Global FX Strategy

FX Bi-Weekly: EUR/USD: How high can it go?

FX

Global

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EUR/USD: How high can it go?

In a piece last month (*EUR/USD: How low can it go?* April 7, 2015), we argued that despite a seemingly endless list of negatives for the euro, EUR/USD was likely to be higher on a two-year time horizon, not below parity, as many were predicting. This was based both on estimates of longer-term fair value, which we see as being above 1.20, as well as our view that last year's cyclical divergence between the US and Euro area was so unusual that it shouldn't be extrapolated forward.

Consistent with that view, though faster than we expected, EUR/USD is now finding a higher range that is more in line with underlying fundamentals. With the market still short EUR/USD, and long-term fair value above the current spot level, it is now worth asking the opposite question: How high can EUR/USD go?

EUR/USD upside and base case

We think the 1.20 area represents the potential near-term upside for EUR/USD, though this is not our base case. We think EUR/USD is unlikely to trade above 1.20 on a sustained basis in the near-term, as such a move would likely trigger a dovish response from the ECB.

Rather, our base case is that following last year's extreme cyclical divergence, the US and Euro area economies will see some re-synchronization, keeping EUR/USD in more of a range. We think this range will have an upward bias over the longer-term due to valuation, with near-term fluctuations driven by US activity data and European yields.

Opportunities abound: bullish currencies where central banks can hike early

Just because we see EUR/USD in a range doesn't mean we don't see good opportunities in FX. On the long side, we prefer CAD, GBP, NOK, and NZD. All of these have in common that their central banks can hike early, which in an environment of extremely low rates globally, will be a key to currency outperformance.

Bearish JPY, SEK, and EM

There are three areas in which we are bearish: (1) JPY due to Japan-specific yen-negative factors; (2) Small open economies where policy rates are at or below zero and inflation remains very low, Sweden for example; and (3) Emerging market currencies.

CHF: Crossing the threshold

For our spotlight article this week, we look at some of the potential changes surrounding SNB and the implications for the franc. The recent changes to exemptions criteria for sight deposits by the SNB marks a new phase of their monetary policy execution. We believe that there is greater scope for flexibility to not only improve the distribution of negative rate payments, but also to increase the effective negative rate on sight deposits. Doing so would heavily influence the forward market and gradually increase the cost of the maintaining of large-scale CHF liquidity pools. The Danish Central Bank's operations of late serve as a good template to follow.

FX Macro Thoughts

Daniel Waldman
Head of FX Strategy

The key global macro assumptions that form the basis of our FX views remain unchanged. We are constructive risk markets over the next three-to-six months, as the global backdrop of moderate growth, low inflation, and easy monetary policy is very likely to continue. As we saw during Fed QE, equity market gains can be contemporaneous with central bank balance sheet expansion, suggesting further upside in global equities, Europe and Japan in particular.

The sharp rise in European bond yields has generated much debate regarding its causes and consequences. Positioning has likely played a role, particularly in the speed of the adjustment, but we think this is mostly normalization from levels that had simply gotten too low relative to fundamentals.

Higher global yields have raised some concern about the impact on equities, but with the level of yields still very low, we think it is the cause that matters. If yields were rising because of inflation fears, that would be more of a concern for risk assets. Expectations of reflation may be playing some part, but we think the rise in yields is more about normalization. Even after the sharp increase, 10-year Bund yields are only back to December levels, and 70bp lower than a year ago.

EUR/USD: How high can it go?

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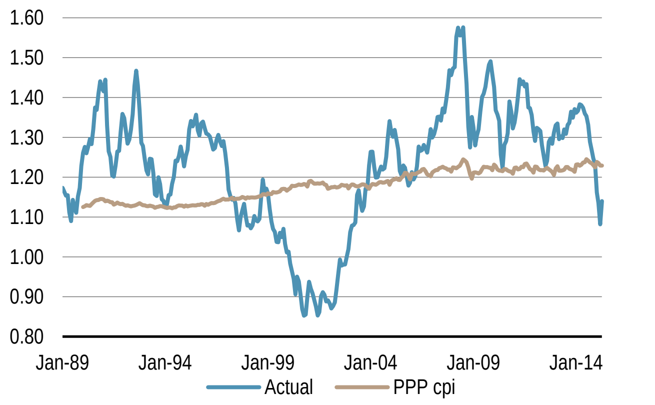
Consistent with that view, though faster than we expected, EUR/USD is now finding a higher range that is more in line with underlying fundamentals. With the market still short EUR/USD, and long-term fair value above the current spot level, it is now worth asking the opposite question: How high can EUR/USD go?

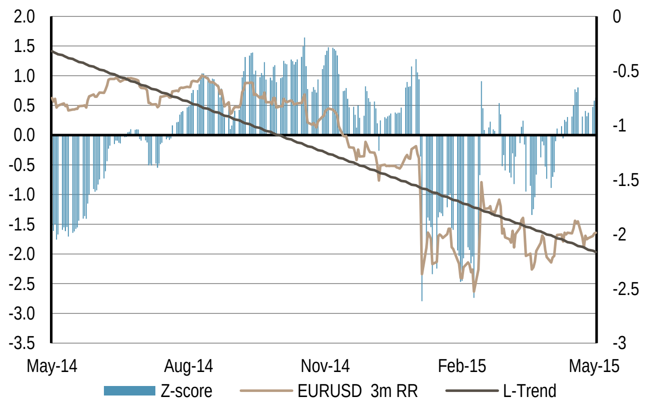
This is a tougher question. Nearly half of the valuation gap has been closed since March, and we know that exchange rates can deviate from fair value for long periods of time. So, fair value isn't useful for a point forecast now.

Figure 1:EUR/USD remains below PPP value



Source: Bloomberg, UBS

Figure 2: Skew-based option market positioning



Source: Bloomberg, UBS Calculations

Focusing on central bank reaction functions can be helpful here. Just as a cautious Fed helped stabilize EUR/USD near 1.05, ECB hesitance should define the near-term upside. As such, thinking about where the ECB might become more cautious is a useful exercise.

The March 2015 ECB Staff Macroeconomic Projections provide a good starting point. The Projections use a base case of EUR/USD at 1.13 throughout the forecast horizon. With this assumption, they forecast HICP rising to 1.8% in 2017. This is important, as 1.8% is approximately where the ECB would like inflation to be.

How would these forecasts change if EUR/USD were to move significantly away from 1.13? Fortunately, the ECB estimates and publishes the impact of an alternative exchange rate path on its forecasts. The scenario assumes gradual depreciation in EUR/USD to 1.04 in 2017. In this scenario, they estimate that HICP inflation would be higher by 0.1-0.4 percentage points in 2015, 2016 and 2017.

If we assume the relationship is symmetric, a quick move in EUR/USD to 1.22 would lower their forecast for 2017 HICP to somewhere around 1.4% or 1.5%. It is difficult to say for certain if, or how quickly, the ECB would respond, especially if oil or growth were responsible for the move higher in EUR/USD. However, all else equal, we think a quick move to around 1.22 would make the ECB more dovish and increase speculation that QE will continue beyond September 2016.

ECB President Draghi has said a number of times they want HICP to return to target in a *sustainable* fashion, and it is unlikely that an inflation forecast of 1.4% or 1.5% in 2017 would be consistent with this. As such, a quick move to 1.22 would likely become self-defeating, triggering dovish rhetoric and possibly action.

Base case: Re-synchronization

While the 1.20 area represents potential upside for EUR/USD, it is not our base case, and we think it is unlikely to trade there on a sustained basis in the near-term, given the potential for such a move to generate a response from the ECB.

Rather, our base case is that following last year's extreme cyclical divergence, the US and Euro area economies will see some re-synchronization, keeping EUR/USD in more of a range. We think this range will have an upward bias over the longer-term due to valuation, with near-term fluctuations driven by US activity data and European yields.

As we have noted previously, the cyclical divergence that took EUR/USD from almost 1.40 to 1.05 in a straight line was unusual, and unlikely to be repeated. Core CPI is a good illustration. While US core CPI stabilized in 2014, Euro area core CPI fell from an average of 1.1% y/y in 2013 to 0.8% in 2014.

Relative to market expectations, divergence was even more extreme, with the correlation between UBS inflation surprise indices for the US and Euro area falling to -60% in 2014. This is unusual, as inflation surprises between the US and Euro area tend to be positively correlated, with a sample average of +80% (Figure 3).

More recently, divergence has gone in the opposite direction, with US growth slowing sharply and Euro area growth outperforming in Q1, leading to the rebound in EUR/USD.

Significant monetary easing, an improving credit cycle, reduced fiscal austerity, and the boost from a weaker euro, should all support Euro area growth of around 1.6% this year, and 2.0% in 2016. At the same time, US growth has averaged

2.5%, 2.3%, and 2.1% during the past 8, 16, and 24 quarters, respectively, and is likely to eventually settle closer to this modest pace.

Key question: what could move EUR/USD to the extremes of the range or beyond?

- **Upside: European rate normalization or delayed Fed lift-off**

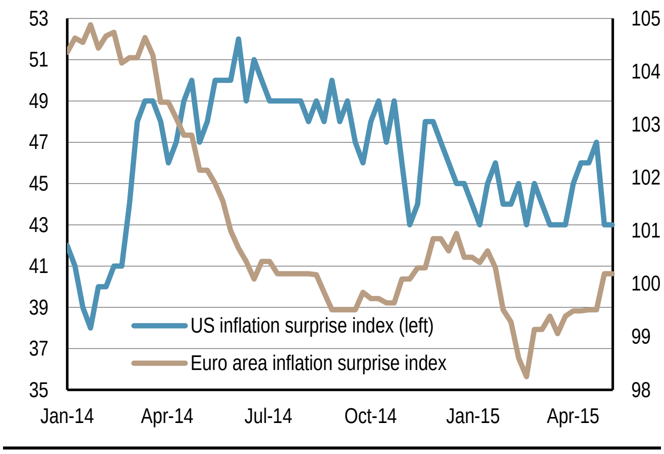
A significant further rise in European bond yields could push EUR/USD above 1.20. Even at current levels, European bond yields should provide support for the euro. It is important to keep in mind that it wasn't just the change in yields that mattered. The very low level itself was giving rise to fears of significant bond outflows, and fears that central banks would diversify reserves out of the euro. With yields off their lows, these concerns should ease.

Our European rate strategists think there is further upside in European bond yields. Growth fundamentals are improving in the region, and the effect of this on yields should outweigh static supply/demand analysis that argues for a shortage of Euro area government bonds. This would be consistent with the behaviour of US yields during QE, as they rose notably during all three rounds. The 160bp spread between 10-year US Treasuries and Bunds is still close to the prior all-time high, even after the recent decline (Figure 4). In a normalizing cyclical environment, this could certainly come in further, pushing EUR/USD higher.

The other key potential driver of a rise in EUR/USD to 1.20 is a further delay in market pricing for the first Fed rate hike. Weak growth and low inflation have already led markets to re-price the first hike later, and further growth weakness or continuing low inflation could push the first hike out further.

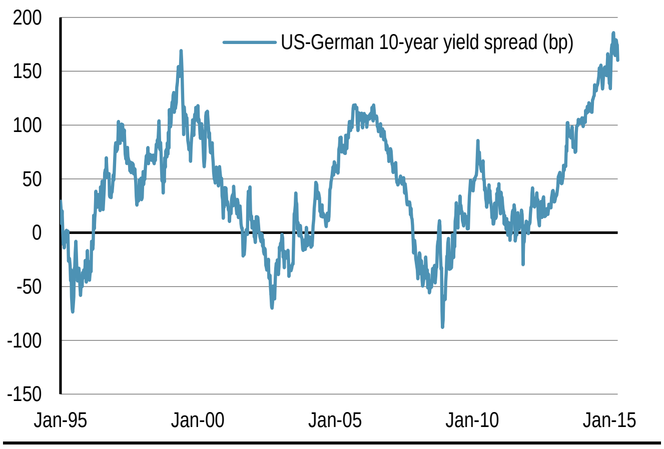
Finally, if a sharp rise in oil prices were to raise Euro area inflation expectations and ECB forecasts, this could also push EUR/USD toward 1.20.

Figure 3: Extreme cyclical divergence in 2014



Source: Bloomberg, UBS

Figure 4: Spread still close to all-time high



Source: Bloomberg, UBS

- **Downside: Long-standing ideas die hard, and Greece**

What could push EUR/USD back toward the lower end of the range? Better US data is the most obvious answer. Markets have finally marked down expectations for the Q2 US growth bounce to around 2.0%. This may still prove too optimistic, though the near-term bar for better US data to benefit the dollar is probably low.

Markets tend not to give up on long-standing ideas easily, and the short EUR/USD view has been one of the most widely subscribed macro views of the last few years. Many investors still believe strongly in it, and would likely try to re-short on any improvement in the US data, even if the improvement is modest. If the US data bounce in Q2 is stronger than expected, we could see a fall in EUR/USD.

The other key near-term downside risk for EUR/USD is Greece. Although a bad outcome is not our economists' base case, as they believe a compromise will eventually be found, negative Greek headlines could push EUR/USD lower.

Opportunities outside of EUR/USD

The above makes it difficult to have an aggressive near-term view in EUR/USD. Predictions of a range may appear uninteresting, but such an environment provides significant opportunities. First, even if the range ends up being wide, less divergence in cycles should push EUR/USD volatility lower. We find that in years where US and Euro area inflation surprises have been positively correlated, EUR/USD volatility tends to be significantly lower than years in which inflation surprises are negatively correlated.

Second, the more than 20% decline in EUR/USD from July 2014 to March 2015 left little room for variance among currencies. Given the Euro area's status as the world's largest trading entity, any currency appreciating against the dollar would have seen a large trade-weighted appreciation, something central banks have been keen to avoid. But if we are right about there being more stability in EUR/USD going forward, opportunities should open up elsewhere.

Stay long where central banks can hike early

With rates close to zero nearly everywhere, and expected to remain low for years, currencies from countries that may see an early onset to hikes stand to benefit.

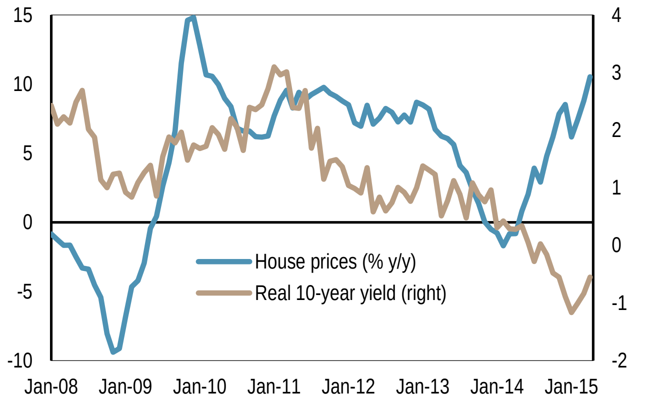
- **NOK: Keep an eye on the housing market**

NOK continues to benefit from the pick-up in oil prices and Norges Bank's reluctance to cut rates. Oil at current levels is likely priced into the currency, and with investment intentions marked down, stabilization should benefit NOK.

Figure 5: Exports + imports as % GDP

Source: Haver, UBS

Figure 6: Housing market accelerating with low rates



Source: Bloomberg, UBS

NOK should also continue to benefit from being less open than nearly all of its European peers: exports plus imports account for less than 70% of GDP (Figure

5,). Given the global nature of the disinflation shock, downward pressure on inflation is less severe in Norway than in more open economies, and at the same time, Norway benefits less from a weaker currency.

Less discussed, but potentially very important, is the state of the housing market. After some weakness in early 2014, house prices have bounced sharply, and prices are up 10% y/y. With real rates strongly negative (Figure 6, previous page), and good fundamentals, this is likely to continue, and could make some tightening acceptable to Norges Bank. This can take place through both FX and rates.

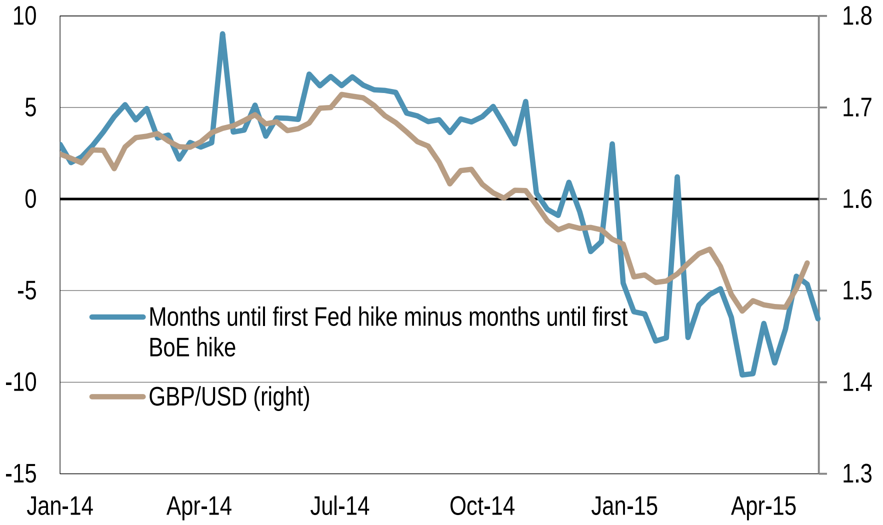
- **GBP: Focus on the cyclical**

With the election in the rear-view mirror, markets should be better able to focus on the UK's strong cyclical position. With headline inflation having fallen to zero, core around 1.0%, and Carney expressing concern about currency strength, a near-term rate hike seems unlikely. However, market pricing has moved so far during the past year that the risk-reward from positioning for an earlier hike is favourable.

During the past three quarters, market expectations for a first hike by the BoE have been pushed out significantly. Current market pricing for a first hike in Q2 2016 seems too far, particularly on a relative basis. For context, markets were priced for the BoE to hike ahead of the Fed during most of 2014 (Figure 7). This has reversed sharply, with markets now priced for a first Fed hike two quarters ahead of the BoE. We think this gap is too wide, and although not the base case, it is certainly possible that the BoE could hike ahead of the Fed.

This would have significant implications for GBP/USD, which traded well above 1.60 last year when markets were pricing the BoE to hike ahead of the Fed. At the same time, downside in GBP/USD is more limited, given market pricing.

Figure 7: For much of 2014, markets were expecting the BoE to hike first



Source: Bloomberg, UBS Rates Strategy

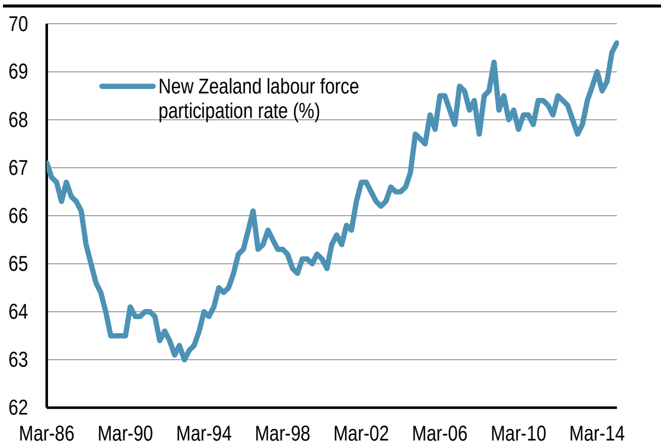
- **NZD: Sell-off overdone**

The recent sell-off in NZD looks overdone, and represents a good buying opportunity. Although the employment data was below market expectations, and inflation is on the lows, markets are now priced for a rate cut, which presents good risk-reward in the currency.

Unemployment rose in Q1, but was mostly driven by the participation rate (Figure 8), which now stands at an all-time high. The surge of new migrants into the country continues to put upward pressure on the housing market, which after a brief slowdown in Q3 and Q4 of last year has begun to accelerate to the upside. House price growth is back to the highs at more than 9% y/y (Figure 9). The RBNZ has announced further macro-prudential measures to try to contain it, and while such measures can be effective, there will be second round effects on economic activity and prices from the labour-intensive construction boom.

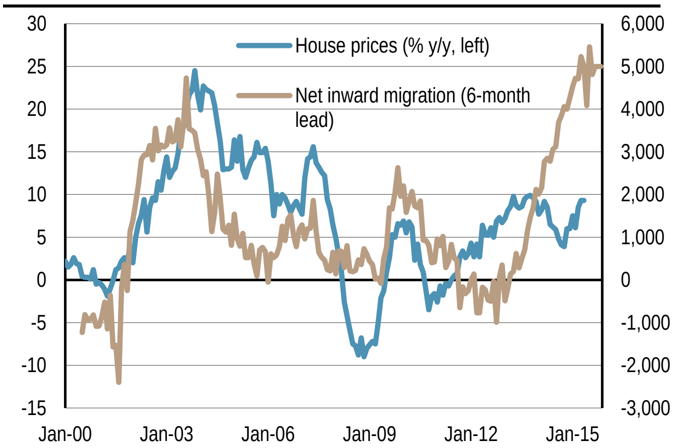
With growth at 3.5% y/y, the highest since 2006, upward pressure on inflation should build. While it is possible that the RBNZ cuts rates this year, we think they are likely on hold, which given market pricing, would be bullish for NZD.

Figure 8: NZ labour force participation at all-time high



Source: Bloomberg, UBS

Figure 9: Inward migration boosting housing market



Source: Bloomberg, UBS

- **CAD: Is the output gap smaller than perceived?**

Long CAD features in one of our key themes. We are broadly bearish EM versus DM currencies based on the dispersion between EM and DM growth, unresolved structural problems in many EM economies, and still-overvalued real exchange rates. Long CAD/ZAR is our favourite expression of this theme, with CAD a good representation of better DM fundamentals.

Structural changes in the Canadian economy suggest that the hit to terms-of-trade will be less severe than in the past, as Canada is less of a pure commodity exporter than before. This is consistent with the strong performance in non-energy related activities, where the net contribution to growth is likely to be the strongest in a decade, and may be leading to an overestimation of the negative output gap. Core CPI has now held above 2.0% for eight consecutive months, suggesting there may not be much, if any slack remaining.

Within G10 commodity currencies, we expect oil-exposed CAD to outperform AUD, where the capex boom is likely to continue to unwind regardless of what happens to the price of Australia's commodity exports.

Where are we bearish?

We are bearish FX in three main areas: 1/ JPY due to Japan-specific yen-negative factors; 2/ Small open economies where policy rates are at or below zero and inflation remains very low, Sweden for example; and 3/ Emerging markets.

- **JPY: USD/JPY resilient in the face of a weaker USD**

Despite a 9% rise in EUR/USD since mid-March, USD/JPY is down less than 2% during this time and continues to trade idiosyncratically. It has traded more idiosyncratically than all G10 USD pairs (except USD/CHF) during the past year.

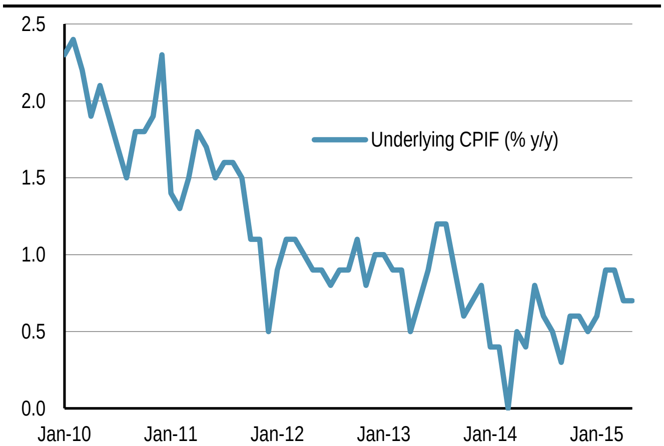
Potential drivers of yen weakness remain powerful, with further easing from the BoJ likely as inflation undershoots the 2% target. Markets are under-pricing this risk, with shorts having been pared back to their lowest levels since 2012, and Japan off the radar of many investors. Continuing and potentially accelerated portfolio diversification into foreign securities by Japanese investors should also keep the yen in a weakening trend.

- **SEK: Disinflation in a small open economy**

One of our key themes this year is to be short currencies from small open economies where policy rates are at or below zero and inflation remains very low. These economies receive the worst of global disinflationary pressures due to their openness, but benefit the most from a weaker exchange rate. This makes currency weakness in such places a logical and necessary policy response.

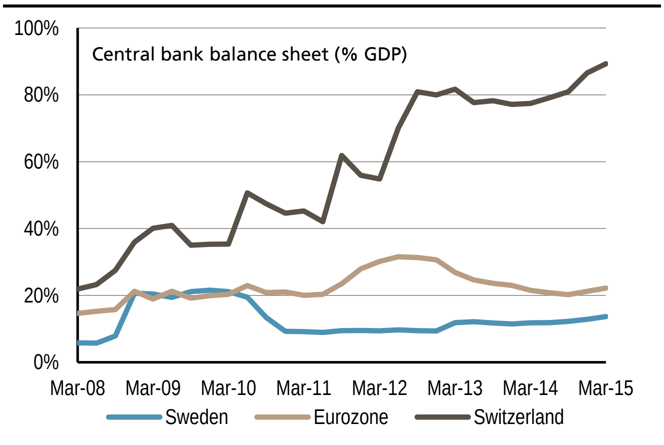
Sweden is a nearly perfect representation of this theme. Underlying inflation surprised lower again in April, with core down to 0.7% y/y (Figure 10). With the policy rate well below zero, a weaker SEK should be an important part of the Riksbank's tool kit. Sweden's lack of private-sector financial assets, low national net-debt burden, and low 10-year government bond yields all further the case that currency weakness should be an effective way to get inflation back to target. We think the Riksbank's tolerance zone for EUR/SEK weakness is 9.20 – 9.35, and they could take unannounced action around these levels.

Figure 10: Swedish inflation remains uncomfortably low



Source: Bloomberg, UBS

Figure 11: Riksbank's balance sheet has room to grow



Source: Macrobond, UBS

- **EM FX: Delayed Fed lift-off won't save EM FX**

Although some might view delayed lift-off from the Fed as supportive of EM FX, we don't think this is the case. As our EM strategists note, EM FX failed to rally last year when conditions were close to ideal-- modest growth pick-up in the US, very low inflation, very easy G3 monetary policy, and low market volatility. This was likely a reflection of unresolved structural problems in many EM economies and still-overvalued real exchange rates. If EM FX couldn't rally in that backdrop, there is little reason to think a delay in Fed lift-off will allow much of a rally now.

Although nominal exchange rates have depreciated across the EM universe, weak trade positions suggest that more work needs to be done. In many EMs, despite nominal depreciation, real exchange rates remain overvalued, as real appreciation has taken a toll on competitiveness.

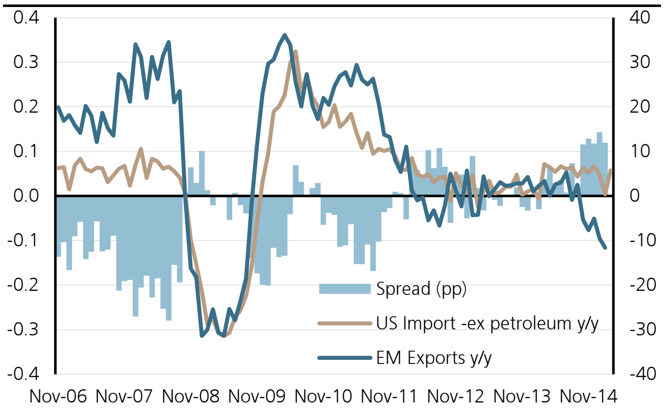
To the extent that weaker US growth is delaying lift-off, it is also negative for EM growth, which struggled even when US growth performed well last year. As our EM strategists have noted (see EM Cross Asset Strategy – Has the EM Reflation trade begun, May 11th), EM exports haven't benefitted from stronger US import demand growth, even during strong growth quarters (Figure 12). With US growth having slowed, EM exports are even more at risk.

We like short ZAR versus long CAD as the best market expression of our DM versus EM theme. Despite the ZAR's depreciation, there has been very shallow pass-through to export volumes, including in non-commodity sectors such as vehicles and machinery equipment. Our EM strategists have previously highlighted that structural impediments such as the oligopolistic structure of exporter firms, strained industrial relations, and power and infrastructure constraints for example are weighing on South Africa's competitiveness.

Second, after accounting for relative growth in unit labour costs, we find that the ZAR REER is trading in line with its 10-year average-- there has been no major depreciation in real terms. Third, South Africa's basic balance (net FDI and current account receipts) remains the worst in mainstream EM at 6.5% of GDP. Financing remains heavily dependent on portfolio flows and external debt that can be sensitive to further FX weakness and/or deterioration in external credit markets.

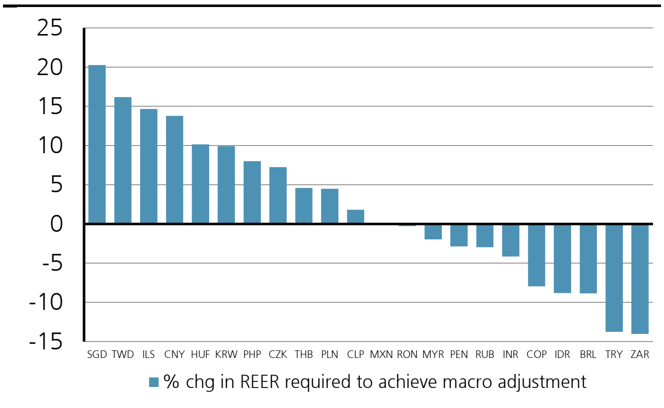
ZAR certainly isn't the only EM currency with valuation and competitiveness problems. Our strategists recently updated their EM FX valuation framework (Figure 13), and believe that BRL, TRY, IDR, and COP remain overvalued as well.

Figure 12: US demand versus EM exports



Source: UBS EM Strategy

Figure 13: FEER model valuation



Source: UBS EM Strategy

CHF: Crossing the SNB Threshold

Geoffrey Yu

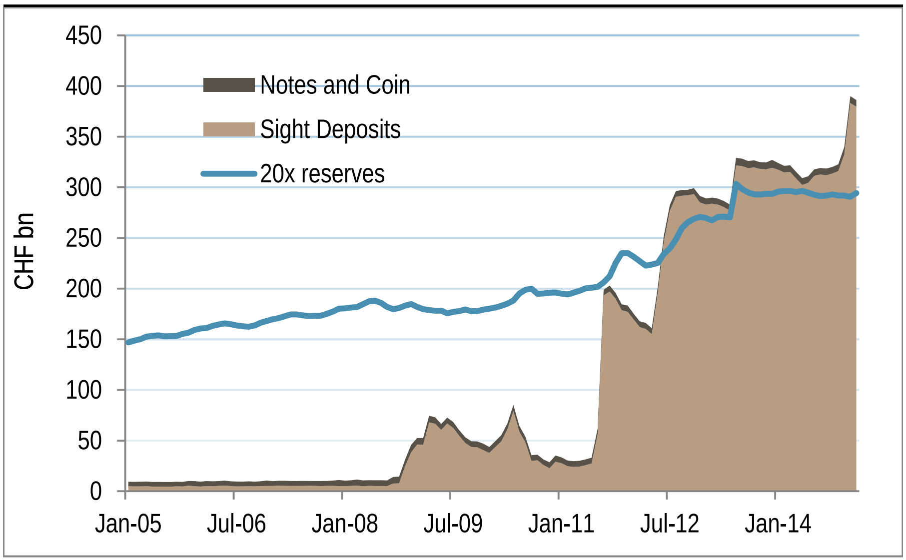
Summary: The SNB's negative rate thresholds can be more powerful

- Last month the Swiss National Bank chose to narrow the exemptions for entities which could hold balances at the SNB without incurring the 0.75% negative rate. The decision, while only marginally increasing the total amount of reserves subject to the rate, sent a powerful signal to markets that it would stand ready to intervene through unconventional methods, even without the floor in place.

Market implications: Deeper carry costs in holding CHF, forcing flows out

- The decision has not affected the balances held by the domestic banking system. With all but social security system deposits at the SNB now affected by negative rates in the non-banking sector, the next level to pull as an easing step, if required, would be to lower the 20x minimum reserves on domestic bank sight deposits to increase the banking balances subject to the negative rate. While the SNB may have a 'target expansion amount' in mind, the current distribution of balances charged is actually quite uneven. If the SNB wishes to avoid a situation where smaller retail banks will be forced to charge normal depositors, some degree of differentiation in thresholds may be required. The Swiss franc will remain sensitive to any such changes and react accordingly both in foreign exchange and funding markets.

Figure 14: Minimum Reserves Enforcement, Switzerland



Source: Swiss National Bank

Who is actually paying negative on sight deposits?

The weekly SNB report doesn't give the full picture

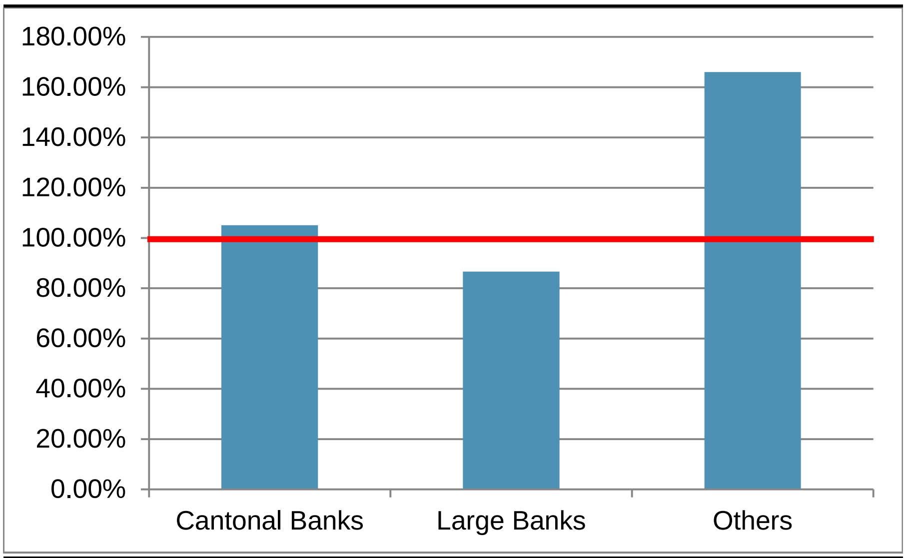
The Swiss National Bank updates sight deposit balances on a weekly basis while the reserve requirement is static through the maintenance period from the 20th of a month until the 19th of the following month. As of the week ending April 17th 2015, the total amount of sight deposits of domestic banks stood at CHF383.984bn, while minimum reserves as of the January-February reporting period stood at CHF14.531bn. Assuming the requirement has not changed significantly in the past two months, the current size of sight deposits *for the domestic banking system* subject to the negative interest rate is approximately CHF93.4bn. However, this does not capture the distribution of sight deposits held

by different categories of banking entities which are subject to the rate, and is actually a significant underestimate based on February balances.

Big banks are below the threshold, as of February

Firstly, the term 'domestic banks' is a bit of a misnomer. For example, as of the April Bulletin of Banking Statistics (with February numbers), 252 institutes were listed as subject to the minimum reserves and this figure includes not only the traditional 'Big banks (2)', 'Cantonal Banks (24)', Regional and Sparkassen (58) categories, but also 'Foreign Banks (97, Swiss branches listed)' and others[1]. As the criteria for minimum reserves is based on the size of liabilities, proportionally the 26 'Big' and 'Cantonal Banks' take up just over 50% of the minimum reserve requirement. However, the level of sight deposits relative to 20x their minimum reserves is far smaller: as of February, the Cantonal Bank figure stood at 105.12% and big banks only 86.64%. The figure for the 'others category' is 166%, which individually are smaller in scale. They account for the bulk of deposits now incurring the negative rate.

Figure 15: Sight deposits as % of 20x minimum reserves (February)[2]



Source: SNB, UBS Calculations; Others include foreign bank branches, savings banks, cooperatives etc.

Smaller, 'other' banks account for 96% of deposits facing negative rates

As the balances below twenty times minimum reserves are not affected by negative rates, as of February the actual size of banks' sight deposits affected should not include the portion below the threshold for the large banks. For example, as of February, while the total 'excess' was CHF85.152bn, Cantonal banks and 'Others' excess (beyond 20x minimum reserves) figure combined was actually closer to CHF96.7bn, just over a quarter of the CHF379.5bn total held in sight deposit accounts. Based on the scale of domestic banks' sight deposit growth since February, the total subject to negative rates in the sector is fast approaching CHF100bn, and over 90% of which is held by the smaller 'others' category.

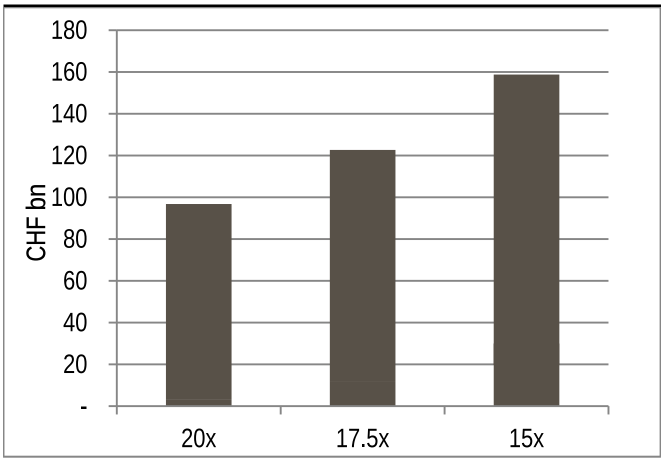
[1] Breakdown and definitions of banking entities listed in 'Monthly Balance Sheets' section of the April Monthly Bulletin of Banking Statistics, tables 1A onwards. Available at http://www.snb.ch/en/iabout/stat/statpub/bstamon/stats/bstamon; the actual number as publically disclosed by the SNB is 297 (not including overseas branches), including 11 based in Liechtenstein. Full list available at http://www.snb.ch/en/emi/mire/MIREL/15.04
[2] Data from the April SNB Monthly Statistical Bulletin, Table B3 'Minimum Reserves', available at http://www.snb.ch/en/iabout/stat/statpub/smpub/stats/statmon

The transmission from sight deposits into FX

Blanket drop in thresholds still hurts 'other' banks

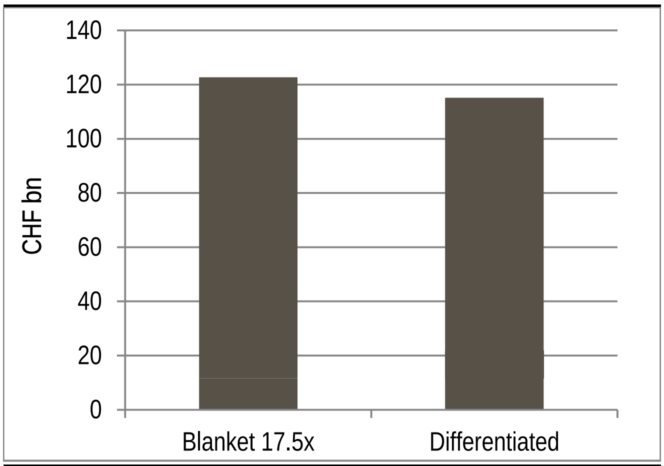
Without taking a view on why the disparity in sight deposit holdings exists between different types of banks, it does mean that the SNB would need to be careful in additional easing in the form of lowering the exemption threshold. Again, based on the February balances, a drop to 17.5x minimum reserves would increase the total size of sight deposits subject to negative deposit rates to over CHF120bn, but the distribution of payments would still be quite imbalanced, as opposed to a drop to 15x. However, the absolute size would continue to be quite high and raise more questions about the burden on depositors. The adverse consequences of negative rates could become more visible to the public and manifest itself in the form of weaker pension fund performance and rising fees on retail bank accounts. All of these issues will be politically contentious (for details see FX Comment: the SNB and negative rates, March 16th 2015).

Figure 16: Sight deposits subject to blanket thresholds



Source: UBS Calculations

Figure 17: Sight deposits with differentiated thresholds



Source: UBS Calculations

A tiered approach can redistribute the share facing negative rates

Another option would be to adopt outright differentiation by setting different exemption thresholds or adjust minimum reserve requirements for different categories of banks. For example, if the SNB wishes to increase total size and share of cantonal and larger banks' share of sight deposits subject to negative balances but without increasing the absolute 'burden' on 'other banks' category, instead of a blanket lowering of the threshold to 17.5x minimum reserves, a 'tiered move', with thresholds of 20x, 17.5x and 15x for bank categories based on their 'distance' from the corresponding threshold would yield a sizeable increase in the absolute size of the balances subject to negative rates: CHF122.7bn for blanket, CHF115.bn for tiered. The share of 'others' banks balances would fall from 91% to 81%. Similar outcomes could arise if there are changes to the minimum reserve requirements, though as this would likely require new legislation and changes to the National Bank Act (NBA), the SNB would probably prefer not to go down this route. In general, a tiered approach can provide the SNB with more flexibility and there can be additional differentiation amongst the 226 banks in the 'others' category. Assumptions will need to be made about the difference in capacity to absorb negative rates, which UBS Equity Research detailed in our February report.

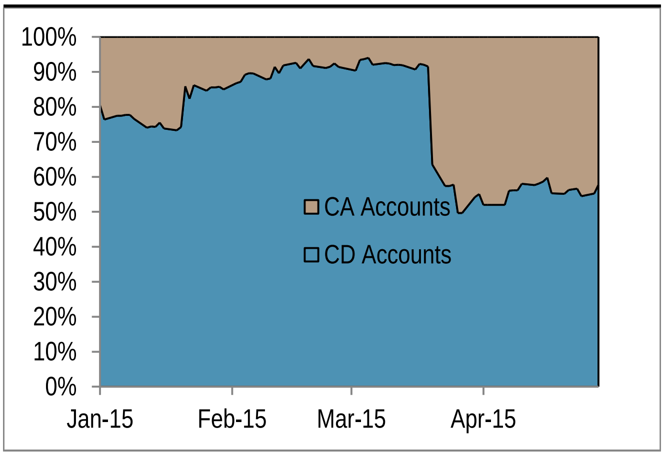
The effective rate matters in final transmission to FX forward markets and applying the negative rate

The introduction of negative rates on bank deposits' at the central bank is designed to deter holding the currency in question. The source of cost of liquidity is directly transmitted into FX markets where forward rates reflect the deepening interest rate differential. Yet, the 'source costs' of negative rates are still set by the central bank and the experience of Denmark shows how retaining flexibility with

the kind or amount of deposits which actually pay negative rates can go far in accentuating the 'penalty' effect. Once the pressure on the exchange is lifted, the affected amounts can actually be reduced gently, which not only is an effective tightening, but serves as a domestic policy tool to ease the burden on bank margins and avoid exacerbating financial imbalances.

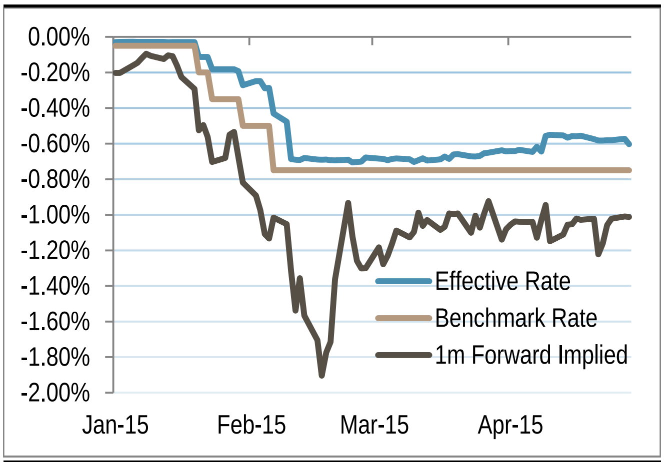
In Denmark, bank reserves can be deposited into both the current account (CA), where each institution is subject to a cap, and the certificate of deposit account (CD), where limits do not apply. When negative rates apply, banks are incentivised to fill their current account deposits but a low cap would limit their ability to do so and force bank reserves to stay in the certificate of deposit account. This was paramount when Danmarks Nationalbank was defending the integrity of the currency board. However, by mid-March the central bank was comfortable enough to 'declare victory' and immediately lifted the current account holdings cap from DKK37bn to DKK145bn. It has since been raised further to DKK173bn.

Figure 18: Denmark bank reserve deposit shares



Source: Danmarks Nationalbank

Figure 19: Interest rate transmission (Denmark)



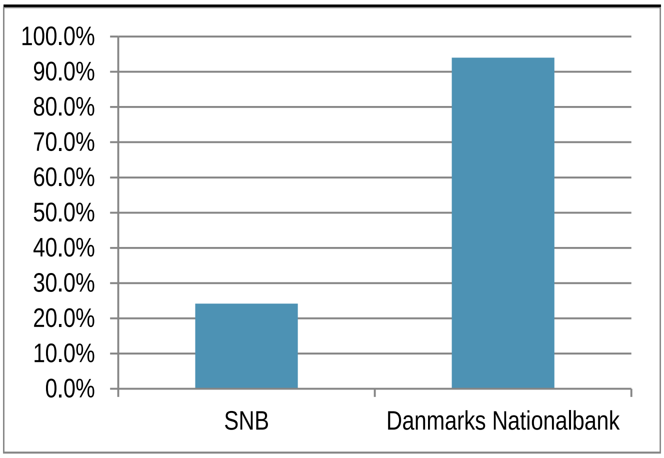
Source: UBS Calculations, using USDDKK 1m forward net of USD 1m depo

Immediate effective 15bp cut can happen in Denmark through current account cap changes

Figure 19 shows the weighted average of the interest rates basically approached the benchmark rate almost all the marginal flow was squeezed into the certificate of deposit accounts. As a result, the 'source rate' of DKK approached 75bp and the effect on the forward market was clear: as source rates become more 'expensive' the forward market aggravated the response and ultimately attacks on the EURDKK peg gradually ran out of steam towards the end of February. At present, the effective rate has increased materially due to the higher allowance in Denmark on the current account balances, and forward rates have also normalised to some extent. However, the deterrence effect is strong. Without any changes in the benchmark interest rates, simply but reducing again the current account cap the central bank can effectively cut source interest rates by close to 15bp. As Greece risks have picked up somewhat this step may come closer than envisaged.

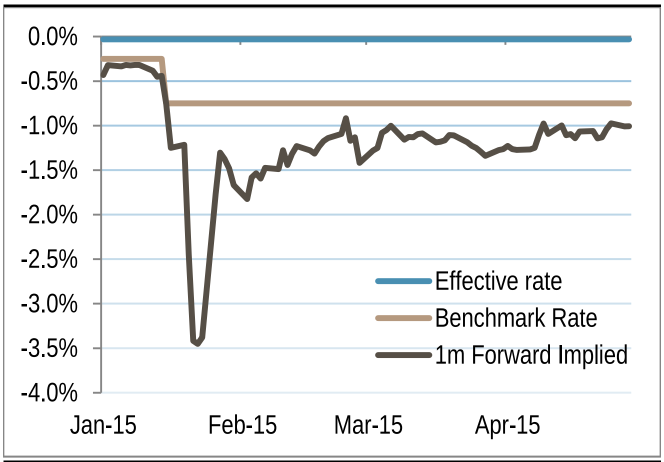
We are not suggesting the Danish and Swiss systems are comparable. Switzerland does not defend any hard peg and there is no longer any facility to hold bank reserves at zero costs. However, as the previous sections have detailed, the current payment of negative deposit rates is somewhat unevenly distributed between institutions (there is far less segmentation of the Danish banking sector compared to Switzerland) and the actual amount subject to negative rates relative to total is limited. As figure 20 shows, at its peak, the share of bank reserves subject to negative rates was far smaller in Switzerland compared to that in Denmark.

Figure 20: Peak share of total reserves charged negative



Source: UBS Calculations

Figure 21: Interest rate transmission (Switzerland)



Source: UBS Calculations, using USDCHF 1m forward net of USD 1m depo

We would discount the period of instability in FX and forward markets around the time of the floor drop, since February we can see that forward implied rates have drifted back towards the benchmark rates. However, as opposed to the situation in Denmark, the pressure is actually returning to the SNB and the most recent sight deposit figures strongly suggest that some degree of intervention has taken place in April, due to Greece-related safety flow. Again, we stress that the SNB has no currency target mandate so enforcing a Denmark-style system is difficult, but there is no guarantee that any additional rise in sight deposits would result in them directly being charged negative. If having a deeply negative rate is designed to be a complementary deterrence tool, then it is not being used to maximum effect.

Only a small adjustment to the threshold can have an outsized effect; distribution of costs is an internal matter

The striking fact is that the SNB can actually achieve a lot more 'with less': even at barely 25% of sight deposits being charged negative and a 'source' cost of about -18bp, forward markets imply a near 1% holding cost for the franc, which is comparable to the DKK's cost of carry. Yet the negative rate being applied relative to the banking system is far larger in Denmark. The SNB's next step should heavily focus on calculating an outright amount of sight deposits which can be subject to negative rates without normal depositors being asked to shoulder any additional burden. As forward markets move, the flows influencing spot FX would likely follow as costs become onerous without the requisite event risk to hint at any major EURCHF reversal. A blanket drop is desirable of course and easier to communicate to markets, though if issues arise with respect to the distribution of banks paying negative rates – which clearly was behind the recent narrowing of exemptions – a tiered approach is also possible. The primary target should still be the net amount of sight deposits being subject to negative rates. We also hold the view that options markets in EURCHF and EURDKK are also good places to watch for Greece-related 'protection' trades. No doubt central banks will be tracking such indicators as well ahead in deciding upon any policy changes.

Franc sensitive to any form of easing, but underlying bid in place

Franc cares little about source of funding costs, will react to easing headlines

Price action last Wednesday shows that the Swiss franc remains highly sensitive to any indication of easing by the SNB. However, this is probably more attributable to issues with market functionality and its ability to adjust to a new hybrid policy framework, rather than responding to the news itself. However, a sizeable increase in the scale of sight deposits subject to negative rates would have a clear impact on funding markets and penalize the holders of the Swiss franc. The distribution of 'source generation' of the charge matters little, though there may be subtle

differences in how large banks absorb the negative rates versus other entities. Changes to the threshold would complement other measures such as outright intervention (which would also increase sight deposit levels) and additional benchmark rate cuts. However, we believe the capacity to deploy the latter is more limited. On a structural level, for a more sustainable decline in the franc outright, the SNB would need to see Eurozone reflation, a comprehensive solution to Greece's issues and renewed recycling of the Swiss current account – which up until now negative rates have failed to incentivize.

Next Two Weeks

North America

In the US, upcoming activity data is likely to show some pick up from a very weak Q1. Although the April payrolls print showed a bounce from March, wage and inflation pressures remain muted. On the inflation side, we get CPI on May 22nd. On the activity side, the April durable goods report (May 22nd) will be worth watching given the weakness in recent reports and the overall weakness in US capex. The Philly Fed survey has been weak recently, and the May data (May 21st) will be relevant as investors look for some recovery. Finally, the release of the April FOMC minutes (May 20th) may provide some additional info on how the FOMC members were thinking about the slowdown in Q1 and the timing of the first hike.

In Canada, the data calendar is light next week, and oil price dynamics will remain important for the currency. On May 22nd we get two key data releases-- CPI and retail sales. Core CPI will be key, as it accelerated to 2.4% y/y in March, and has now been above 2.0% for eight consecutive months. The next BoC rate decision is on May 27th, and we expect them to remain on hold.

Asia-Pacific

In Japan, the BoJ policy statement (May 22nd) will receive some market attention. Our central scenario for the timing of additional easing is in the third quarter, though a surprise can never be ruled out, especially if inflation continues to undershoot. Our economists have lowered their forecast for Q1 GDP (May 19th) to 1.5% on the back of slowing wage growth and sluggish recovery in consumption. The weekly portfolio flow data is worth following given our view on outflows, though markets don't usually focus on the figures barring major shocks.

In Australia, RBA's May meeting minutes (May 19th) should be watched for any thoughts on the need for additional accommodation. The RBA has noted the recent intensification of headwinds facing the economy, namely that trading partner growth has eased below trend in early 2015, commodity prices have on average declined, while the AUD is higher despite a lower terms-of-trade. In New Zealand, data flow is light during the next two weeks. The net migration numbers (May 21st) are relevant given how strong inward migration has been. Net migration has averaged 5,090 during the past three months, the highest on record. This should continue to put upward pressure on the housing market and construction employment.

Europe

In the Eurozone, data flow is light during the next two weeks. The German IFO survey (May 22nd) will be worth watching. April's print was the highest since June 2014, and markets will watch to see if activity remained strong. PMIs will be also updated across Europe in the coming weeks and the ECB will release minutes of its most recent meeting on May 21st.

Outside of the Eurozone, Swiss franc buying remains the dominant net flow in markets and Switzerland's Monday updates for sight deposits at the SNB will also be scrutinized for signs of intervention. In the UK, we expect the BoE to remain on track to tighten towards the end of Q4. On the data front, April CPI (May 19th) and retail sales (May 21st) are the key data releases.

In Sweden the data calendar is very thin during the next two weeks, with the April labour market report (May 20th), and retail sales (May 28th) being most relevant. The Riksbank also holds a non-decision executive board meeting on May 18th, where additional easing could be announced under their new operational framework. In Norway, Q1 GDP (May 20th) should be the most market-relevant data release during the next two weeks. Growth has remained relatively solid, and Norges Bank has remained on hold during the past two meetings.

Forecasts (as of May 15th, 2015)

	Spot	1m	3m
EURUSD	**1.14**	**1.14**	**1.16**
USDJPY	**119**	**122**	**127**
EURJPY	**136**	**139**	**147**
GBPUSD	**1.57**	**1.58**	**1.61**
EURGBP	**0.73**	**0.72**	**0.72**
EURCHF	**1.04**	**1.05**	**1.07**
USDCHF	**0.92**	**0.92**	**0.92**
EURSEK	**9.38**	**9.45**	**9.55**
EURNOK	**8.37**	**8.30**	**8.15**
NOKSEK	**1.12**	**1.14**	**1.17**
AUDUSD	**0.80**	**0.79**	**0.78**
NZDUSD	**0.75**	**0.76**	**0.77**
AUDNZD	**1.08**	**1.04**	**1.01**
USDCAD	**1.20**	**1.19**	**1.18**

Source: UBS FX Strategy
Forecasts updated since last FX Bi-Weekly. See April 16th, 2015 for previous forecasts.

Trade recommendations

Macro Trade Details	Entry Date	Entry Spot	Close Date	Close Spot	Profit (%)
We recommend purchasing a USD/JPY call spread with strikes at 121.50 and 125.50, expiring July 26, 2015. This costs 0.72% of face, with a spot reference of 118.70.	March 26th 2015	118.70			-0.20%
We recommend going short AUD/CAD cash, target 0.90 with a stop loss at 0.9870. The three month carry on this position is approximately 31bp.	April 14th 2015	0.9520			-1.20%
Indicative Net Profit/Loss – Including Open Trades*					

Source: UBS FX Strategy. Past performance is not an indication of future results; **

Any references to options in this document refer only to over-the-counter instruments.

Notes on position sizing

To reflect differing risk-reward characteristics and conviction levels, we allocate varying levels of risk to our recommended trades. We express this in units of risk.

For USD/JPY, which is our highest conviction view, we allocate two units of risk. For AUD/CAD, we allocate one unit of risk. This reflects both our conviction level, as well as the fact that USD/JPY is more easily expressed in options, which yields different risk-reward than a cash position.

This means that if our USD/JPY option were to expire worthless, the loss would be two units of capital. If we were to be stopped out of our AUD/CAD cash position at the stop-loss level of 0.9870, we would lose one unit of capital.

Figure 22: DXY performance reference table

Source: UBS FX Strategy

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Outlook	Positive; Stable; Negative	Up to 6 months	UBS' expected trend in a company's creditworthiness
		Security Recommendations	
Bond Recommendation	Outperform; Marketperform; Underperform	Up to 3 months	A corporate bond's expected relative performance versus a defined reference
CDS Recommendation	Buy Protection; Sell Protection	Up to 3 months	Recommendation to hedge a company's creditworthiness

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Source: UBS

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Japan	-	-
Kingdom of Norway	-	-
Kingdom of Sweden	-	-
South Africa (Republic of)	-	-
Switzerland[5]	-	-
United Kingdom of Great Britain[16, 22]	-	-
United States[22]	-	-

Source: UBS. Ratings in this table are the most current published ratings prior to this report.

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