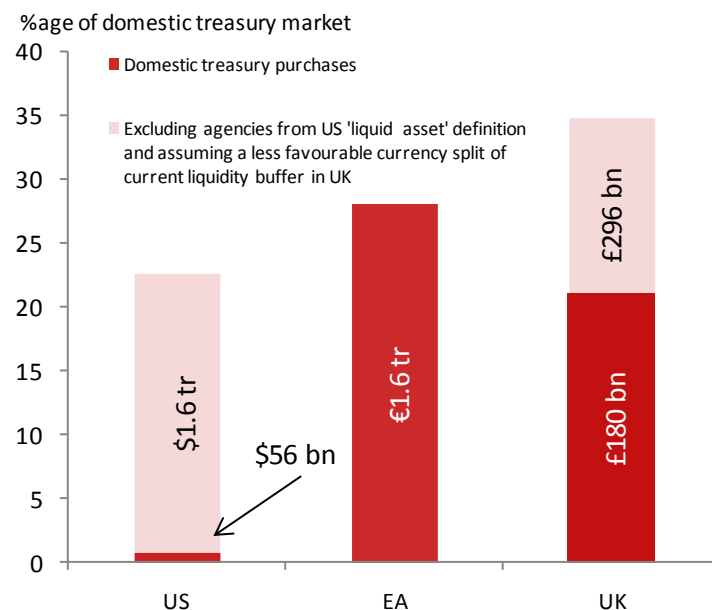
2. Source: Datastream; Nomura; Note: GDP weighted capital utilisation for US, Japan, Euro area, UK, New Zealand and Switzerland.

The regulatory backdrop is good for government bonds, especially gilts

Bank holdings of domestic treasuries



Domestic treasury purchases required to conform with likely new guidelines

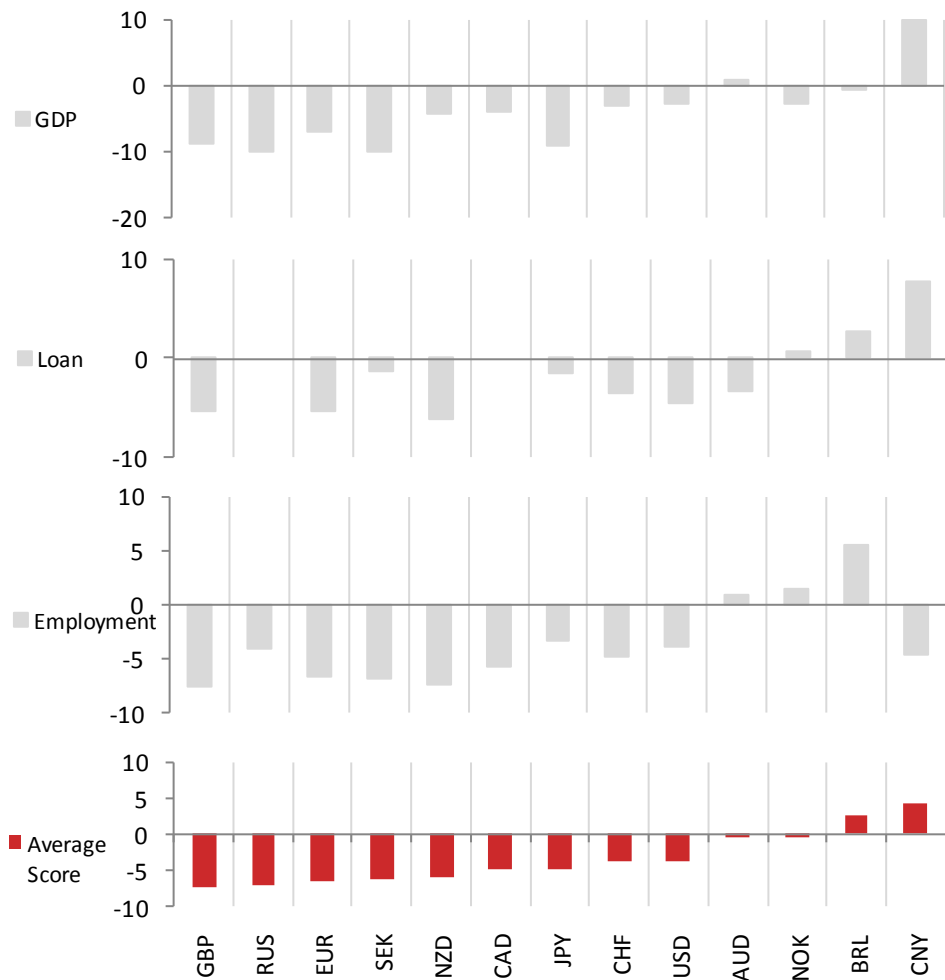


- Bank regulation is likely to lead to significant purchases of government bonds, especially in UK and euro area.
- The regulations will likely be phased in over several years, therefore providing support for several years

1. Source: Bloomberg; Nomura.

2. Notes: BoE "liquid asset" holdings is a combined series of the "broad ratio" of sterling liquid asset holdings of UK banks published by the BoE in the Financial Stability Report, June 2009 and the latest estimate of "high-quality liquid assets" held by the UK banking system as published by the UK's FSA in its latest regulatory discussion paper¹.

Our Exit Strategy Scorecard is negative on the UK



■ Our Exit Strategy Scorecard looks at three factors relevant to central bank exit decisions:

- **GDP levels** relative to previous peak
- Level of **private sector loan growth**
- The **trend in the employment** sector

■ When all factors are considered G4 and SEK appear very weak

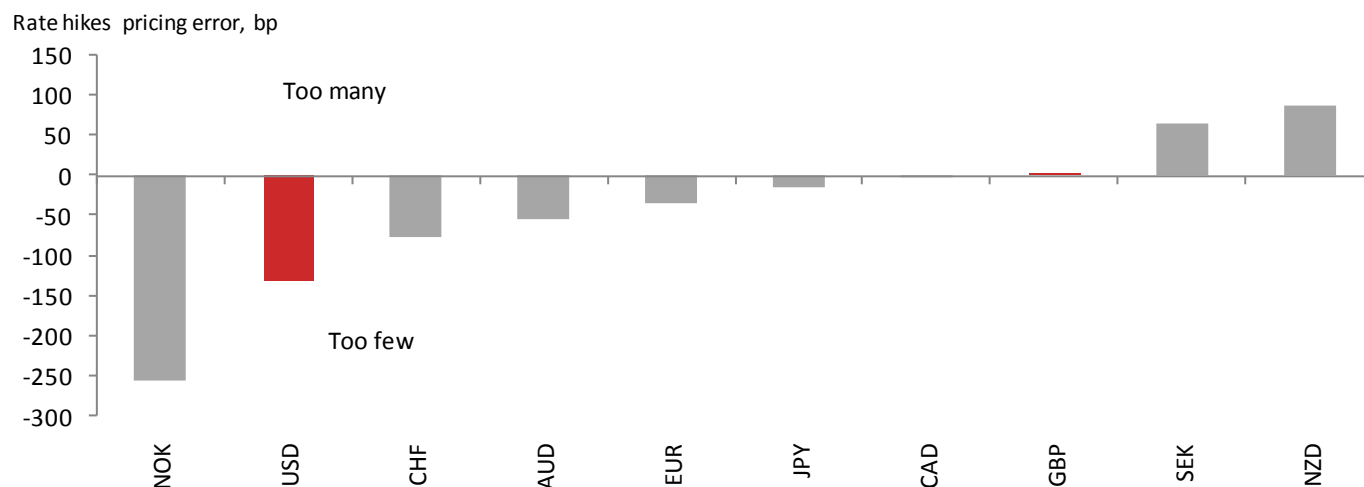
■ EMG are in a much more optimistic position, although the GDP decline in Russia is dramatic

■ Brazil is the most positive of all G10 and BRIC countries

■ Australia and Norway being the first to tighten policy is understandable

Macroeconomics vs market pricing

Policy pricing discrepancy to macroeconomic scorecard¹

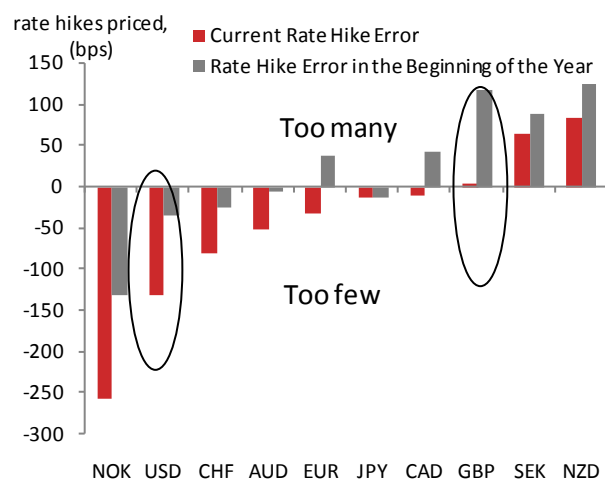


- USD and NOK both underprice the risk of rate hikes.
- GBP, SEK and NZD all overprice tightening risk.
- GBP and USD short rates spread an interesting trade.

1. Plotted is the difference between the policy tightening priced into the market and the policy tightening that should be expected if the market reflected the macroeconomic conditions of the country as assessed by our macroeconomic scorecard
2. Note: "Rate hikes (sigma)" is the spread between the 1st–5th STIR contracts divided by the standard deviation in policy rates in the relevant country over the past 10 years

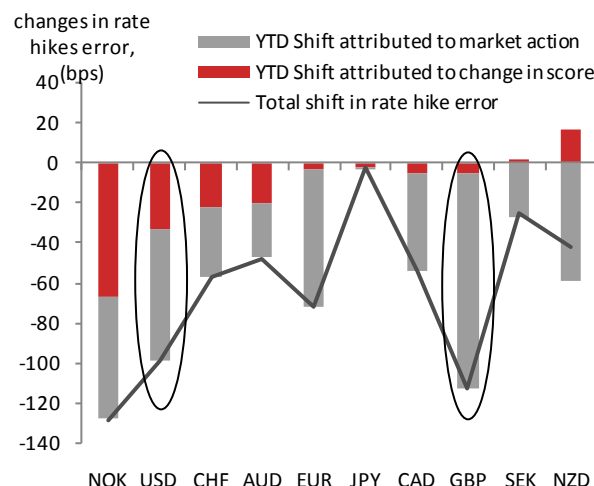
Macroeconomics vs. market pricing: Sell 3y Treasuries

Rate hikes priced vs. Exit Strategy Scorecard



Plotted is the difference between the policy tightening priced into the market and the policy tightening that should be expected if the market reflected the macroeconomic conditions of the country as assessed by our Exit Strategy scorecard

Shifts in pricing error YTD

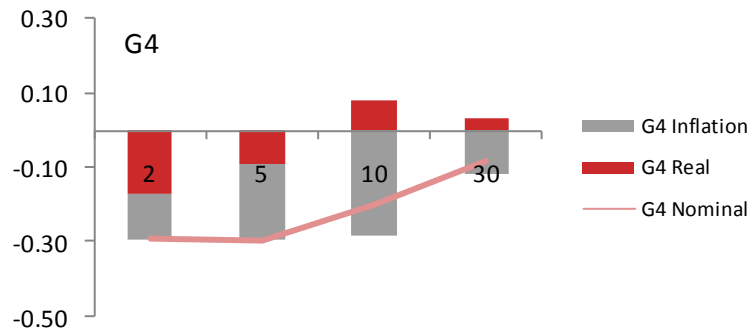


Each bar represents the change YTD in the rate hike error highlighted by our Exit Strategy scorecard and the breakdown of the movement between changes in market pricing and changes in economic conditions

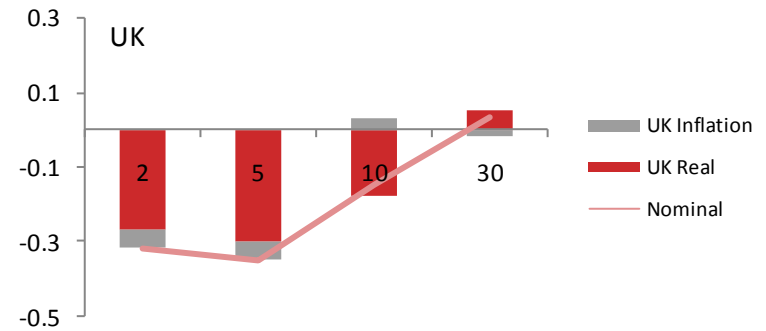
- Our exit strategy scorecard has recently shifted to illustrate the relative underpricing of risks of tightening in the US. The short end of the US rates curve has rallied despite improvements in economic fundamentals to the contrary.
- Conversely, the recent rally in UK rates leaves the risk-reward of a long duration position in the front end of the UK rates curve significantly reduced in the short term at least.
- **Despite a medium-term bias to hold long duration across G4 we would currently advocate a tactical short-term short position in the front end of the US; short in US 3y Treasuries.**

Real Yields and Inflation Moves YTD

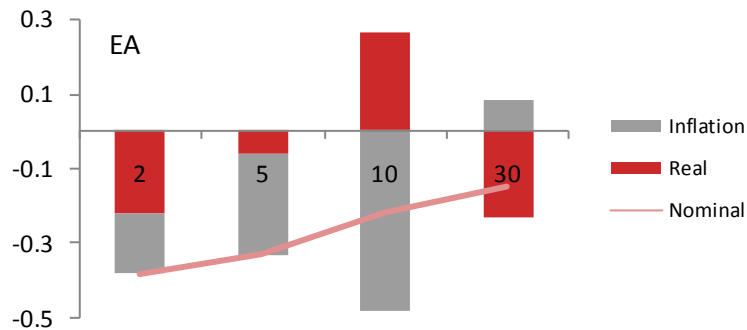
G4



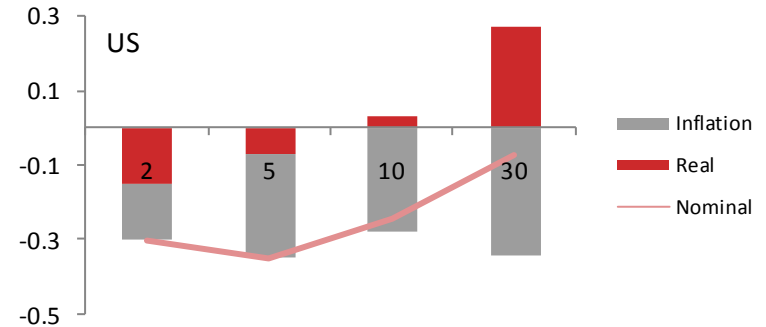
UK



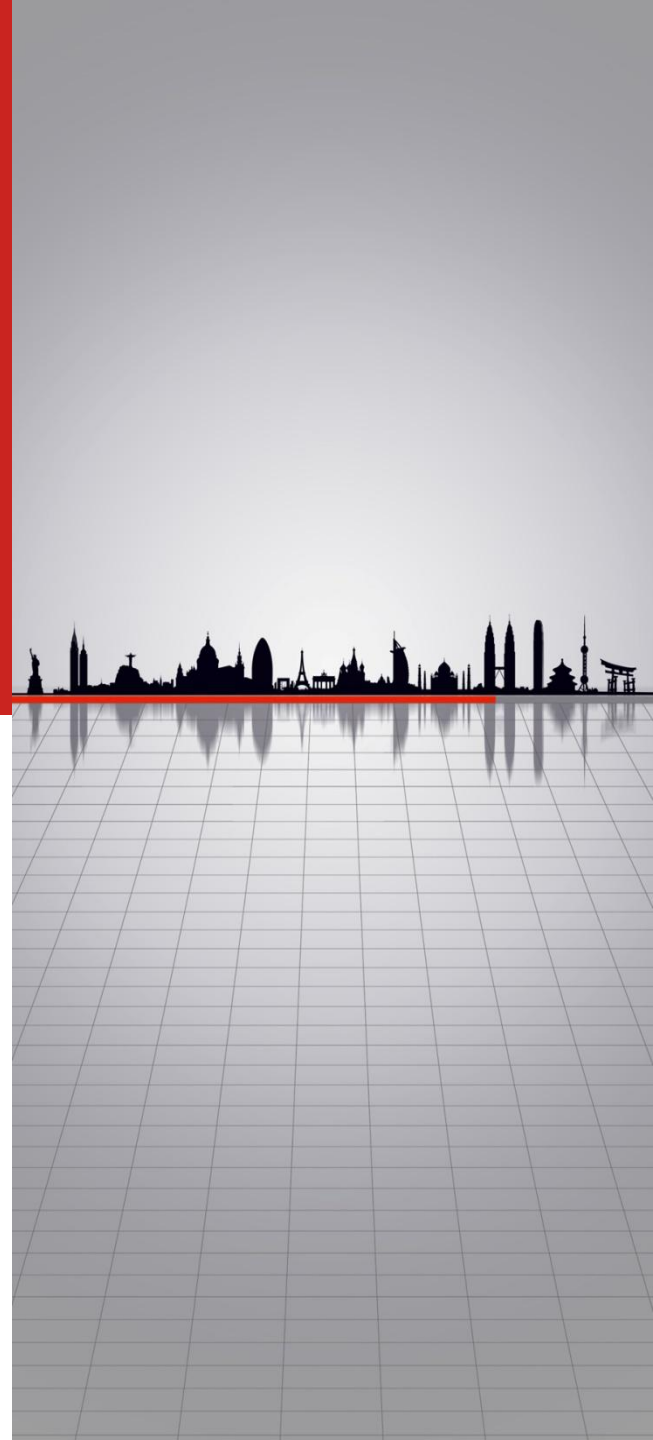
US



Euro Area

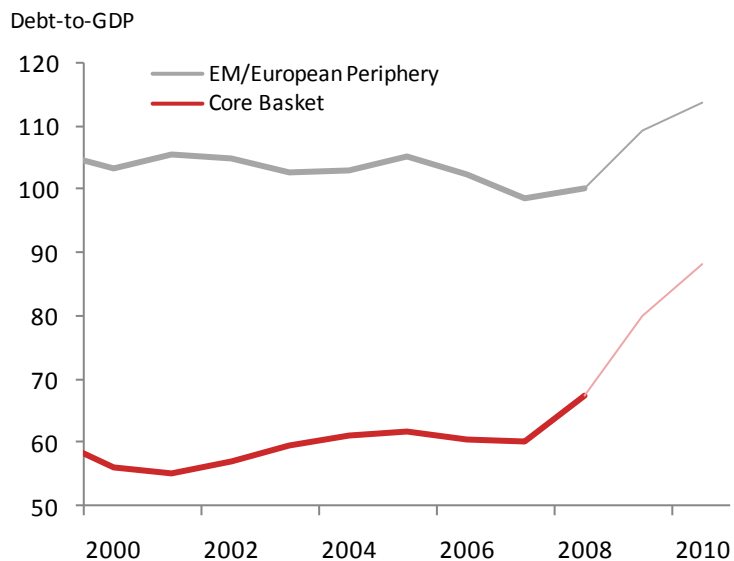


**Trade idea 2: Fiscal sustainability –
shifting risk EM/Peripheral to core**

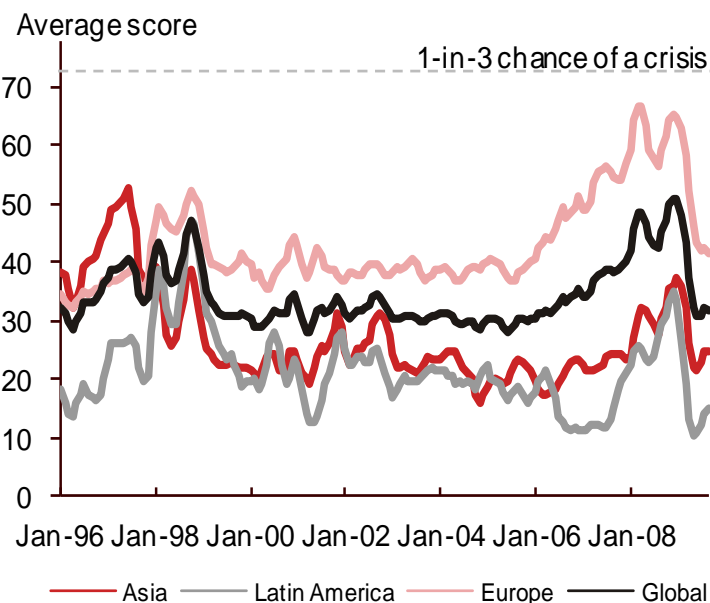


Rising G10 debt and falling EM risks

Debt-to-GDP in G10 is comparable to some EM/Peripheral countries



Risks of currency crisis in EM fallen sharply

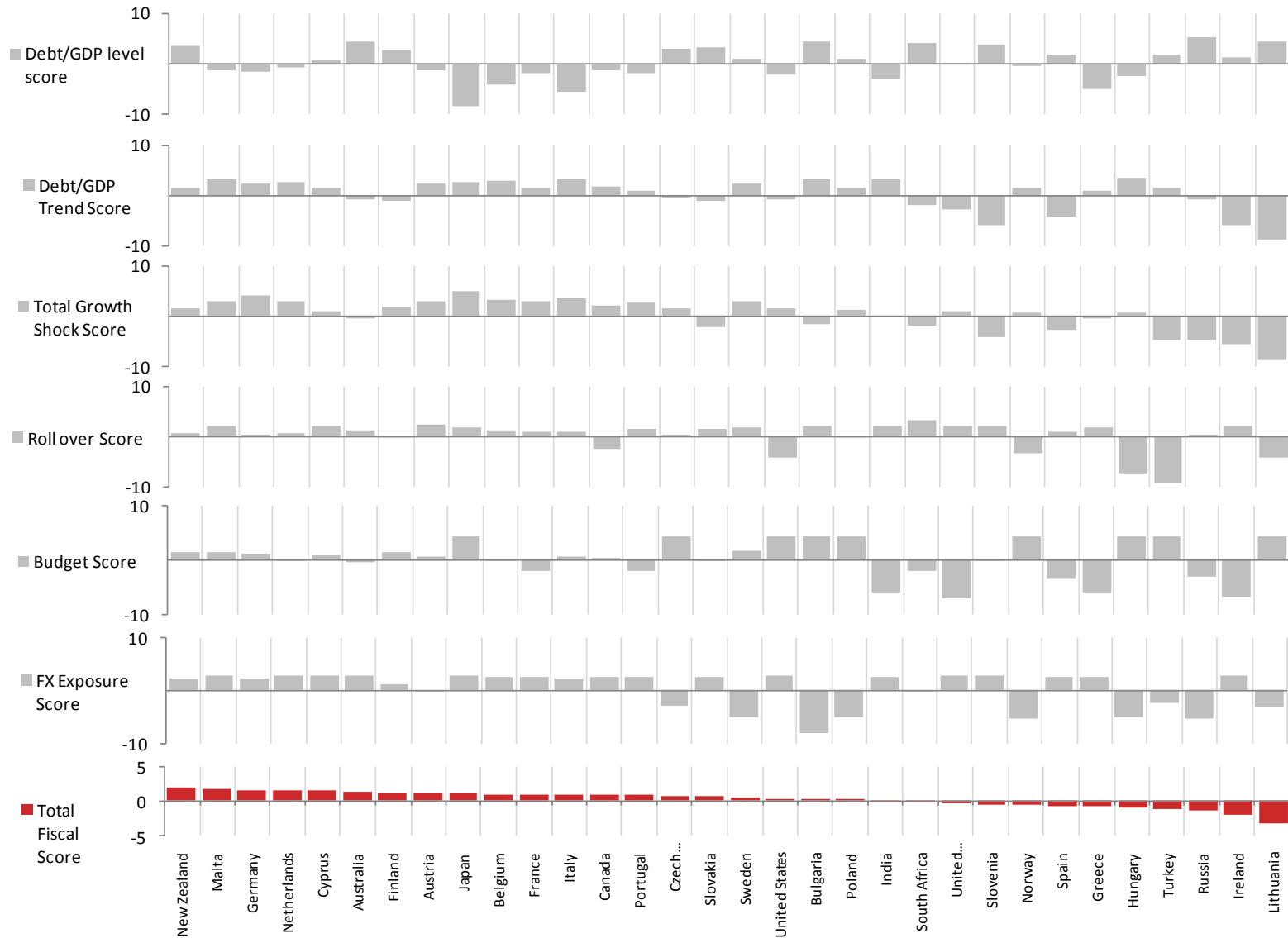


- The credit crisis and the subsequent fiscal support focused in developed and G4 countries.
- Debt-to-GDP in core countries is now approaching levels historically associated with EM.
- Emerging market currency-crisis risks are near decade lows.

1. Source: European Commission, OECD, Nomura.

2. Notes: Core basket = US, UK, France, Germany, Finland and Spain ; EM/European Periphery = Italy, South Africa, Hungary, Portugal and Greece

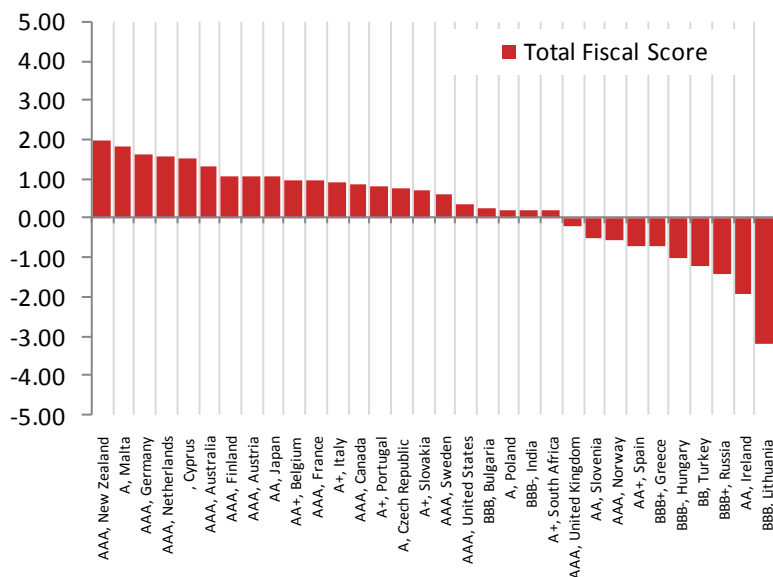
Fiscal Sustainability Score



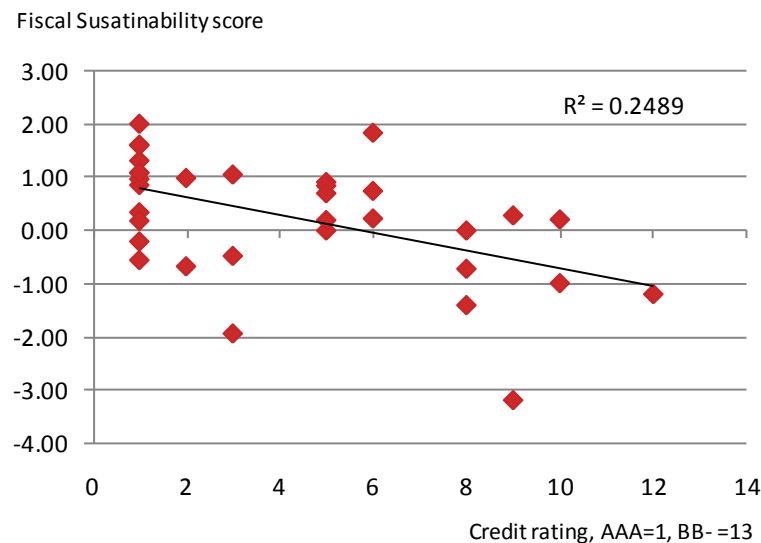
Source: Nomura; European Commission; OECD; IMF

Credit rating not always a good guide

Fiscal Sustainability scorecard



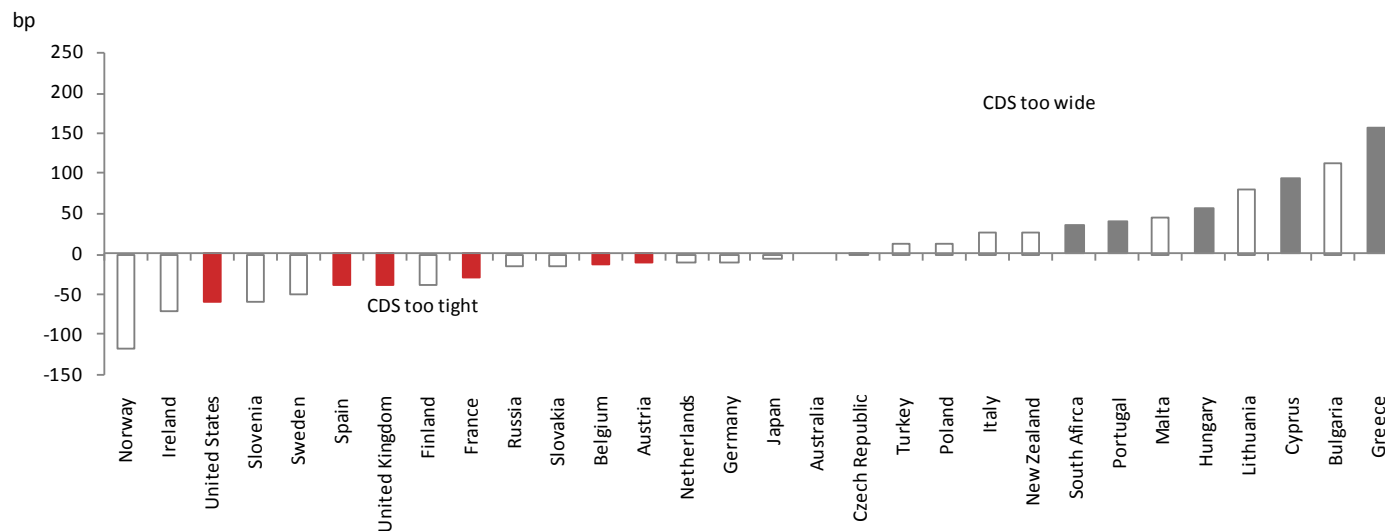
Score vs Credit rating



- As a result of the increasing fiscal debt burden and rising deficits in developed countries some appear to have fiscal risks comparable to sovereigns with much lower credit ratings.
- There is a substantial grouping of AAA credits that have a credit rating better than their fiscal position appears to justify. There is significant room for repricing of these traditional “core” sovereigns.

Fiscal issues are not an EM/Peripheral problem

CDS mispricing to Fiscal Sustainability scorecard

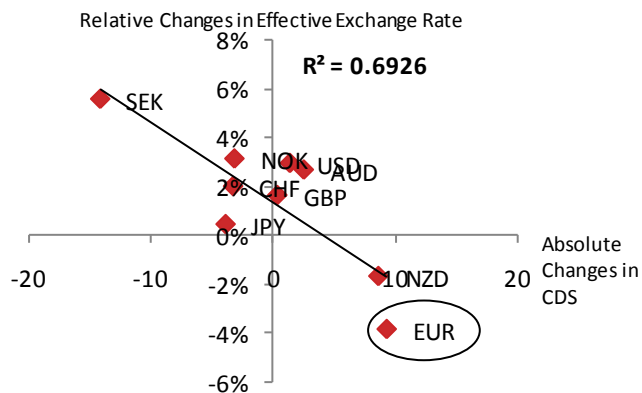


- Fiscal risks have shifted from peripheral and emerging market countries to “core countries”.
- When evaluated side-by-side fiscal positions of EM and peripheral countries are over priced in the CDS market vs the rising risks of core countries such as US, UK, France and Spain.
- To remove a degree of idiosyncratic risk use basket's of CDS
- **Buy protection on “core” countries : US, UK, France, Germany, Finland and Spain**
- **Sell Protection on EM/Euro Peripheral : Italy, South Africa, Hungary, Portugal and Greece**

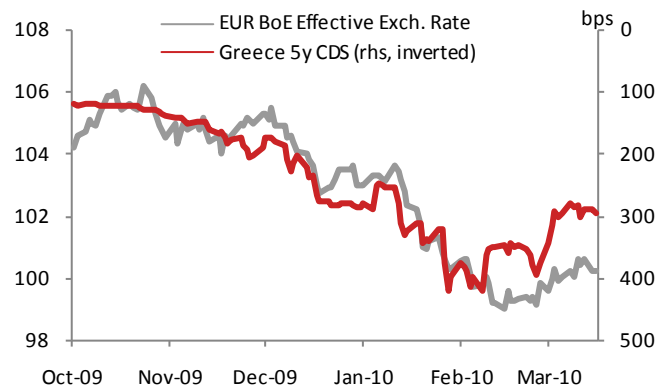
Note: The recent retracement in Greek CDS has not been fully reflected in bond spreads. We therefore see more value in being long 5y Greek bonds vs Bunds (see Appendix, Fiscal Sustainability) instead of short protection.

Fiscal sustainability: lessons from Greece

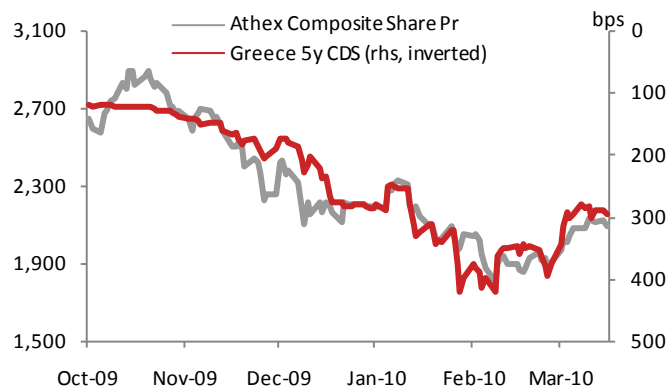
FX vs. CDS



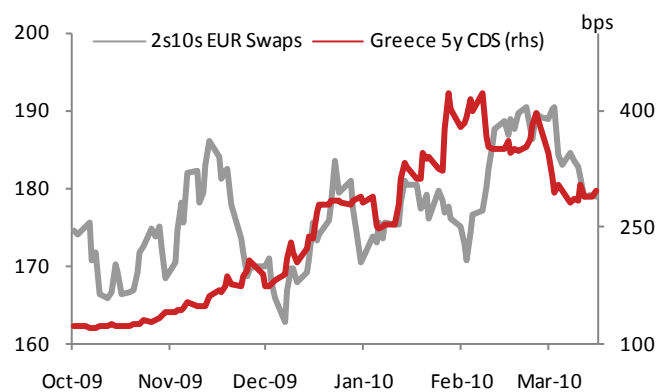
Greece CDS vs. EUR



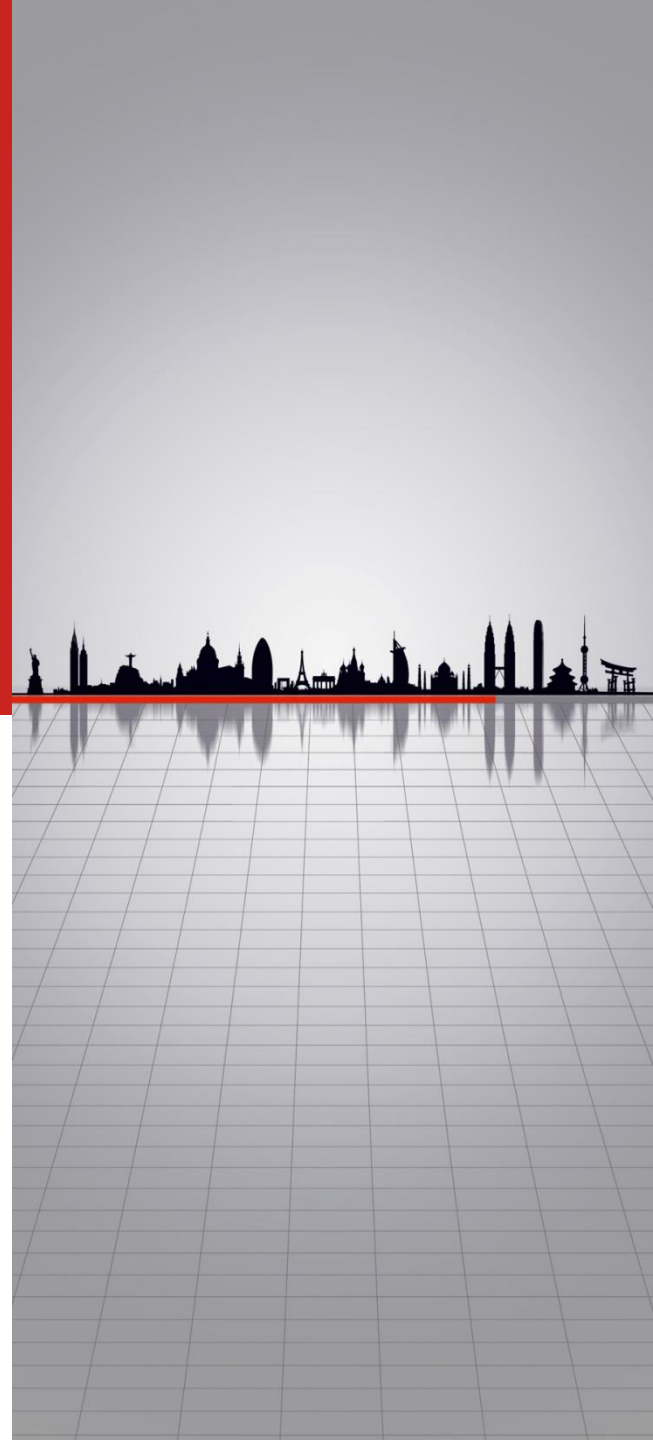
Greece CDS vs. Greek Equity



Greece CDS vs. Euro curve

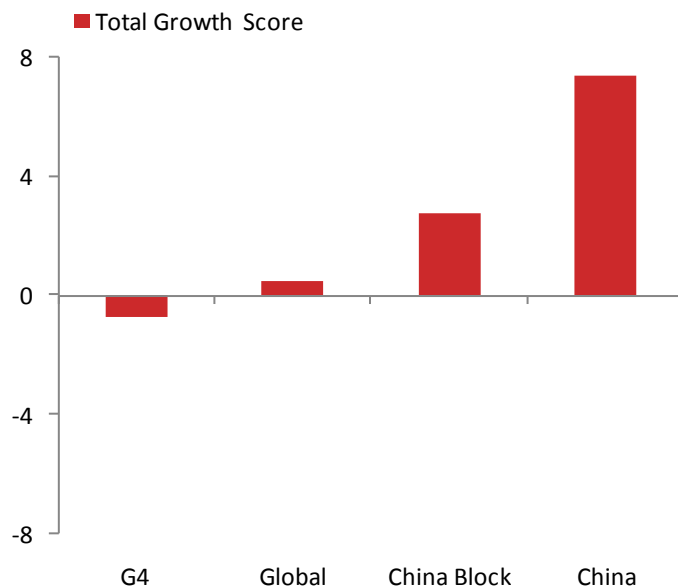


**Trade idea 3: Long a “China Bloc”
value basket**



China Bloc growth will outperform in 2010-11

The China bloc set to significantly outperform in next few years

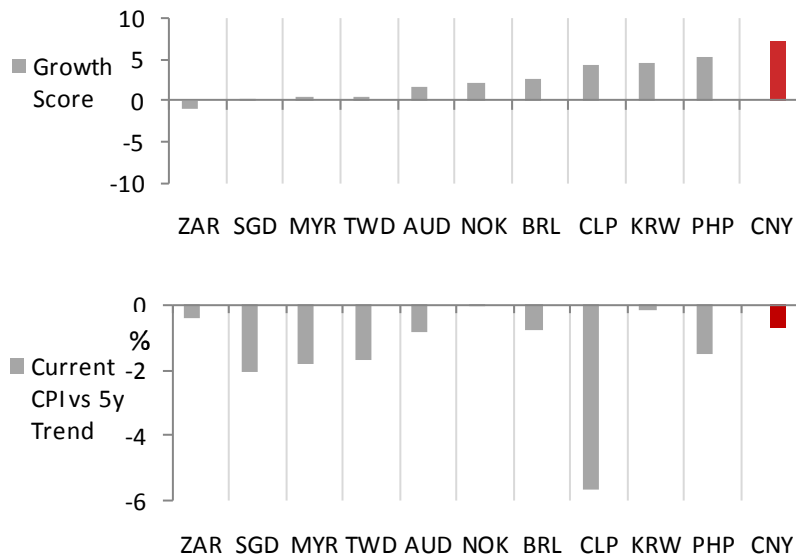


- Our economics' team expects a sharp divergence in growth in 2010-11
- On the one side, G4 economies are expected to lag, especially when you take into account how big the drops in GDP were during the crisis
- China is at the other end of the spectrum, with strong growth
- The 10 countries included in the China bloc will see growth well above the global average in 2010-11

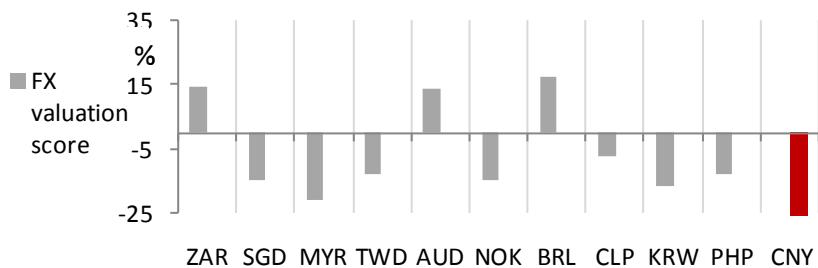
Note: our total growth score is the simple average of normalized scores for (1) 2010-11 GDP forecasts from our economics team, (2) the level of growth today relative to its pre-crisis peak and (3) 2010-11 growth relative to pre-crisis 5-year trend pre-crisis trend

Finding value in the China bloc not so hard

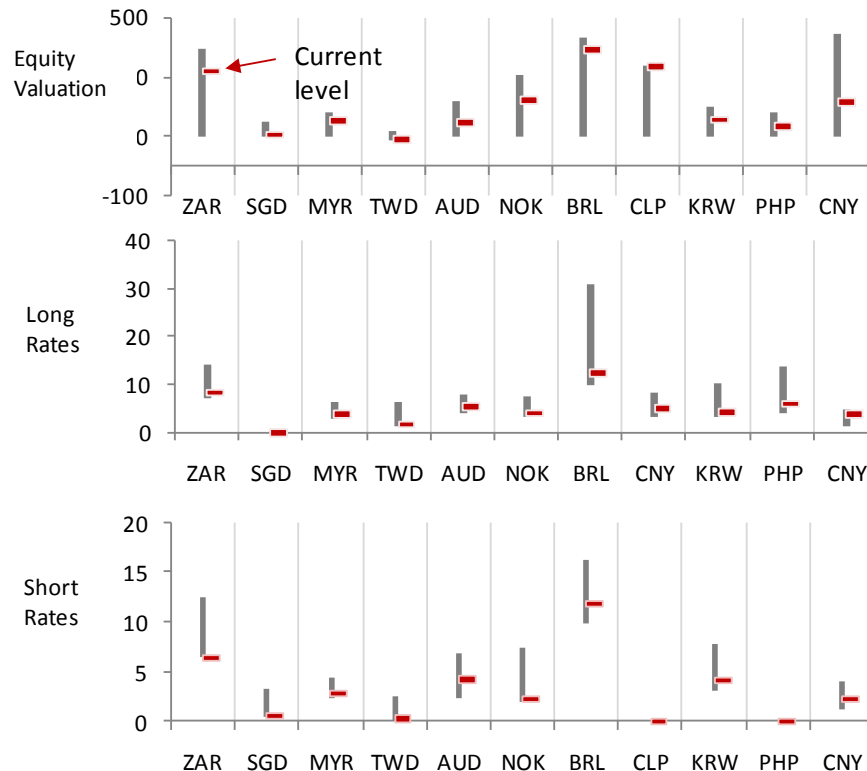
Fundamentals



FX Valuation



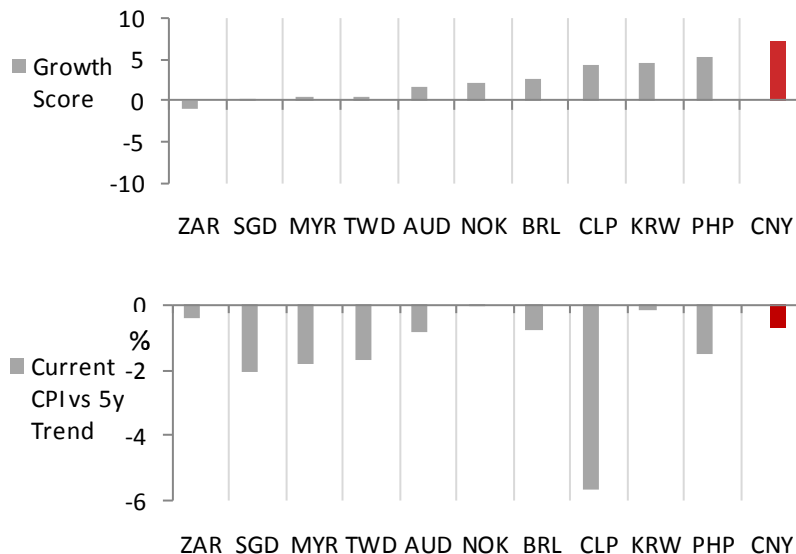
Market Valuation



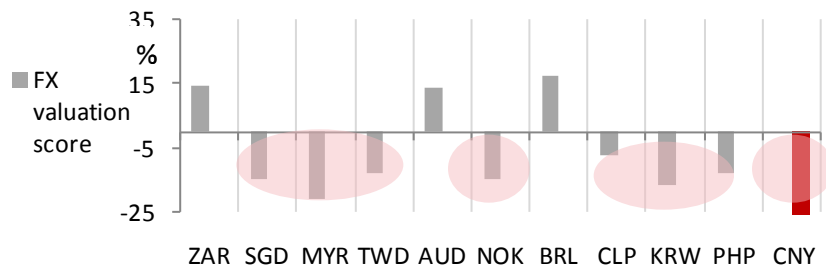
Note: High and low of bars represent minimum and maximum levels in the period from 2000 to 2009. The current level is indicated by the horizontal tab on each bar.

Finding value in the China bloc not so hard

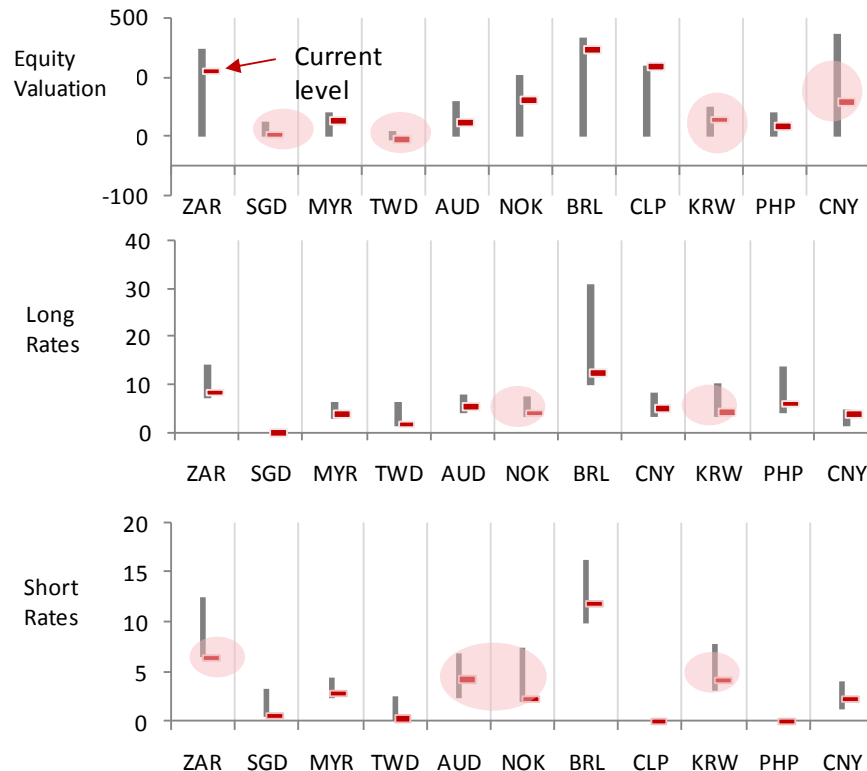
Fundamentals



FX Valuation



Market Valuation

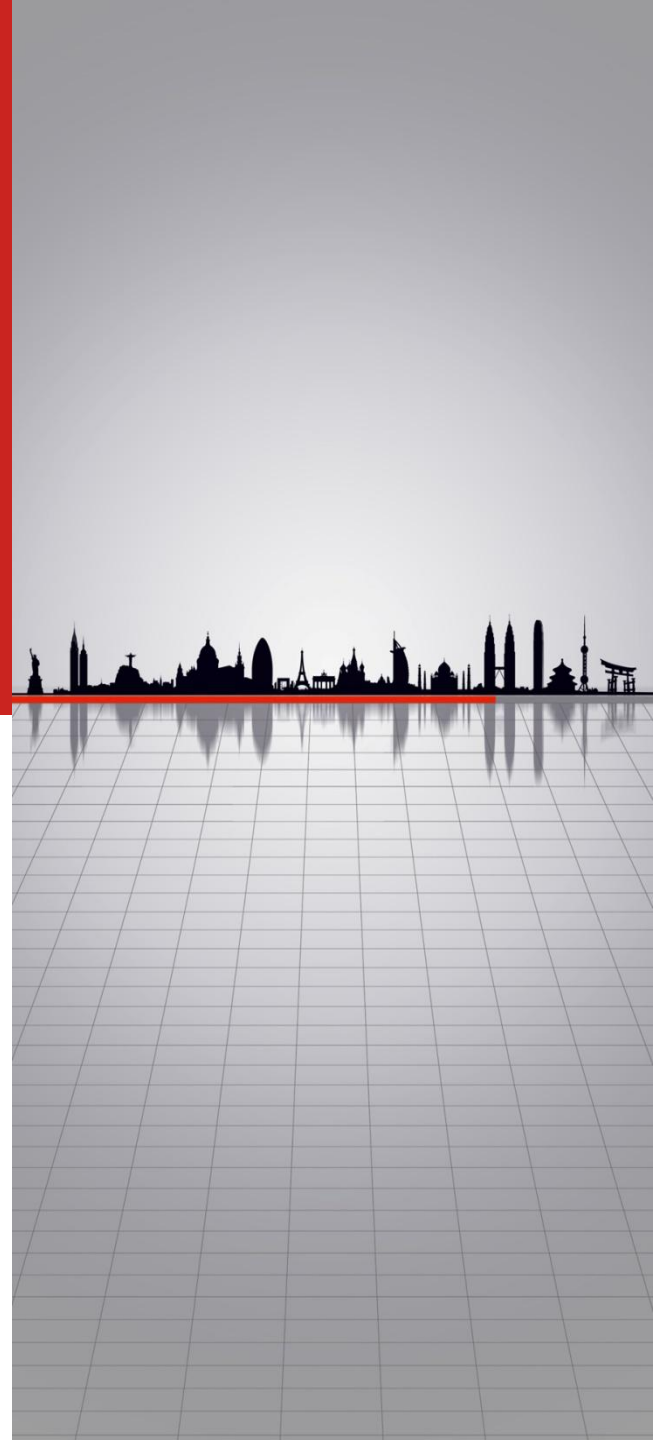


Note: High and low of bars represent minimum and maximum levels in the period from 2000 to 2009. The current level is indicated by the horizontal tab on each bar.

The China Bloc trade in summary

- Nomura economics has a well-above consensus view for China's economy in 2010
- With G4 economies struggling, the gap between those countries benefitting from China, and those not, will grow
- The typical concern with investors is that the China trade is already priced into financial markets
- A simple look at cross-market valuation suggests this is not the case:
 - The commodity beneficiaries from China do look stretched – both equities and currencies
 - But more direct beneficiaries of China's growth still have cheap currencies and not especially overvalued equity markets
 - Across the board, rates markets look expensive as China de-links from the G4
 - Under current metrics, the following China bloc trades look reasonable
 - **FX: long SGD, TWD, KRW, PHP, CNY and NOK vs. a G4 basket (best value at present is JPY)**
 - **Rates: pay 2-yr rates in AUD and NOK and potentially 5-yr ZAR**
 - **Equities: non-Japan Asian equities still have good value according to our Equity Strategy team, especially Malaysia, South Korea and Taiwan**

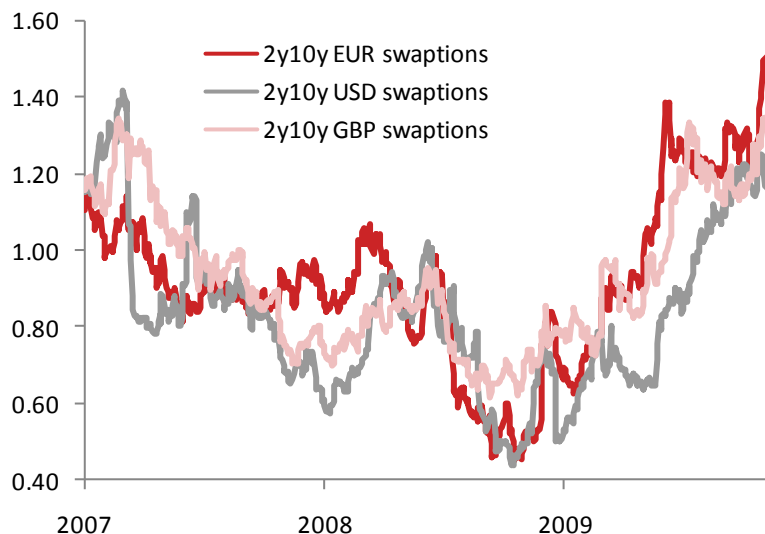
**Trade idea 4: Short G3 interest rate
vol vs. long EM FX vol**



Expect lower rates volatility than priced in 2010

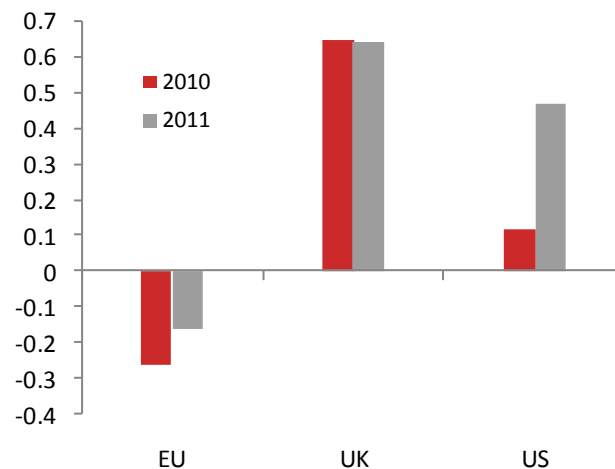
Implied-to-realised swaption volatility high across G3 rates

Implied-to-realised ratio (60-day realised window)



Market expectations for policy rate adjustments vs Nomura for 2010/11

Difference between market expectations and Nomura Economists, pp

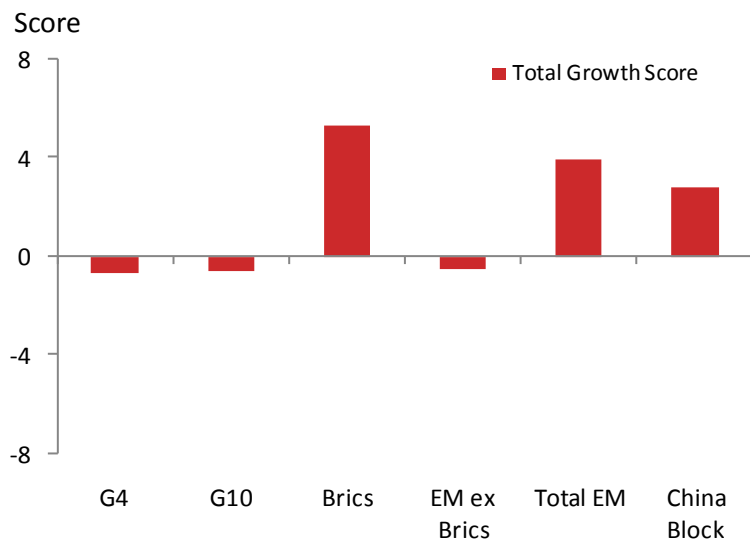


Notes: +ve = market expectations higher than Nomura economists

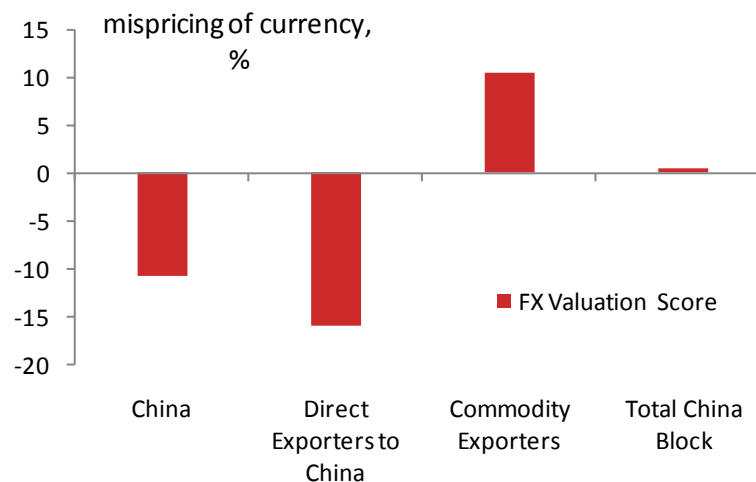
- Interest volatility remains, in our view, unjustifiably high.
- The market expectations for policy rate adjustments in 2010 are excessive vs Nomura's economist's forecasts
- The G3 swaption markets continue to trade at a volatility premium to realised as there is a lack of conviction to sell volatility after the gyrations of the past two years.

C-Bloc growth to put pressure on currencies

Global growth scores – C-Bloc only region of performance



Currency valuations – EM and C-Bloc appear cheap



- The strength of EM and the China growth leads us to expect with an increasing likelihood revals/appreciation in EM currencies as the exchange rates take much of the monetary tightening burden and correct their current relative cheapness.
- Despite these growing risks EM FX vol is at a 2002 low relative to G10 FX vol.

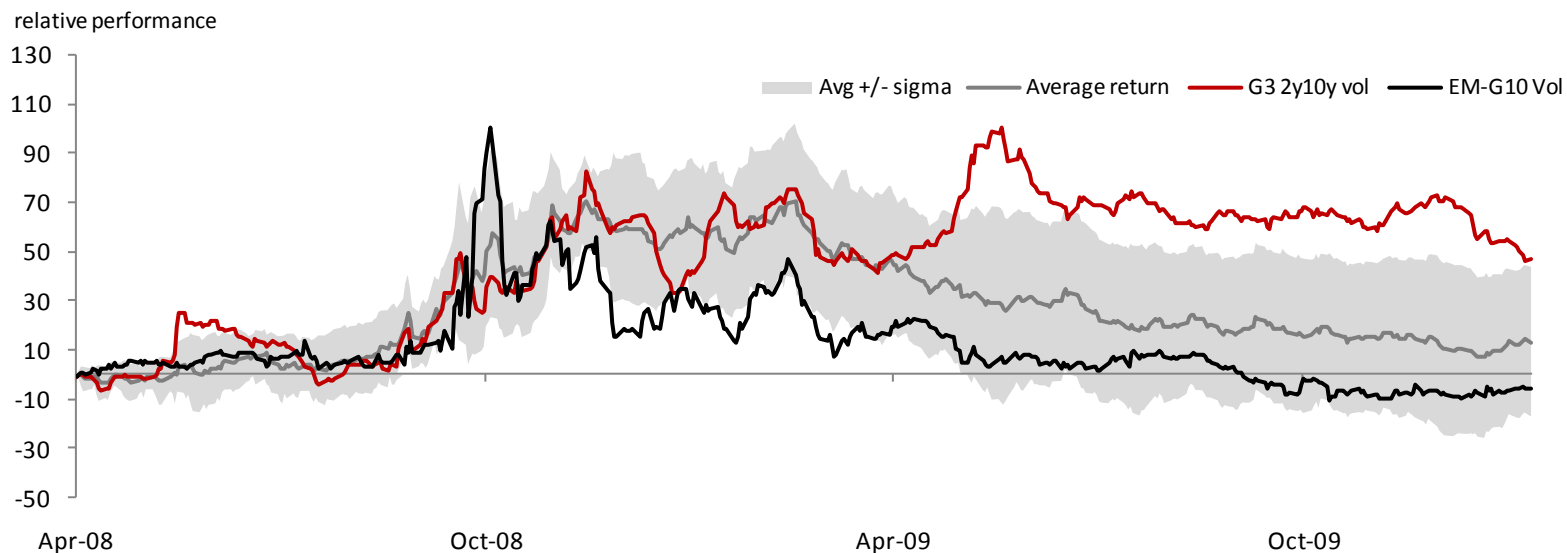
Direct Exporters to China within the China block include Malaysia, Philippines, South Korea, Singapore, Taiwan

Commodity Exporters to China within the China block include Brazil, Chile, Norway, Australia and South Africa

Source: Nomura.

Rates and EM FX vol at opposite ends of spectrum

Relative performance to other macro assets

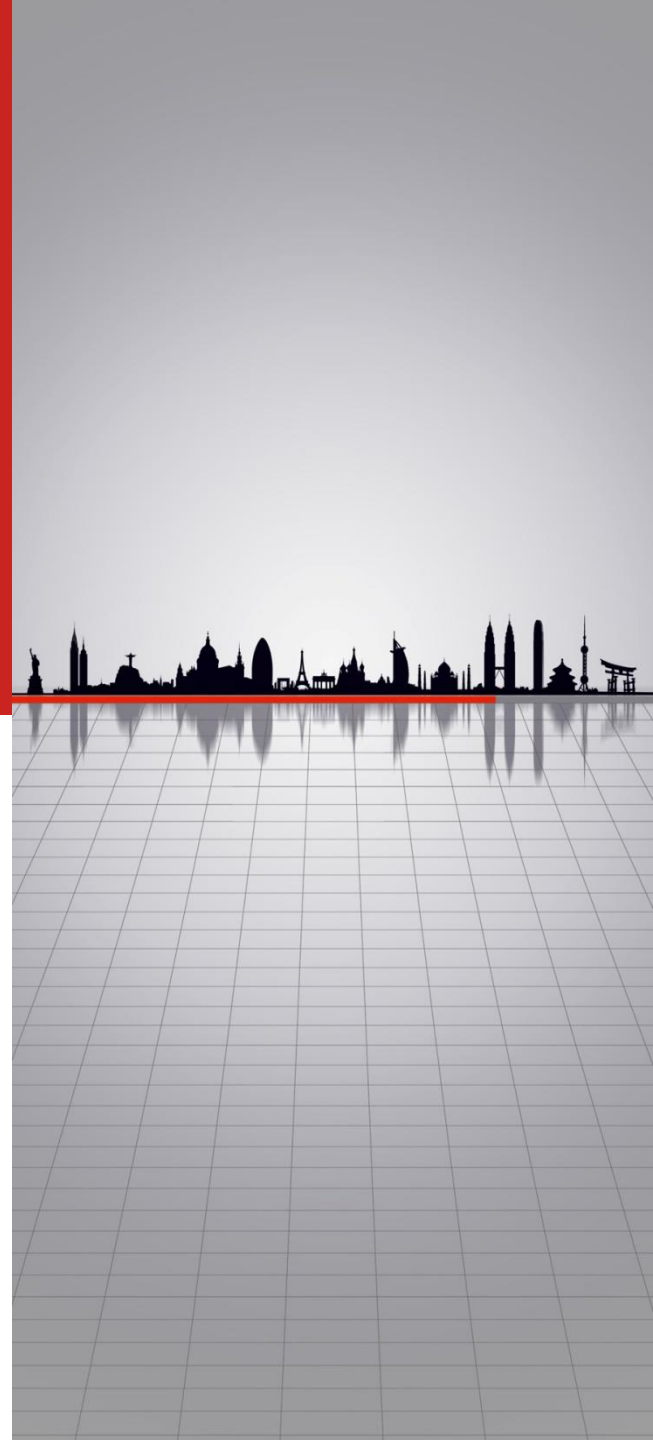


- Rates volatility has failed to retrace from the risk averse highs of 2009 to the same extent that other macro assets have retraced. Conversely EM –G10FX vol spread has retraced more than most.
- We expect these relative mispricings – inflated rates volatility and depressed EM FX volatility – to be corrected through 2010.
- We favour **selling a basket of G3 2y10y swaptions vs buying a basket of 1y EM FX vol.**

1. Source: Nomura.

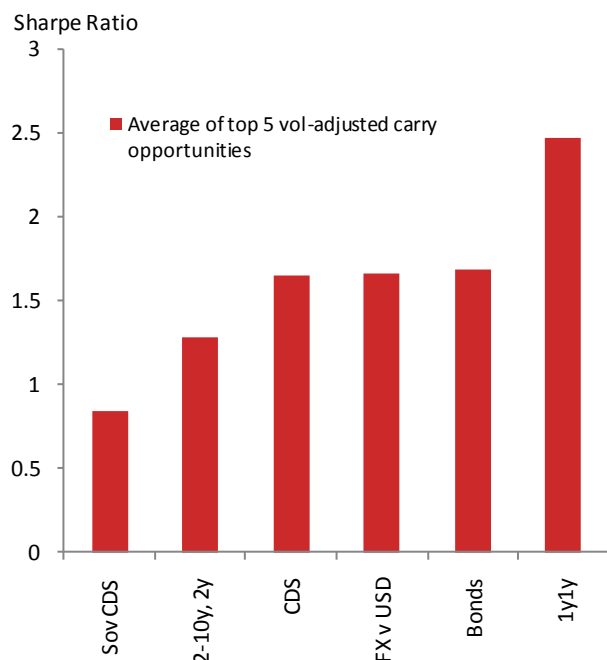
2. Notes: The “Average return” is the average total return of a group of nine macro assets since Jan-2008. The group includes: S&P 500, CDX IG 5y index, EM-G10 vol spread, US 10y treasury yield, dollar index, G3 2y10y rates vol (simple average of EUR, GBP and USD), Gold/Copper ratio, France-Germany 10y government bond spread and VIX index.

Trade idea 5:
Long Carry – basket of 1y1y rates



Quiet central banks should be good for carry

Cross-asset carry opportunity Sharpe Ratios

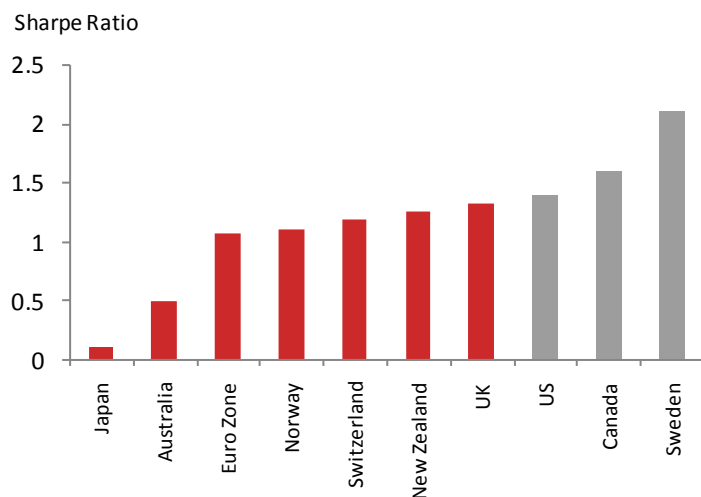


Note: We calculate the absolute value of the Sharpe ratio for the top 5 performers within each asset class and then take a simple arithmetic average. For further details on our calculations refer to the grey box "Methodology and Calculations" on p.3.

- Nomura's core fundamental view of limited G4 rate hikes, solid, if unspectacular global growth and modest inflation is a good mix for positive carry trades
- To analyse this trade we have constructed a Carry Monitor, which assesses the relative carry opportunities across fixed income assets and across currencies
- We explore the carry opportunities for the following assets:
 - CDS
 - Sovereign CDS
 - 2-10y spreads in 2 year forward swaps
 - 3y government Bonds
 - FX forward crosses vs. USD
 - 1y1y swap rates
- Our cross-asset carry-to-volatility monitor suggests **short-end rates carry is the most attractive carry opportunity at present**

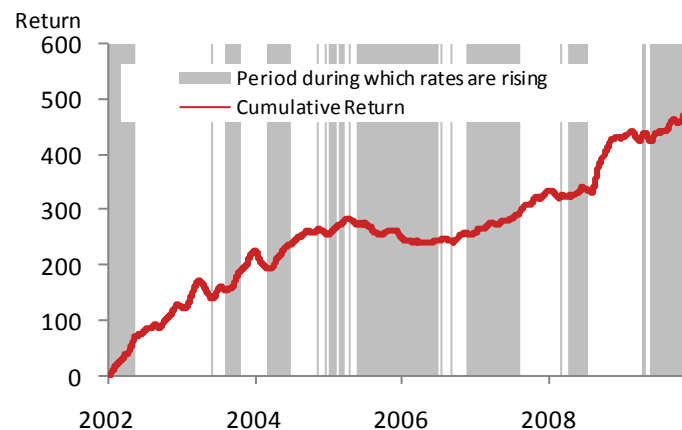
Carry focus on G10: a model portfolio

G10 1y1y Sharpe Ratios



Note: 1y1y carry Sharpe ratio is calculated as the spread between 1y1y and 6m1y rates, annualised and divided by the 60-d realised volatility of 1y1y rate.

Cumulative return on a G10 1y1y carry basket

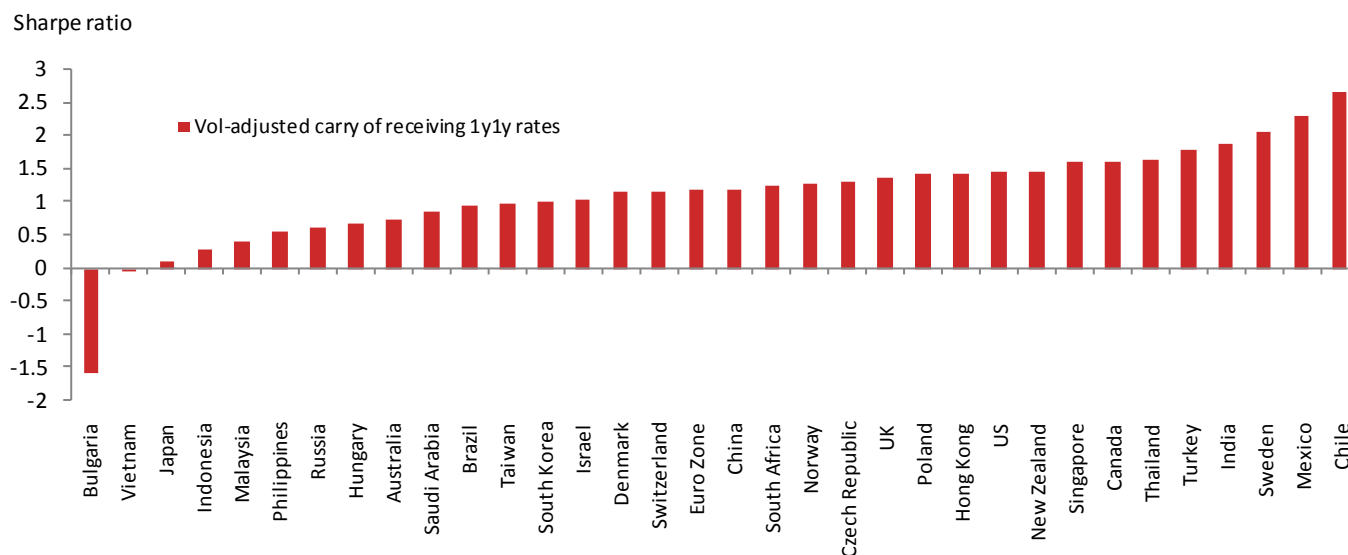


Note: 1y1y carry Sharpe ratio is calculated as the spread between 1y1y and 11m1y rates, annualised and divided by the 60-d realised volatility of 1y1y rate. The best 3 Sharpe ratio trades are added daily and held for one-month.

- To illustrate the portfolio modelling and benefit from data quality, we focus on a G10 dynamically adjusted basket of 1y1y rates
- Modelled carry basket holds 1y1y positions in the three currencies with best vol-adjusted carry.
- The cumulative return is a reflection of how an intelligently selected dynamic portfolio can efficiently monetize the term premium and perform even in a rising rates environment

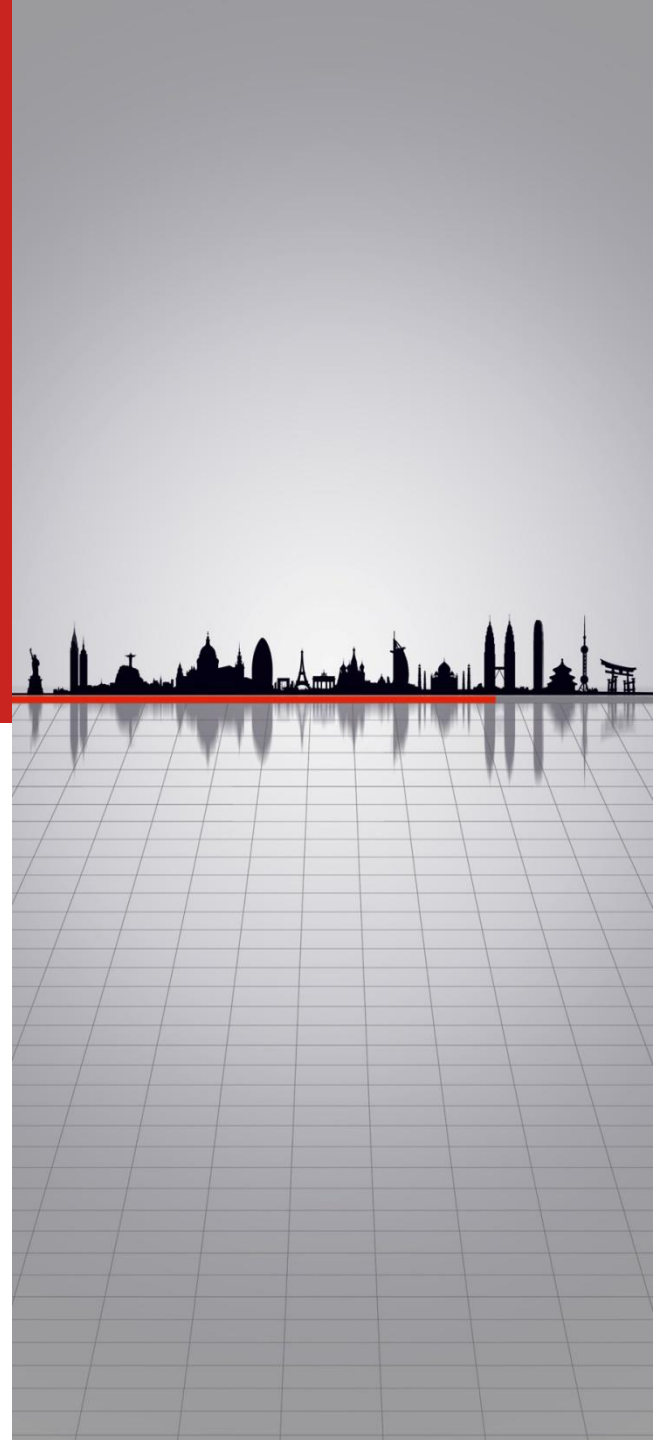
Rates carry opportunities across currencies

1y1y rates universe



- Extending to the whole universe of 1y1y rates, the best carry trade risk-reward currently lies in Brazil*, Chile, Mexico and Sweden
- To capture the carry trade opportunity, we recommend a rolling portfolio of the top three vol-adjusted carry trades in the front end of the rates curves
- Buy 1y1y CLP, 1y1y MXN and 1y1y SEK

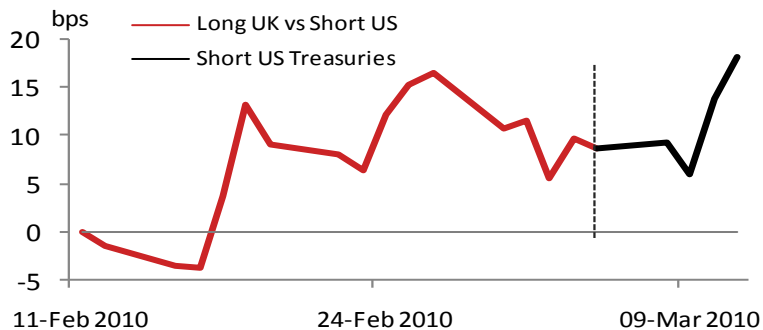
Portfolio Performance



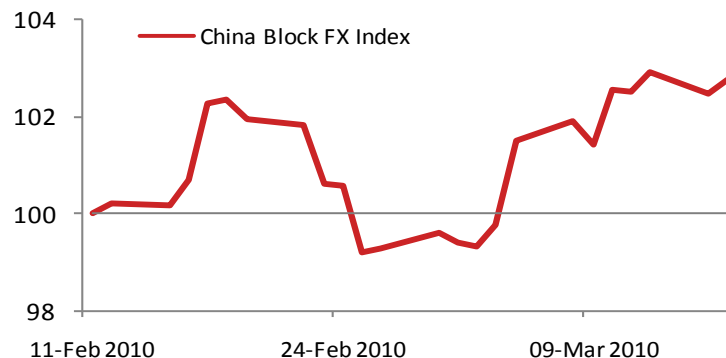
Portfolio Performance

- For purposes of illustration we have calculated the changes in yield/returns on assets included in our portfolio. For simplicity we have not applied risk amounts to each trade. These returns are designed to show the success of our themes rather than represent exact P/L data for model portfolio.

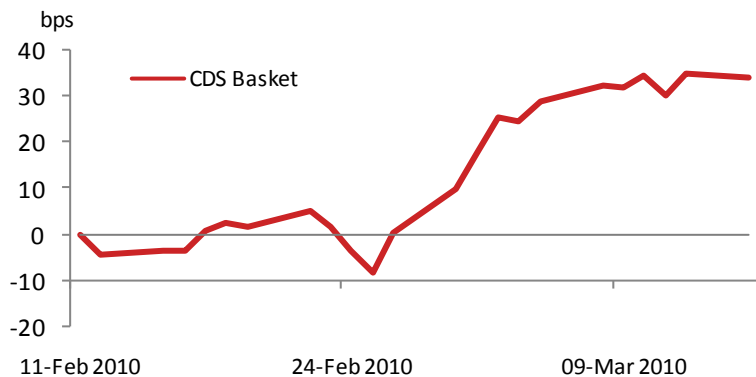
Duration Portfolio



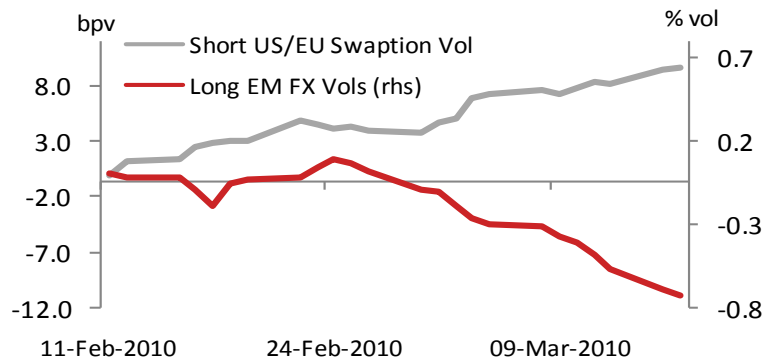
Long China Block Currencies - Index



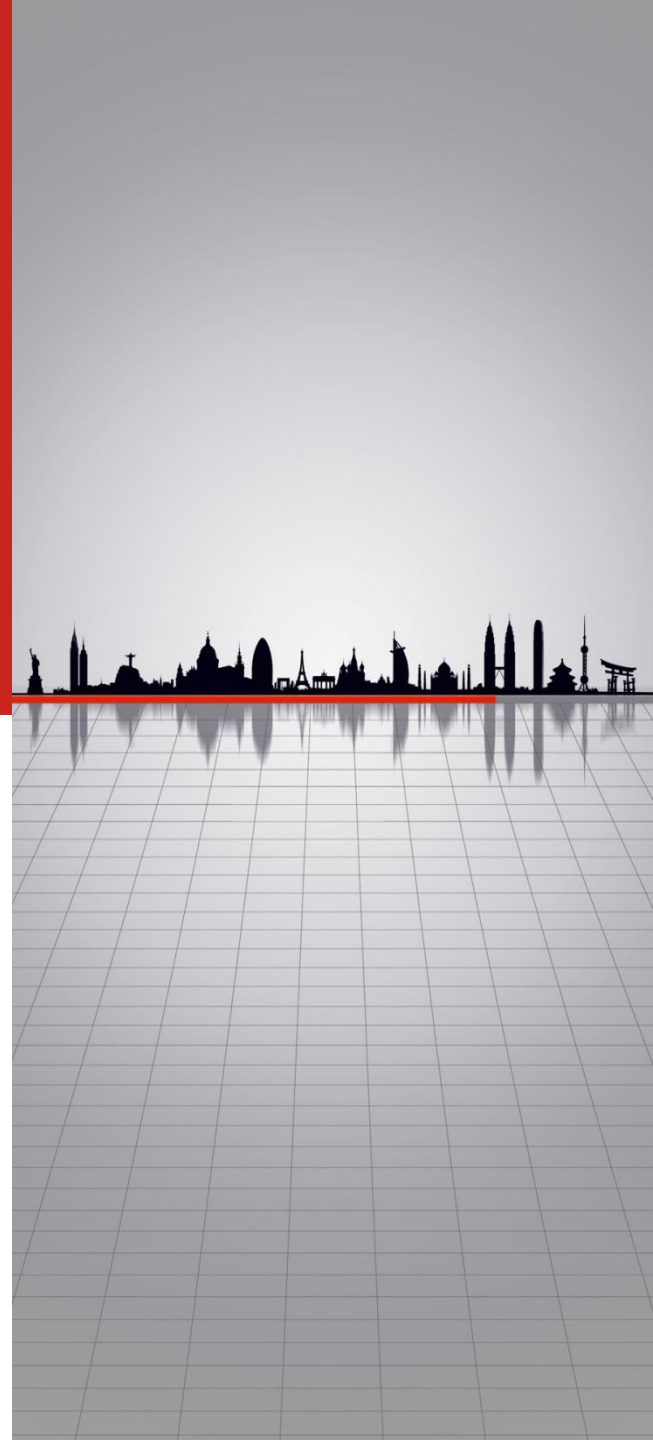
CDS Basket – Buy “core” vs. Sell periphery



Vol Basket – Short G3 Rates vs. Long EM FX



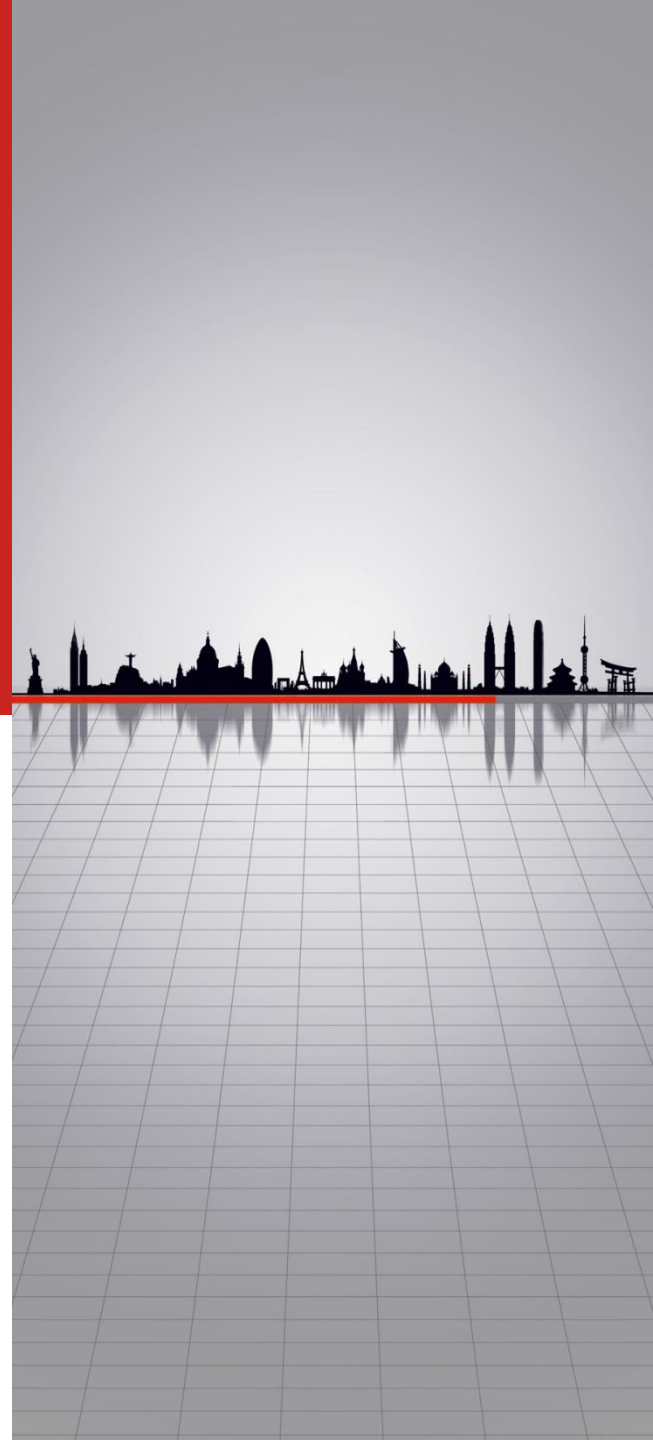
Summary



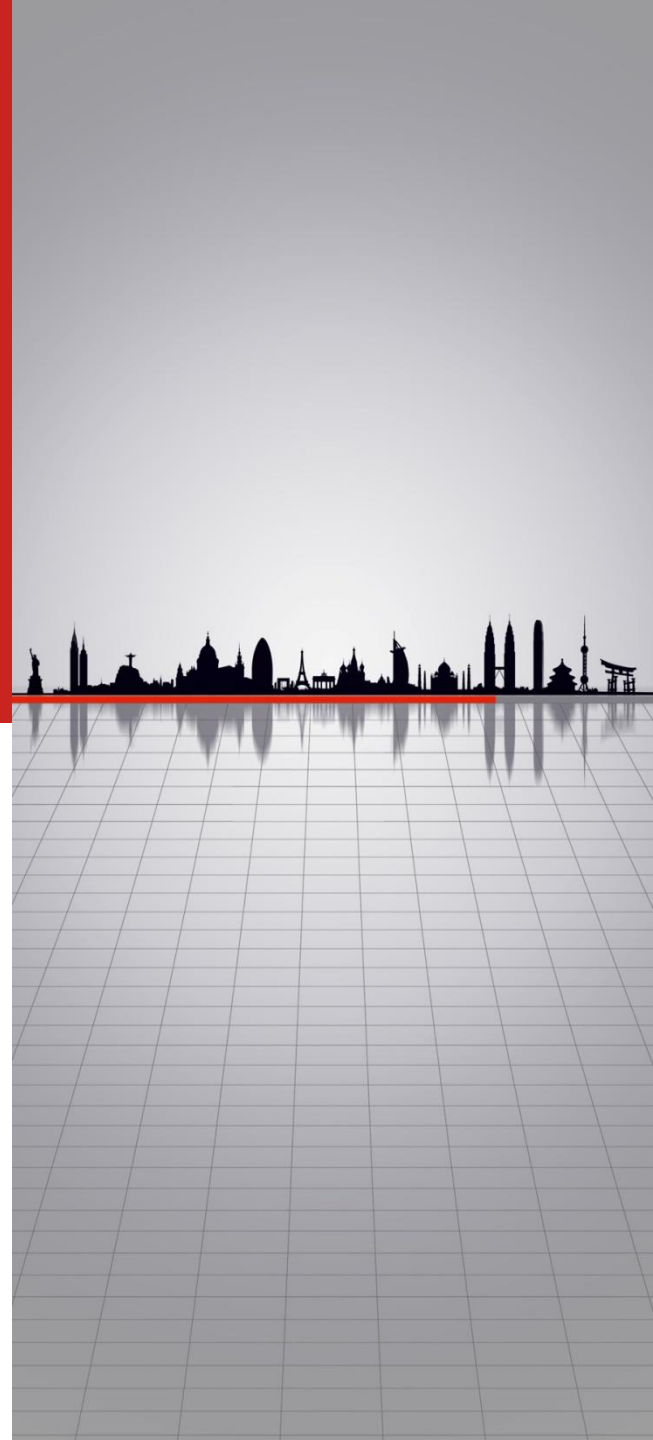
Summing up

- The story of unprecedented global imbalance story has completed two chapters – first the build-up, then the unwind/crisis period... we are now at the start of the next phase – the aftermath...
- For financial markets, this aftermath stage will be most notable in the way market correlations decline as five fundamental dynamics take hold:
 - Growth is diverging in ways we have not seen in many years
 - Risks shift to the G4 government sector as the fiscal costs of the crisis period grow
 - Central bank exits from extraordinary monetary policy will not be uniform
 - The regulatory backdrop is evolving rapidly and has potentially large consequences (intended and unintended)
 - The post-crisis economy has seen an acceleration in the gap between those economies and markets tied to China's growth and those where linkages are smaller
- We offer five (mostly non consensus) trades for taking advantage of this differentiating world
 - **Duration:** Medium term – **Long G4 duration**, tactical short term: **Sell 3y Treasuries**. Despite a medium-term bias to hold long duration across G4 on a supply-demand argument, we would currently advocate a tactical short-term short position in the front end of the US;
 - **Buy the undervalued parts of the China bloc growth story:** Most Asian currencies and Norwegian crown remain cheap relative to the freer-floating commodity exporters like BRL, AUD and ZAR; if China pulls growth in the China Bloc up, rates are likely to rise faster than many think. Paying the short-end of NOK and AUD are currently the most attractive.
 - **Look for the gap between EM/European periphery and core countries to contract:** The fiscal flare ups are here to stay and Europe will remain the centre of the storm for some time to come. That said, the market is overpricing the risks of default in the periphery vis-a-vis the core.
 - **Sell G3 interest rate volatility vs. EM FX volatility:** EM FX vol looks cheap relative to other markets, especially considering the growing performance gap between EM and G4 and the policy implications this divergence.
 - **Long Carry – basket of 1y1y rates:** Limited G4 rate hikes, solid, if unspectacular global growth and modest inflation should present good carry opportunities. Our cross-asset carry-to-volatility monitor suggests short-end rates carry as the most attractive at present. Buy 1y1y CLP, 1y1y MXN and 1y1y SEK

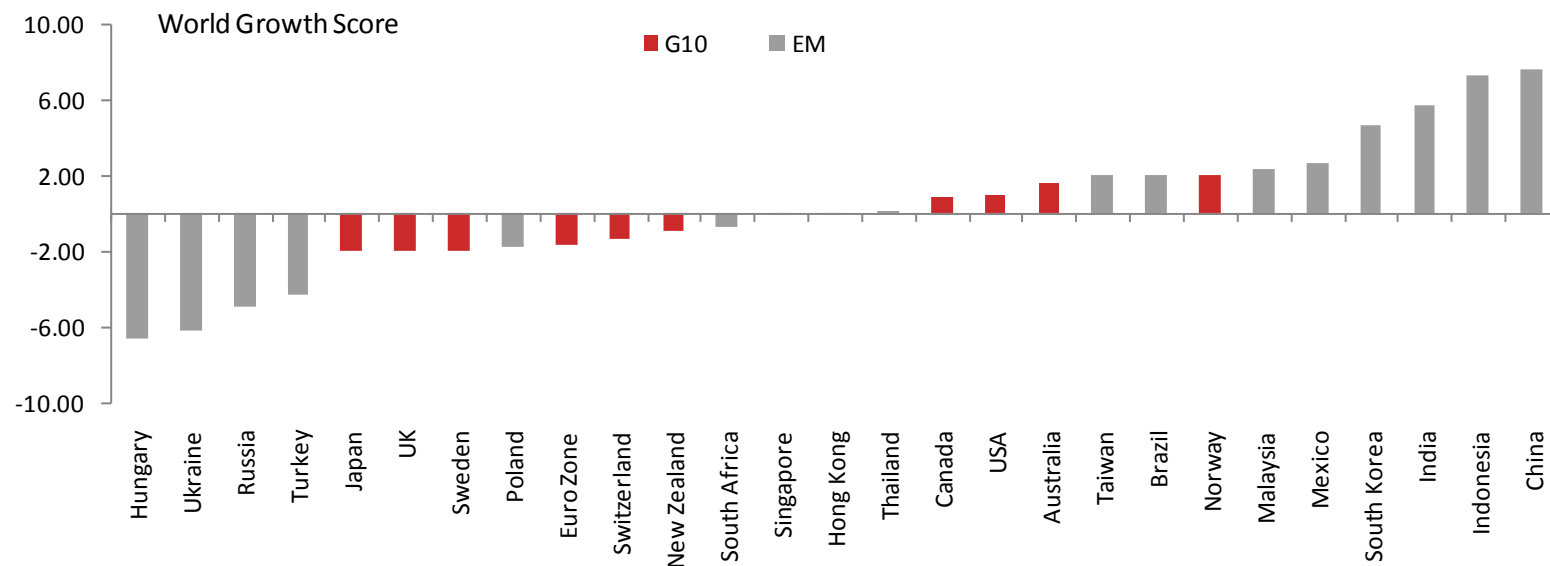
APPENDIX



Growth Heat Map

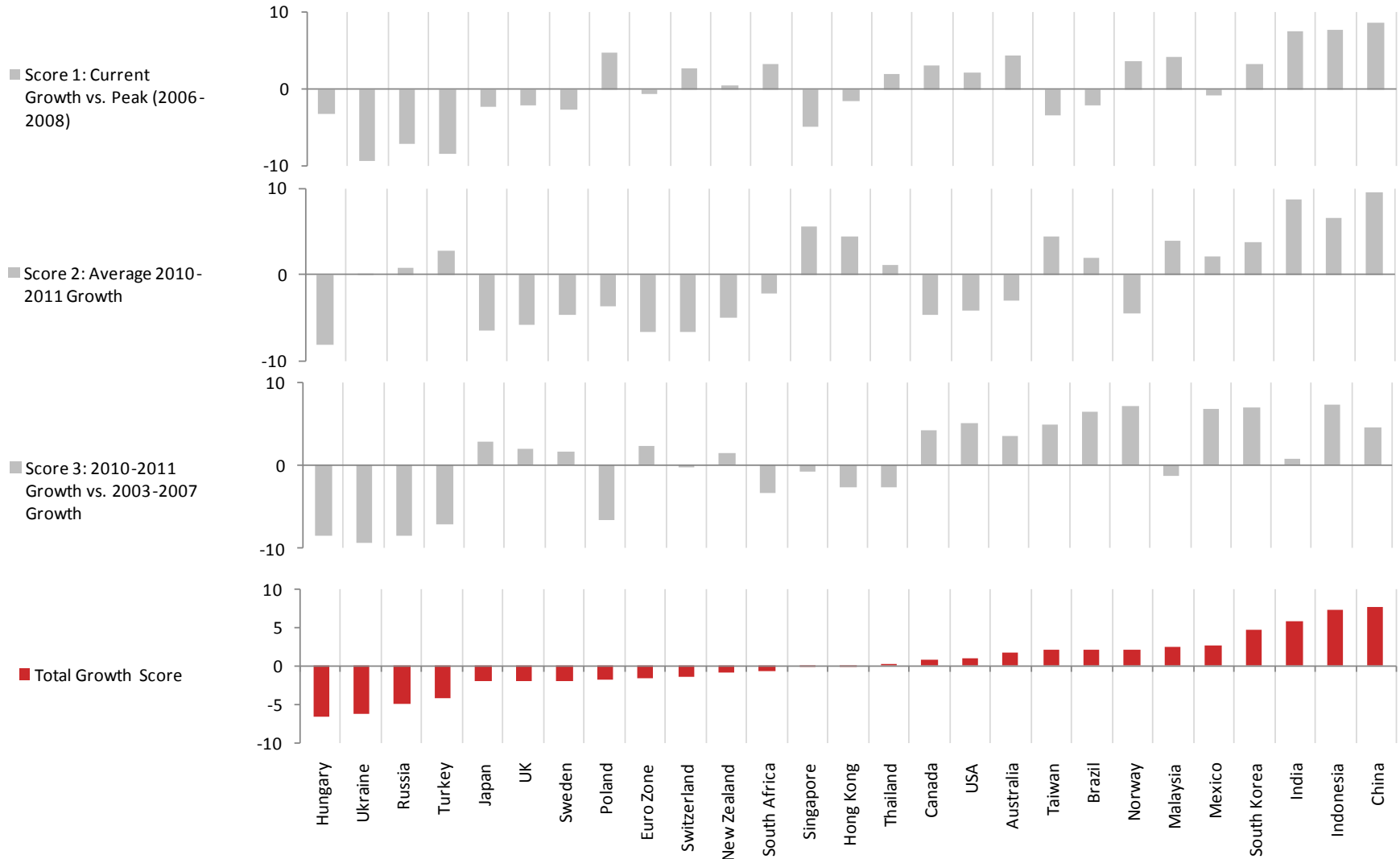


World Growth Score

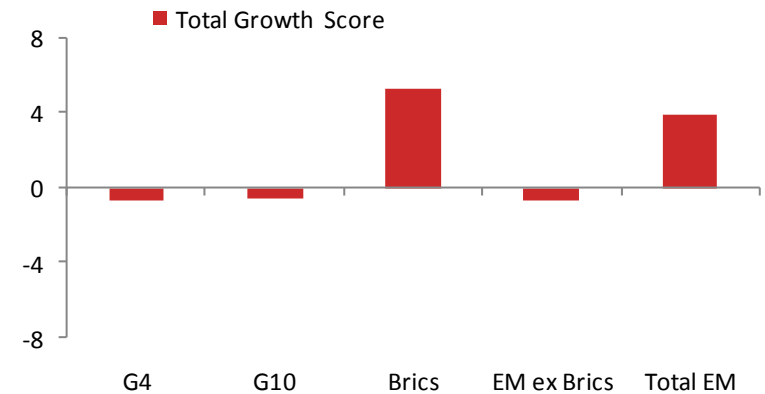
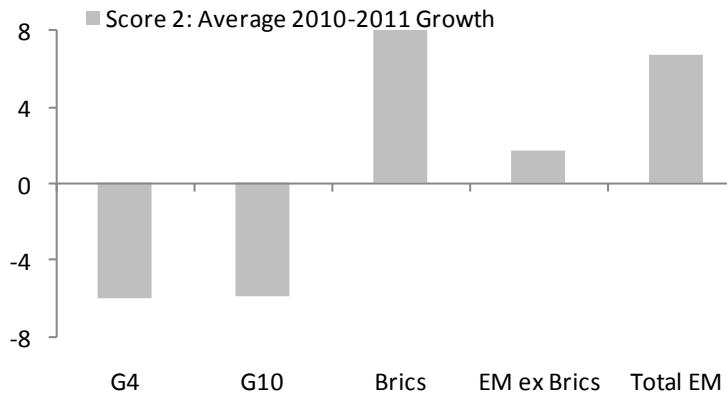
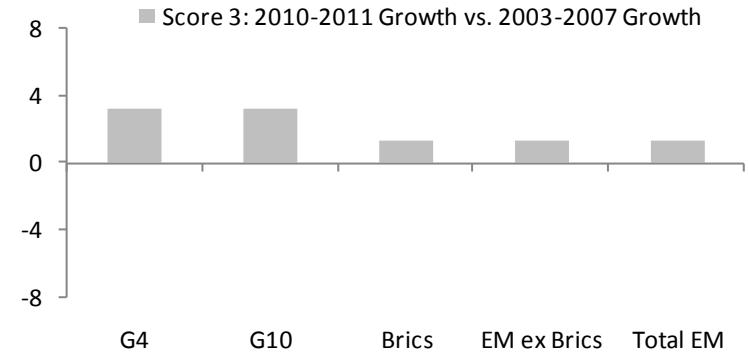
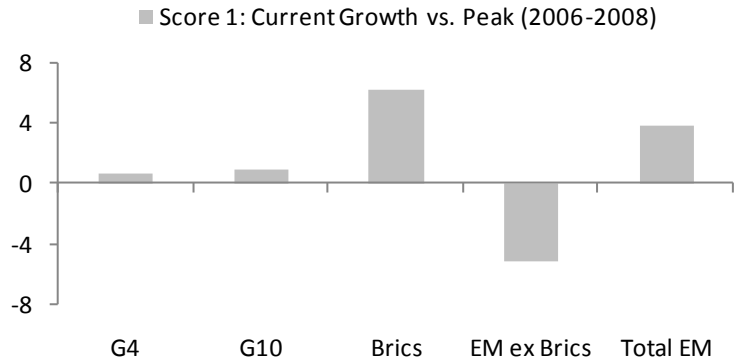


- Nomura World growth score across a universe of 29 countries
- The score is a combination of 3 factors:
 - Current GDP level vs. recent peak in output
 - Nomura y-o-y GDP growth forecast (Average 2010-2011)
 - Nomura y-o-y GDP growth forecast vs. pre-crisis 2003-2007 average
- Score is scaled from -10 to +10, allowing for a cross-country comparison of the growth pattern. A positive score signals a good growth pattern relative to the universe of countries
- BRIC economies (with the exception of Russia) stand out as the “best in class”

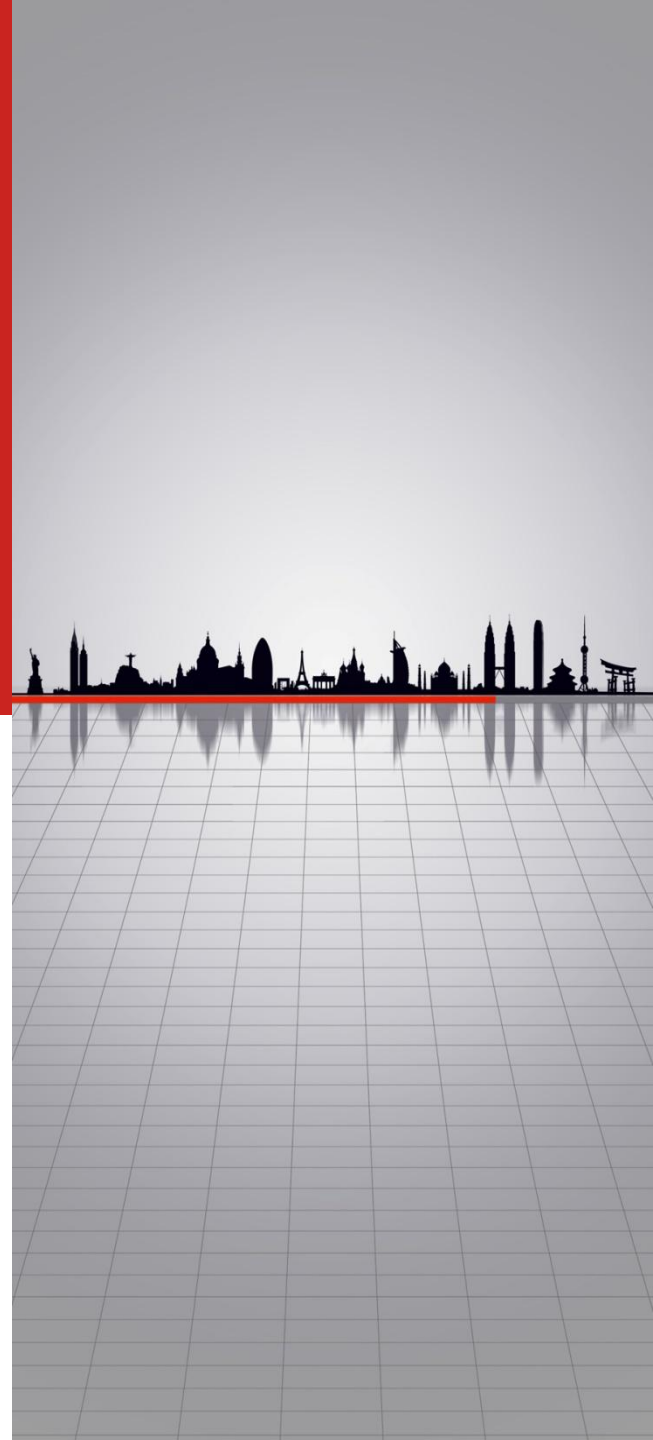
Growth score breakdown



Growth score breakdown per region



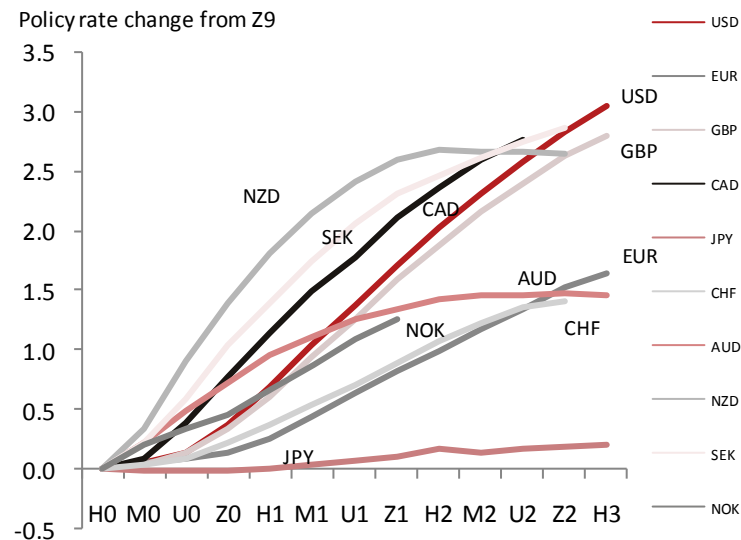
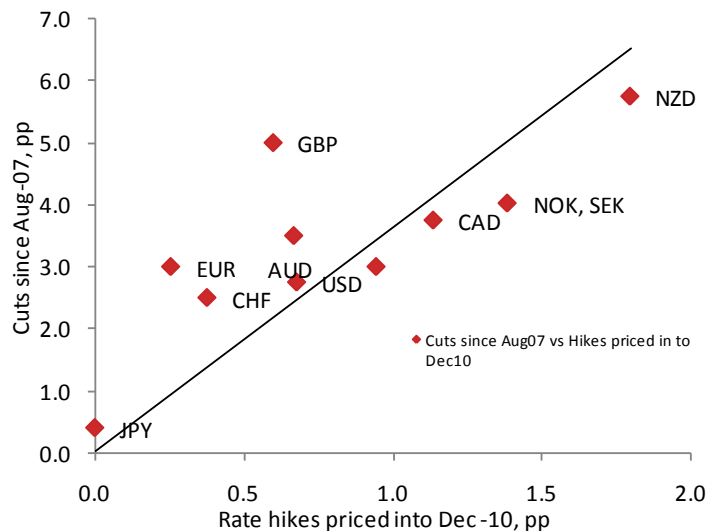
Exit strategies



Exit Strategies scorecard: tightening to be less synchronised than loosening?

Exit strategy is priced to be a direct unwind of policy easing¹

G10 policy rate expectations¹

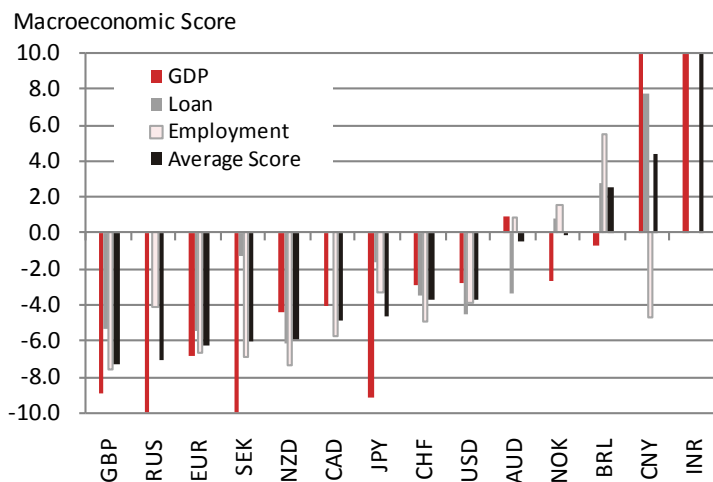


- We expect a divergence in monetary policy as exit strategies begin
- This presents opportunity as the market's price in a very correlated exit. The number of rate hikes priced into the next year is correlated with the size of the cutting cycle.
- We expect the timing and speed of exit strategies to be tied to fundamentals such as unemployment, lending and growth.

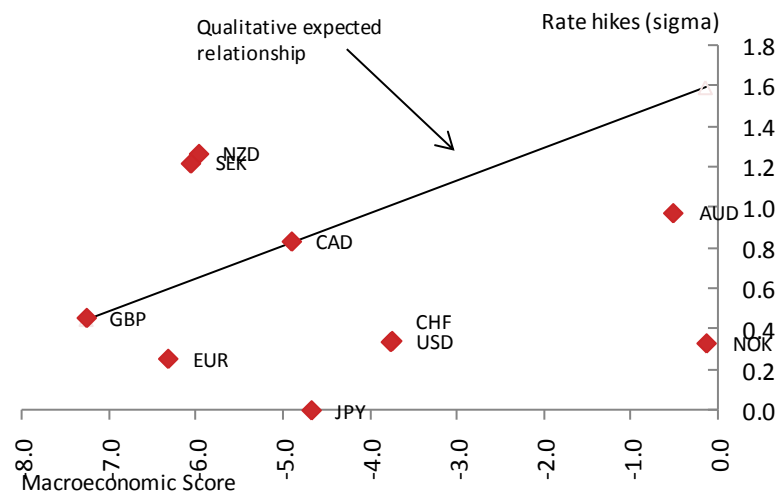
1. Source: Bloomberg; Nomura.

Macroeconomics vs market pricing

Macroeconomic scorecard¹



Market pricing has little correlation to the macroeconomics²



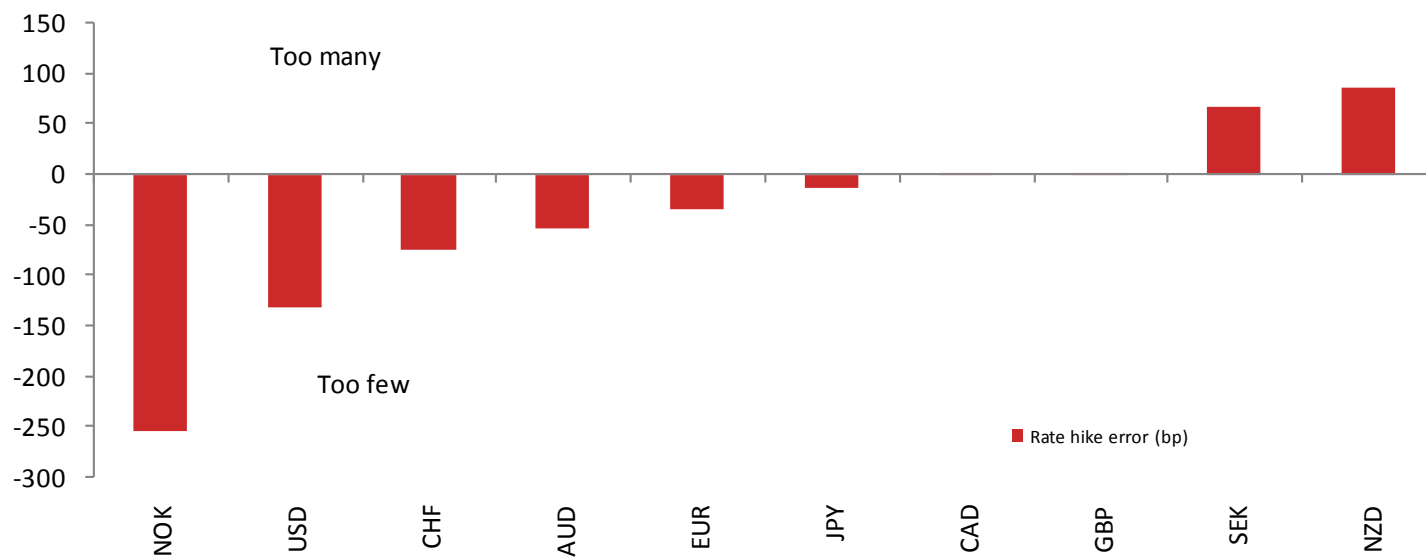
- G4 and SEK appear very weak
- EMG are in a much more optimistic position, although the GDP decline in Russia is dramatic
- Australia and Norway being the first to tighten policy is understandable
- Market pricing is not reflective of the macroeconomics. We expect a repricing to better reflect the local economics over 2010

1. Source: Nomura.

2. Note: "Rate hikes (sigma)" is the spread between the 1st–5th STIR contracts divided by the standard deviation in policy rates in the relevant country over the past 10 years.

Macroeconomics vs market pricing

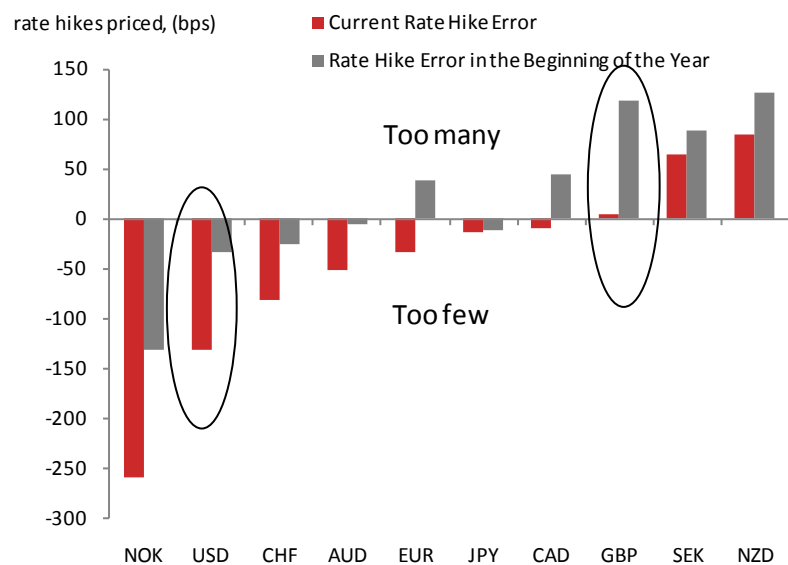
Policy pricing discrepancy to macroeconomic scorecard¹



1. Plotted is the difference between the policy tightening priced into the market and the policy tightening that should be expected if the market reflected the macroeconomic conditions of the country as assessed by our macroeconomic scorecard, ie if the country lay on the "qualitative expected relationship" line in previous slide.

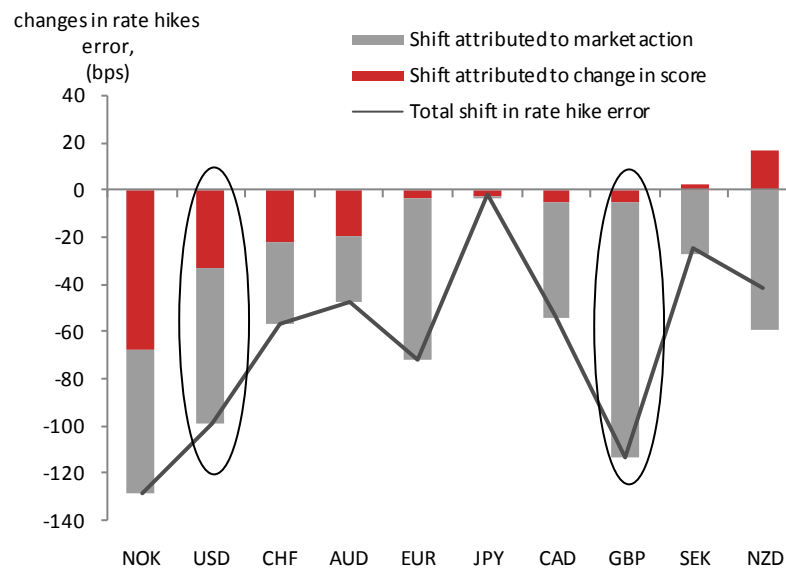
Macroeconomics vs. market pricing

Rate hikes priced vs. Exit Strategy Scorecard



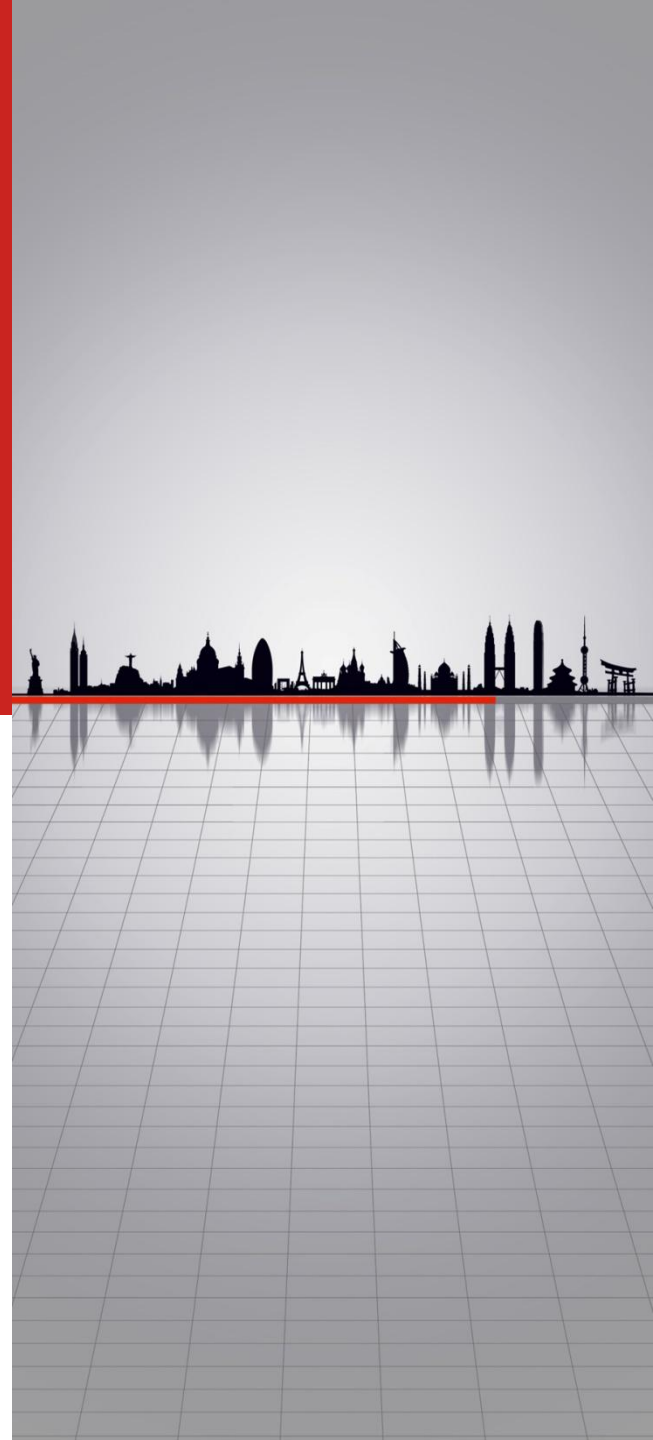
Plotted is the difference between the policy tightening priced into the market and the policy tightening that should be expected if the market reflected the macroeconomic conditions of the country as assessed by our Exit Strategy scorecard

Shifts in pricing error YTD



Each bar represents the change YTD in the rate hike error highlighted by our Exit Strategy scorecard and the breakdown of the movement between changes in market pricing and changes in economic conditions

Fiscal Sustainability



Fiscally sustainable or not?

- Japan, Greece and Spain – markets have been increasingly focused on the question of fiscal sustainability in the last couple of weeks
- This theme is likely to remain in 2010 as countries start facing the burden of a sharp increase in government debt
- To address the question, we build a fiscal sustainability scorecard across 30 countries based on 5 major factors:
 - Current fiscal position (debt/GDP levels)
 - Expected future trend (2011 forecast)
 - Vulnerability to a growth shock
 - Country's sensitivity to interest rate shock
 - FX exposure
- We compare our fiscal sustainability score to market pricing in CDS spreads

Fiscal sustainability model: components

■ Fiscal policy and future plan:

- Current fiscal position (debt-to-GDP levels) – 20%.
- Change in debt-to-GDP between current levels and 2011 forecast¹. – 20%.

■ Growth vulnerability:

- Expected change in debt-to-GDP (2011 forecast) when GDP denominator is shocked down by one sigma – 20%.

■ Rates vulnerability:

- The proportion of outstanding government debt that has less than two years to maturity multiplied by the historical volatility of the country's 5-yr government bond yields – 10%.
- The average expected government deficit over 2009-2011 multiplied by the historical volatility of the country's 5-yr government bond yields – 10%.

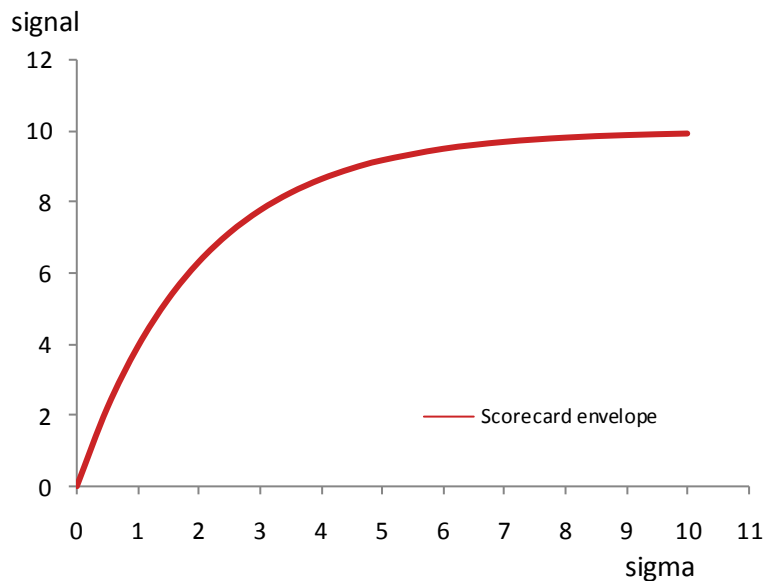
■ FX Exposure:

- The proportion of the outstanding government debt issued in foreign currency – 20%

¹Forecasts by the European commission, or the IMF and OECD (depending on the availability of data)

Scorecard structure and pricing to CDS

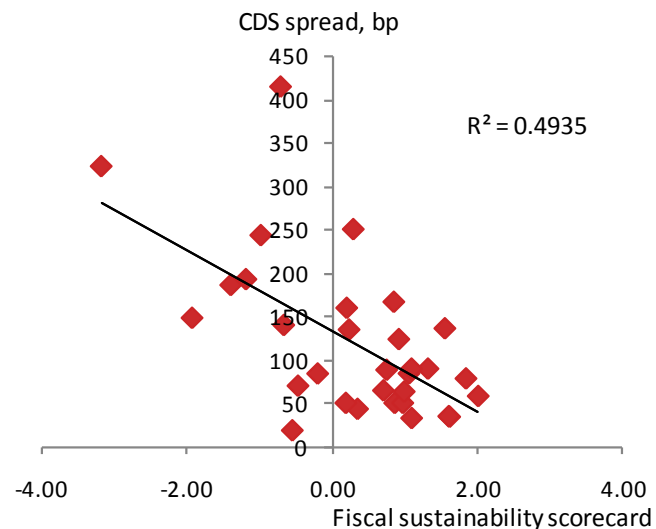
Building a score: the methodology



We calculate Z-scores for each score and country relative to the other countries in the sample. We then apply a signal envelope to limit extreme scores to -10 and 10.

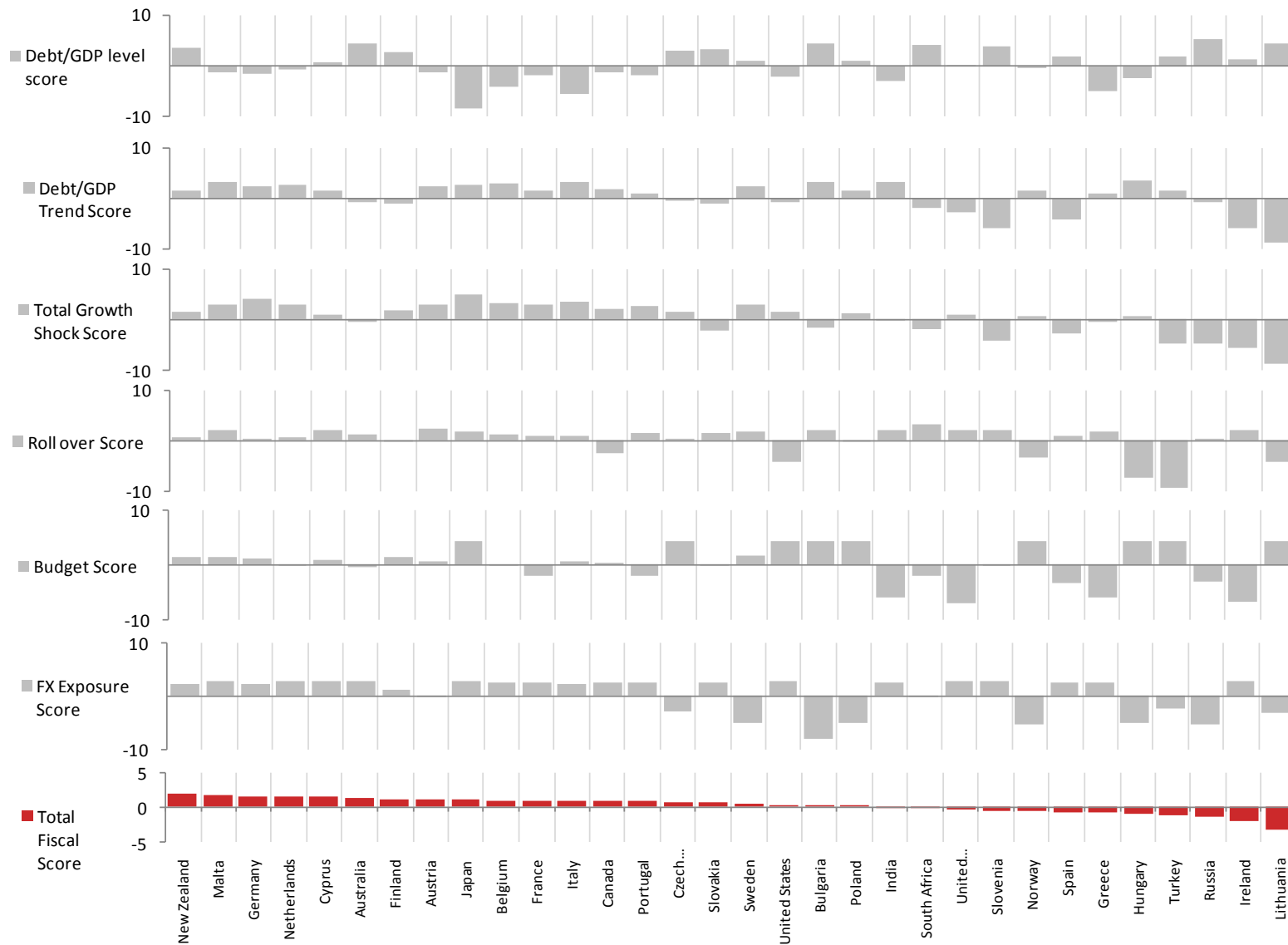
Score of 0 = average level of the sample countries

Fiscal Sustainability Score vs CDS spreads



Compared with the CDS spread market the score has an encouraging correlation

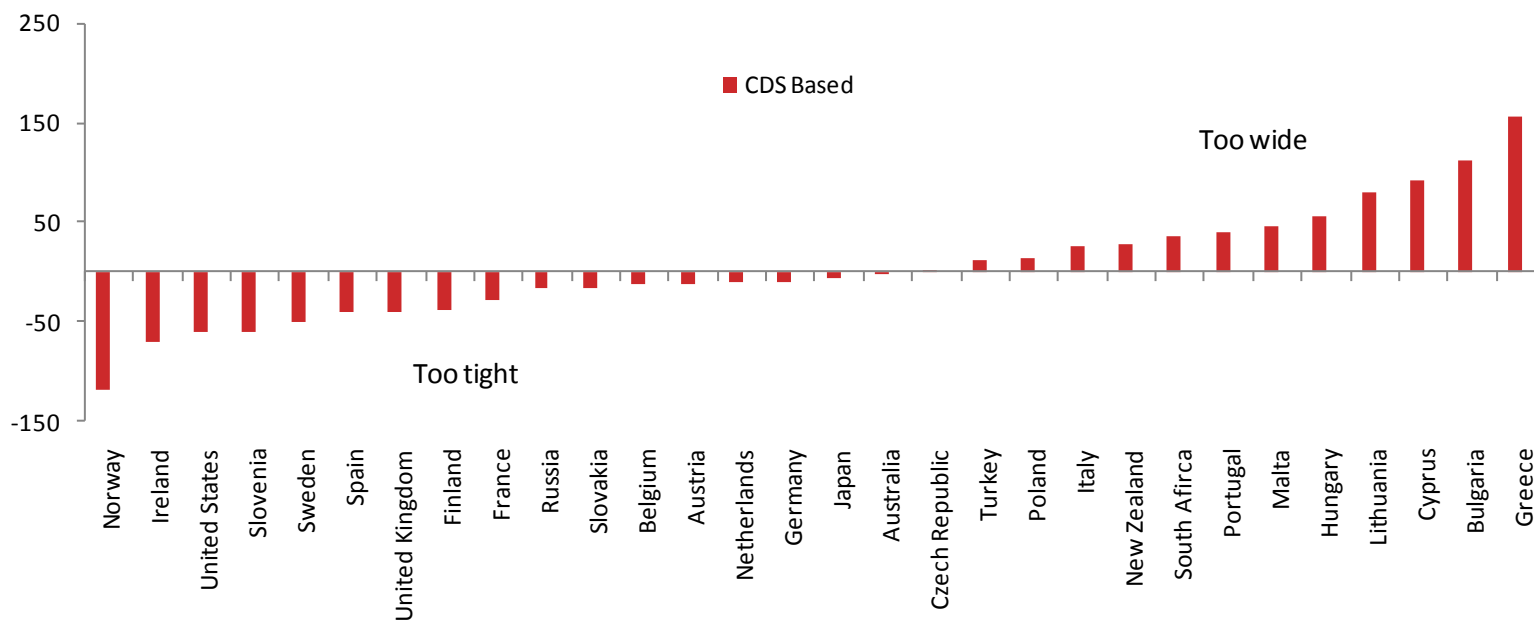
Fiscal Sustainability Score



Source: Nomura; European Commission; OECD; IMF

Fiscal sustainability vs. Sovereign CDS

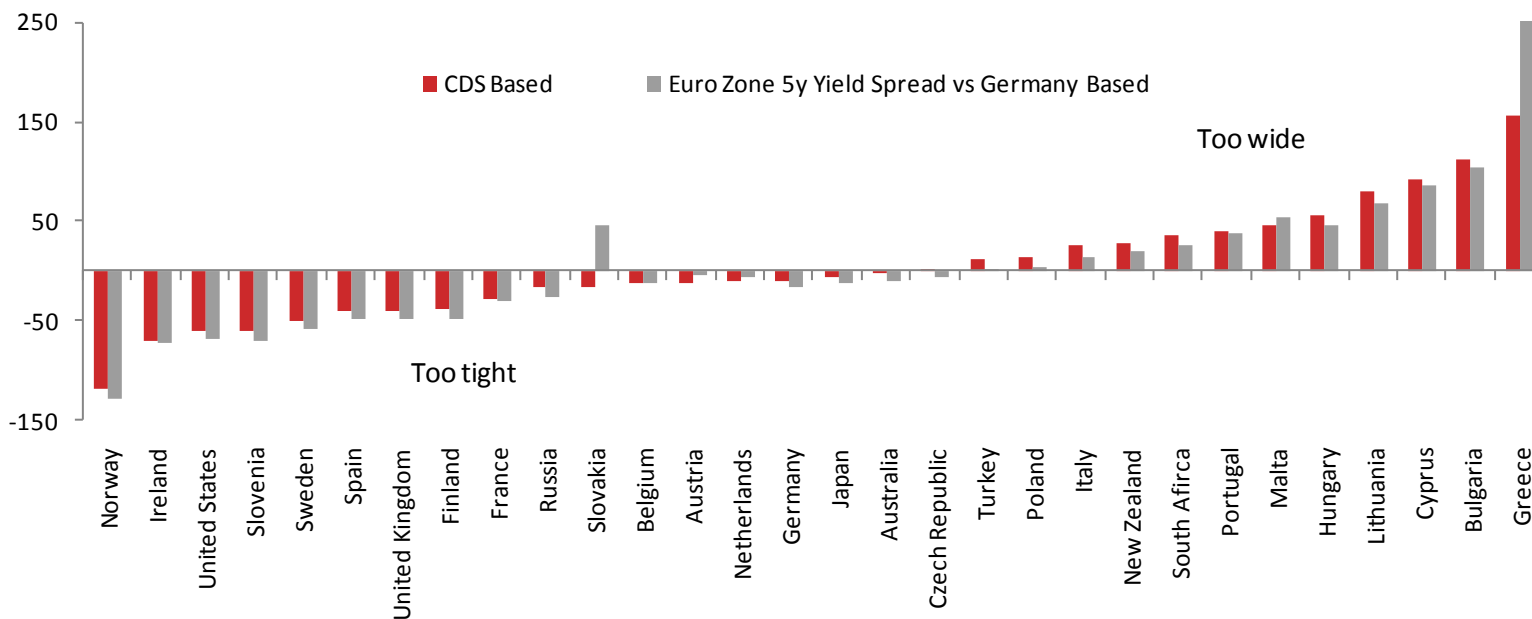
Fiscal sustainability: the fundamentals vs the market



- Fiscal risks in core countries are underpriced
- Finland's subpar fiscal and economic situation has been overlooked
- The US fiscal position is bad, but the dollar's status as a reserve currency status allows for this while it lasts

Fiscal sustainability vs. Sovereign CDS

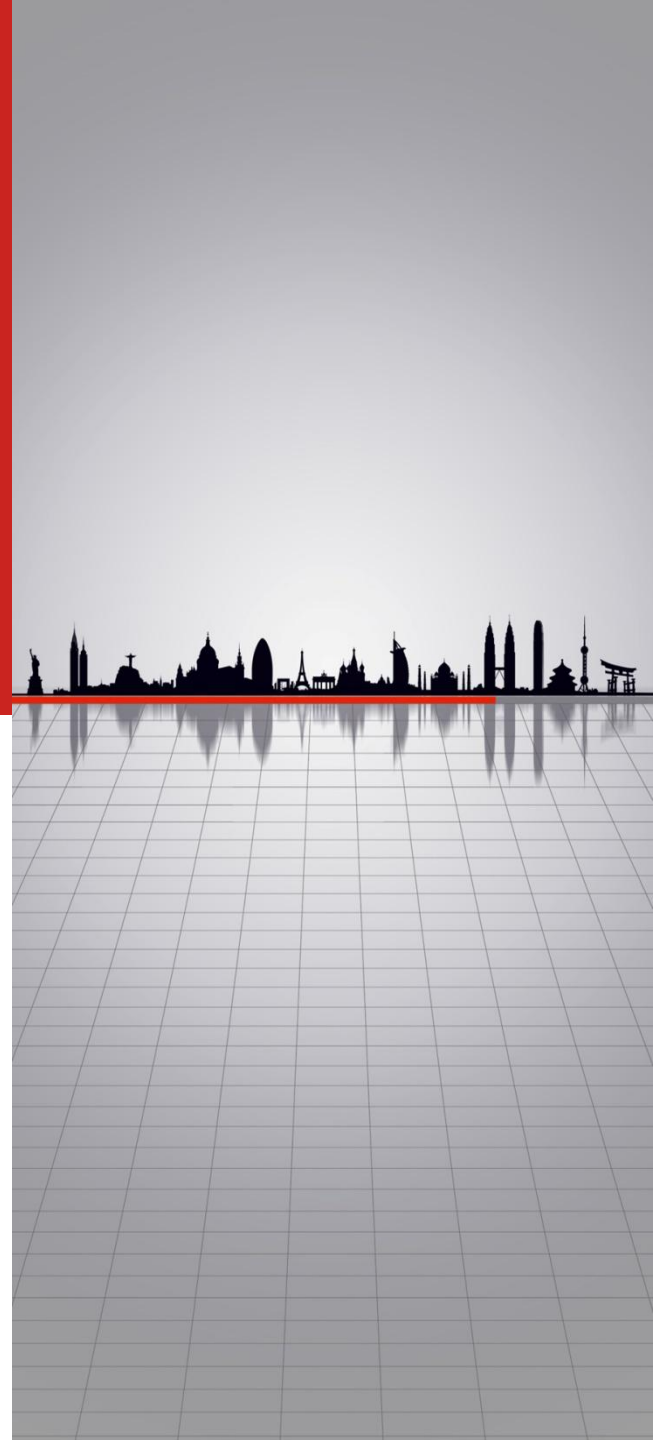
Fiscal sustainability: the fundamentals vs the market



- Peripheral woes are more broad based
- Fiscal risks in core countries are underpriced
- Finland's subpar fiscal and economic situation has been overlooked
- The US fiscal position is bad, but the dollar's status as a reserve currency status allows for this while it lasts

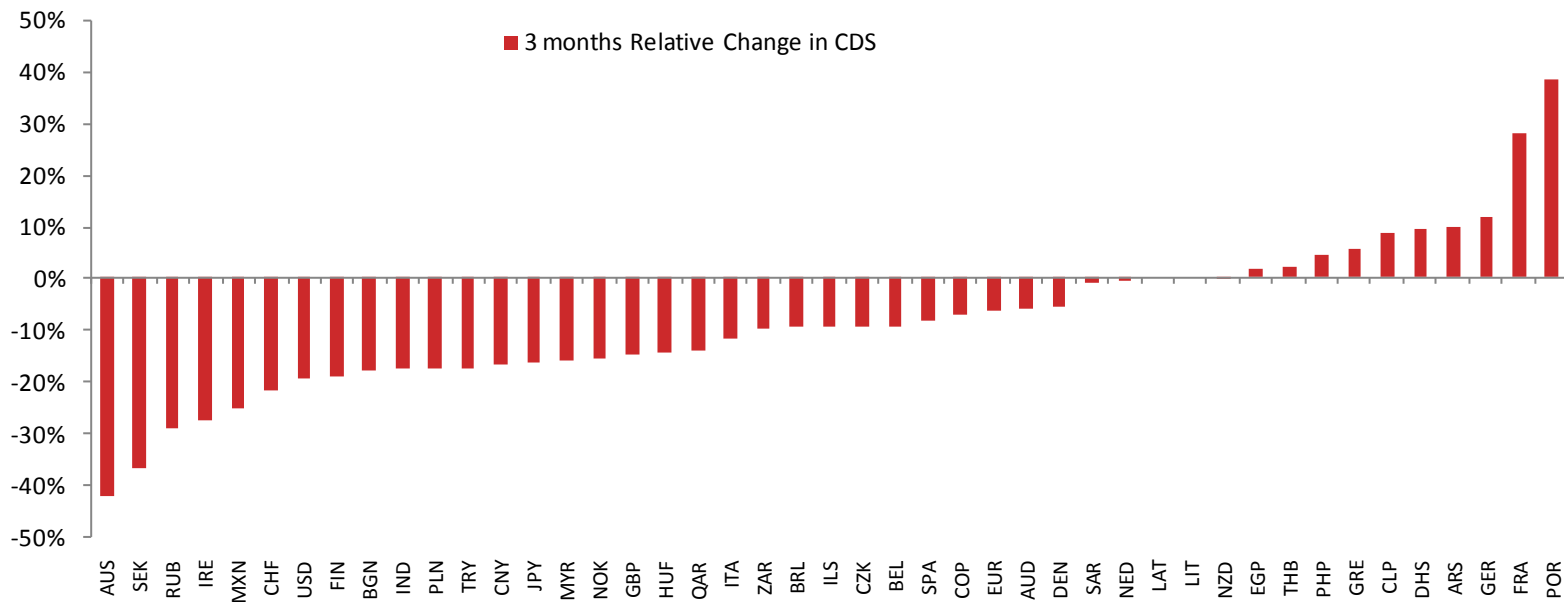
Source: Nomura; European Commission, IMF, Bloomberg

Sovereign CDS Monitor



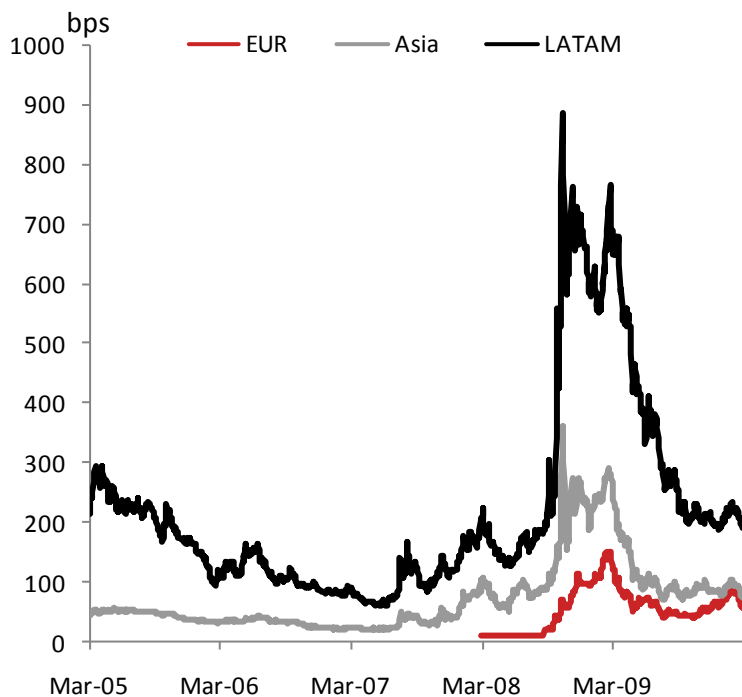
Sovereign CDS movers

3-month Relative Changes in CDS



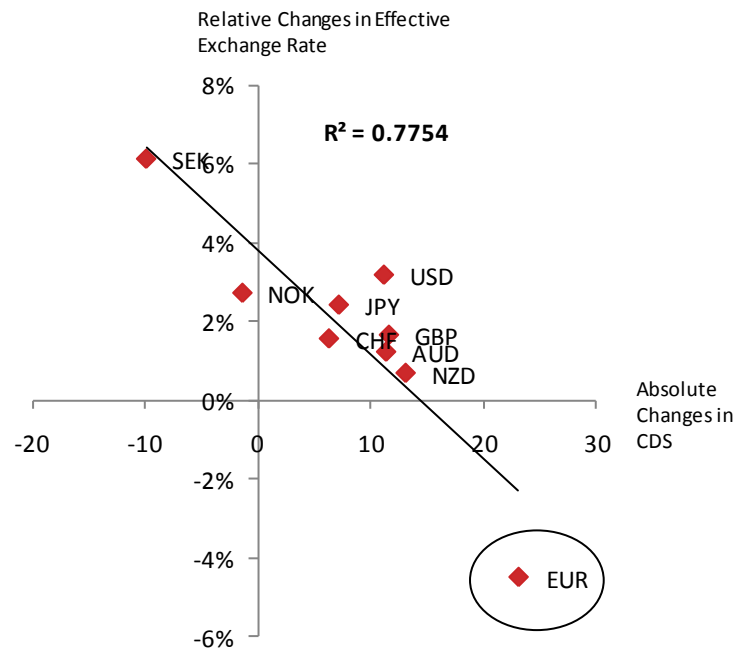
Sovereign has been a predominant theme

Aggregated CDS spreads



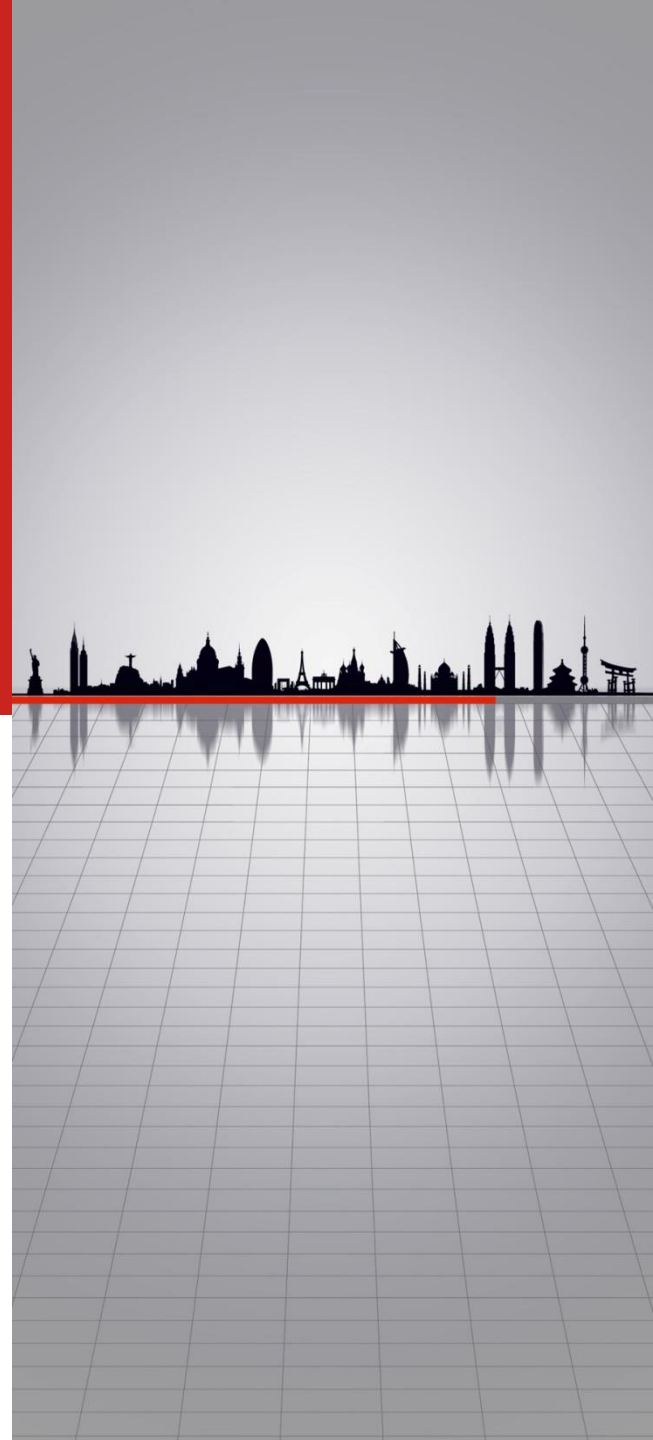
Note: The aggregated CDS spreads are a GDP-weighted average of the countries' CDS spreads within the respective region

CDS vs. FX



Note: 3-month relative changes in BoE Effective Exchange Rates vs. 3-month Absolute changes in CDS spreads

Financial Soundness



Financial soundness in brief

- To assess the stability of each country's financial system, we build a Financial Soundness Scorecard

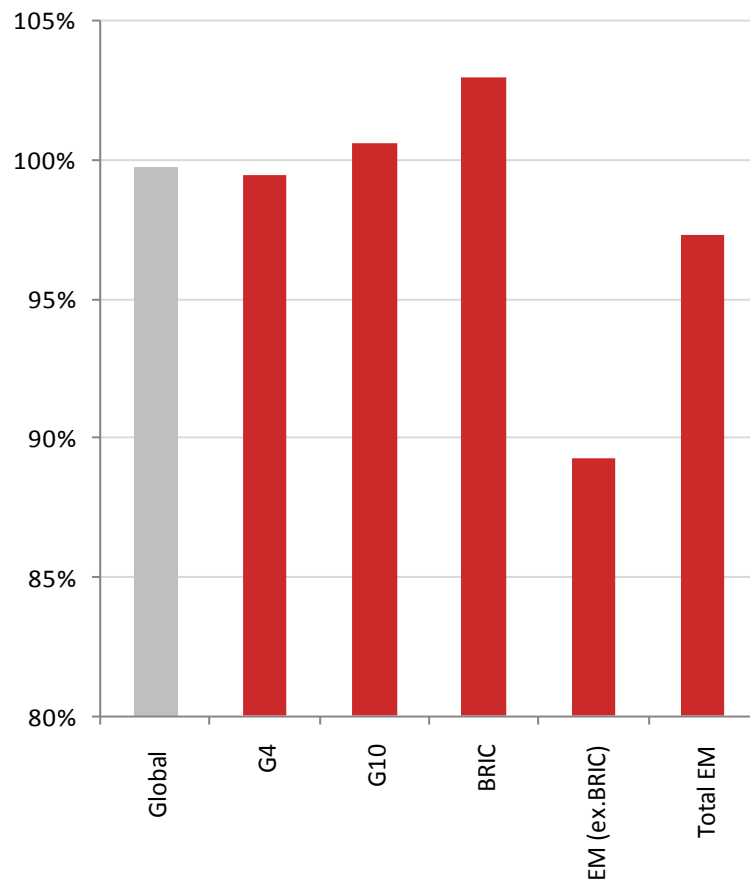
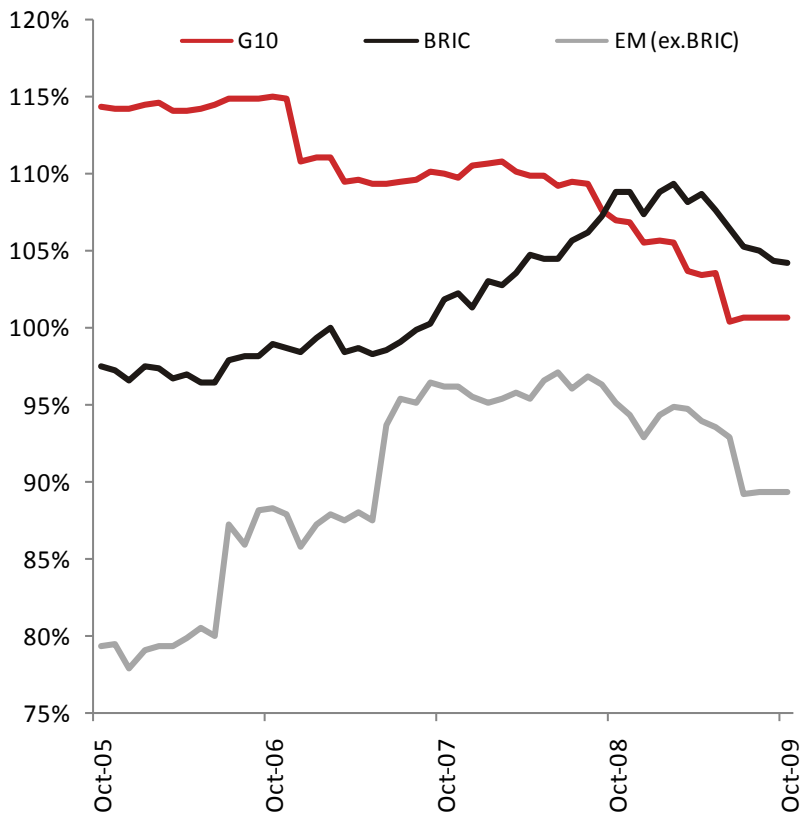
- How fragile is a banking system? We attempt to answer this question with two measures:
 - stock factors; capturing the current situation of the system relative to its recent past.
 - Loans/Deposit Ratio Score
 - Non- Performing Loans to Assets Score
 - Regulatory Capital to Assets Score

 - trend factors; composed of forward-looking measures.
 - Trend Score
 - Earnings Revisions Score
 - Bank Lending to Private Sector Score

Loans/Deposits

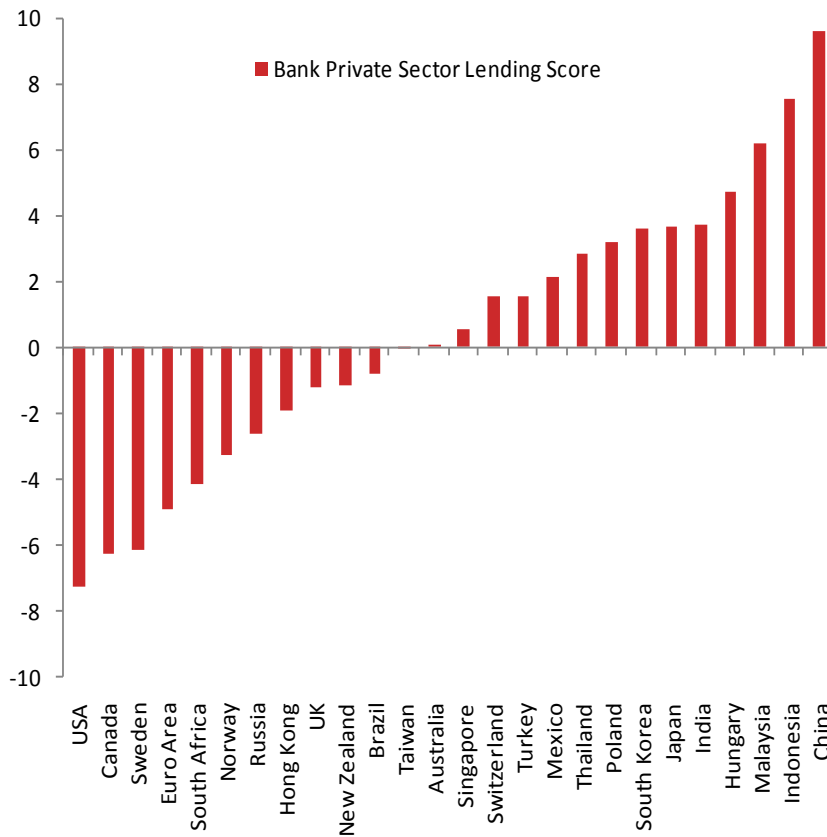
Global Loans/Deposits ratio is decreasing

Loans/Deposit GDP-weighted aggregates

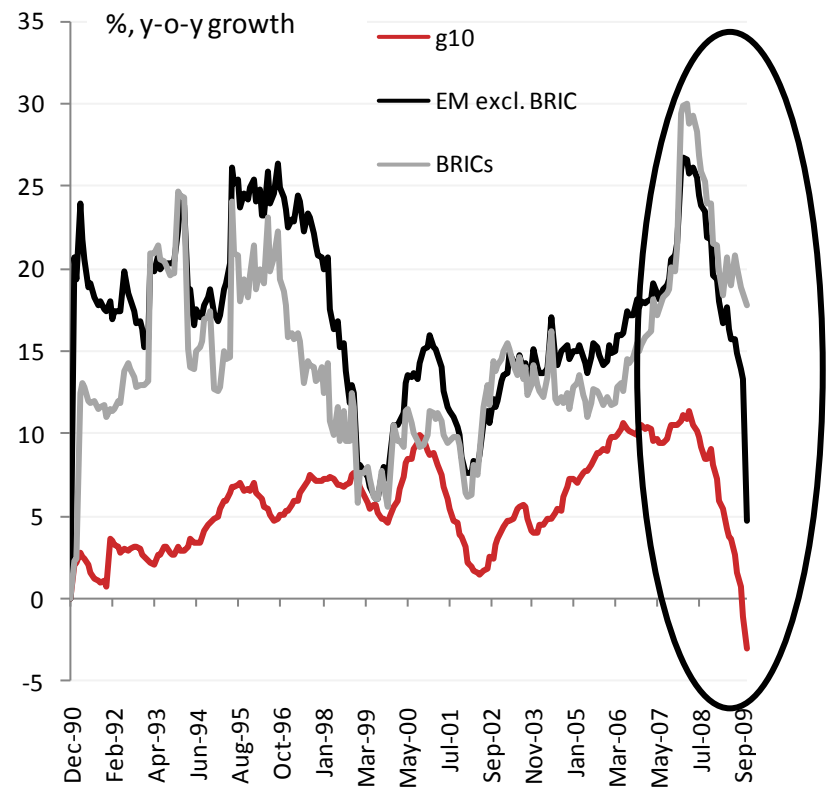


Bank lending to private Sector

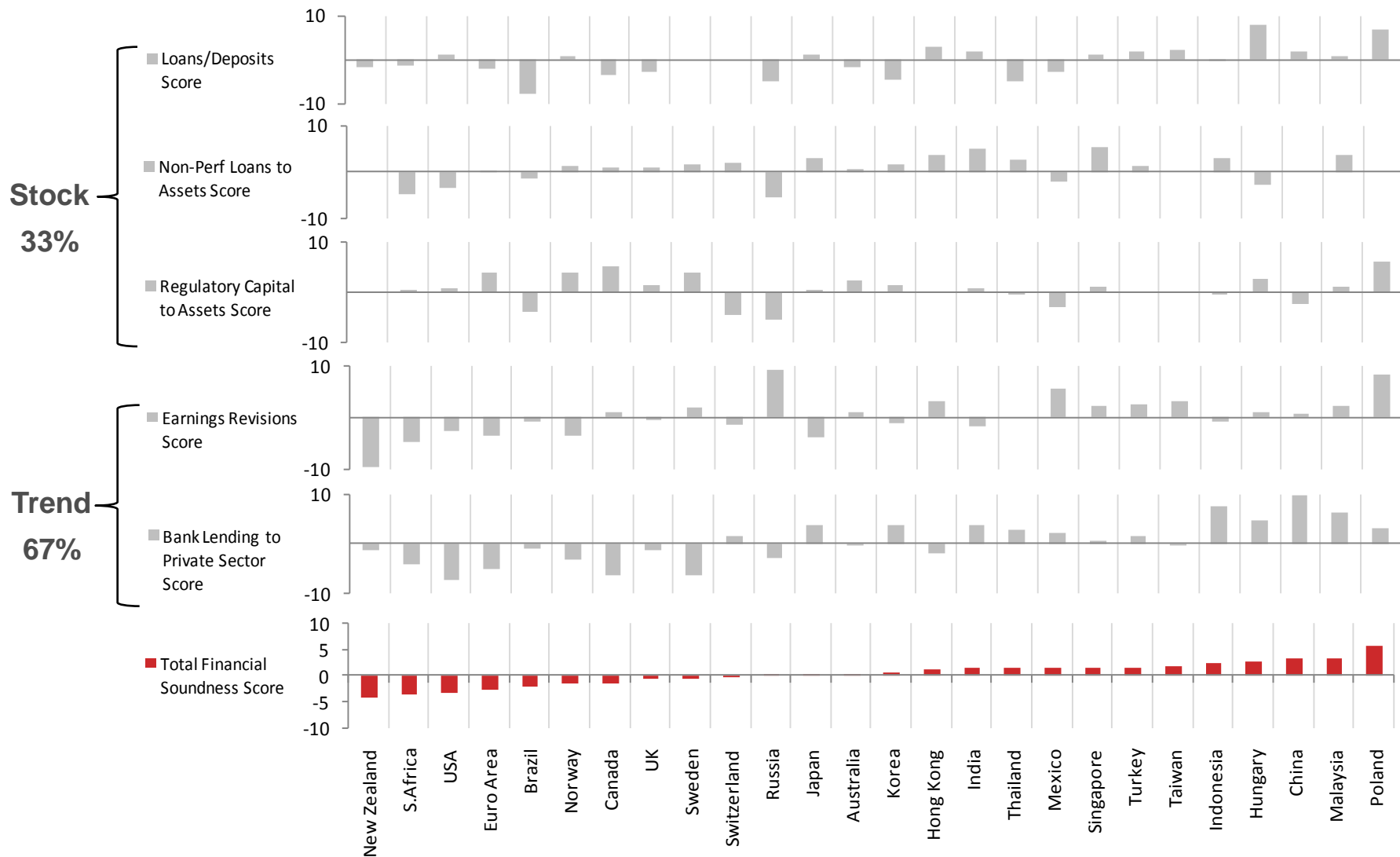
Private Sector Lending Scorecard



Private sector lending y-o-y growth



Financial Soundness – Breakdown



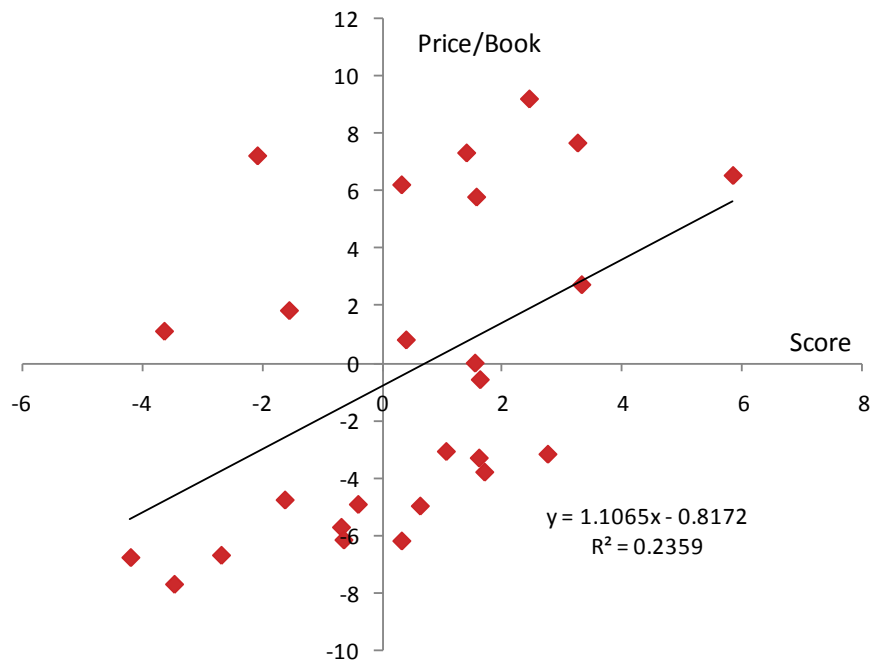
Note: A positive financial soundness score indicates a stable financial system relative to the universe of countries

Source: Nomura; Bloomberg, DataStream, IMF

Financial Soundness Score

Financial Soundness Score

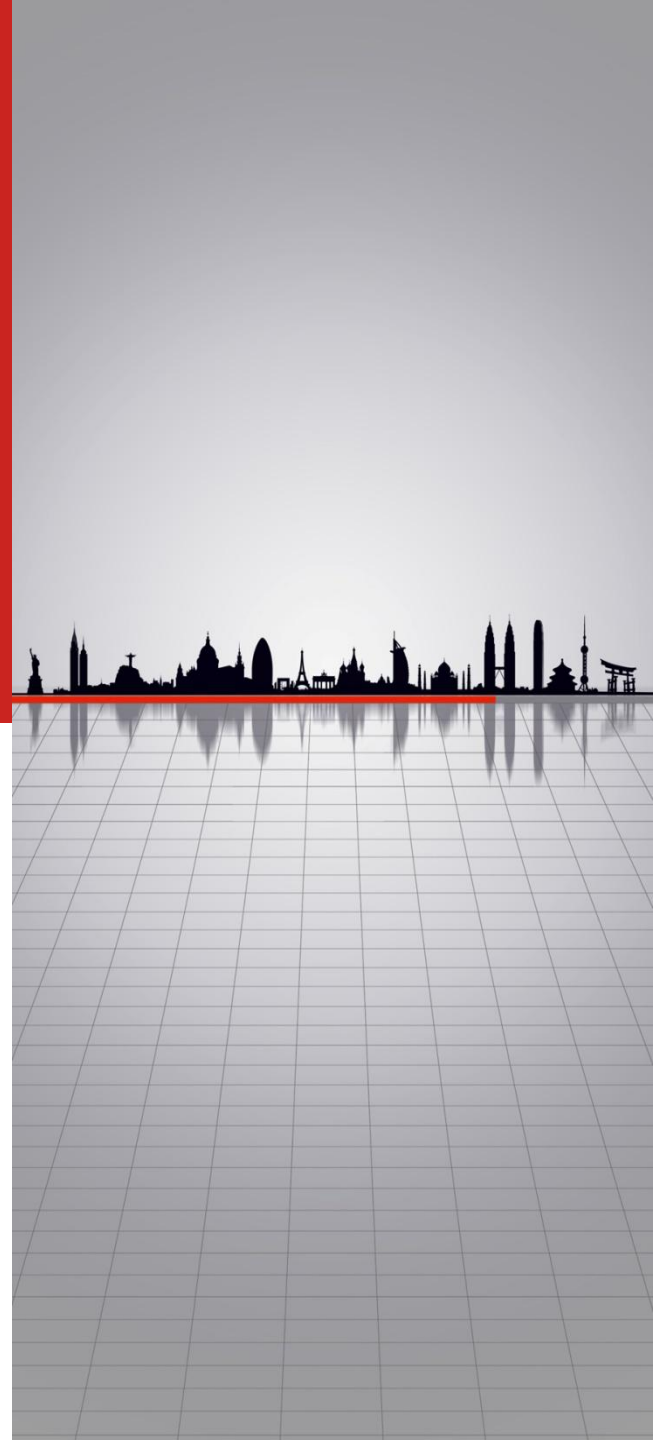
Score vs. market pricing



Note: A positive financial soundness score indicates a stable financial system relative to the universe of countries

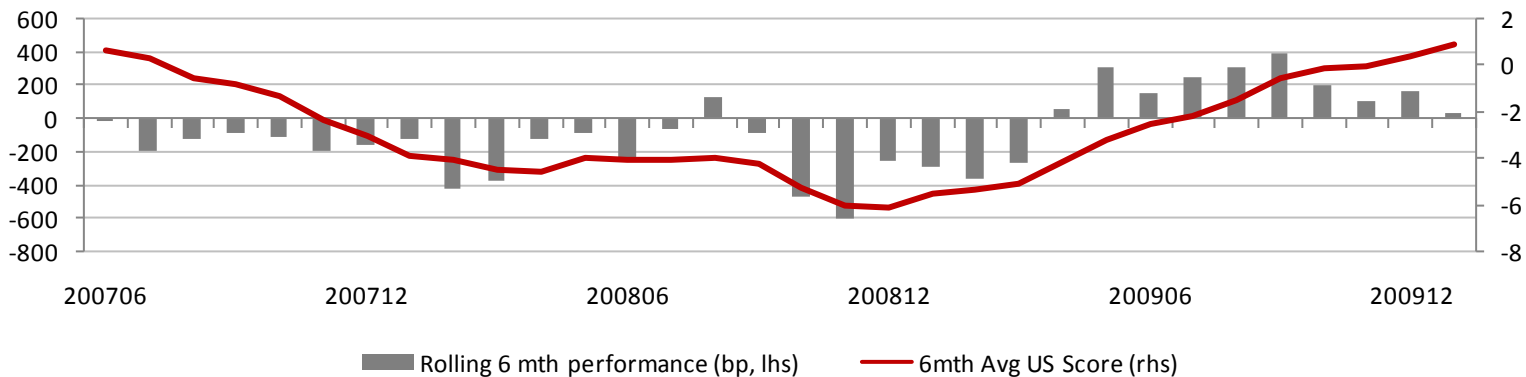
Source: Nomura, Bloomberg, DataStream, IMF

Credit Conditions

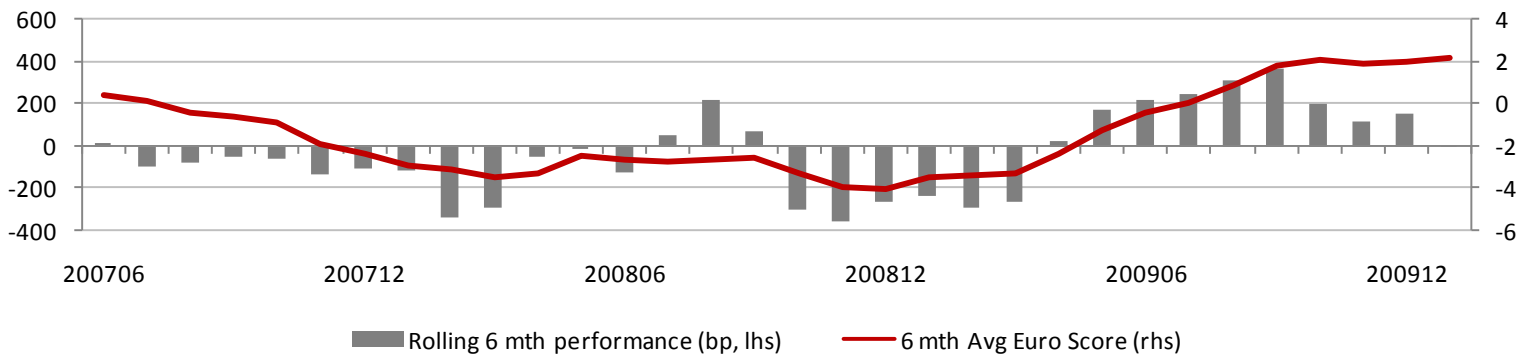


Investment grade credit: scorecard¹ still positive

US credit

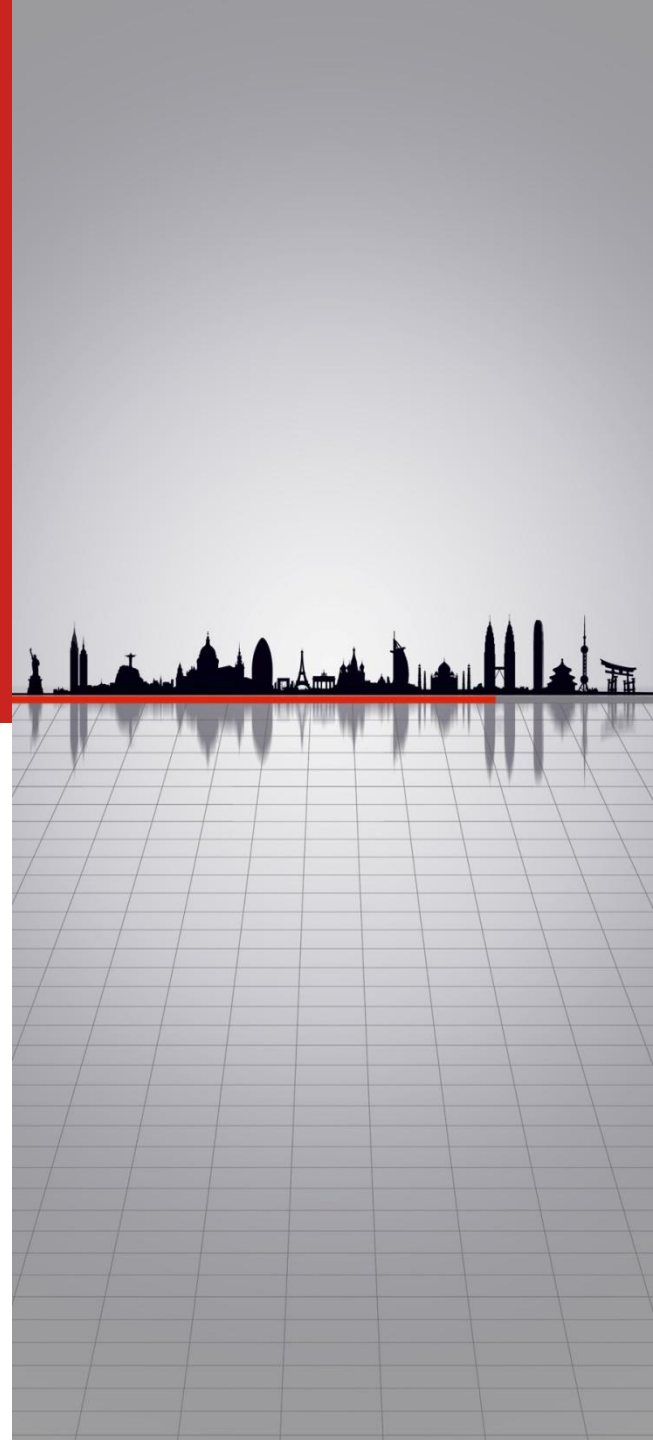


Euro zone credit



1. The *Nomura Quantitative Scorecard* is a systematic framework for directional timing in corporate credit markets. It uses information from fundamental and financial market indicators to arrive at a long / short macro view on the US and European investment grade credit markets.

Nomura Quantitative Scorecards



Quantitative Scorecards Outlook

Nomura Quantitative Duration Scorecard							Date: March 10,2010
	US	Euro-Area	Japan	UK	Canada	Australia	
Quantitative Duration Score	1.0	-0.4	-2.3	-2.2	-1.5	-1.4	
Change from a week ago	-1.8	-1.9	-2.0	-1.4	-1.8	-1.8	
Change from a month ago	-2.7	-0.6	-5.0	-1.9	-6.2	-6.1	
Contribution to duration view							
Real Growth Factors	1.2	0.0	0.2	-0.9	-0.2	-0.8	
Inflationary Pressures	-0.2	-1.1	-1.5	-2.0	-1.8	-1.2	
Yield Curve Factors	1.0	1.5	0.0	1.1	1.5	1.6	
Investor Risk Appetite	-1.0	-0.9	-1.0	-0.3	-1.0	-1.1	

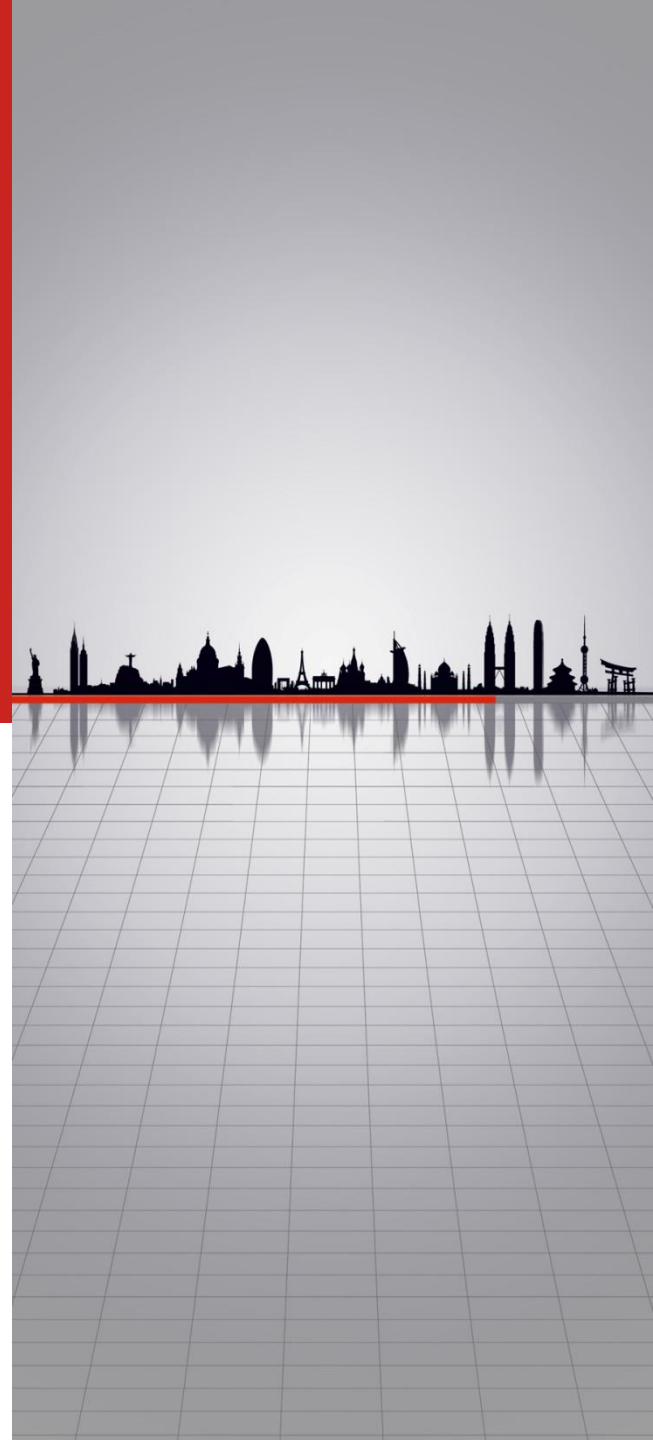
Nomura Quantitative Yield Spread Scorecard						Date: March 10,2010
	US-Euro Area	Euro Area - UK	US-Japan	US-Canada	US-Australia	
Quantitative Yield Spread Score	2.9	4.9	1.6	6.5	2.2	
Change from a week ago	0.0	-0.6	-1.5	-0.2	-0.8	
Change from a month ago	1.0	4.5	3.0	5.8	2.1	
Contribution to spread view						
Relative Real Growth Trends	2.2	2.2	-0.7	2.5	1.6	
Relative Inflationary Dynamics	1.5	2.5	2.0	2.0	0.0	
Relative Term Premia	1.3	-1.0	1.3	2.5	1.8	
Relative Wealth Effects	-2.1	1.2	-1.0	-0.4	-1.2	

Nomura Quantitative Credit Scorecard			Date: March 10,2010
	US	Euro-Area	
Quantitative Credit Score	4.7	2.8	
Change from a week ago	1.5	1.4	
Change from a month ago	6.1	4.1	
Contribution to credit view			
Macro Fundamentals	0.4	0.5	
Corporate Fundamentals	0.8	-0.2	
Credit Market Factors	1.5	0.7	
Investor Risk Appetite	2.0	1.8	

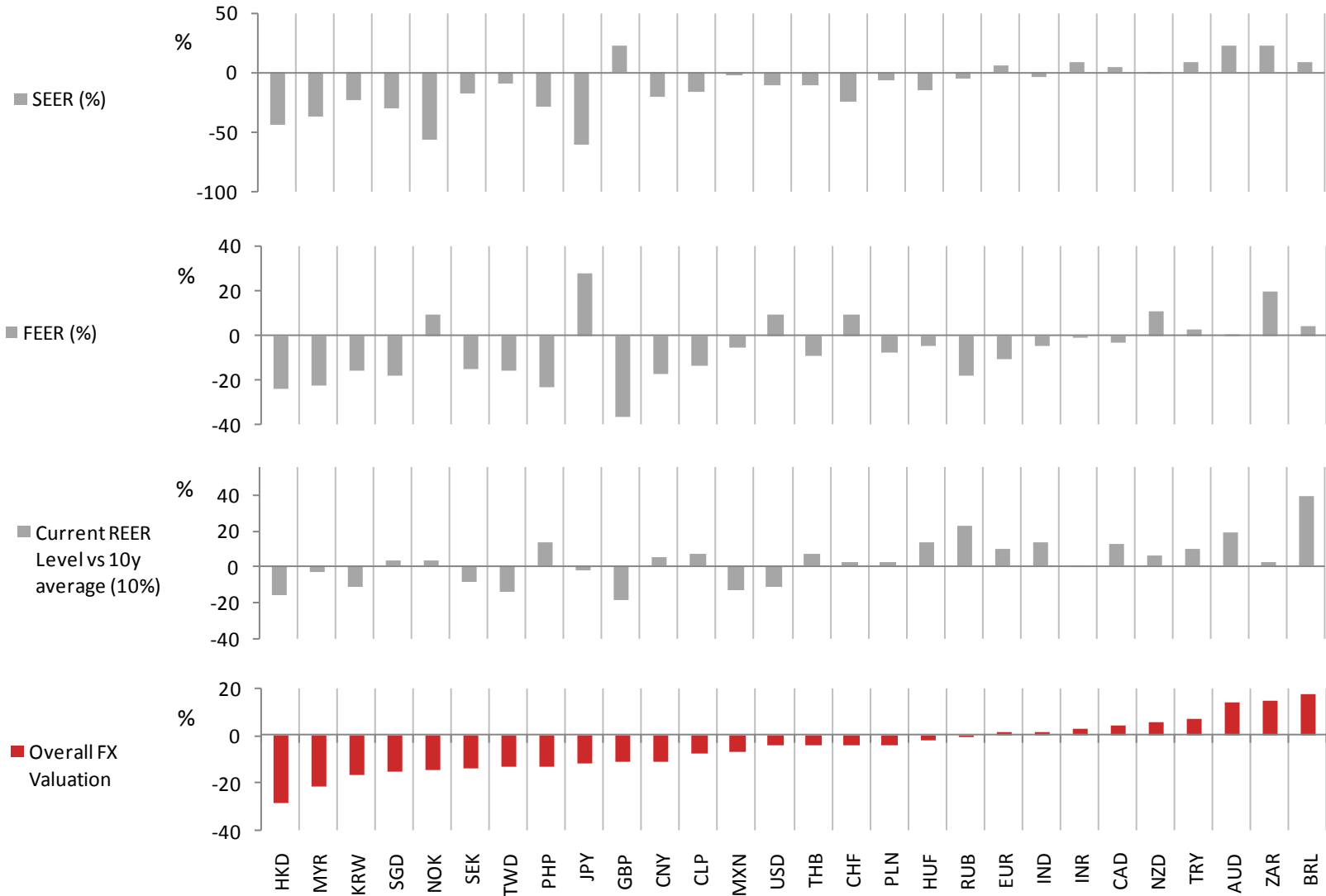
Note: A positive financial soundness score indicates a stable financial system relative to the universe of countries

Source: Nomura; Bloomberg, DataStream, IMF

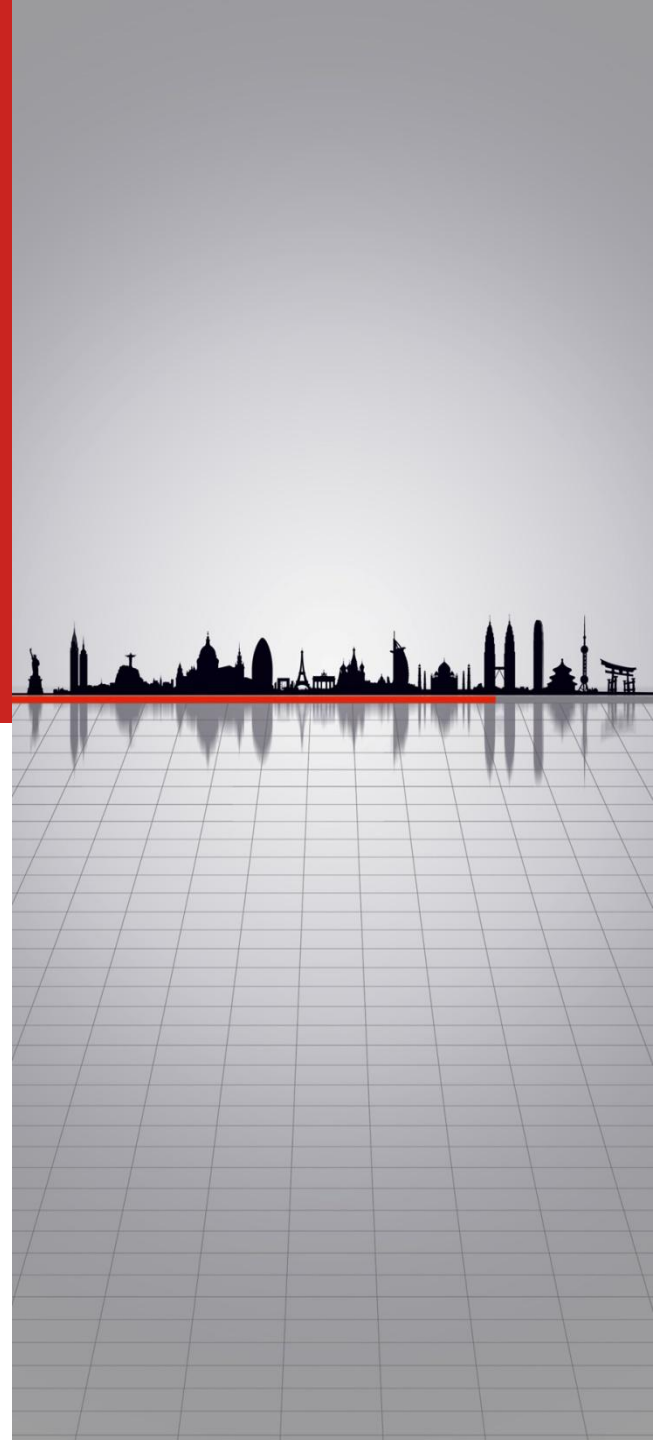
FX Outlook



FX Valuation

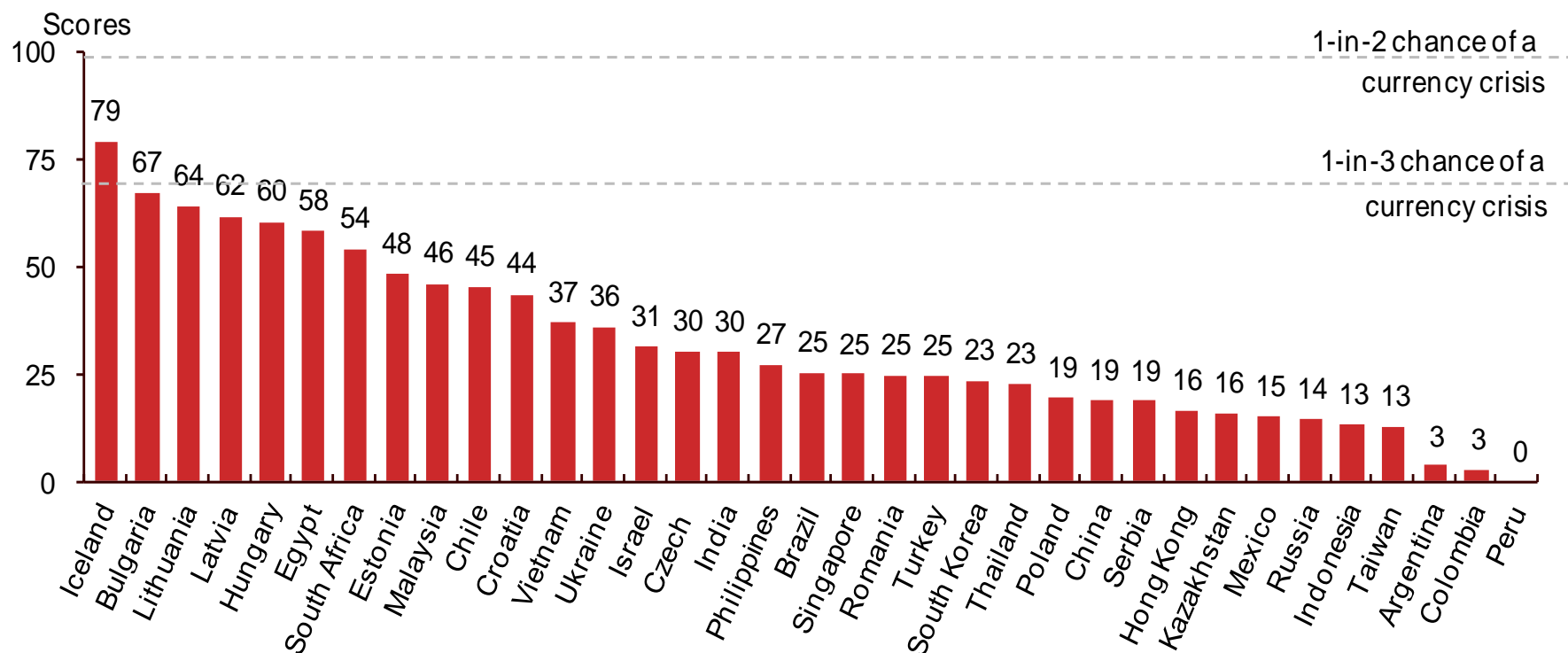


GEMaRI



GEMaRI: the model in brief

- Index for 35 Emerging Market countries, also aggregated into regional and global indices
- 16 financial and macro indicators
- Sample of 1996 to present
- Score as in Q3 2009:



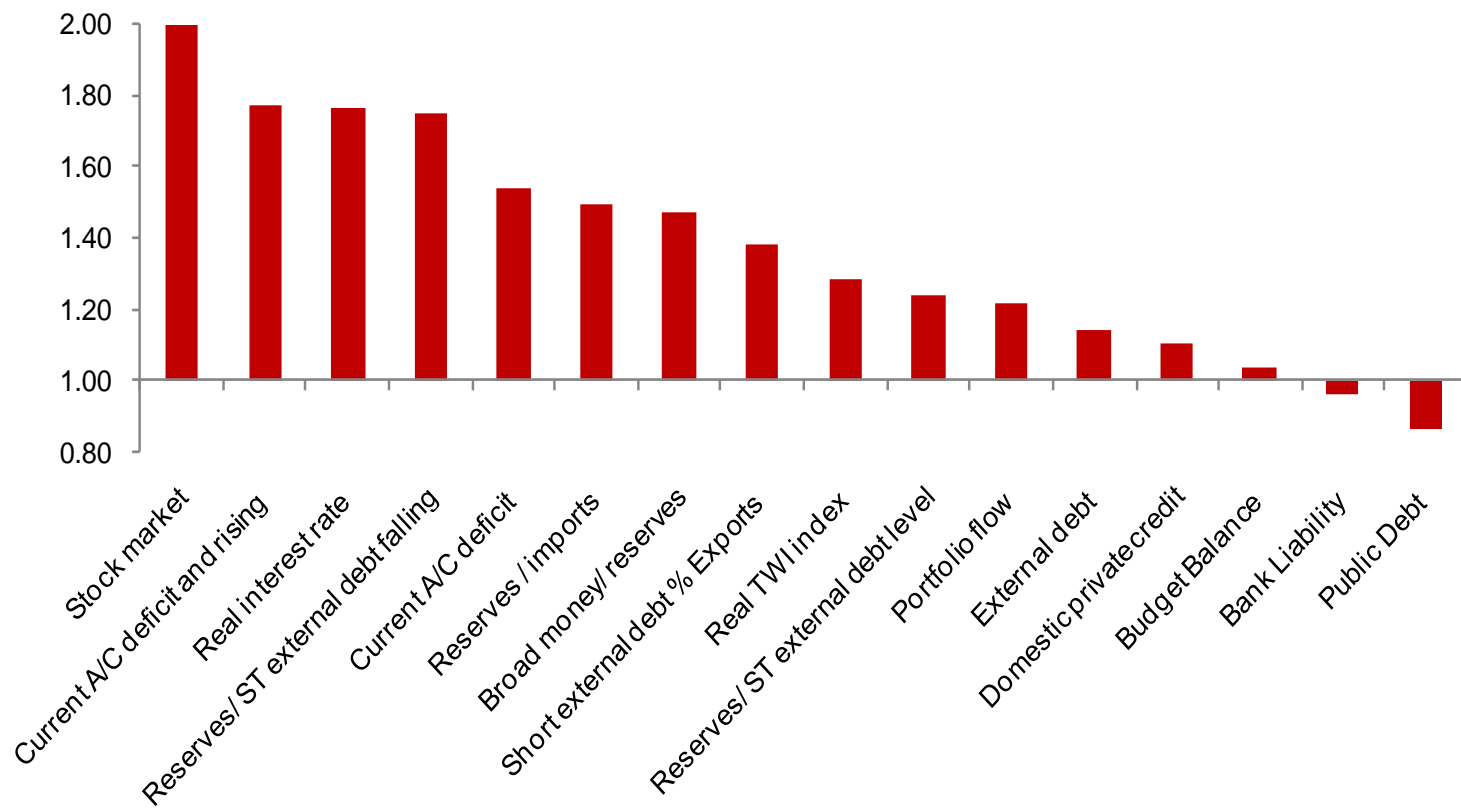
Source: Nomura.

Detailed guide to GEMaRI

- The GEMaRI Index looks at 16 indicators that are widely recognised as predictors of an external financial crisis.
- For data that are not updated for the latest month, we take the previous data value. And for data available only on a quarterly or annual basis, we interpolate the data to generate a monthly series.
- The quarterly scores presented at the front and referred to in the text comprise the average score of the three months in the relevant quarter.
- **Threshold values**
 - A threshold value is determined for each indicator by a process of optimisation of how each indicator predicts a crisis.
 - Looking at our noise-to-signal ratio a breach of this threshold is interpreted as a warning that a crisis could soon occur.
 - The threshold value is subjective and is calculated by establishing a balance between the risk of too many false signals and the risk of missing too many crises.
 - Each indicator is weighted by its relative performance as a predictor of a crisis during the sample period.
 - The individual indicator values are then aggregated to give a composite index.

Importance of each indicator

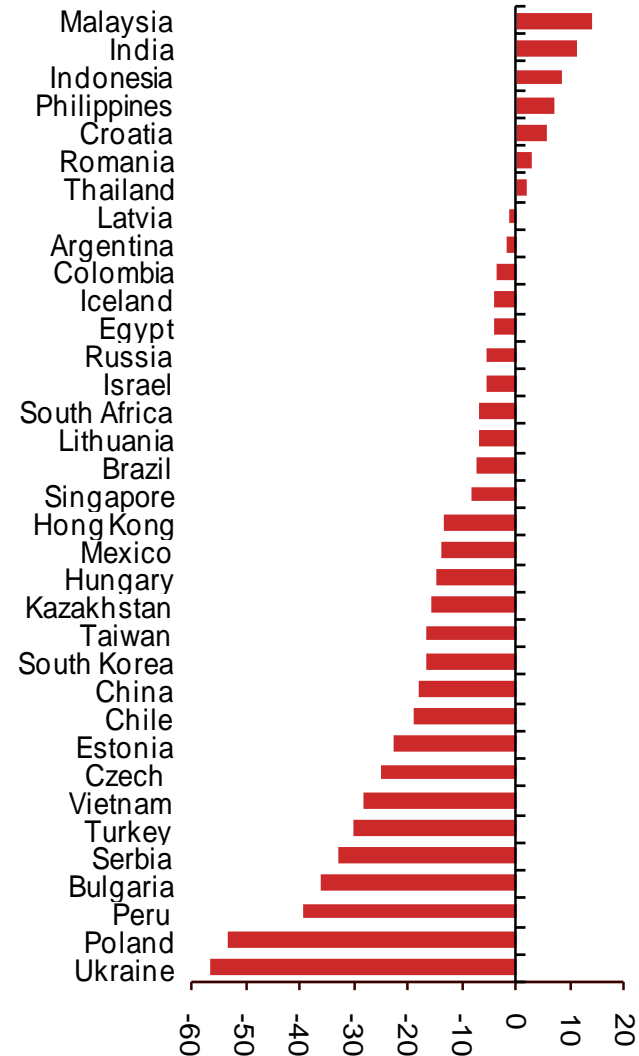
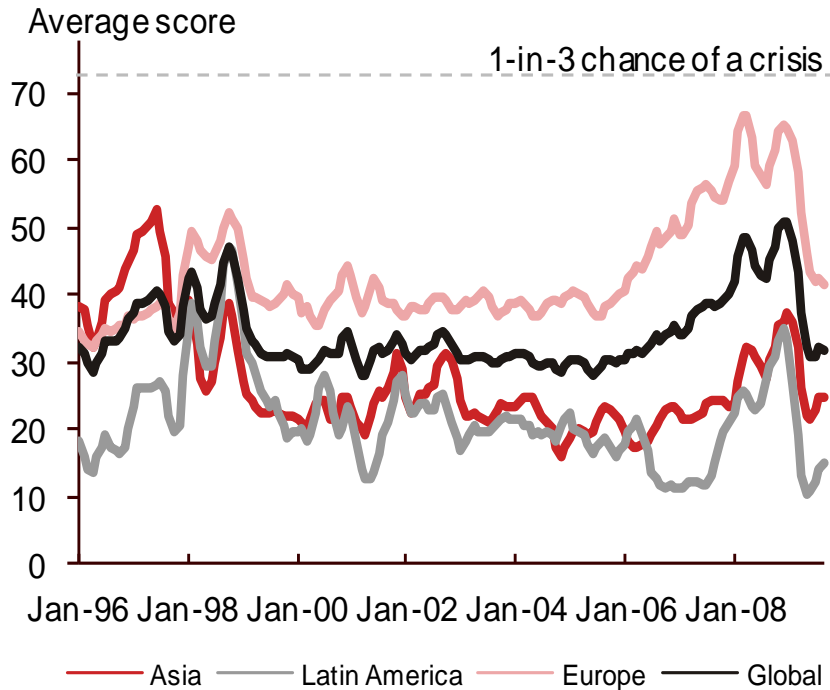
- Ranking by each indicators noise-to signal ratio.
- Our fundamental selection criteria for an indicator is to have a weight (ie reciprocal of NSI) above 1.
- However we include public debt, bank liabilities and budget balances as we believe these will be increasingly important indicators in the future, and were indeed important in this crisis.



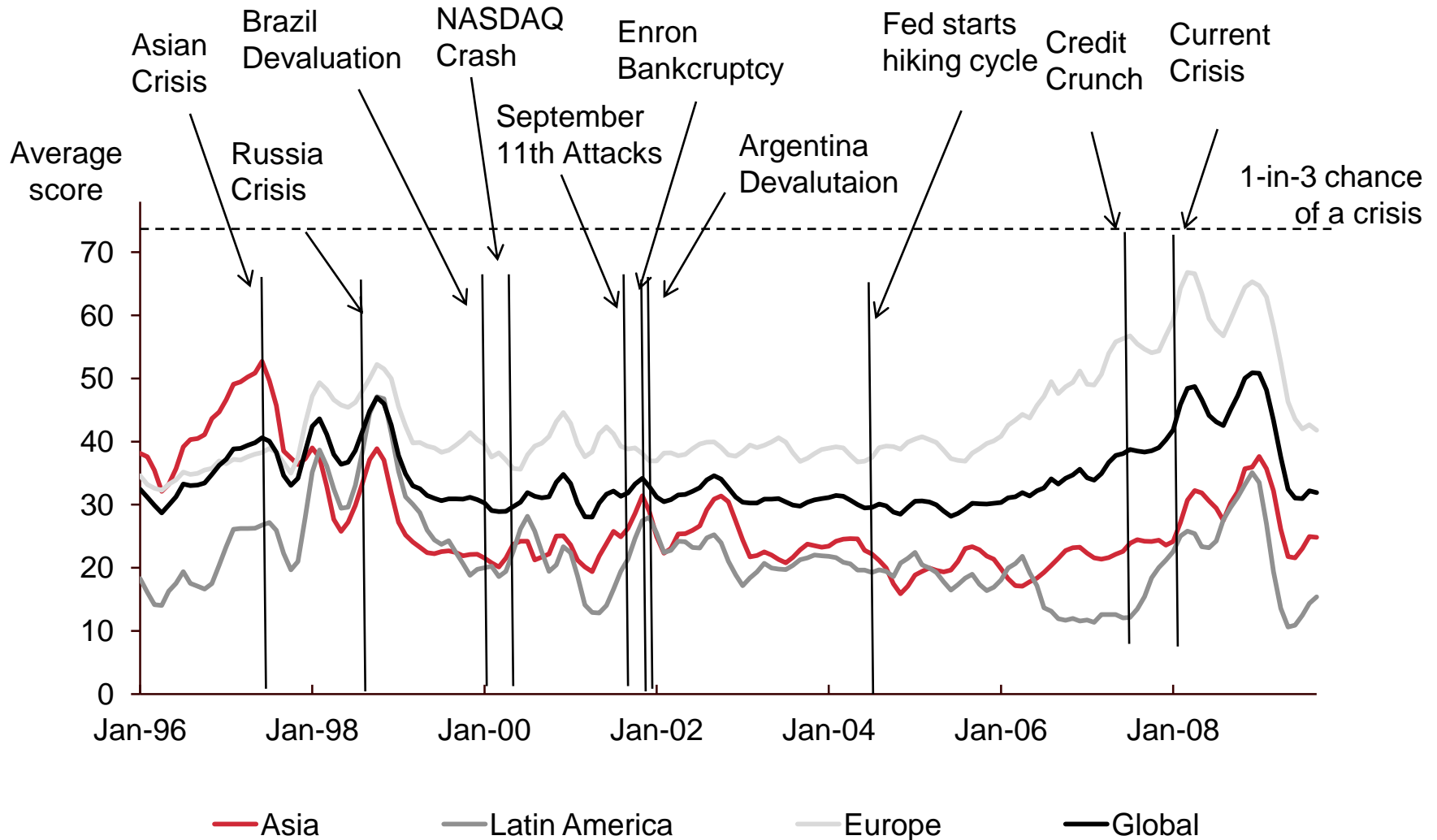
The Scores II

Change in the scores across this crisis Q3 2008-Q3 2009

Regional aggregates



Crises



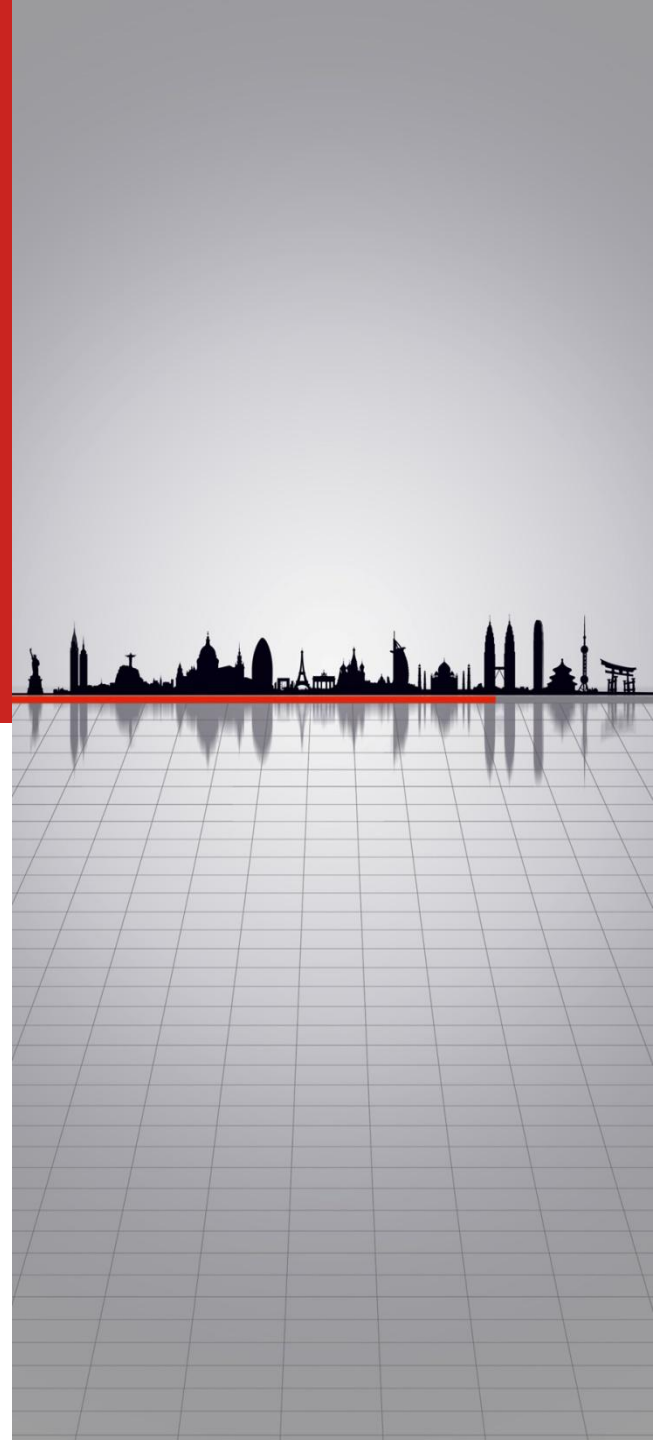
Into 2010

- Alpha and macro RV trades

- Watch the fiscal and public debt indicators
 - Countries that do not adjust fast enough on this front risk being left behind

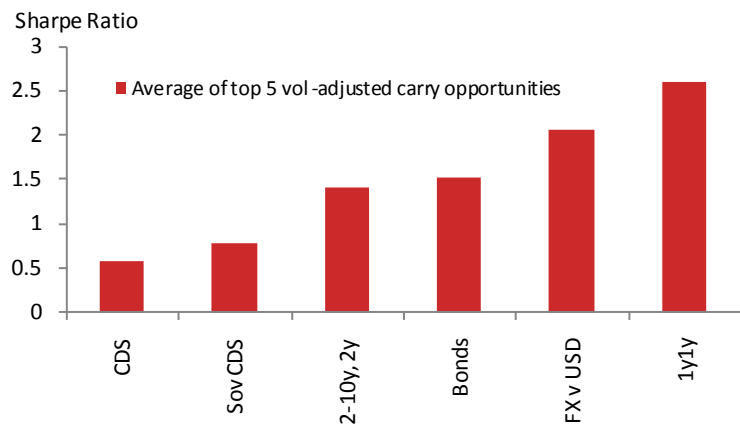
- GEMaRI developments to come:
 - Q1 publication of strategy document, using GEMaRI to trade FX, CDS and equity

Carry Monitor

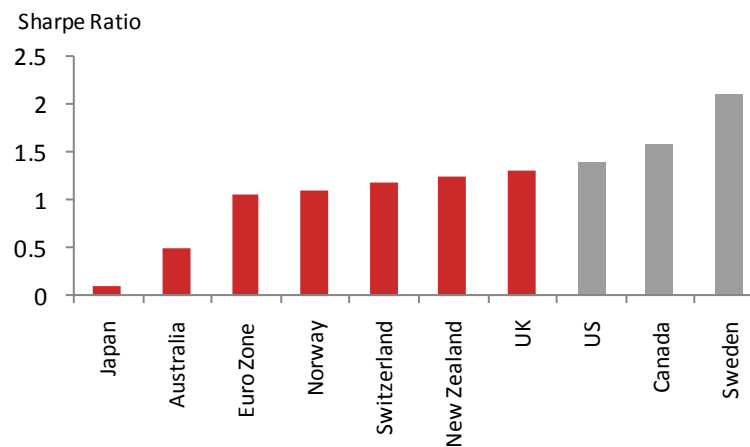


Carry Monitor

Cross Asset Breakdown



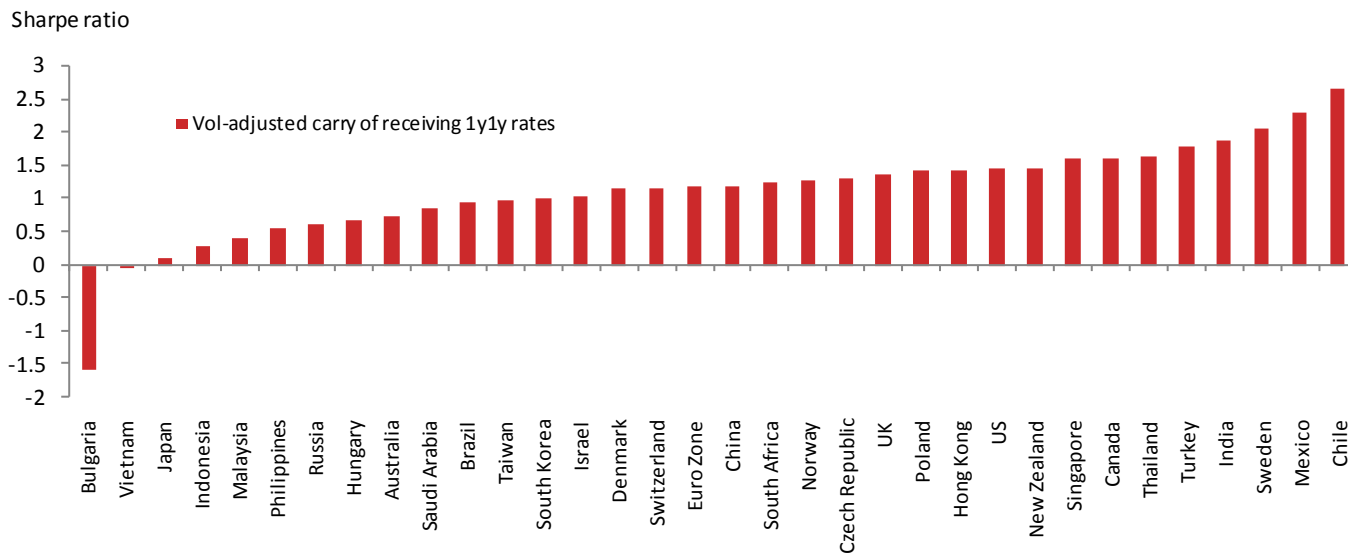
1y1y Forward – G10



- We rank different asset classes on the basis of their volatility-adjusted carry.
- Across all assets 1y1y forwards currently offer the highest volatility-adjusted carry.
- Currently the three best opportunities by this metric are US, Canada and Swedish 1y1y rates.

Carry Monitor Rates Subset

1y1y – Full Breakdown



- When EM countries are included in the sample Brazil, Chile, Mexico, Sweden and Singapore offer the highest volatility-adjusted carry of receiving 1y1y rates.

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Nomura International (London) Limited

Tel: +852 2536 1111

30/F Two International Finance Centre, 8 Finance Street, Central, London

Fax: +852 2536 1820

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