

FX Compass: Looking both ways

FX Strategy

Research Analysts

Anezka Christovova
+44 20 7888 6635
anezka.christovova@credit-suisse.com

Matthew Derr
+1 212 538 2163
matthew.derr@credit-suisse.com

Ray Farris
+65 6212 3412
ray.farris@credit-suisse.com

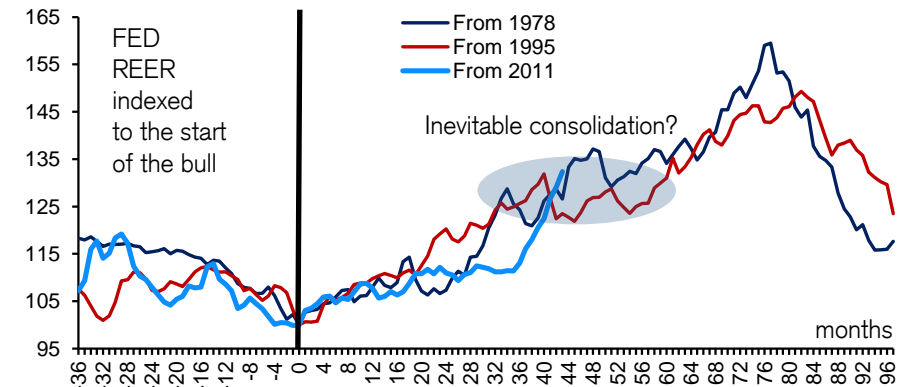
Shahab Jalinoos
+1 212 325 5412
shahab.jalinoos@credit-suisse.com

Trang Thuy Le
+65 6212 24260
trangthuy.le@credit-suisse.com

Alvise Marino
+1 212 325 5911
alvise.marino@credit-suisse.com

Bhaveer Shah
+44 20 7883 1449
bhaveer.shah@credit-suisse.com

Exhibit 1: A consolidation phase may not challenge the overall trend



Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

Despite the pullback seen after the 18 March FOMC, over the past week the greenback has been higher across the board. Our base case has been that, while the Fed's seemingly dovish tilt was perhaps a reason for a degree of consolidation or perhaps a slower pace of USD gains, it was in no way a game changer in terms of the underlying trends in FX markets.

In this *FX Compass* we assess whether USD valuation has become stretched. We conclude that while the USD is no longer cheap, it is far from prohibitively expensive levels seen in the past. In an environment where major US trading partners are running zero or negative rates, or are likely to ease policy further even as the Fed starts to tighten, presumably a move to extremely strong USD valuation cannot be ruled out.

From a tactical standpoint, this gives us an added degree of confidence in maintaining a broad long USD exposure in our portfolio into this week's US nonfarm payrolls release. With markets closing in Asia and Europe towards the end of the week for holidays, we think risks related to illiquidity might become a source of concern. As such, in this issue we look at the surge in FX volatility concerns and attempt to put recent price action into a longer-term context.

Finally, with crude prices failing to hold onto gains triggered by the Saudi intervention in Yemen, we see further potential for the terms of trade shock to shift policy expectations in a dovish direction for commodity exporter currencies such as CAD, BRL and MXN. We also include a preview of the upcoming Singapore central bank meeting and view a band widening as the base case.

DISCLOSURE APPENDIX AT THE BACK OF THIS REPORT CONTAINS IMPORTANT DISCLOSURES AND ANALYST CERTIFICATIONS.

CREDIT SUISSE SECURITIES RESEARCH & ANALYTICS

BEYOND INFORMATION®
Client-Driven Solutions, Insights, and Access

Table of Contents

Macro Overview: Looking both ways	3
USD: Too far, too fast?	6
USD valuation – richer but not rich	6
USD NIIP – no alarm yet	8
USD value is in line with the monetary policy divergence	9
New flow forces to consider	11
Putting recent FX volatility into context	12
SGD: Band widening likely in April	15
We see the MAS widening the policy bands in April	16
MAS scenarios and FX reaction	18
Americas FX Update: Stick to the Plan	20
CAD: Not “atrocious”, but still not good	20
BRL: No safety net	22
MXN: Testing Banxico’s resolve	23
Technical Analysis	25
Oil stays bearish and we expect further weakness in CAD, NOK and COP	25
Vanilla Portfolio Update	26
Exotic Portfolio Update	28
FX Forecast Summary	29

Macro Overview: Looking both ways

Shahab Jalinoos
+1 212 325 5412
shahab.jalinoos@credit-suisse.com

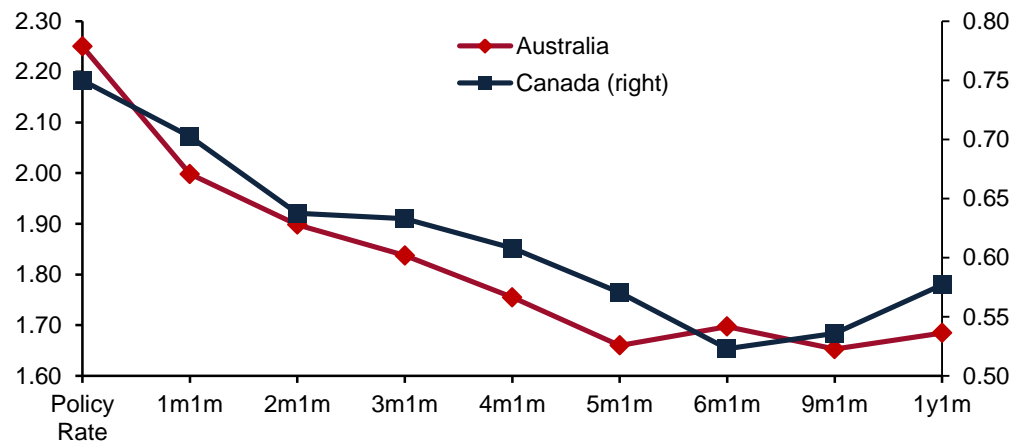
Matthew Derr
+1 212 538 2163
matthew.derr@credit-suisse.com

Despite the pullback seen after the 18 March FOMC, over the past week the greenback has been higher across the board. Our base case has been that, while the Fed's seemingly dovish tilt was perhaps a reason for a degree of consolidation or perhaps a slower pace of USD gains, it was in no way a game changer in terms of the underlying trends in FX markets.

For that to change, what is needed is a shift in central bank behavior outside of the US that provides a base for a more durable recovery. After all, the main reason for USD outperformance in recent months has not really been what the US is or isn't doing – it has been the tremendous range and depth of monetary easing seen in the rest of the world. The marginal mover has not been the Fed but rather other central banks, with the ECB most notable in view of the dramatic shift to sovereign QE. As such, we have felt that market participants should be more focused on what is happening on the other non-USD side of the coin than on the US and Fed policy (Exhibit 2).

Exhibit 2: Forward OIS curves in Australia and Canada point to further rate cuts

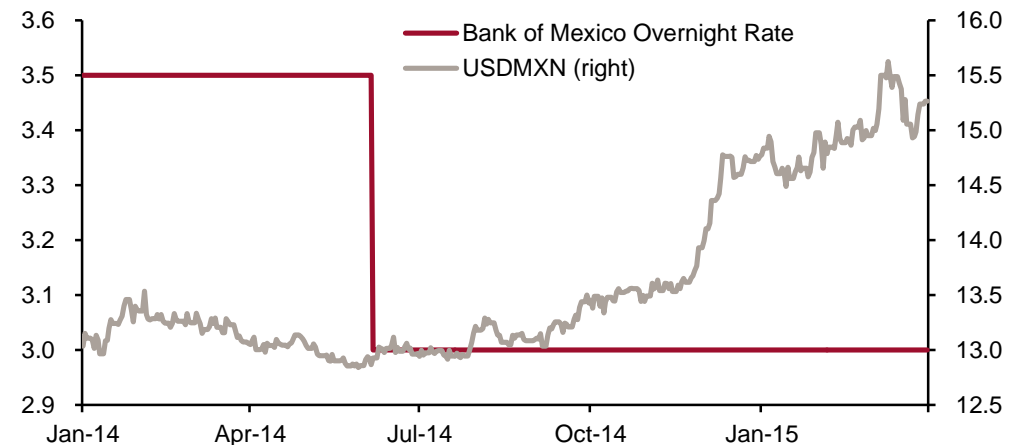
Forward OIS curve



Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

In this context, GBP and MXN have given us important signals of late. After all, within G10 and EM space, respectively, these have arguably been the currencies with the most compelling reasons to move to a hiking cycle, whether as a function of tight labour markets in the former or pre-empting Fed hikes in order to stabilize the currency in the latter.

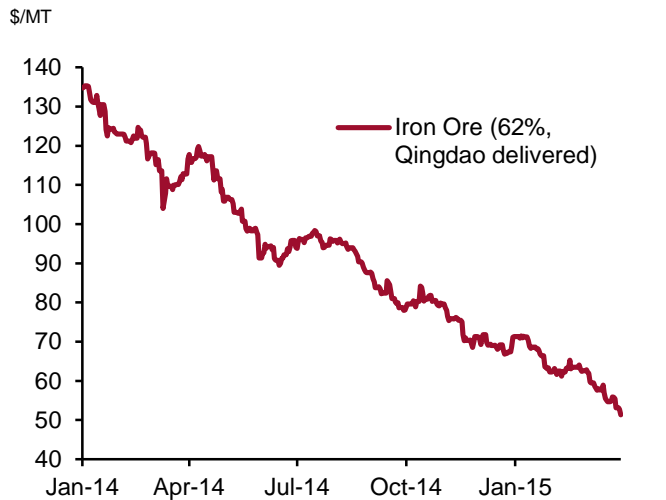
Exhibit 3: Bank of Mexico holds rates steady, despite the sharp rise in USDMXN



Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

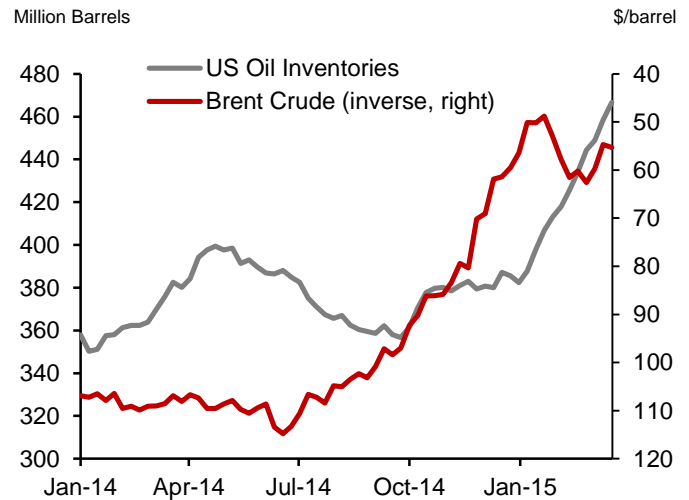
In both cases, actual events have gone in the opposite direction. In the UK, Bank of England officials have gone out of their way of late to warn about the impact of currency strength, with Haldane going as far as to open up the possibility of rate cuts, let alone hikes. In Mexico, last week Banxico kept rates unchanged at 3%, arguing that Mexico's growth outlook had deteriorated. The bottom line is that if even the central banks with the most compelling reasons to hike rates outside of the US cannot do so, where do things stand for those like the ECB, BoJ or RBA which are facing issues like deflation or major terms-of-trade shocks linked to falling commodity prices?

Exhibit 4: Iron ore prices continue to make new lows



Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

Exhibit 5: US oil inventories continue to rise, weighing on oil prices



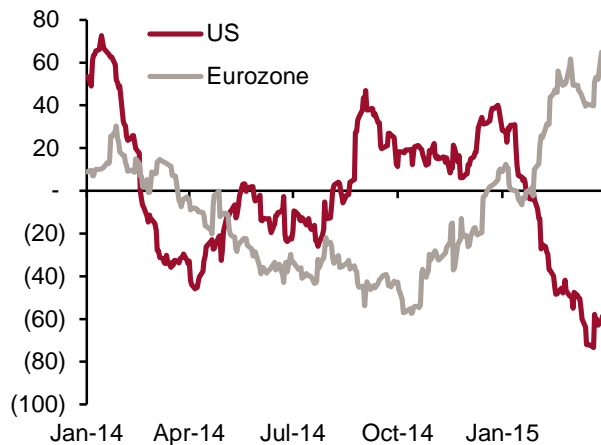
Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

On that note, we highlight again the persistent weakness in commodity prices as another reason to continue holding long USD positions. Iron ore prices continue to make new lows (Exhibit 4), while oil prices have quickly given up the bounce seen after the Saudi attacks in Yemen. Indeed, the market appears more concerned now with the possibility of an Iran nuclear deal adding to oil output from the Middle East at a time when global storage capacity is overwhelmed than it seems to fear disruption threats (Exhibit 5). Matters are not helped by some of the commentary from policymakers in affected countries. For example Bank of Canada Governor Poloz referred this week to the possibility of an "atrocious" Q1 due to the impact of low oil prices. Not only is the use of impactful adjectives powerful, but his hope that a weaker CAD and resulting better non-oil exports can be part of the solution is an added problem too.

As for the EUR, we continue to feel that negative rates matter a lot more than positive data surprises. In the past, EURUSD was a barometer of relative positive surprises in the euro area vs the US. Today, it is itself indirectly via ECB sovereign QE part of the policy mix being used to generate better growth and inflation outcomes. As such, we will continue to fade EUR rallies linked to European data outperformance. Indeed, the greater use of FX hedging to cover EUR risk by foreign investors buying euro area assets also means that a potentially stabilizing force for EUR from portfolio inflows may not really be there either.

Exhibit 6: US & Eurozone data surprise continue to diverge...

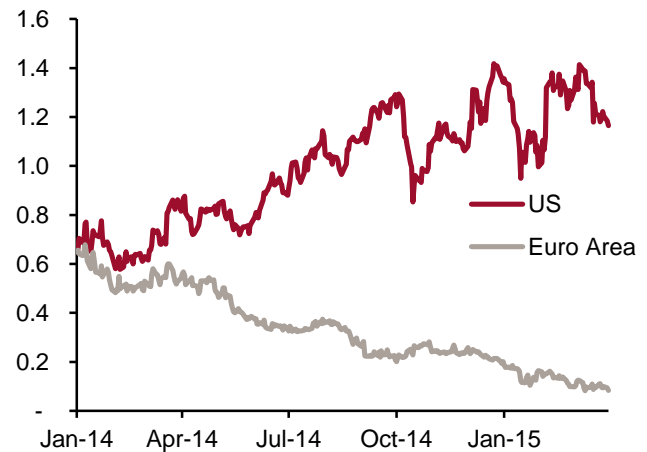
Economic Surprise Index



Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

Exhibit 7: ...but not in the same direction as 1y1y swap rates

1y1y swap rate (%)



Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

Still, having made these arguments, in this issue of the *FX Compass* we nonetheless assess whether the USD rally has gone “too far” in terms of longer-term factors like valuation. We discuss this in greater depth in this report and conclude that, while the USD is no longer cheap, it is far from prohibitively expensive levels seen in the past. In an environment characterized by unprecedented circumstances where major US trading partners are running zero or negative rates, or are likely to ease policy further even as the Fed starts to tighten, presumably a move to extremely strong USD valuation cannot be ruled out.

From a tactical standpoint, this gives us an added degree of confidence in maintaining a broad long USD exposure in our recommendation portfolio into this week’s US nonfarm payrolls release. Our economists are looking for a 240K reading, with an unchanged 5.5% unemployment rate, in line with consensus. We expect markets to remain closely focused on the earnings number, for which we expect a 0.2% mom print. With market activity likely slowing down for Easter holidays in Europe on Friday and Monday, we think the ensuing illiquidity could bias volatility higher. In this issue of the *FX Compass*, we address this topic specifically and attempt to put recent price action into a broader context of declining market liquidity.

USD: Too far, too fast?

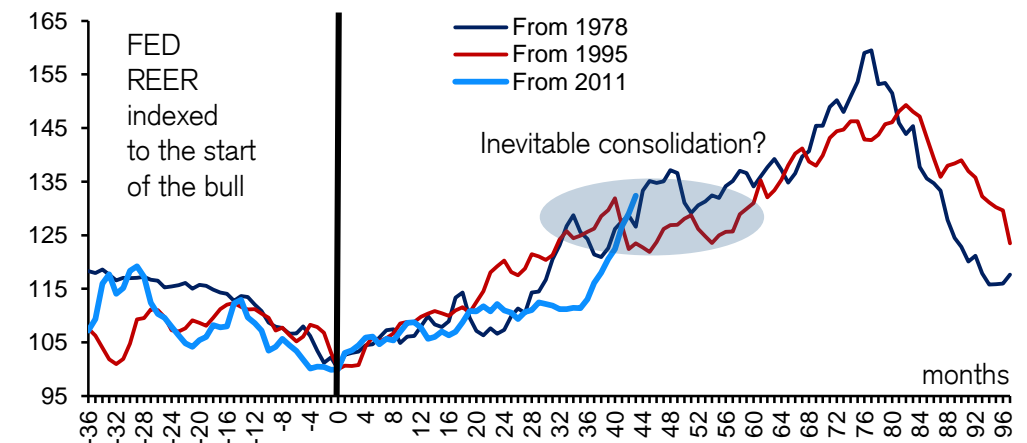
Anezka Christovova
+44 20 7888 6635
anezka.christovova@credit-suisse.com

Bhaveer Shah
+44 20 7883 1449
bhaveer.shah@credit-suisse.com

The pace of USD gains since mid-2014 has raised concerns that the currency has appreciated too far and that this USD bull cycle must be close to its end. Our view is that the recent challenging price action is just a natural consolidation phase and we do not see reasons to change our medium-term bullish USD view.

In this note, we look at valuation metrics to illustrate that the USD value has risen but it has not become stretched. Additionally, we show that the USD strength has been in line with the degree of monetary policy divergence already delivered. New innovations, such as our economist view of the FED rate hike cycle, would still need to be priced in.

Exhibit 8: A consolidation phase may not challenge the overall trend



Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

USD valuation – richer but not rich

The notion of fair value in FX markets is notoriously uncertain. We have therefore compiled a number of measures to assess USD's value. Some of these measures would be quite similar to each other, but the comparison still provides us with a degree of confidence regarding the conclusions.

- Narrow measures of USD TWI (G10 only) show about 10% overvaluation.
- Broad measures of USD TWI (including EM) show only marginal overvaluation.
- Importantly, USD is in general still below the peak in 2002 and far below the peak in 1985. The comparison to the peak in 2009 is mixed.
- The Fed's USD real effective exchange rate series illustrates particularly well these points (see Exhibit 10).

Exhibit 9: Most measures confirm USD now overvalued, but the scale of the overvaluation is well within limits

Majors USD TWI	FED REER	BIS REER	CSFV	Peterson	IMF PPP	Big Mac
Current	10%	2%	11%	12%	8%	18%
Peak in 1985	41%	27%			65%	
Peak in 2002	25%	9%	22%		25%	17%
Peak in 2009	-2%	-3%	6%	21%	-1%	3%

Broad USD TWI	FED REER	BIS REER	IMF REER CPI	IMF REER ULC	Peterson	IMF PPP*	Big Mac*
Current	1%	1%	0%	3%	9%	42%	39%
Peak in 1985	38%		42%			93%	
Peak in 2002	20%	19%	15%	30%		83%	39%
Peak in 2009	4%	2%	0%	3%	26%	55%	41%

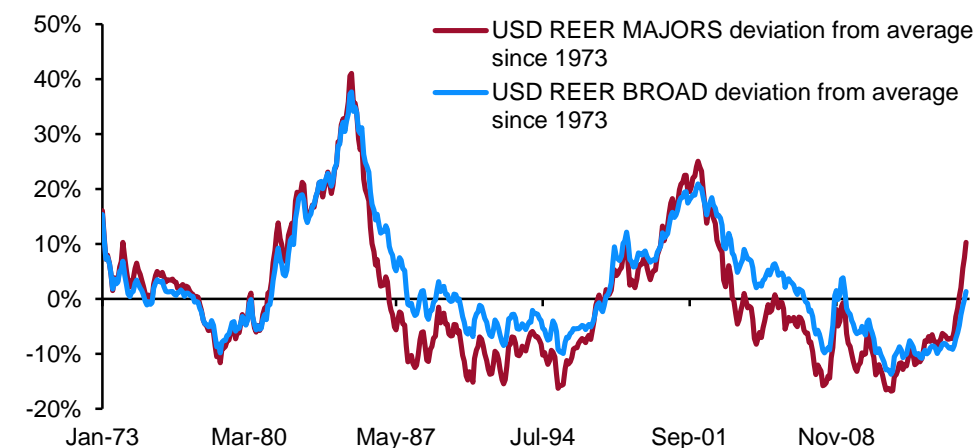
Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service, Thomson Reuters Datastream, IMF, Peterson Institute, BIS, FED, The Economist

*Note that for IMF PPP and Big MAC, USD is 40% overvalued in the BROAD TWI approach, which includes EM countries. This is as GDP per capita (proxy for productivity) is not taken into account (in contrast to CSFV, for instance). Meanwhile, the REER measures we show are less vulnerable to this problem as they are expressed as deviations from a long term average.

The above metrics would argue that USD value has certainly risen, but it has not become stretched and it should not be a particularly strong constraint on future gains. After all FX markets have been able to generate far larger excesses, as long as monetary policy, flow or other factors can justify such overshooting. These factors, rather than the valuation itself, should be investor's main concern at this stage of the bull cycle, in our view.

Exhibit 10: Taking EM into account, USD is now about fair

Data is monthly, latest point was estimated using nominal TWI gains in March



Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

There will be some negative impact on the economy, of course – particularly from the fast pace of the recent appreciation. However, taking into account the less open nature of the US economy and small pass through to inflation, these levels of USD should cause less pain than similar valuation levels would cause to other economies.

- In Exhibit 11 we show exports as a percentage of GDP in the G10 economies. The US stands out as the least open economy.
- Our US interest rate strategists analyze in detail the FX pass through to inflation (see [here](#)). USD's role in goods trade invoicing is important.

Exhibit 11: Goods and services exports as a percentage of GDP

Switzerland	Sweden	Eurozone	Norway	Britain	Canada	New Zealand	Australia	Japan	United States
66%	44%	43%	37%	31%	31%	30%	19%	17%	14%

Source: Credit Suisse estimates, the BLOOMBERG PROFESSIONAL™ service (Euro-area figure is of EA as a block to rest of the world)

USD NIIP – no alarm yet

In our December [FX Strategist – USD: Medium-term gains, long-term pains](#), we argued that an additional valuation approach for the USD should be how fast the US net international investment position deteriorates as the USD gains:

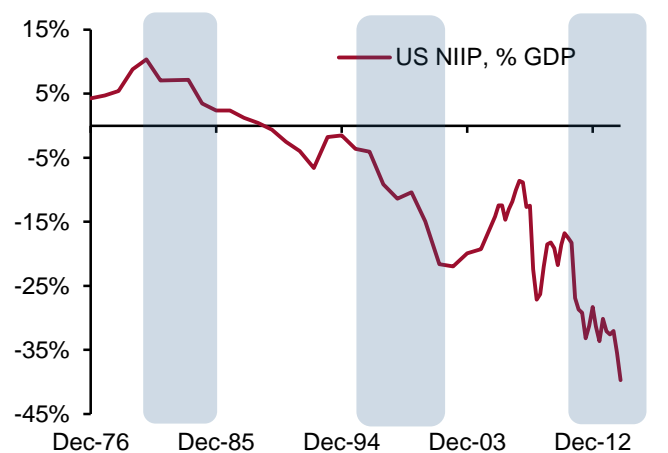
- US international assets are mainly denominated in foreign currencies, while US international liabilities are mainly denominated in USD. This results in a natural widening of the NIIP deficit as the USD appreciates. This dynamic is further exaggerated by the fact gross international positions are now substantially higher than during the two previous USD bull cycles.
- At some moment, the NIIP deficit is likely to widen considerably, which would also weigh on the current account as income outflows would increase. A combination of NIIP and CA deficit should eventually challenge the scope for further USD gains, while the USD would also become over-positioned in international portfolios.

In December, we thought we are not at a point of concern. Since then, the position has indeed started to deteriorate, but it remains clear of any stretched level, in our view.

- The NIIP has widened to about 40% of GDP in Q4 2014 from 35% in Q3 and 32% in Q2. With the USD appreciation in Q1 so far, we think the NIIP deficit might be now about 45% GDP.

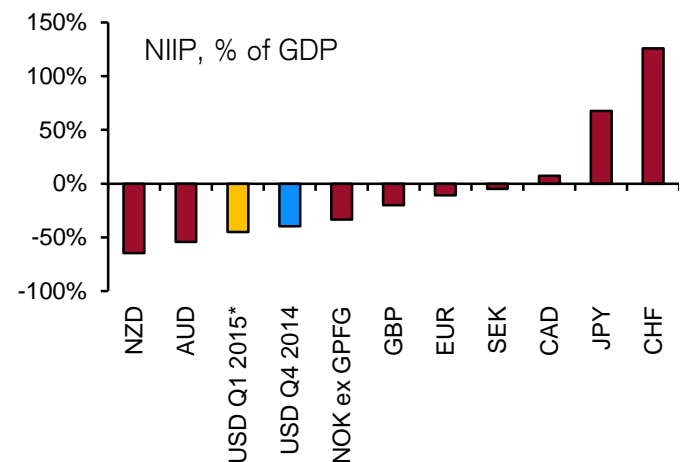
Exhibit 12: The deficit continues to widen

USD bull cycles highlighted



Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

Exhibit 13: US now has the third largest deficit in G10, but level not a cause of worry yet, in our view



Source: Credit Suisse

USD value is in line with the monetary policy divergence

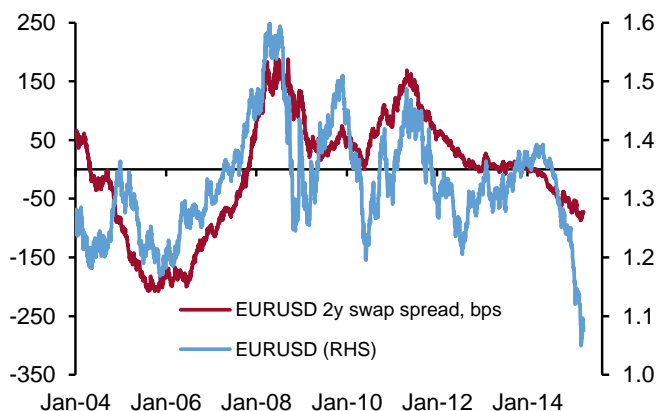
The emerging USD overvaluation could be justified by monetary policy, in our view. This is relatively tough claim to prove quantitatively, as non-conventional easing programs such as QE are not easily captured in standard rate spread relationships. Additionally, negative yields in many economies could have a non-linear impact.

Below we illustrate that the sharp USD move is perfectly in line with real rate spreads, from a long-term perspective. Similar conclusion could be reached looking at forward rate differentials, which are closer to capturing the impact of QE than front-end rate spreads. The concept of shadow rates is also supportive. None of these approaches is fool proof, but it is again the combination of metrics which supports our view.

Standard 2y nominal rate spreads not a useful approach any longer

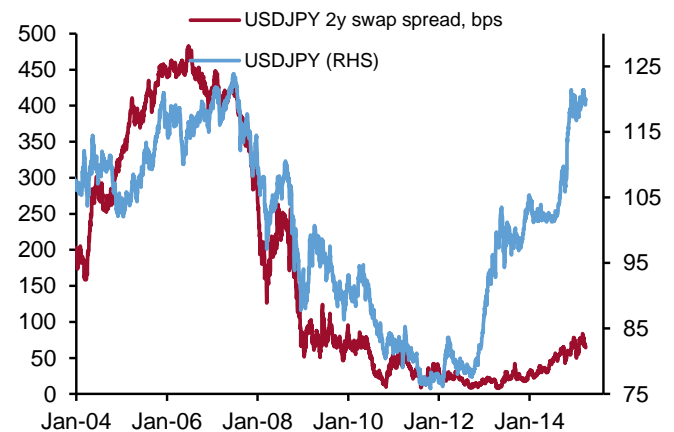
EURUSD has now indeed fallen far below what 2y rate spreads would suggest. Historically, the 2y horizon would offer best correlation to exchange rates. However, the tenor is unable to capture the full easing effect of QE programs. Indeed, USDJPY has similarly overshot 2y rate spreads, but the key lesson has been that this divergence can persist.

Exhibit 14: EURUSD far below 2y rate spreads



Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

Exhibit 15: But USDJPY lesson is one should not expect a convergence

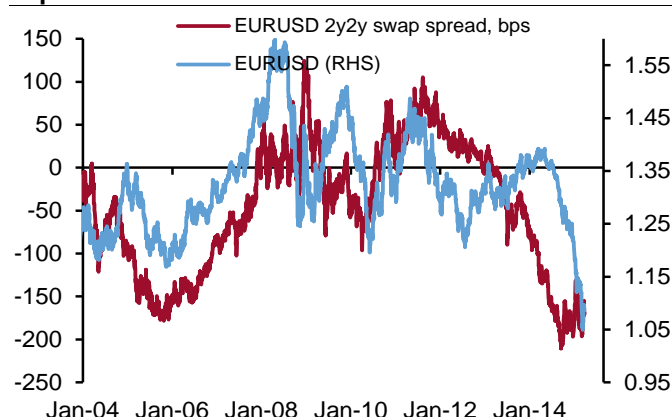


Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

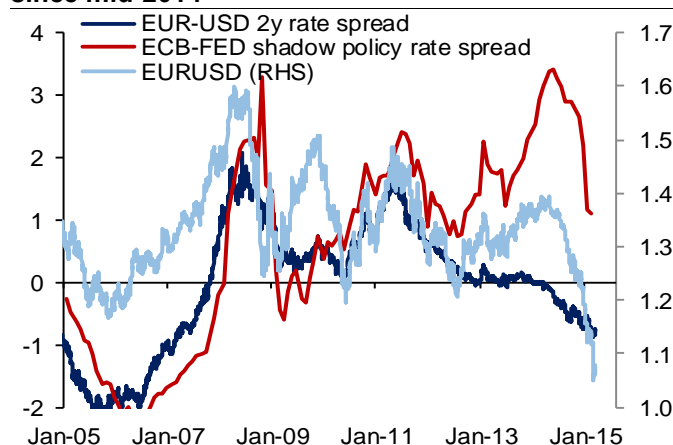
Forward rate expectations have been substantially depressed

The powerful impact of QE can be better captured through the substantial re-pricing of forward rate expectations and long-end yields. This can explain the EURUSD fall fairly well (see Exhibit 16).

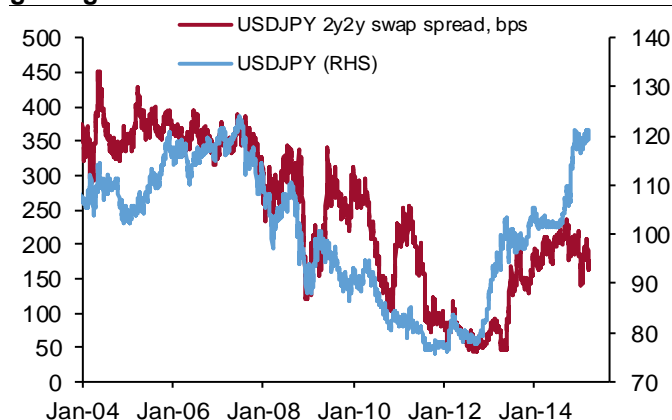
The same idea can be captured via the Wu-Xia concept of shadow rates (see [here](#)). This approach distills forward rates into an estimate of what the policy rate would have been if it was not bound by zero. ECB's consecutive easing attempts and guidance have managed to depress the EURUSD shadow rate spread by as much as 225bps since mid-2014. The EURUSD fall does not look at all aggressive in this perspective.

Exhibit 16: EURUSD fall in line with forward rate expectations

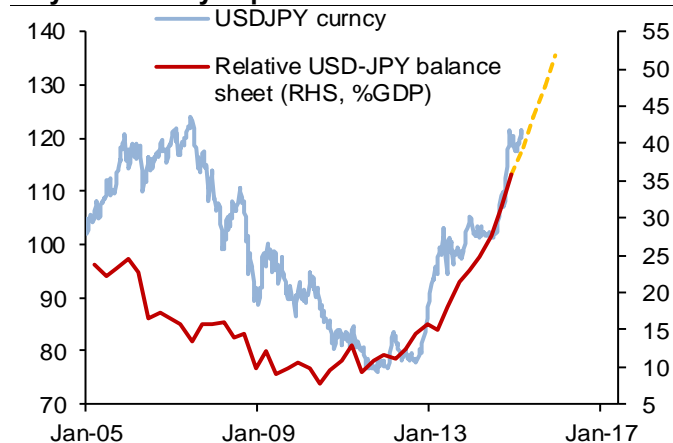
Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

Exhibit 17: Shadow rates suggest 225bps of easing since mid-2014Source: Credit Suisse, Wu-Xia shadow rates:
<http://faculty.chicagobooth.edu/jing.wu/research/data/WX.html>

However, the sensitivity of the FX rate to forward rate spreads or shadow rates is hard to quantify given the lack of comparable history. In fact, USDJPY is now far higher than even forward rates or 10y yields would suggest. On the other hand, the JPY performance seems to track well the pace of BoJ's balance sheet expansion which could suggest some of the portfolio rebalancing effects generated by the QQE (or the GPIF policy) run further than rate spreads alone could help to show.

Exhibit 18: For USDJPY even forward rates not a good guide

Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

Exhibit 19: The aggressive balance sheet expansion may not be fully captured

Source: Credit Suisse

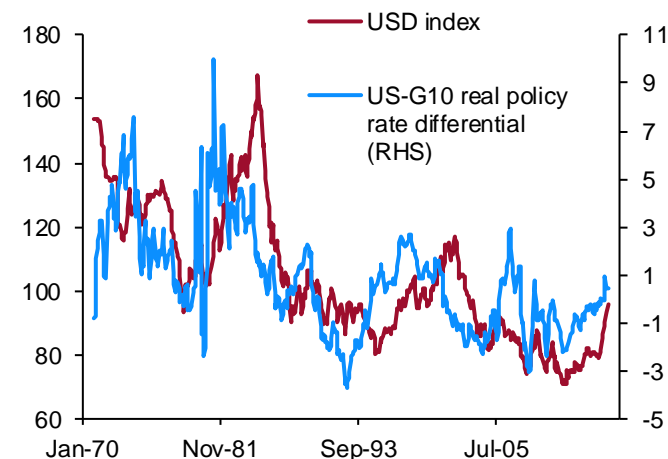
USD in line with real yields

Finally, the scale of the divergence of the stance of monetary policy could be illustrated through real yield spreads – these appear to have the strongest relationship historically to the USD. As with the other approaches, there are pitfalls. In particular, it is extremely hard to capture inflation expectations. We use realized year-on-year inflation rates.

- Latest USD rise appears fully consistent with real yield spreads, which have moved in USD's favor both thanks to rise in real yields in the US and fall in real yields in the rest of G10 (Exhibit 20).
- A long-term USD real rate spread model also shows the currency as fair. We regress the USD against US and G10 10y yields, US and G10 inflation and oil (Exhibit 21).

Exhibit 20: Real rate differentials support the USD

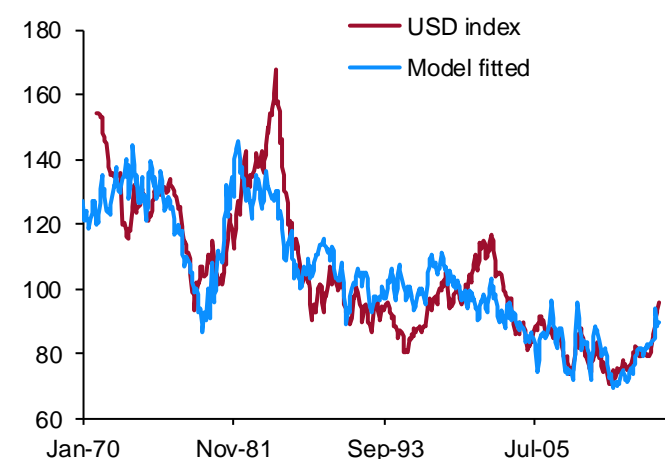
To construct all indices, we use BIS transaction weights (38% EUR, 26% JPY, 13% GBP, 20% AUD, 6% CHF, 5% CAD, 2% SEK)



Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service, Thomson Reuters Datastream

Exhibit 21: USD rise in line with a fitted model of USD vs. yields, inflation and oil

To construct all indices, we use BIS transaction weights (38% EUR, 26% JPY, 13% GBP, 20% AUD, 6% CHF, 5% CAD, 2% SEK)

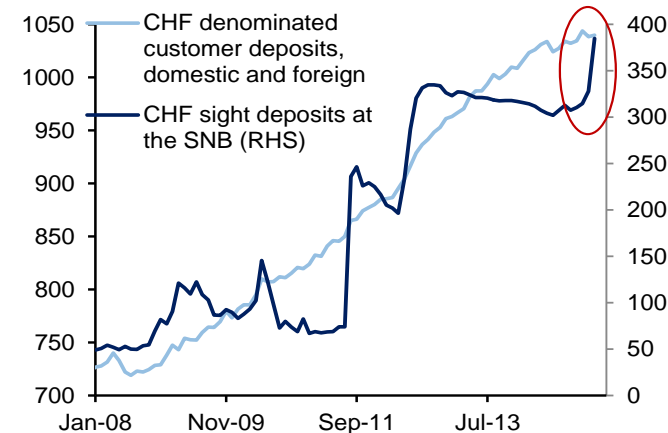


Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service, Thomson Reuters Datastream

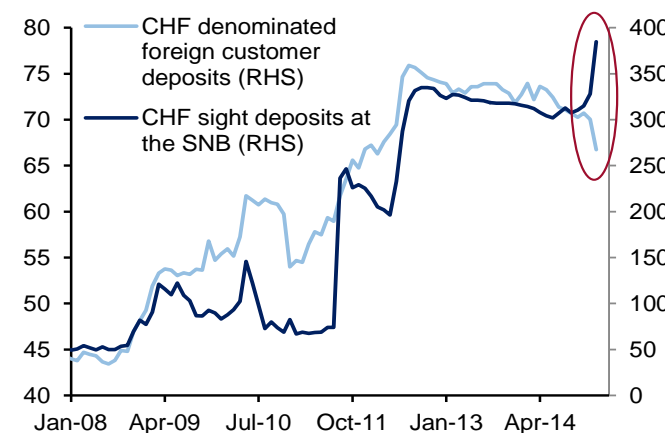
New flow forces to consider

It is still too early to have any great confidence whether negative rates could trigger stronger portfolio rebalancing effects than standard easing. It is possible restrictive investment mandates could generate such a reaction. The competition with the 0% return of simple cash could also shift investment strategies to increase weight globally to the economies which still offer some positive yield.

It is certainly interesting that CHF banking statistics offer some first tentative signs of shifting customer behavior. It seems customer deposit growth did not support the CHF currency strength in December and January, in contrast to previous intervention periods. Foreign customers are clearly reducing their exposure to CHF assets (see [here](#) and [here](#)).

Exhibit 22: Customer deposits did not support the CHF pressure in December and January

Source: Credit Suisse, SNB

Exhibit 23: Foreign customers shun CHF

Source: Credit Suisse, SNB

Putting recent FX volatility into context

Matthew Derr
+1 212 538 2163
matthew.derr@credit-suisse.com

The more dovish-than-expected 18 March FOMC decision elicited sharp moves across the FX complex, with EURUSD experiencing its largest daily percentage trading range (nearly 4.5%) since late-2000. This has called into question FX liquidity conditions more broadly.

We think that the extreme post-FOMC moves cleared out a significant amount of positioning in the market (i.e., USD longs) and that near-term conviction to re-enter such trades is low, barring more clarity around the timing/pace of Fed tightening. Combined with anecdotal evidence that the evolution of the dealer business model has seen risk tolerance and the ability to warehouse risk dwindle – a number of side effects on the FX market are surfacing:

- The daily range of FX pairs has widened;
- The number of 2-sigma daily moves in FX pairs has risen;
- Bid-offer spreads in FX pairs have widened;
- The volatility of FX implied volatility has risen – especially in EURUSD.

However, while various metrics of volatility and liquidity have deteriorated in recent months, these measures remain broadly consistent with their longer-term ranges.

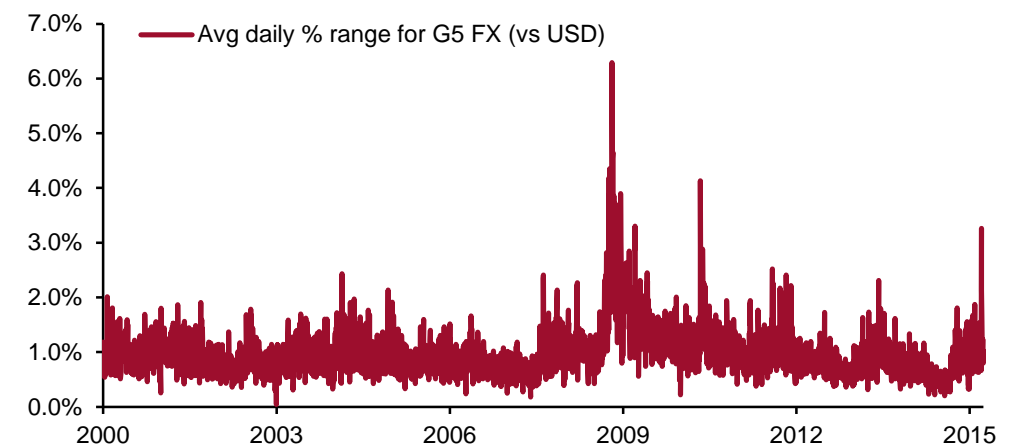
How do things stack up

The more dovish-than-expected 18 March FOMC decision elicited sharp moves across the FX complex, with the average daily percentage range for G5/USD reaching levels not seen since mid-2010 (Exhibit 24). And while the average daily change in major FX pairs has risen, they remain within multi-year ranges – masking how volatile intraday price action has been recently.

Extremely one-sided market positioning heading into the FOMC likely contributed to some extent – where according to the CFTC, speculative longs in the USD were in the top percentile of weekly readings going back to 2010 – increasing the risk of a sharp unwind induced by a wave of stop-loss triggers.

Exhibit 24: The daily range in G5/USD is reaching multi-year highs

Daily range as a % of opening level (G5 includes EUR, GBP, AUD, JPY, CAD)

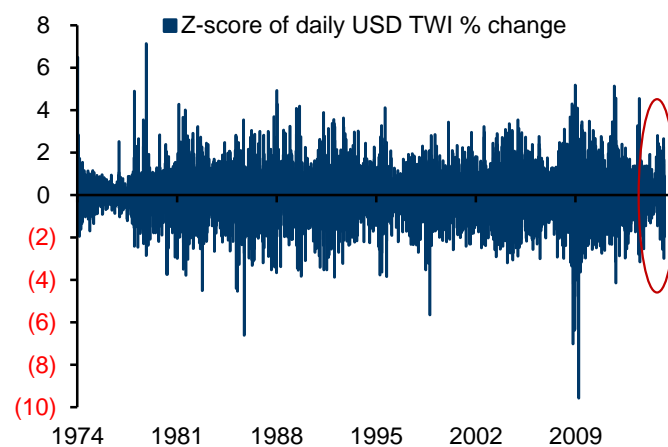


Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

Exhibits 25 - 28 show how the z-scores of daily percentage changes in USD TWI and EURUSD have risen in recent months. While the rise in USD TWI's daily volatility remains well within its longer-term range, recent EURUSD moves look much more significant. Another way to measure the pick-up in spot FX volatility is by comparing the frequency of days where a 2-sigma move occurred:

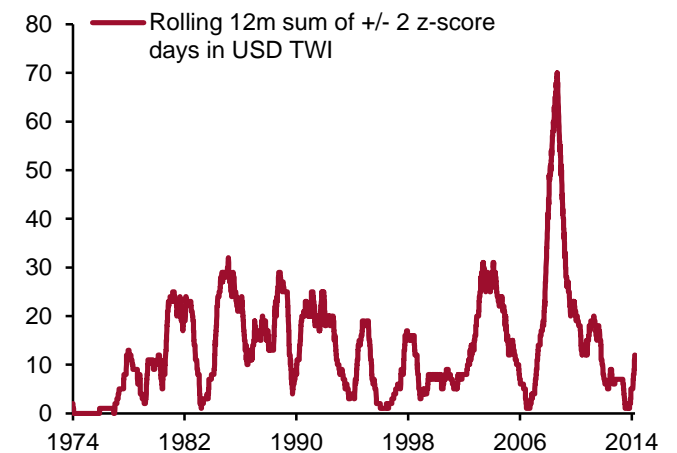
- The daily percentage change in USD TWI triggered a 2-sigma move on over 5% of trading days between January 1974 and September 2014, compared to over 8% of days since September 2014. In addition, 75% of these 2-sigma moves since September 2014 have occurred on days USD TWI rises.
- The daily percentage change in EURUSD triggered a 2-sigma move on just 5% of trading days between January 1999 and September 2014, compared to almost 10% of days since September 2014. In addition, 80% of these 2-sigma moves since September 2014 have been on days EURUSD sells off.

Exhibit 25: While USD TWI volatility has picked up in recent months, it remains within longer-term ranges



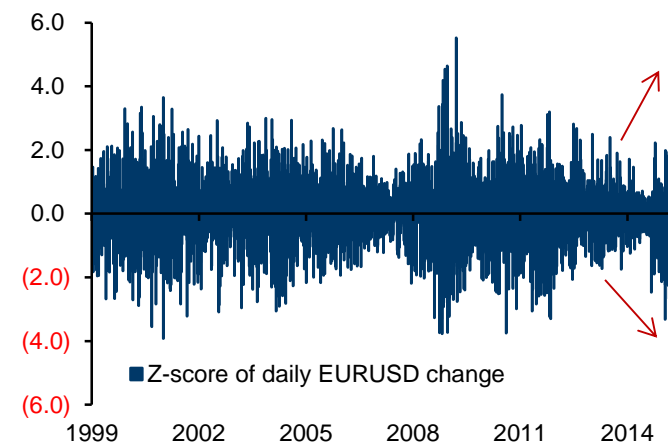
Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

Exhibit 26: The number of outsized daily moves in USD TWI have seen a modest pick-up



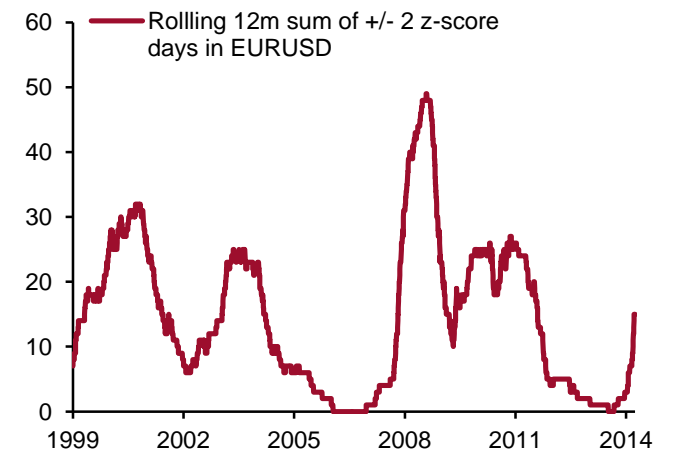
Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

Exhibit 27: The recent pick-up in EURUSD volatility has been significant ...



Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

Exhibit 28: ...with the number of outsized daily moves rising sharply

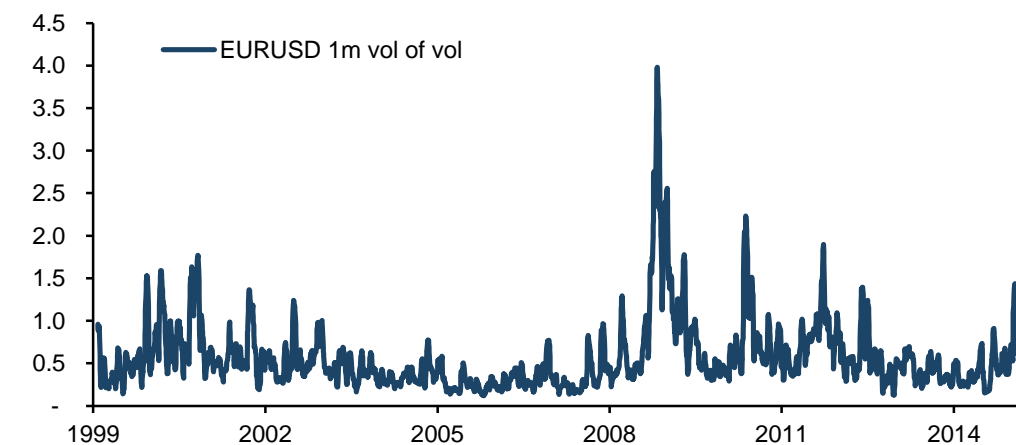


Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

The recent pick-up in FX volatility has not been limited to the spot market. The volatility of FX implied volatility (i.e. vol of vol) has been especially pronounced for EURUSD as the combination of macro factors (i.e. ECB QE, Greek concerns, FOMC) have seen front-end EURUSD implied volatility move erratically in recent months (Exhibit 29). One-month EURUSD implied volatility has moved by at least 1 vol point on almost 12% of days since mid-January.

Exhibit 29: EURUSD implied volatility has oscillated sharply in recent months

1m standard deviation of 1m implied volatility (vols)

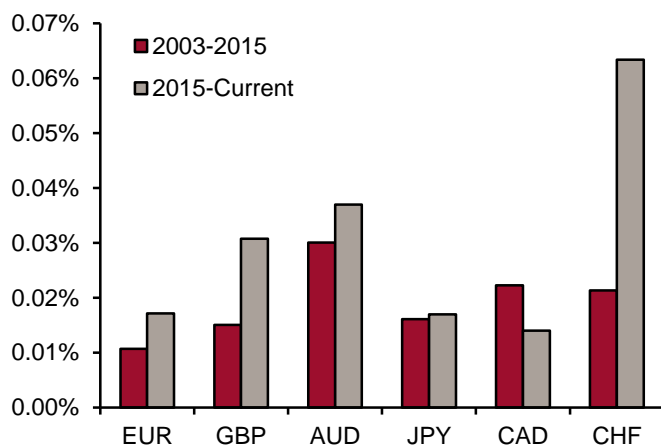


Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

We are also seeing signs of spot FX bid-offer spreads starting to widen out. As shown in Exhibits 30 - 31, bid-offer spreads (as measured by daily observations from Bloomberg) have generally increased in recent months relative to their 2003-2015 averages. The notable standout unsurprisingly includes CHF – following the removal of the SNB's EURCHF currency floor in January.

Exhibit 30: Bid-offer spreads have generally widened in recent months relative to their historical averages

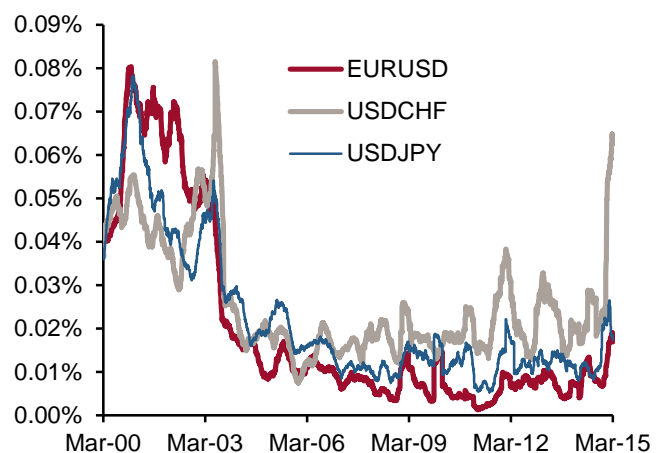
Historical average bid-offer spread (vs USD)



Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

Exhibit 31: CHF has seen the most dramatic shift in liquidity, following the removing of the SNB floor

3m average bid-offer spread (vs USD)



Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

SGD: Band widening likely in April

Michael Wan
+65 6212 3418
michael.wan@credit-suisse.com

Ray Farris
+65 6212 3412
ray.farris@credit-suisse.com

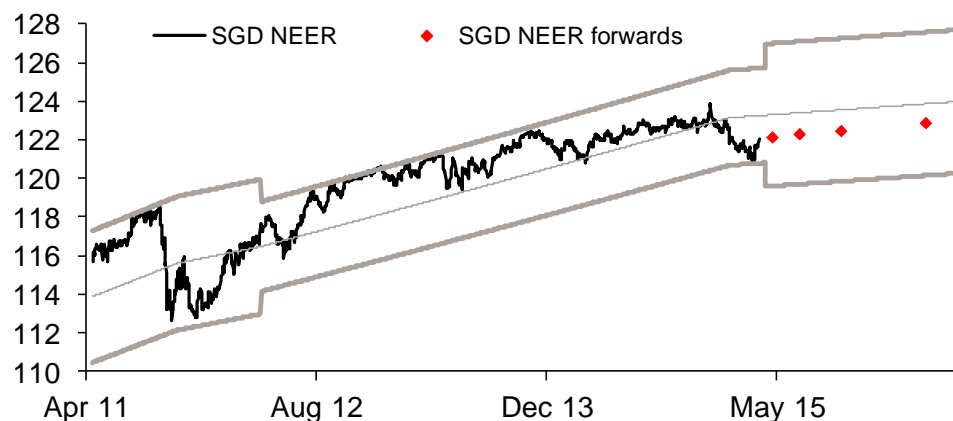
Trang Thuy Le
+852 2101 7426
trangthuy.le@credit-suisse.com

An insurance policy: We now see band widening as the most likely policy action come April rather than the downward re-centering that many analysts expect. The Monetary Authority of Singapore's (MAS) assessment of growth outlook probably has not changed drastically enough since January to justify more significant easing, in our view. Despite a likely weak 1Q GDP, an expected fiscal stimulus and stronger global growth uptick should enable the government to achieve its full-year growth forecast of 2% to 4%. A downward re-centering may also send too strong a signal that the authority has turned materially more dovish, which we doubt is the case.

Higher uncertainty, wider band. However, what has changed since January is perhaps the degree of uncertainty surrounding the growth trajectory. Band widening should therefore be the most appropriate course of action, providing insurance in case economic activity dips further in the near term.

We think the market is going into the policy meeting short the SGD, expecting re-centering of the bands lower. This leads us to expect our scenario of only band widening to generate a knee jerk rally in the SGD. However, our projection for inflation to fall further into early summer, and growth momentum to remain subdued, suggests that investors may need to continue to price for future policy easing risk. This should keep the NEER trading relatively weak within the context of its new policy bands, likely around 2% to 3% below mid, in 3 months. There is scope for the NEER to recover towards the middle of its policy bands in 12 months as cyclical momentum starts to turn. Our projection for the NEER combined with the rest of our FX forecast set implies our USDSGD forecasts at 1.415 in 3 months and 1.390 in 12 months under this central scenario.

Exhibit 32: NEER forwards are tracking the bottom half of the policy bands



Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

Going forward, we see a good chance that the MAS will officially announce more frequent monetary policy statements, for instance shifting to quarterly monetary policy statements instead of the current semi-annual framework. This will help the MAS to take into account the more uncertain macroeconomic outlook and more volatile markets.

We see the MAS widening the policy bands in April

We think the justification for a policy change by the MAS lies mainly with risks to growth, not inflation per se.

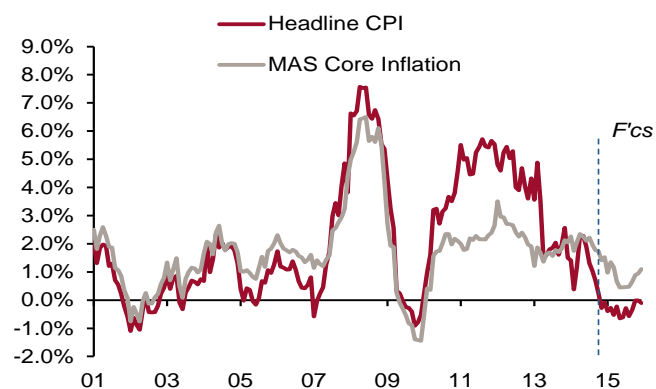
Indeed, we forecast inflation to remain negative for most of 2015. However, we doubt this will drive MAS policy for several reasons:

- Neither headline nor core inflation are likely to fall below the MAS forecast ranges, -0.5% to +0.5% for headline, and 0.5% to 1.5% for core (see [Singapore: Implications of further policy easing](#) and Exhibit 33).
- About 30% of the fall is due to lower fuel and this is a positive shock for Singapore in that it boosts household incomes.
- Some of the decline in inflation is due to administered prices such as education and healthcare subsidies, coupled with foreign domestic worker levy cuts.

Crucially, lower inflation is coming in an environment of rising employment and wages. It is not weakening household ability to service debt.

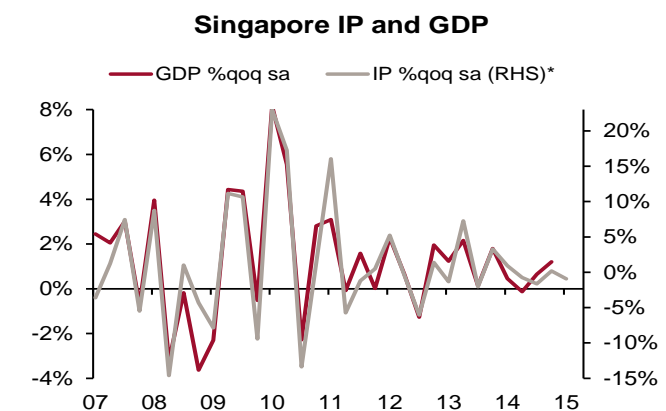
In contrast, uncertainty about the growth outlook has risen.

Exhibit 33: Non-existent headline and core inflation 2015 gives MAS space to move on policy



Source: CEIC, Credit Suisse

Exhibit 34: Marginal contraction in GDP expected in 1Q2015



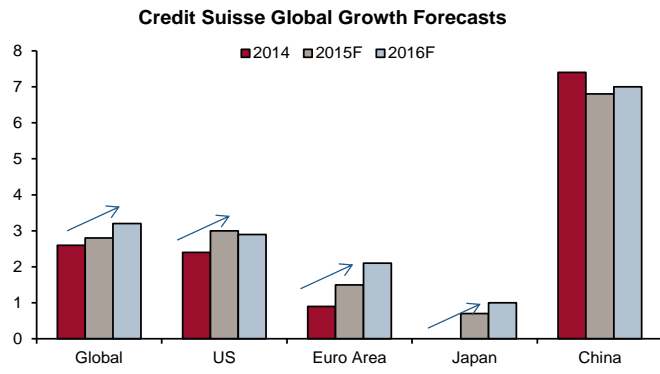
* 1Q IP assumes March seasonally adjusted levels remain unchanged from February.
Source: CEIC, Credit Suisse

Growth is likely to remain subdued in the near-term. We see sequential GDP contracting marginally in 1Q2015 by around -0.1% qoq saar to -0.4% qoq saar, partly driven by the weakness in manufacturing activity (see Exhibit 34). This implies GDP growth of around 1.6% to 1.8%, down from 2.1%yoy in 4Q2014. Several domestic demand indicators such as F&B spending and retail sales have also moderated in 1Q.

We nonetheless expect growth to pick up in 2H of 2015. Economic activity in both Europe and Japan should do better this year, while activity in the US should pick up from 2Q2015 following some moderation in 1Q ([Global Economics Quarterly 2Q2015](#) and Exhibit 35 below). Domestically, an expected fiscal stimulus, in particular on infrastructure, should also limit downside risks to construction activity. We note that the government is hiking government spending to 16.9% of GDP, up from 14.8% (Exhibit 36 below).

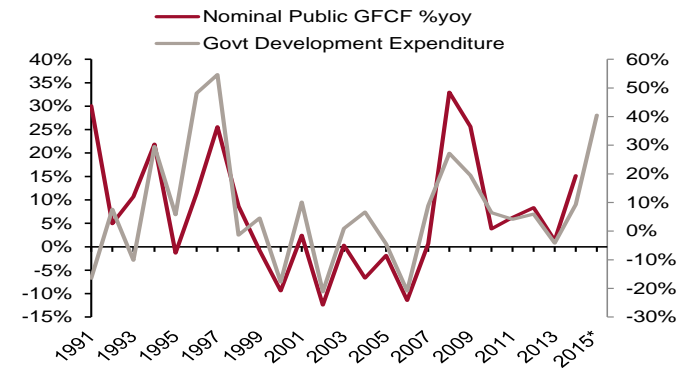
Higher uncertainty surrounding growth outlook in 2015 is admittedly high. For one, China is expected to slow further (see Exhibit 34). In addition, growth in the region is weak. Domestic interest rates have risen even before the Fed has delivered, which will compress domestic demand and weaken the property market further. Notwithstanding these increased uncertainties, we continue to see growth picking up in the second half of 2015, and averaging 3.2% this year (latest consensus: 3.1%).

Exhibit 35: We see global growth picking up in 2015, which should support Singapore's growth.



Source: Credit Suisse estimates

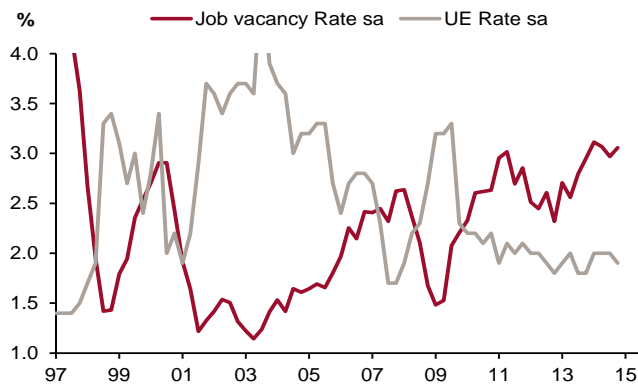
Exhibit 36: Public investment activity should provide some support for GDP



* Budgeted for FY2015
Source: CEIC, Credit Suisse

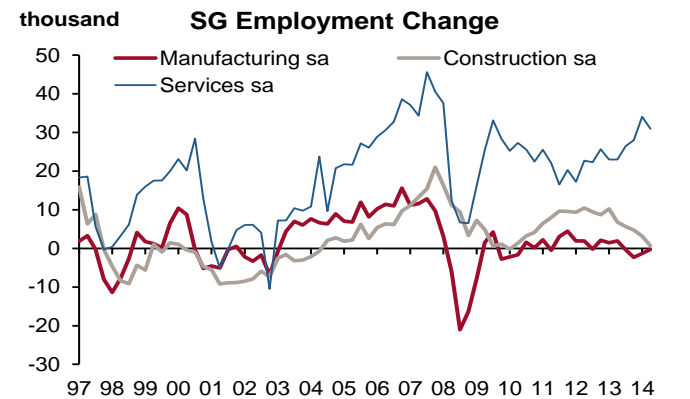
Labour market indicators remain robust, with still elevated job vacancy rates, and the unemployment rate still near historical lows. Services employment has been quite resilient too, helping offset the weakness in manufacturing and construction employment growth (see Exhibit 38). 1Q employment growth should be relatively resilient, albeit slightly weaker, given recent announced retrenchments from prominent financial institutions.

Exhibit 37: The labour market continues to look quite robust, with job vacancy rates still above the local 2011 peak.



Source: CEIC, Credit Suisse

Exhibit 38: Services employment continues to be strong



Source: CEIC, Credit Suisse

MAS scenarios and FX reaction

We outline our thinking in terms of FX reactions to different MAS's scenarios in Exhibit 39 below:

Exhibit 39: MAS probability table

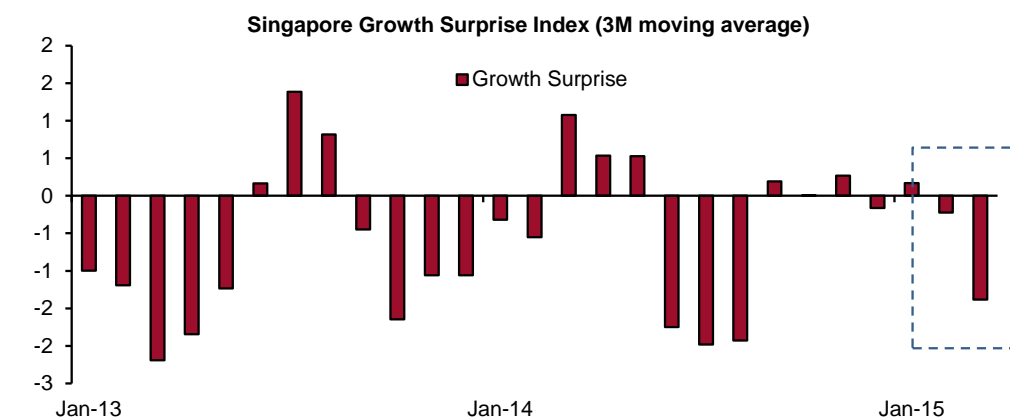
Policy	Prob	Remarks and Economic Rationale	FX Reaction
1 Widen band width to +/-3% from +/- 2% previously	55%	Insurance against still high global uncertainty.	Mildly hawkish outcome. SGD NEER is likely to react positively initially but likely to consolidate around 2% to 3% below midpoint in 3 months as inflation and macro data are projected to remain weak. There is scope for the NEER to recover towards the middle of its policy bands in 12 months once cyclical momentum starts to turn. Accordingly, USDSGD are likely to rise to 1.415 in 3 months before recovering to 1.390 in 12 months
2 Unchanged policy	20%	Strongly signal that MAS' assessment of economic activity since the January off-cycle policy announcement has not changed.	Most hawkish. Short squeeze could see substantial NEER appreciation. However, in absence of MAS intervention to bring the NEER back to the midpoint, we expect the NEER to re-weaken to 1% below mid in the coming months. The market will likely continue to price for some chance of easing in response to weak data in the near term. This NEER profile would imply USDSGD at 1.395 in 3 months and 1.390 in 12 months.
3 Re-center band to prevailing level of NEER, keeping 0.5% slope and +/-2% width	15%	Signal concerns over growth and loss of competitiveness and over-valuation of the REER.	In line/dovish outcome. The NEER probably continues to trade within the bottom half of its policy bands, around 1% to 1.5% below mid in the near term in absence of MAS intervention. We continue to project a recovery towards mid as cyclical data improve in 12 months. Implied USDSGD levels are 1.425 in 3 months and 1.415 in 12 months.
4 Re-center band to prevailing level of NEER, widen band width to +/- 3% from +/- 2%, keeping 0.5% slope.	5%	Signal concerns over growth and loss of competitiveness, while also taking into account more volatile environment	Very dovish. The NEER probably tracks the bottom of its policy bands in 3 months, with some modest recovery expected in 12 months. USDSGD implied levels are 1.450 in 3 months and 1.435 in 12 months.

Source: Credit Suisse estimates

Widen the bands to +/- 3% (55% probability): An insurance policy

Given the macro backdrop, we believe that the MAS will most likely widen the policy bands come its April meeting. Wider policy bands will give the MAS flexibility to drive the NEER lower in the short term to counter the current slowdown, while also providing the optionality to push the NEER higher should growth pick-up in the 2H as the central bank expects. Should growth continue to surprise on the downside, the MAS can also choose to drive the NEER towards the bottom half of the band in the latter part of the year. In addition, wider bands also have the added benefit of being more consistent with the January off-cycle policy statements.

Exhibit 40: Current downside in growth surprise probably not enough for MAS to do more drastic easing at this point in time



Source: CEIC, Credit Suisse

We think the market is going into the policy meeting short the SGD expecting re-centering of the bands lower. This leads us to expect our scenario of only band widening to generate a knee jerk rally in the SGD. However, our projection for inflation to fall further into early summer, and growth momentum to remain subdued suggests that investors may need to continue to price for future policy easing risk. This should keep the NEER trading relatively weak within the context of its new policy bands, likely around 2% to 3% below mid, in 3 months. There is scope for the NEER to recover towards the middle of its policy bands in 12 months as cyclical momentum starts to turn. Our projection for the NEER combined with the rest of our FX forecast set imply our USDSGD forecasts at 1.415 in 3 months and 1.390 in 12 months under this central scenario.

Unchanged policy stance (20% probability): No change in underlying stance of economy

This would signal that the central bank is confident that there has been no significant deviations in the underlying assessment of economic growth since the off-cycle policy announcement in January. Hence, there is no need to get an "insurance policy".

An unchanged policy would be a very hawkish outcome against market expectation and positioning. This will likely drive sharp kneejerk gains in SGD. However, in absence of MAS intervention to bring the NEER back to the midpoint, we expect the NEER to re-weaken to 1% below mid over the coming months. The market will likely continue to price for some chance of easing in response to weak data in the near term. Over a 12-month horizon, we see scope for the NEER to return to the midpoint, in line with the improvement in cyclical momentum. This NEER profile would imply USDSGD at 1.395 in 3 months and 1.390 in 12 months.

Re-center policy band downwards (15% probability): Signal concerns about structural loss of competitiveness

This would signal that the MAS is most worried about growth and/or that the pace of decline in the manufacturing sector could have been faster than the government expected. The NEER probably continues to trade within the bottom half of its policy bands, around 1% to 1.5% below mid in the near term in absence of MAS intervention. We continue to project a recovery towards the midpoint as cyclical data improve in 12 months. The corresponding USDSGD levels are 1.425 in 3 months and 1.415 in 12 months.

However, we think that the MAS would be hesitant to send such a strong dovish signal to the market given the macro backdrop. It will certainly raise questions about why the MAS has "eased" policy twice within the short space of four months, including in an unscheduled meeting, and the spectre of whether something has gone significantly wrong with the economy. This policy move could also substantially raise expectations of even more SGD depreciation than the new bands suggest, which would ultimately require further intervention by the central bank.

Re-center policy band downwards (5% probability): signal concerns about structural competitiveness, and also reflecting more volatile macro environment

We see a small chance that the central bank will re-center the policy band downwards, coupled with introducing a wider policy band, reflecting both concerns about structural competitiveness and a more volatile macro environment. A large downward re-centering combined with band widening will likely push the NEER back to the bottom of the new policy range, before a modest recovery in 12 months. This would imply a substantial USDSGD rally towards 1.450 in 3 months, before moderating to 1.435 in 12 months.

Americas FX Update: Stick to the Plan

Alvise Marino
+1 212 325 5911
alvise.marino@credit-suisse.com

The impact of the terms of trade shock triggered by the decline in commodity prices has been particularly acute in the commodity exporting countries of the American continent. This has been reflected in our long-standing bearish stance on [CAD](#), [MXN](#), [BRL](#) and in multiple trade ideas in our portfolio.

Recent policy developments in Canada, Mexico and Brazil further support our rationale to stay long USD against their respective currencies:

- In USDCAD, we favor call spread strategies that benefit from the elevated risk reversal skew.
- The pullback in the risk reversal skew in USDBRL and USDMXN offers attractive entry points for topside exposure in both crosses via outright calls.

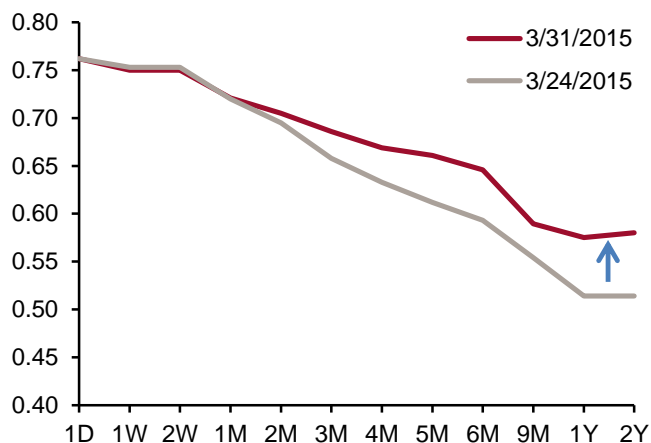
CAD: Not “atrocious”, but still not good

On 30 March, BoC governor Poloz was quoted in an interview in the *Financial Times* saying that growth in Q1 “will look atrocious, because the oil shock is a big deal for us”. While the slightly stronger-than-expected January GDP data provided some relief on this front, Governor Poloz’ choice of words – especially the explicit reference to the additional tools at the Bank’s disposal – struck us as a dovish development, especially relative to market expectations.

Compared to one week ago, the OIS market is now pricing in a lower probability of additional easing this year (Exhibit 41). This stands at odds with Governor Poloz’ comments, with the fact that crude oil prices remain well below the BoC’s \$60/bbl assumptions, and that with the exception of January GDP, data has surprised consistently below consensus in recent weeks (Exhibit 42).

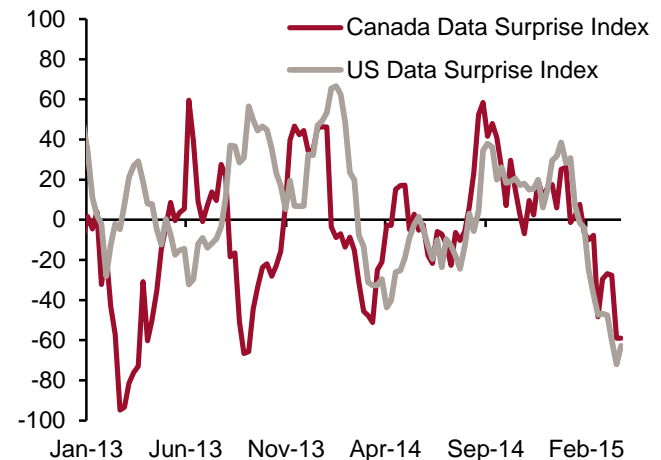
Exhibit 41: The OIS market ignored the “atrocious” comments, reduced easing expectations

Canada OIS curve



Source: the BLOOMBERG PROFESSIONAL™ service, Credit Suisse

Exhibit 42: The data surprise index continues to make new lows, in line with moderation in US data

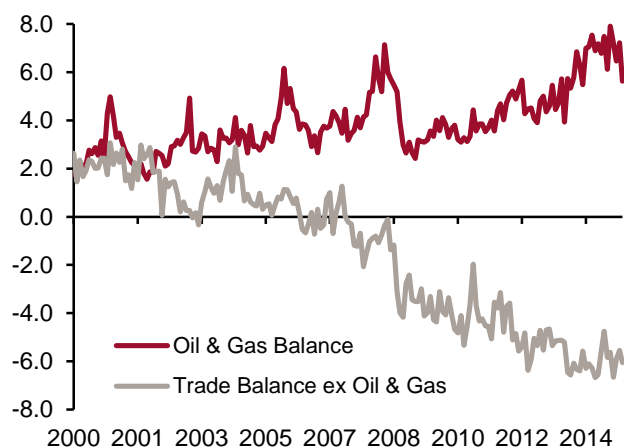


Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

This in our view sets a low bar for weak growth surprises. The concurrent moderation in US data momentum (Exhibit 42) suggests the recent improvement in non-oil export growth mentioned by Governor Poloz in the press conference could fall short of expectations (Exhibit 43). The aggressive reduction in non-resident positioning in Canadian equity markets also suggests further data weakness could trigger additional outflows, with negative implications for CAD.

Exhibit 43: The energy trade balance remains high, and the ex energy balance has failed to improve

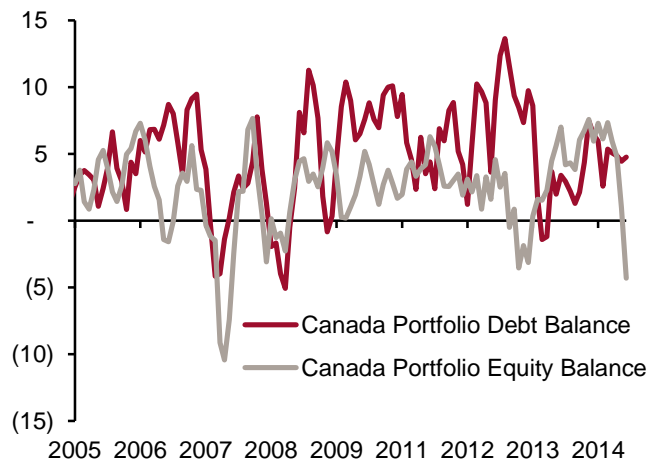
C\$bn



Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

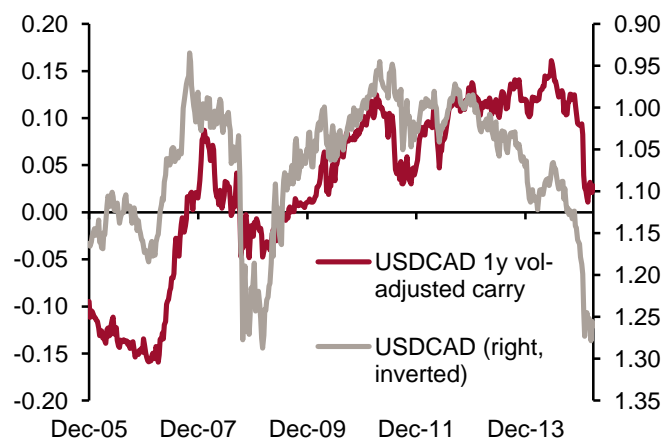
Exhibit 44: Foreign equity investors are reducing their Canadian position aggressively

3MMA, C\$ bn

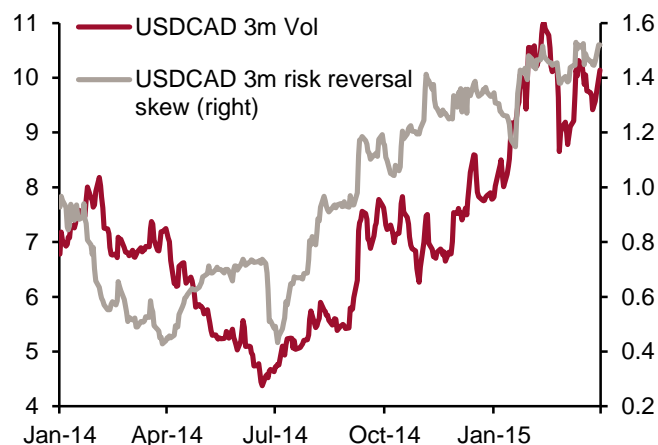


Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

Overall, we think the combination of these factors would argue in favor of a retracement in the move in BoC expectations described above. This would be consistent with a deterioration in Canada's risk-adjusted carry measures, which has historically proven detrimental for CAD (Exhibit 45).

Exhibit 45: The increase in vol continues to weigh on CAD's risk-adjusted carry metrics

Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

Exhibit 46: CAD vol has retraced the early January move, remains high. Riskie is near recent highs

Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

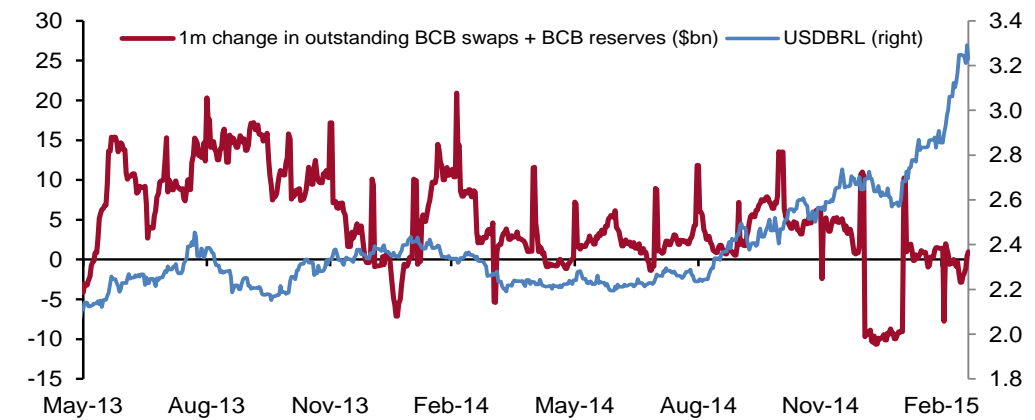
In terms of how to trade it, we are currently long a 1x1 USDCAD call spread struck at 1.25 and 1.2852, with a 21 April expiry. We favor holding on to the position. For those approaching the cross with no outstanding position, we would recommend caution in establishing outright call positions, as the high level of the risk reversal suggests the risk reward to owning topside optionality from current levels is not the most attractive. Spread trades that benefit from the high level of skew are in our view more appropriate.

BRL: No safety net

The news flows from Brazil has been unambiguously negative in recent weeks. As noted in last week's *FX Compass* ([link](#)), the government announced it will stop its weekly \$2bn USD swap sales, but that it will also offer USD on days when existing positions are maturing. The net impact of this change in stance is likely to be negative for BRL, as per our 3.35 3-month USDBRL forecast.

In the last few months of 2014 the combination of a rising maturity schedule from previous USD offerings and of reduced rollover ratios resulted in a slow decrease in the net amount of USD sold by the BCB with every offering. This period of declining intervention coincided with an acceleration in BRL weakness. The prospect of a gradual reduction in the outstanding USD swap position at the BCB (currently \$116bn) suggests downside pressure on USDBRL is likely to accelerate in coming months.

Exhibit 47: Net intervention by the BCB has been declining steadily since Q414

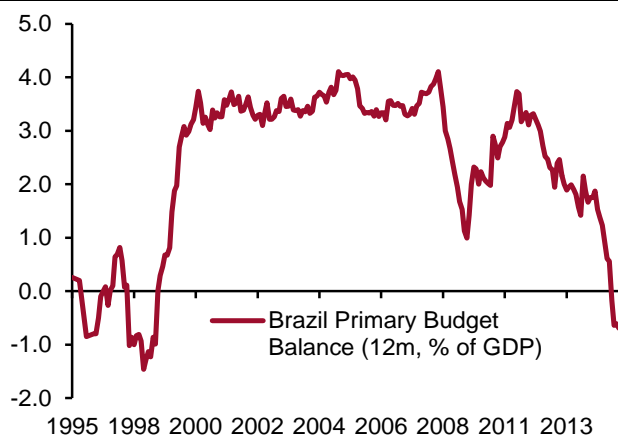


Source: Credit Suisse, Banco Central do Brasil, the BLOOMBERG PROFESSIONAL™ service

The other key recent development is that fiscal data has deteriorated more than expected. The nominal budget balance deficit widened from 6.4% of GDP to 7.3% of GDP in February, and the primary deficit fell to a 17-year low (Exhibit 48). The deterioration was driven primarily by a much larger than expected deficit from the central government (at odds with stronger contributions from the regional governments, see [here](#)).

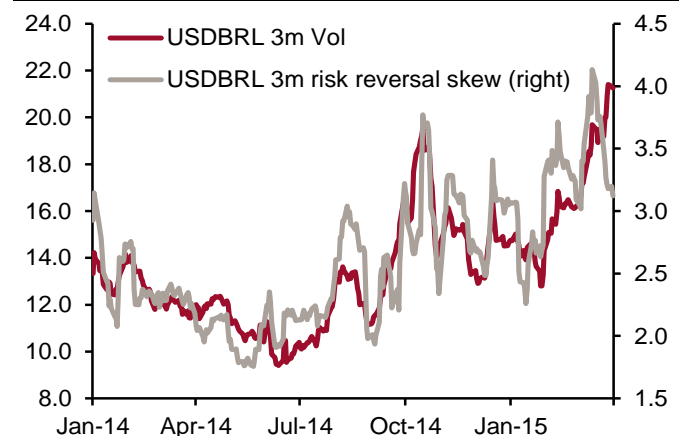
We think the government's failure to address its budget gap in the midst of a well-publicized push to improve public finances might undermine the credibility of Finance Minister Levy's efforts to rein in spending, and to stave off a rating downgrade.

Exhibit 48: The weak budget balance surprise might increase the likelihood of a rating cut



Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

Exhibit 49: The pullback in the USDBRL risk reversal skew offers an attractive entry point



Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

Overall, we think the combination of these two factors (the end of the swap program and the disappointing budget data) will provide further momentum to the USDBRL uptrend.

We currently recommend being long USDBRL calls struck at 3.118, with a 23 June expiry. We favor holding on to the position, and we also think the entry point for fresh USDBRL longs is still reasonably attractive. While the high level of implied volatility makes outright calls expensive, the recent pullback in the skew (Exhibit 49) offers in our view an attractive opportunity to buy the risk reversal (long call, short put). The trade can be structured at low or even zero costs, the risks to the position are unlimited if USDBRL were to trade below the lower strike.

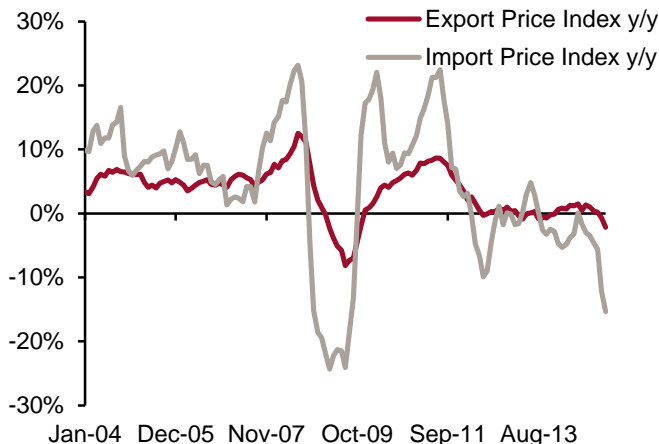
MXN: Testing Banxico's resolve

Banxico surprised dovish last week, leaving rates unchanged as expected, but casting a less upbeat outlook of the economy than at the January meeting. While the bank's focus on the potential impact of a weaker MXN and of US policy tightening on Mexico's financial stability remained unchanged, the portion of the statement dedicated to the growth outlook sounded considerably less confident on the strength of the recovery (see [here](#) for details).

The scaling down of the hawkish rhetoric and of the focus on the peso might be interpreted by the market as an invitation to test Banxico's resolve, in our view. In particular, with local rates still pricing in a tighter policy outlook for 2015, we think market participants will keep a very close eye on price and activity data, looking for signs of weakness that could cause them to further price out tightening expectations.

Early signals on this front are not particularly constructive. Inflation expectations, as measured by Mbonos and Udibonos have in fact fallen since the decision (Exhibit 51), against a backdrop of falling import prices, potentially discounting the impact of passthrough inflation from a weaker peso (Exhibit 50).

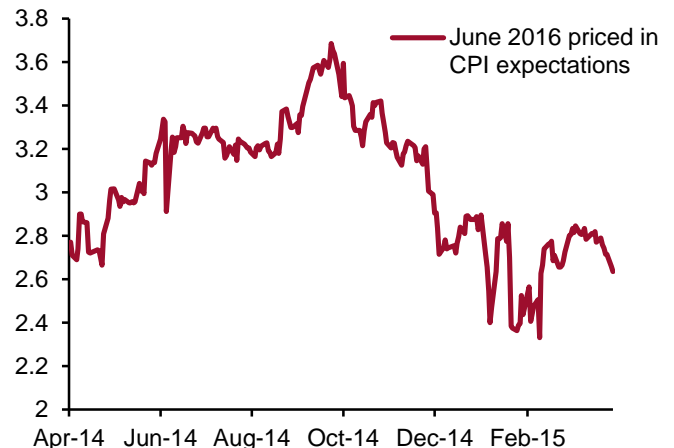
Exhibit 50: The decline in export prices has been paramount, but import prices have fallen too



Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

Exhibit 51: Near-term inflation expectations have come off post Banxico decision

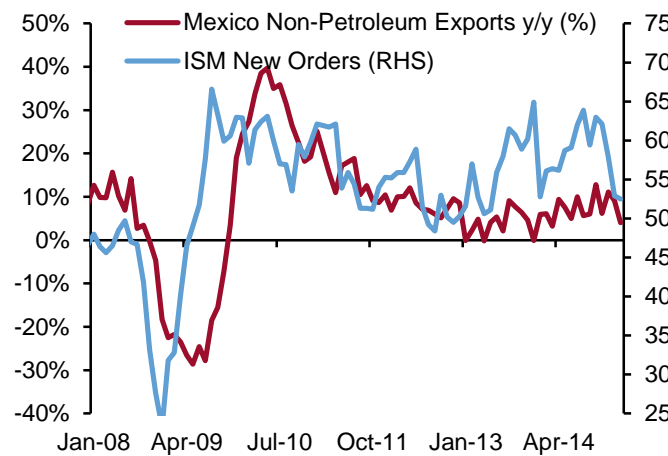
June 2016 Mbono YTM – June 2016 Udibono YTM (%)



Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

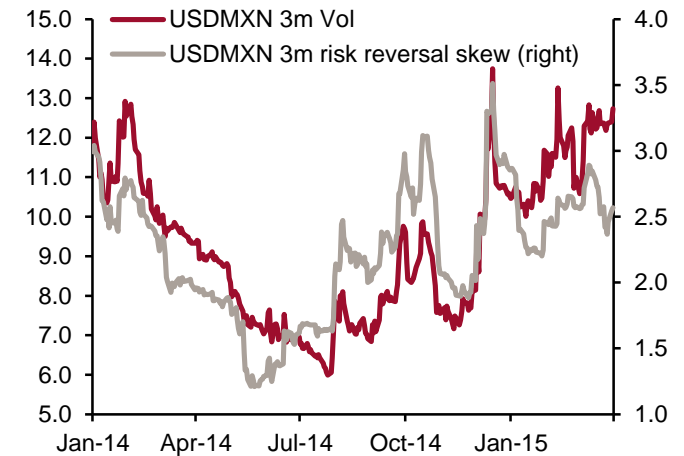
US data will also be in clear focus. Non-petroleum exports have responded strongly to the improvement in US demand over the past few months, shining a bright light of improving momentum on an otherwise less than exciting domestic growth environment (Exhibit 52). We think this would likely limit the potential for MXN to rally in the event of a poor surprise from US payrolls this week, as a deterioration in US growth momentum would likely further bias Banxico's policy bias in a less hawkish direction.

Exhibit 52: The non-oil segment of the economy has benefited of the acceleration in US demand



Source: Credit Suisse, the BLOOMBERG PROFESSIONAL™ service

Exhibit 53: The pullback in the risk reversal skew makes outright USDMXN calls attractive



Source: Credit Suisse

We still favor being long USDMXN at current levels, and currently recommend a call struck at 15.79 with a 21 July expiry. Our recommendation has benefited from the steady increase in implied volatility, and the long dated expiry allows us to capture key potential sources of volatility such as the June FOMC meeting (when we expect the first hike) and the final announcement of the Round One of the energy reform. The pullback in the risk reversal skew (Exhibit 53) makes in our view outright positioning in topside USDMXN attractive.

Technical Analysis

Research Analysts

David Sneddon
+44 20 7888 7173
david.sneddon@credit-suisse.com

Christopher Hine
+1 212 538 5727
Christopher.hine@credit-suisse.com

Oil stays bearish and we expect further weakness in CAD, NOK and COP

We have been long time bears on **Oil** and viewed the bounce at the beginning of the year as corrective and as part of a larger and ongoing bear trend. **Brent** is currently holding in a sideways converging range. However, open interest continues to swell, net positioning between commercials and manage money continues to diverge further and with the curve deep in 'contango' we remain bearish. We look for a break below \$52.57/50 to open a up a test of \$48.95 then the \$45.19 low. Beneath here would aim at our long-standing core target at \$39.35/\$34.55 - long-run price support stretching back to 1990.

Brent stays bearish for \$39.35/\$34.55

We remain long-time bears on Oil

WTI Crude targets \$41.15/\$39.65 then \$32.40

USDCAD above 1.2835/46 can target 1.3017/63

USDNOK maintains upside targets at 8.5090/6418

USDCOP stays bullish or 2776.00

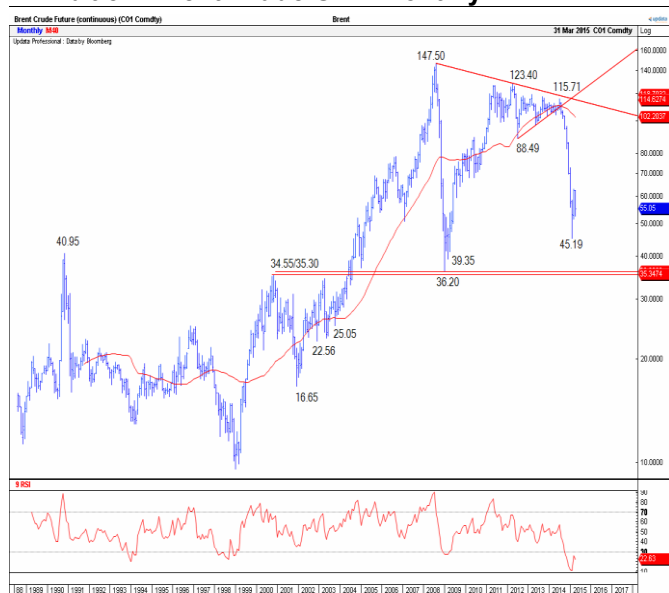
WTI Crude Oil also stays bearish for \$41.15/\$39.65 – the 78.6% retracement of the 1986/2008 rise/1990 peak. Below would expose the 2008 low at \$32.40.

USDCAD has been trapped in a sideways range since the end of January. Immediate focus is on the top end of the range showing at 1.2835/46. We would again expect this to cap initially. Extension above it would turn the core trend higher again for what is seen as a bigger challenge at the 2009 highs at 1.3017/3063. We would expect a ceiling to be found here and above it is needed to open up a more sustained phase of strength to test the 1995/96 price lows at 1.3262/75.

USDNOK's recent correction back to the March 2015 point of "breakout" and the rising 55-day average at 7.8745/7737 has drawn out solid buying. The recovery from here turns the focus back on the 8.4188 March high. Extension above here would turn the core trend higher again and aim at 8.5090/6418 – the "neckline" to the 2000 top and the 78.6% retracement of the 2000/08 decline. We would expect a cap here and above it is needed to target the 9.1445 high.

USDCOP's surge above the 2006/09 highs has managed to find a near-term ceiling at the 78.6% retracement of the 2003/08 fall at 2692.63. However, the retracement from here has found good buying support at the February "breakout" and the 55-day average at 2482.22/2469.50, leaving us still bullish for 2776.00, potentially the 2000 peak at 2980.00

Exhibit 54: Brent Crude Oil – monthly



Source: CQG, Credit Suisse

Exhibit 55: USDCAD – monthly



Source: CQG, Credit Suisse

Vanilla Portfolio Update

This week's updates

- No changes this week

Exhibit 56: Vanilla portfolio cumulative percent return (since 1 Sep 14)

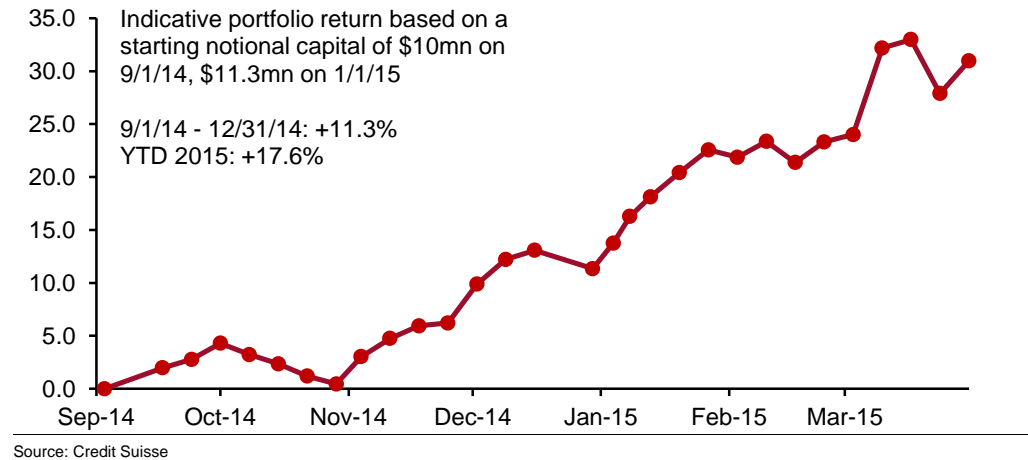


Exhibit 57: Current vanilla trade recommendations

Entry Date	Expiration	Trade	Details	Entry Cost/Level	Current Value	P&L (% of notional)	Notional (base ccy)	P&L (USD)
3-Mar-15	30-Jun-15	Sell 4m EURCAD risk reversal	Sell 1.4500, Buy 1.3500	(0.06%)	0.90%	0.84%	5,000,000	45,166
		Sell 4m 1.4500 EURCAD call		0.74%	0.49%	0.26%	5,000,000	13,711
		Buy 4m 1.3500 EURCAD put		(0.80%)	1.39%	0.59%	5,000,000	31,455
6-Feb-15	23-Jun-15	Buy 4m USDBRL call	Buy 3.118	(1.76%)	7.34%	5.58%	3,000,000	167,400
6-Feb-15	23-Jun-15	Buy 4m USDJPY call	Buy 121.85	(1.52%)	1.28%	(0.25%)	12,000,000	(29,400)
27-Jan-15	21-Apr-15	Buy 3m 1x1 USDCAD call spread	Buy 1.2500, Sell 1.2852	(0.92%)	1.57%	0.65%	12,000,000	78,000
		Buy 3m 1.2500 USDCAD call		(1.71%)	2.29%	0.58%	12,000,000	69,000
		Sell 3m 1.2852 USDCAD call		0.79%	0.72%	0.08%	12,000,000	9,000
13-Jan-15	14-Apr-15	Buy 3m USDTWD call	Buy 32.368	(0.46%)	0.02%	(0.45%)	5,000,000	(22,250)
13-Jan-15	21-Jul-15	Buy 6m USDMXN call	Buy 15.79	(1.47%)	1.98%	0.51%	10,000,000	50,500
22-Jan-15	14-Apr-15	Buy 3m 1x1 EURINR put spread	Buy 70.74, Sell 68.00	(1.53%)	3.42%	1.89%	5,000,000	101,355
		Buy 3m 70.74 EURINR put		(2.41%)	5.12%	2.71%	5,000,000	145,715
		Sell 3m 68.00 EURINR put		0.88%	1.71%	(0.83%)	5,000,000	(44,360)
22-Jan-15	14-Apr-15	Buy 3m 1x1 EURTRY put spread	Buy 2.6915, Sell 2.5922	(1.70%)	0.03%	(1.67%)	5,000,000	(89,795)
		Buy 3m 2.6915 EURTRY put		(2.53%)	0.03%	(2.50%)	5,000,000	(134,423)
		Sell 3m 2.5922 EURTRY put		0.83%	0.00%	0.83%	5,000,000	44,628
10-Mar-15	23-Jun-15	Buy 3m EURUSD put	Buy 1.0600	(2.04%)	1.73%	(0.32%)	10,000,000	(33,875)

Please see the Structured Securities, Derivatives, and Options Disclaimer.

Past performance should not be taken as an indication or guarantee of future performance, and no representation or warranty, express or implied, is made regarding future performance.

Information, opinions and estimates contained in this report reflect a judgment at the original date of publication by CS and are subject to change without notice. The price, value of and income from any of the securities or financial instruments mentioned in this report can fall as well as rise. The value of securities and financial instruments may be subject to exchange rate fluctuation that may have a positive or adverse effect on the price or income of such securities or financial instruments. The P&L results shown do not include relevant costs, such as commissions, interest charges, or other applicable expenses.

Source: Credit Suisse

Exhibit 58: Recently closed vanilla trade recommendations

Entry Date	Date Closed	Trade	Details	Entry Cost/Level	Ending Value	P&L (% of notional)	Notional (base ccy)	P&L (USD)
6-Feb-15	24-Mar-15	Buy 4m 1x2 USDBRL call spread	Buy 3.118, Sell 2.886	0.30%	0.11%	0.19%	3,000,000	5,700
3-Feb-15	24-Mar-15	Buy 3m 1x1.5 USDCLP call spread	Buy 630, Sell 654	(0.94%)	0.47%	(0.47%)	5,000,000	(23,250)
22-Jan-15	10-Mar-15	Buy 3m EURUSD put	Buy 1.1300	(1.84%)	5.83%	3.99%	10,000,000	426,875
24-Feb-15	5-Mar-15	Buy 1w AUDUSD strangle, sell USDMXN strangle	Buy 0.7934 / 0.7724, Sell 15.11 / 14.77	(0.09%)	0.00%	(0.09%)	6,384,065	(4,468)
24-Feb-15	5-Mar-15	Buy 1w USDCAD strangle, sell USDMXN strangle	Buy 1.2651 / 1.2336, Sell 15.11 / 14.77	(0.05%)	0.00%	(0.05%)	5,000,000	(2,500)
13-Jan-15	3-Mar-15	Buy 3m 1x1 USDMYR call spread	Buy 3.60, Sell 3.70	(0.85%)	0.95%	0.10%	5,000,000	7,750
17-Dec-14	17-Feb-15	Buy 2m USDJPY call	Buy 121.85	(0.82%)	0.00%	(0.82%)	10,000,000	(82,000)
25-Nov-14	3-Feb-15	Buy 3m 1x1 USDCLP call spread	Buy 608, Sell 630	(0.99%)	2.30%	1.31%	5,000,000	65,500
22-Jan-15	11-Feb-15	Sell 3m EURUSD put	Sell 1.0900	0.81%	0.76%	0.05%	10,000,000	5,667
28-Nov-14	27-Jan-15	Buy USDCAD (27 Feb 15 value date)	Target 1.3500, Stop 1.1920	1.144	1.240	8.38%	10,000,000	838,002
13-Jan-15	22-Jan-15	Buy 3m 1x1 EURINR put spread	Buy 74.18, Sell 71.54	(1.43%)	2.73%	1.30%	5,000,000	74,040
13-Jan-15	22-Jan-15	Buy 3m 1x1 EURTRY put spread	Buy 2.7434, Sell 2.6491	(1.53%)	2.12%	0.59%	5,000,000	33,603
13-Jan-15	22-Jan-15	Buy 3m 1x1 EURUSD put spread	Buy 1.1805, Sell 1.1391	(1.17%)	2.25%	1.08%	10,000,000	122,451
18-Nov-14	13-Jan-15	Buy 10w USDMXN call	Buy 14.04	(0.72%)	4.29%	3.57%	10,000,000	357,000
17-Dec-14	13-Jan-15	Sell USDMXN (17 Feb 15 value date)		14.500	14.612	(0.76%)	10,000,000	(76,355)
2-Dec-14	13-Jan-15	Buy 3m 1x1 USDMYR call spread	Buy 3.48, Sell 3.55	(0.74%)	1.45%	0.71%	5,000,000	35,250
18-Dec-14	13-Jan-15	Buy 1m 1x1 USDINR put spread	Buy 63.40, Sell 62.25	(0.78%)	1.65%	0.87%	10,000,000	86,500
17-Dec-14	13-Jan-15	Buy 2m EURUSD put	Buy 1.2247	(1.10%)	4.00%	2.90%	10,000,000	341,392
19-Dec-14	13-Jan-15	Buy EURCHF (19 Feb 15 value date)		1.2036	1.2007	(0.25%)	20,000,000	(49,235)

Please see the Structured Securities, Derivatives, and Options Disclaimer.

Past performance should not be taken as an indication or guarantee of future performance, and no representation or warranty, express or implied, is made regarding future performance.

Information, opinions and estimates contained in this report reflect a judgment at the original date of publication by CS and are subject to change without notice. The price, value of and income from any of the securities or financial instruments mentioned in this report can fall as well as rise. The value of securities and financial instruments may be subject to exchange rate fluctuation that may have a positive or adverse effect on the price or income of such securities or financial instruments. The P&L results shown do not include relevant costs, such as commissions, interest charges, or other applicable expenses.

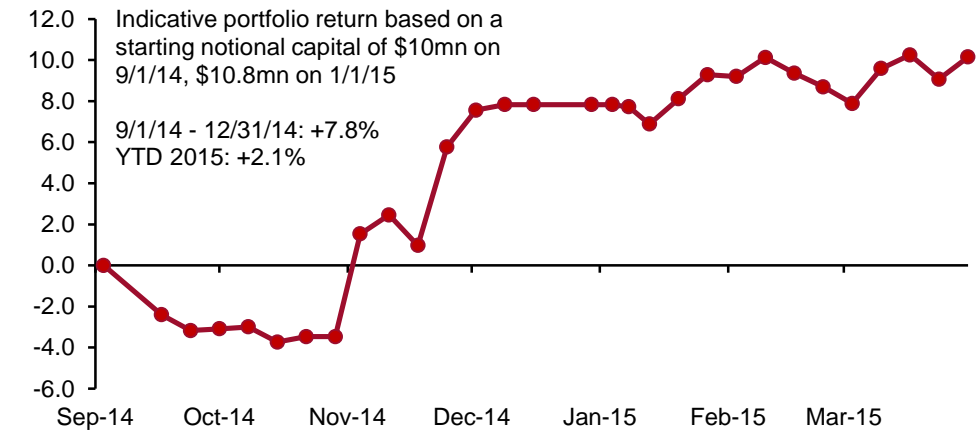
Source: Credit Suisse

Exotic Portfolio Update

This week's updates

- No changes this week.

Exhibit 59: Exotic portfolio cumulative percent return (since 1 Sep 14)



Source: Credit Suisse

Exhibit 60: Current exotic trade recommendations

Entry Date	Expiration	Trade	Details	Entry Cost/Level	Current Value	P&L (% of notional)	Base Notional	Portfolio Return (pp)	P&L (USD)
22-Jan-15	7-Jul-15	Buy 6m EURUSD digital put	Buy 1.02	(8.70%)	16.22%	7.52%	600,000	0.48	48,489
7-Jan-15	7-Oct-15	Buy 9m/1y EURUSD FVA	€40k per vega point	9.80%	10.38%	0.57%		0.25	24,734
7-Jan-15	7-Apr-15	Buy 3m/3m EURGBP FVA	€40k per vega point	9.90%	11.39%	1.49%		0.64	64,093
7-Jan-15	7-Jul-15	Buy 6m EURCAD vol swap	€40k per vega point	9.50%	10.80%	1.30%		0.56	55,920
7-Jan-15	29-Sep-15	Buy AUDUSD digital put	Buy 0.72	(13.85%)	22.27%	8.42%	600,000	0.38	38,433

Please see the Structured Securities, Derivatives, and Options Disclaimer.

Past performance should not be taken as an indication or guarantee of future performance, and no representation or warranty, express or implied, is made regarding future performance.

Information, opinions and estimates contained in this report reflect a judgment at the original date of publication by CS and are subject to change without notice. The price, value of and income from any of the securities or financial instruments mentioned in this report can fall as well as rise. The value of securities and financial instruments may be subject to exchange rate fluctuation that may have a positive or adverse effect on the price or income of such securities or financial instruments. The P&L results shown do not include relevant costs, such as commissions, interest charges, or other applicable expenses.

Source: Credit Suisse

Exhibit 61: Recently closed exotic trade recommendations

Entry Date	Date Closed	Trade	Details	Entry Cost/Level	Ending Value	P&L (% of notional)	Base Notional	Portfolio Return (pp)	P&L (USD)
4-Nov-14	5-Dec-14	Buy 1m EURAUD vol swap	€100k per vega point	7.30%	11.12%	3.82%		4.69	469,345
28-Oct-14	8-Dec-14	Buy 1m EURUSD vol swap	€100k per vega point	6.90%	8.40%	1.50%		1.85	184,752
9-Sep-14	9-Dec-14	Buy 3m/6m EURGBP FVA	€100k per vega point	7.90%	7.55%	(0.35%)		(0.43)	(43,295)
28-Oct-14	28-Nov-14	Buy 1m USDINR 1x1.5 RKI call spread	Buy 61.70, Sell 62.30, RKI 63.50	(0.26%)	0.32%	0.06%	5,000,000	(0.03)	3,110
26-Nov-13	4-Nov-14	Buy 1y1y USDRUB FVA	\$100k per vega point	12.00%	18.00%	6.00%		6.00	600,000

Please see the Structured Securities, Derivatives, and Options Disclaimer.

Past performance should not be taken as an indication or guarantee of future performance, and no representation or warranty, express or implied, is made regarding future performance.

Information, opinions and estimates contained in this report reflect a judgment at the original date of publication by CS and are subject to change without notice. The price, value of and income from any of the securities or financial instruments mentioned in this report can fall as well as rise. The value of securities and financial instruments may be subject to exchange rate fluctuation that may have a positive or adverse effect on the price or income of such securities or financial instruments. The P&L results shown do not include relevant costs, such as commissions, interest charges, or other applicable expenses.

Source: Credit Suisse

FX Forecast Summary

Major Currencies ¹	vs.	Spot	Forecasts		
			3m	12m	
US Dollar by market convention	TWI	88.50	91.17	95.43	Bullish: We believe the recent consolidation in the dollar is tactical not fundamental, and we continue to expect the Fed to hike in June. Our US economists now forecast three hikes (rather than four previously) this year, and if this is realised it will be substantially more aggressive than what the market is pricing in, suggesting that a long USD thesis still makes sense beyond the risk of an immediate correction.
	EUR	1.073	1.050	0.980	
	JPY	120.0	125.0	127.0	
	GBP	1.485	1.448	1.463	
	CHF	0.973	1.029	1.071	
	AUD	0.762	0.750	0.720	
	CAD	1.267	1.300	1.400	
Euro foreign currency units per euro	SEK	8.630	8.857	9.184	Bearish. After a period of consolidation, we think EURUSD will revert to its downtrend as diverging monetary policy comes to focus. Moreover, we think outflows from the Eurozone will support the trend further. QE is likely to disrupt the domestic investor bias, diverting capital investment towards foreign currency denominated securities. See EUR: The end of home bias .
	TWI	94.0	94.2	88.89	
	USD	1.073	1.050	0.980	
	JPY	128.8	131.3	124.5	
	GBP	0.723	0.725	0.670	
	CHF	1.044	1.080	1.050	
	AUD	1.409	1.400	1.361	
Japanese Yen yen per unit foreign currency	CAD	1.360	1.365	1.372	Bearish. We think monetary divergence will put USDJPY under pressure again, and that the market is still underestimating the risk of further BOJ easing in H2 2015. Japanese outflows should broadly support this dynamic.
	SEK	9.263	9.300	9.000	
	TWI	136.1	132.2	133.5	
	USD	120.0	125.0	127.0	
	EUR	128.8	131.3	124.5	
	GBP	178.2	181.0	185.8	
	CHF	123.38	121.53	118.53	
UK Sterling foreign currency units per pound	AUD	91.40	93.75	91.44	Bearish. While USD consolidation is challenging the position, we continue to look for GBP underperformance. With elections less than two months away now, the outcome still looks very uncertain. We see a good chance that implied vols, in EURGBP in particular, would rise again as investors start to demand insurance against some of the riskier scenarios. Secondly, the UK inflation outlook is proving particularly worrying. February headline CPI fell to 0.0%yoy from 0.3%yoy, undershooting BoE's near term forecast for 0.1%yoy.
	CAD	94.7	96.2	90.71	
	SEK	13.90	14.11	13.83	
	TWI	88.00	87.67	93.23	
	USD	1.48	1.45	1.46	
	EUR	1.38	1.38	1.49	
	JPY	178.16	181.03	185.76	
Swiss Franc francs per unit foreign currency (per 100 units for JPY and SEK)	CHF	1.44	1.49	1.57	Bearish. Ultra-low domestic yields, better risk appetite abroad and tentative evidence of a shift in the home bias of domestic investors suggest CHF weakness has further to run – especially in USDCHF. There is a large uncertainty regarding SNB's new policy strategy, but both ad-hoc FX interventions and further interest rate measures are possible. However, the effectiveness of these is likely to be challenged and we expect a higher CHF sensitivity to external rates and risk appetite factors.
	AUD	1.95	1.93	2.03	
	CAD	1.88	1.88	2.05	
	SEK	12.81	12.83	13.43	
	TWI	146.6	141.6	143.2	
	USD	0.973	1.029	1.071	
	EUR	1.044	1.080	1.050	
	JPY	0.811	0.823	0.844	
	GBP	1.444	1.490	1.567	
	AUD	0.741	0.771	0.771	
	CAD	0.767	0.791	0.765	
	SEK	11.27	11.61	11.67	

¹ Major currencies, defined and ranked by order of their reported foreign exchange market turnover from the BIS 2004 Triennial Central Bank Survey.

Regional Currencies	vs.	Spot	Forecasts		Comments	
			3m	12m		
Americas						
Brazilian Real	USD	3.204	3.300	3.500	Bearish. Brazil faces many short-term risks, including (but not limited to) power rationing, a rating downgrade, and political scandals.	
Canadian Dollar	TWI	105.2	103.1	96.4	Bearish. Structural effects from oil prices should continue to support our bearish view and may rekindle expectations for further BOC cuts.	
	USD	1.267	1.300	1.400		
Mexican Peso	USD	15.27	15.80	14.70	Neutral. The economy is starting to see benefits from the US recovery, but remains constrained by soft consumer demand. We still expect FDI to pick up in the medium term, but note that risks of a disappointment are rising.	
Colombian Peso	USD	2601	2650	2700	Bearish. Oil represents 60% of Colombia's exports. This makes COP the single most exposed currency in Latam to an extended rout in crude prices.	
Chilean Peso	USD	625.3	635.0	620.0	Neutral – We think local monetary policy is likely to remain vigilant in 2015, as the weaker CLP biases inflation expectations higher	
Pacific						
Australian Dollar	USD*	0.762	0.750	0.720	Bearish. Expectations for additional RBA cuts in the coming months should keep AUDUSD under pressure.	
	JPY*	91.40	93.75	91.44		
	NZD*	1.019	1.060	1.060		
	NZ Dollar	USD*	0.747	0.708	0.679	Bearish. Given RBNZ's reluctance to shift to a more dovish tone to date, the pressure on AUDNZD is likely to the downside for now. However, we view risk of an easing move remains high, given the weak inflation trajectory, and recent rebounds in NZD TWI.
		JPY*	89.68	88.44	86.26	
Scandinavia						
Swedish Krona	EUR	9.262	9.300	9.000	Bearish. We would expect Riksbank to step in via further easing action if SEK gets to about 9.00. We adjust our EURSEK forecast lower, but we keep it higher than spot for the three month horizon	
	USD	8.630	8.857	9.184		
Norwegian Krone	EUR	8.638	8.700	8.400	Bearish. Sharp oil price declines threaten the oil investment outlook and we expect NOK to be very vulnerable. The risk of a cut is particularly high with the domestic economy also showing early signs of weakness.	
	USD	8.048	8.286	8.571		
	SEK*	1.072	1.069	1.071		
Emerging Europe, Middle East and Africa						
Czech Koruna	EUR	27.57	27.40	27.40	Neutral. Low inflationary pressure should support the credibility of the floor while negative carry suggests the koruna can play the role of a funding currency for the region. In the medium term, we believe the inflation dynamic will prove crucial in determining the exit strategy from the current policy.	
Hungarian Forint	EUR	300.4	320.0	325.0	Bearish. Weak inflation, growth and policy risks should weigh on the forint. The easing cycle has pretty much evaporated all carry and further easing, despite proclamations from the central bank, cannot be excluded.	
Polish Zloty	EUR	4.07	4.20	4.10	Moderately bearish. The central bank is behind the curve with policy rates too high against the weak inflation. Further easing will remain a risk, while strong credit profile and credible policies should keep zloty from suffering too much on that.	
Israeli Shekel	USD	3.98	4.05	4.10	Bearish. NEER appreciation and deflation should bias BOI for further dovish surprises. Poor ILS carry and a hiking Fed support USDILS higher, and interventions are keeping the momentum going. Improving data are a risk.	

Regional Currencies	vs.	Spot	Forecasts		Comments
			3m	12m	
Russian Rouble	Bask	60.12	68.00	72.00	Long term bearish. Rouble may outperform during the current period of geopolitical truce, but we do not think the outperformance will hold in the longer term. Meanwhile the risk of a lower oil price remains.
(Bask: .55*USD+.45*EUR)	USD	58.197	66.504	72.654	
	EUR	62.5	69.8	71.2	
South African Rand	USD	12.137	11.750	12.250	Bearish: We have been relatively constructive on the rand in recent months, compared to other EMs, especially given the sharp fall in oil. The recent reluctance of the SARB to cut rates despite falling inflation supports this view.
	EUR	13.03	12.34	12.01	
Turkish Lira	Bask	2.69	2.85	2.87	Bearish: We do not see high risk-reward going short USDTRY as a favoured play during the current USD consolidation phase. Political volatility ahead of June elections is increasingly concerning, while trends in some cyclical indicators are very weak.
(Bask: .50*USD+.50*EUR)	USD	2.60	2.78	2.90	
	EUR	2.79	2.92	2.84	
Asia					
Chinese Renminbi (fix)	USD	6.14	6.26	6.27	Bearish: We expect PBoC to guide USDCNY fix higher to reduce pressures on the CNY trade weighted index and widen the CNY trading bands by 1pp to +/-3% in the next several months. Capital outflows should remain high now, providing a natural market force to weaken the yuan. However, we expect outflows to moderate later in the year, allowing China's large China's basic balance surplus of about \$125bn/qt to drive a recovery in spot USDCNY USDCNH to about 6.40 in Q4 or early Q1 2016.
Chinese Renminbi (offshore - CNH)	USD	6.21	6.45	6.40	
Indian Rupee	USD	62.5	62.5	63.5	Bearish. We view the recent budget as modestly positive for growth, but without a significant enough improvement in the deficit to encourage either ratings upgrades or a faster pace of interest rate cuts. Meanwhile, RBI has continued to buy USD aggressively to ease appreciation pressures on INR.
Indonesian Rupiah	USD	13074	13400	13800	Bearish. Current account deficit is correcting too slowly for IDR stability, in our view, particularly given its now much larger debt refinancing needs.
Korean Won	USD	1110	1120	1100	Bearish. BoK is likely to intervene persistently to boost USDKRW and ease appreciation pressure against JPY. Exports have been weak recently, but falling oil prices is adding to Korea's current account surplus.
Malaysian Ringgit	USD	3.70	3.75	3.70	Underperformance. Falling oil prices could push the current account surplus to a deficit by the middle of this year, and also carry negative implications on Malaysia's fiscal position and rating outlook. BNM is likely to intervene to smooth the pace of ringgit depreciation.
Philippines Peso	USD	44.7	44.5	45.0	Bullish. We see scope for resilient PHP performance given solid exports, and current account surplus potentially hitting 6% of GDP in 2015 thanks to falling oil prices. Outlook on capital flows should also improve this year following record outflows in 2014.
Singapore Dollar	USD	1.373	1.415	1.390	Bearish. We expect the MAS to widen the NEER trading bands to +/-3% from +/-2% in its April meeting. The NEER is likely to consolidate around 1.5% to 2% below mid in 3 months, before recovering towards mid in 12 months as cyclical data improve.
Taiwan Dollar	USD	31.31	32.30	32.30	Bearish. We think Taiwan's central bank's bias is to keep TWDKRW at the bottom end of its recent 34-37 range. This makes TWD a close proxy to the KRW and also the JPY.
Thai Baht	USD	32.56	32.60	33.20	Resilient. Thailand's current account surplus is rising rapidly due to falling oil prices and weak domestic demand, which should keep THB resilient in the near term. However, the REER is looking rich to THB's fundamentals and valuation constraints are likely to kick in over the medium term.

Exchange rates are home currency per foreign currency unit, unless indicated by * (= inverse quotation).
Source: Credit Suisse

GLOBAL FIXED INCOME AND ECONOMIC RESEARCH

Ric Deverell
Head of Global Fixed Income and Economic Research
+1 212 538 8964
ric.deverell@credit-suisse.com

GLOBAL MACRO PRODUCT STRATEGY

Sean Shepley
Head of Global Macro Product Strategy
+44 20 7888 1333
sean.shepley@credit-suisse.com

GLOBAL RATES STRATEGY

Helen Haworth, CFA
Co-Head of Global Rates
+44 20 7888 0757
helen.haworth@credit-suisse.com

Carl Lantz
Co-Head of Global Rates
+1 212 538 5081
carl.lantz@credit-suisse.com

EU RATES

Marion Pelata
+44 20 7883 1333
marion.pelata@credit-suisse.com

US RATES

Ira Jersey, US Head
+1 212 325 4674
ira.jersey@credit-suisse.com

Daniela Russell
+44 20 7883 7455
daniela.russell@credit-suisse.com

Carlos Pro
+1 212 538 1863
carlos.pro@credit-suisse.com

Florian Weber
+44 20 7888 3779
florian.weber@credit-suisse.com

William Marshall
+1 212 325 5584
william.marshall@credit-suisse.com

MARKET STRATEGIES

Sean Shepley
Head of Market Strategies
+44 20 7888 1333
sean.shepley@credit-suisse.com

Bill Papadakis
+44 20 7883 4351
bill.papadakis@credit-suisse.com

GLOBAL FX STRATEGY

Shahab Jalinoos
Head of Global FX Strategy
+1 212 325 5412
shahab.jalinoos@credit-suisse.com

Alvise Marino
+1 212 325 5911
alvise.marino@credit-suisse.com

Anezka Christovova
+44 20 7888 6635
anezka.christovova@credit-suisse.com

Matthew Derr
+1 212 538 2163
matthew.derr@credit-suisse.com

Bhaveer Shah
+44 20 7883 1449
bhaveer.shah@credit-suisse.com

TECHNICAL ANALYSIS

David Sneddon
Head of Technical Analysis
+44 20 7888 7173
david.sneddon@credit-suisse.com

Christopher Hine
+1 212 538 5727
christopher.hine@credit-suisse.com

James Lim
+65 6212 3612
lifeng.lim@credit-suisse.com

Disclosure Appendix

Analyst Certification

The analysts identified in this report each certify, with respect to the companies or securities that the individual analyzes, that (1) the views expressed in this report accurately reflect his or her personal views about all of the subject companies and securities and (2) no part of his or her compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this report.

Important Disclosures

Credit Suisse's policy is only to publish investment research that is impartial, independent, clear, fair and not misleading. For more detail, please refer to Credit Suisse's Policies for Managing Conflicts of Interest in connection with Investment Research: http://www.csfb.com/research-and-analytics/disclaimer/managing_conflicts_disclaimer.html.

Credit Suisse's policy is to publish research reports as it deems appropriate, based on developments with the subject issuer, the sector or the market that may have a material impact on the research views or opinions stated herein.

The analyst(s) involved in the preparation of this research report received compensation that is based upon various factors, including Credit Suisse's total revenues, a portion of which are generated by Credit Suisse's Investment Banking and Fixed Income Divisions.

Credit Suisse may trade as principal in the securities or derivatives of the issuers that are the subject of this report.

At any point in time, Credit Suisse is likely to have significant holdings in the securities mentioned in this report.

As at the date of this report, Credit Suisse acts as a market maker or liquidity provider in the debt securities of the subject issuer(s) mentioned in this report.

For important disclosure information on securities recommended in this report, please visit the website at <https://rave.credit-suisse.com/disclosures/view/fixedincome> or call +1-212-538-7625.

For the history of any relative value trade ideas suggested by the Fixed Income research department as well as fundamental recommendations provided by the Emerging Markets Sovereign Strategy Group over the previous 12 months, please view the document at http://research-and-analytics.csfb.com/docpopup.asp?ctbdocid=330703_1_en. Credit Suisse clients with access to the Locus website may refer to <http://www.credit-suisse.com/locus>.

For the history of recommendations provided by Technical Analysis, please visit the website at https://plus.credit-suisse.com/ECP_S/app/container.html#loc=/MENU_FI_ECON_TECHNICAL_ANALYSIS.

Credit Suisse does not provide any tax advice. Any statement herein regarding any US federal tax is not intended or written to be used, and cannot be used, by any taxpayer for the purposes of avoiding any penalties.

Emerging Markets Bond Recommendation Definitions

Buy: Indicates a recommended buy on our expectation that the issue will deliver a return higher than the risk-free rate.

Sell: Indicates a recommended sell on our expectation that the issue will deliver a return lower than the risk-free rate.

Corporate Bond Fundamental Recommendation Definitions

Buy: Indicates a recommended buy on our expectation that the issue will be a top performer in its sector.

Outperform: Indicates an above-average total return performer within its sector. Bonds in this category have stable or improving credit profiles and are undervalued, or they may be weaker credits that, we believe, are cheap relative to the sector and are expected to outperform on a total-return basis. These bonds may possess price risk in a volatile environment.

Market Perform: Indicates a bond that is expected to return average performance in its sector.

Underperform: Indicates a below-average total-return performer within its sector. Bonds in this category have weak or worsening credit trends, or they may be stable credits that, we believe, are overvalued or rich relative to the sector.

Sell: Indicates a recommended sell on the expectation that the issue will be among the poor performers in its sector.

Restricted: In certain circumstances, Credit Suisse policy and/or applicable law and regulations preclude certain types of communications, including an investment recommendation, during the course of Credit Suisse's engagement in an investment banking transaction and in certain other circumstances.

Not Rated: Credit Suisse Global Credit Research or Global Leveraged Finance Research covers the issuer but currently does not offer an investment view on the subject issue.

Not Covered: Neither Credit Suisse Global Credit Research nor Global Leveraged Finance Research covers the issuer or offers an investment view on the issuer or any securities related to it. Any communication from Research on securities or companies that Credit Suisse does not cover is a reasonable, non-material deduction based on an analysis of publicly available information.

Corporate Bond Risk Category Definitions

In addition to the recommendation, each issue may have a risk category indicating that it is an appropriate holding for an "average" high yield investor, designated as **Market**, or that it has a higher or lower risk profile, designated as **Speculative**, and **Conservative**, respectively.

Credit Suisse Credit Rating Definitions

Credit Suisse may assign rating opinions to investment-grade and crossover issuers. Ratings are based on our assessment of a company's creditworthiness and are not recommendations to buy or sell a security. The ratings scale (AAA, AA, A, BBB, BB, B) is dependent on our assessment of an issuer's ability to meet its financial commitments in a timely manner. Within each category, creditworthiness is further detailed with a scale of High, Mid, or Low – with High being the strongest sub-category rating: **High AAA, Mid AAA, Low AAA** – obligor's capacity to meet its financial commitments is extremely strong; **High AA, Mid AA, Low AA** – obligor's capacity to meet its financial commitments is very strong; **High A, Mid A, Low A** – obligor's capacity to meet its financial commitments is strong; **High BBB, Mid BBB, Low BBB** – obligor's capacity to meet its financial commitments is adequate, but adverse economic/operating/financial circumstances are more likely to lead to a weakened capacity to meet its obligations; **High BB, Mid BB, Low BB** – obligations have speculative characteristics and are subject to substantial credit risk; **High B, Mid B, Low B** – obligor's capacity to meet its financial commitments is very weak and highly vulnerable to adverse economic, operating, and financial circumstances; **High CCC, Mid CCC, Low CCC** – obligor's capacity to meet its financial commitments is extremely weak and is dependent on favorable economic, operating, and financial circumstances. Credit Suisse's rating opinions do not necessarily correlate with those of the rating agencies.

Structured Securities, Derivatives, Options, and Futures Disclaimer

General risks: Structured securities, derivatives, options (OTC and listed), and futures (including, but not limited to, commodity, foreign exchange, and security futures) are complex instruments that are not suitable for every investor, may involve a high degree of risk, may be highly illiquid, and may be appropriate investments only for sophisticated investors who are capable of understanding and assuming the risks involved. **There is a risk of unlimited, total, or significant loss resulting from the use of these instruments for trading and investment.**

Before entering into any transaction involving these instruments, you should ensure that you fully understand their potential risks and rewards and independently determine that they are appropriate for you given your objectives, experience, financial and operational resources, and other relevant circumstances. For options, please ensure that you have read the Options Clearing Corporation's disclosure document, available at: <http://www.optionsclearing.com/publications/risks/riskchap1.jsp>.

Risk of losses on options: The maximum potential loss on buying a call or put option is the loss of total premium paid. The maximum potential loss on selling a call option is unlimited. The maximum potential loss on selling a put option is substantial and may exceed the premium received by a significant amount. There are many other options combinations that entail significant risks and transaction costs: you should ensure they are appropriate for your situation and that you understand the risks.

Risk of losses on futures: The maximum potential loss on buying a futures contract is substantial (the loss of the value of the contract) and can be amplified by leverage. The maximum potential loss on selling a futures contract is unlimited.

OTC options and other derivatives: In discussions of OTC options and other derivatives, the results and risks are based solely on the hypothetical examples cited; actual results and risks will vary depending on specific circumstances. Investors are urged to consider carefully whether these products, as well as the products or strategies discussed herein, are suitable to their needs. While some OTC markets may be liquid, transactions in OTC derivatives may involve greater risk than investments in exchange-listed derivatives because there is no exchange market on which to liquidate a position and it may be very difficult to assess the value of the position because bid and offer prices need not be quoted.

Structured products: These products often have a derivative component. As a result, they carry not only the risk of loss of principal, but also the possibility that at expiration the investor will own the reference asset at a depressed price. Even if a structured product is listed on an exchange, active and liquid trading markets may not develop and the structured product may be thinly traded.

Taxation: Because of the importance of tax considerations for many option and other derivative transactions, investors considering these products should consult with their tax advisors as to how taxes affect the outcome of contemplated options or other derivatives transactions. You should consult with such tax, accounting, legal or other advisors as you deem necessary to assist you in making these determinations.

Transaction costs: Such costs may be significant in option strategies calling for multiple purchases and sales of options and other derivatives, such as spreads and straddles. Commissions and transaction costs may be a factor in actual returns realized by the investor and should be taken into consideration.

Trading on margin: Margin requirements vary and should be determined before investing as they can impact your profit potential. If the market moves against your position, you may be called upon by your broker to deposit a substantial amount of additional margin funds, on short notice, in order to maintain your position. If you do not provide the required funds within the time required by your broker, your position may be liquidated at a loss, and you will be liable for any resulting deficit in your account.

Further information: Supporting documentation for any claims, comparisons, recommendations, statistics or other technical data in this material will be supplied upon request. Any trade information is preliminary and not intended as an official transaction confirmation. If you have any questions about whether you are eligible to enter into these transactions with Credit Suisse, please contact your sales representative.

References in this report to Credit Suisse include all of the subsidiaries and affiliates of Credit Suisse operating under its investment banking division. For more information on our structure, please use the following link: https://www.credit-suisse.com/who_we_are/en. This report may contain material that is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or which would subject Credit Suisse AG or its affiliates ("CS") to any registration or licensing requirement within such jurisdiction. All material presented in this report, unless specifically indicated otherwise, is under copyright to CS. None of the material, nor its content, nor any copy of it, may be altered in any way, transmitted to, copied or distributed to any other party, without the prior express written permission of CS. All trademarks, service marks and logos used in this report are trademarks or service marks or registered trademarks or service marks of CS or its affiliates. The information, tools and material presented in this report are provided to you for information purposes only and are not to be used or considered as an offer or the solicitation of an offer to sell or to buy or subscribe for securities or other financial instruments. CS may not have taken any steps to ensure that the securities referred to in this report are suitable for any particular investor. CS will not treat recipients of this report as its customers by virtue of their receiving this report. The investments and services contained or referred to in this report may not be suitable for you and it is recommended that you consult an independent investment advisor if you are in doubt about such investments or investment services. Nothing in this report constitutes investment, legal, accounting or tax advice, or a representation that any investment or strategy is suitable or appropriate to your individual circumstances, or otherwise constitutes a personal recommendation to you. CS does not advise on the tax consequences of investments and you are advised to contact an independent tax adviser. Please note in particular that the bases and levels of taxation may change. Information and opinions presented in this report have been obtained or derived from sources believed by CS to be reliable, but CS makes no representation as to their accuracy or completeness. CS accepts no liability for loss arising from the use of the material presented in this report, except that this exclusion of liability does not apply to the extent that such liability arises under specific statutes or regulations applicable to CS. This report is not to be relied upon in substitution for the exercise of independent judgment. CS may have issued, and may in the future issue, other communications that are inconsistent with, and reach different conclusions from, the information presented in this report. Those communications reflect the different assumptions, views and analytical methods of the analysts who prepared them and CS is under no obligation to ensure that such other communications are brought to the attention of any recipient of this report. Some investments referred to in this report will be offered solely by a single entity and in the case of some investments solely by CS, or an associate of CS or CS may be the only market maker in such investments. Past performance should not be taken as an indication or guarantee of future performance, and no representation or warranty, express or implied, is made regarding future performance. Information, opinions and estimates contained in this report reflect a judgment at its original date of publication by CS and are subject to change without notice. The price, value of and income from any of the securities or financial instruments mentioned in this report can fall as well as rise. The value of securities and financial instruments is subject to exchange rate fluctuation that may have a positive or adverse effect on the price or income of such securities or financial instruments. Investors in securities such as ADR's, the values of which are influenced by currency volatility, effectively assume this risk. Structured securities are complex instruments, typically involve a high degree of risk and are intended for sale only to sophisticated investors who are capable of understanding and assuming the risks involved. The market value of any structured security may be affected by changes in economic, financial and political factors (including, but not limited to, spot and forward interest and exchange rates), time to maturity, market conditions and volatility, and the credit quality of any issuer or reference issuer. Any investor interested in purchasing a structured product should conduct their own investigation and analysis of the product and consult with their own professional advisers as to the risks involved in making such a purchase. Some investments discussed in this report may have a high level of volatility. High volatility investments may experience sudden and large falls in their value causing losses when that investment is realised. Those losses may equal your original investment. Indeed, in the case of some investments the potential losses may exceed the amount of initial investment and, in such circumstances, you may be required to pay more money to support those losses. Income yields from investments may fluctuate and, in consequence, initial capital paid to make the investment may be used as part of that income yield. Some investments may not be readily realisable and it may be difficult to sell or realise those investments, similarly it may prove difficult for you to obtain reliable information about the value, or risks, to which such an investment is exposed. This report may provide the addresses of, or contain hyperlinks to, websites. Except to the extent to which the report refers to website material of CS, CS has not reviewed any such site and takes no responsibility for the content contained therein. Such address or hyperlink (including addresses or hyperlinks to CS's own website material) is provided solely for your convenience and information and the content of any such website does not in any way form part of this document. Accessing such website or following such link through this report or CS's website shall be at your own risk. This report is issued and distributed in Europe (except Switzerland) by Credit Suisse Securities (Europe) Limited, One Cabot Square, London E14 4QJ, England, which is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. This report is being distributed in Germany by Credit Suisse Securities (Europe) Limited Niederlassung Frankfurt am Main regulated by the Bundesanstalt fuer Finanzdienstleistungsaufsicht ("BaFin"). This report is being distributed in the United States and Canada by Credit Suisse Securities (USA) LLC; in Switzerland by Credit Suisse AG; in Brazil by Banco de Investimentos Credit Suisse (Brasil) S.A or its affiliates; in Mexico by Banco Credit Suisse (México), S.A. (transactions related to the securities mentioned in this report will only be effected in compliance with applicable regulation); in Japan by Credit Suisse Securities (Japan) Limited, Financial Instruments Firm, Director-General of Kanto Local Finance Bureau (*Kinsho*) No. 66, a member of Japan Securities Dealers Association, The Financial Futures Association of Japan, Japan Investment Advisers Association, Type II Financial Instruments Firms Association; elsewhere in Asia/ Pacific by whichever of the following is the appropriately authorised entity in the relevant jurisdiction: Credit Suisse (Hong Kong) Limited, Credit Suisse Equities (Australia) Limited, Credit Suisse Securities (Thailand) Limited, regulated by the Office of the Securities and Exchange Commission, Thailand, having registered address at 990 Abdulrahman Place, 27th Floor, Unit 2701, Rama IV Road, Silom, Bangkok, Bangkok 10500, Thailand, Tel. +66 2614 6000, Credit Suisse Securities (Malaysia) Sdn Bhd, Credit Suisse AG, Singapore Branch, Credit Suisse Securities (India) Private Limited (CIN no. U67120MH1996PTC104392) regulated by the Securities and Exchange Board of India (registration Nos. INB230970637; INF230970637; INB010970631; INF010970631), having registered address at 9th Floor, Ceejay House, Dr.A.B. Road, Worli, Mumbai - 18, India, T- +91-22 6777 3777, Credit Suisse Securities (Europe) Limited, Seoul Branch, Credit Suisse AG, Taipei Securities Branch, PT Credit Suisse Securities Indonesia, Credit Suisse Securities (Philippines) Inc., and elsewhere in the world by the relevant authorised affiliate of the above. Research on Taiwanese securities produced by Credit Suisse AG, Taipei Securities Branch has been prepared by a registered Senior Business Person. Research provided to residents of Malaysia is authorised by the Head of Research for Credit Suisse Securities (Malaysia) Sdn Bhd, to whom they should direct any queries on +603 2723 2020. This report has been prepared and issued for distribution in Singapore to institutional investors, accredited investors and expert investors (each as defined under the Financial Advisers Regulations) only, and is also distributed by Credit Suisse AG, Singapore branch to overseas investors (as defined under the Financial Advisers Regulations). By virtue of your status as an institutional investor, accredited investor, expert investor or overseas investor, Credit Suisse AG, Singapore branch is exempted from complying with certain compliance requirements under the Financial Advisers Act, Chapter 110 of Singapore (the "FAA"), the Financial Advisers Regulations and the relevant Notices and Guidelines issued thereunder, in respect of any financial advisory service which Credit Suisse AG, Singapore branch may provide to you. This information is being distributed by Credit Suisse AG, Dubai Branch, duly licensed and regulated by the Dubai Financial Services Authority (DFSA), and is directed at Professional Clients or Market Counterparties only, as defined by the DFSA. The financial products or financial services to which the information relates will only be made available to a client who meets the regulatory criteria to be a Professional Client or Market Counterparty only, as defined by the DFSA, and is not intended for any other person. This research may not conform to Canadian disclosure requirements. In jurisdictions where CS is not already registered or licensed to trade in securities, transactions will only be effected in accordance with applicable securities legislation, which will vary from jurisdiction to jurisdiction and may require that the trade be made in accordance with applicable exemptions from registration or licensing requirements. Non-U.S. customers wishing to effect a transaction should contact a CS entity in their local jurisdiction unless governing law permits otherwise. U.S. customers wishing to effect a transaction should do so only by contacting a representative at Credit Suisse Securities (USA) LLC in the U.S. Please note that this research was originally prepared and issued by CS for distribution to their market professional and institutional investor customers. Recipients who are not market professional or institutional investor customers of CS should seek the advice of their independent financial advisor prior to taking any investment decision based on this report or for any necessary explanation of its contents. This research may relate to investments or services of a person outside of the UK or to other matters which are not authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority or in respect of which the protections of the Prudential Regulation Authority and Financial Conduct Authority for private customers and/or the UK compensation scheme may not be available, and further details as to where this may be the case are available upon request in respect of this report. CS may provide various services to US municipal entities or obligated persons ("municipalities"), including suggesting individual transactions or trades and entering into such transactions. Any services CS provides to municipalities are not viewed as "advice" within the meaning of Section 975 of the Dodd-Frank Wall Street Reform and Consumer Protection Act. CS is providing any such services and related information solely on an arm's length basis and not as an advisor or fiduciary to the municipality. In connection with the provision of the any such services, there is no agreement, direct or indirect, between any municipality (including the officials, management, employees or agents thereof) and CS for CS to provide advice to the municipality. Municipalities should consult with their financial, accounting and legal advisors regarding any such services provided by CS. In addition, CS is not acting for direct or indirect compensation to solicit the municipality on behalf of an unaffiliated broker, dealer, municipal securities dealer, municipal advisor, or investment adviser for the purpose of obtaining or retaining an engagement by the municipality for or in connection with Municipal Financial Products, the issuance of municipal securities, or of an investment adviser to provide investment advisory services to or on behalf of the municipality. If this report is being distributed by a financial institution other than Credit Suisse AG, or its affiliates, that financial institution is solely responsible for distribution. Clients of that institution should contact that institution to effect a transaction in the securities mentioned in this report or require further information. This report does not constitute investment advice by Credit Suisse to the clients of the distributing financial institution, and neither Credit Suisse AG, its affiliates, and their respective officers, directors and employees accept any liability whatsoever for any direct or consequential loss arising from their use of this report or its content. Principal is not guaranteed. Commission is the commission rate or the amount agreed with a customer when setting up an account or at any time after that.

Copyright © 2015 CREDIT SUISSE AG and/or its affiliates. All rights reserved.

Investment principal on bonds can be eroded depending on sale price or market price. In addition, there are bonds on which investment principal can be eroded due to changes in redemption amounts. Care is required when investing in such instruments.

When you purchase non-listed Japanese fixed income securities (Japanese government bonds, Japanese municipal bonds, Japanese government guaranteed bonds, Japanese corporate bonds) from CS as a seller, you will be requested to pay the purchase price only.