The New Normal

Currency Markets in a Time of Negative Interest Rates and Rising Volatility

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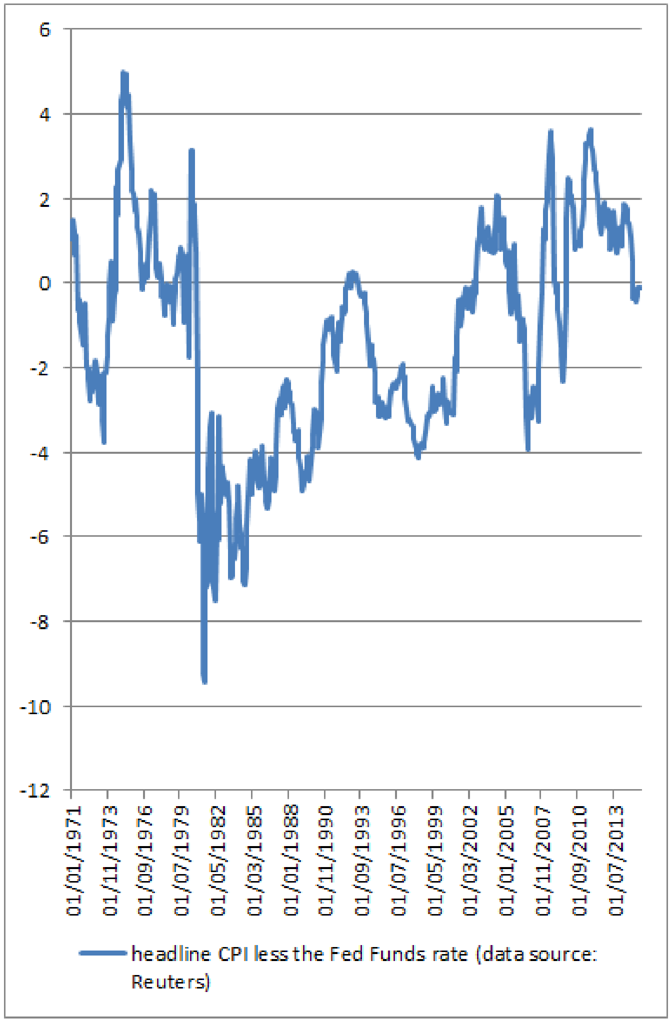
THE USD RALLY

- The FOMC has been tightening monetary conditions for the better part of two years
- Nominal yields in the US look increasingly attractive when compared to much of the rest of the world
- The gap between the headline inflation rate and the Fed Funds rate has closed entirely since September 2011 when it hit 361 bp (the widest it had been since the summer of 1975).
- As of September 28 2015 the USD index was up 30% from the end of August 2011 low while the Dow Jones Industrial Average was up 34% over the same period.



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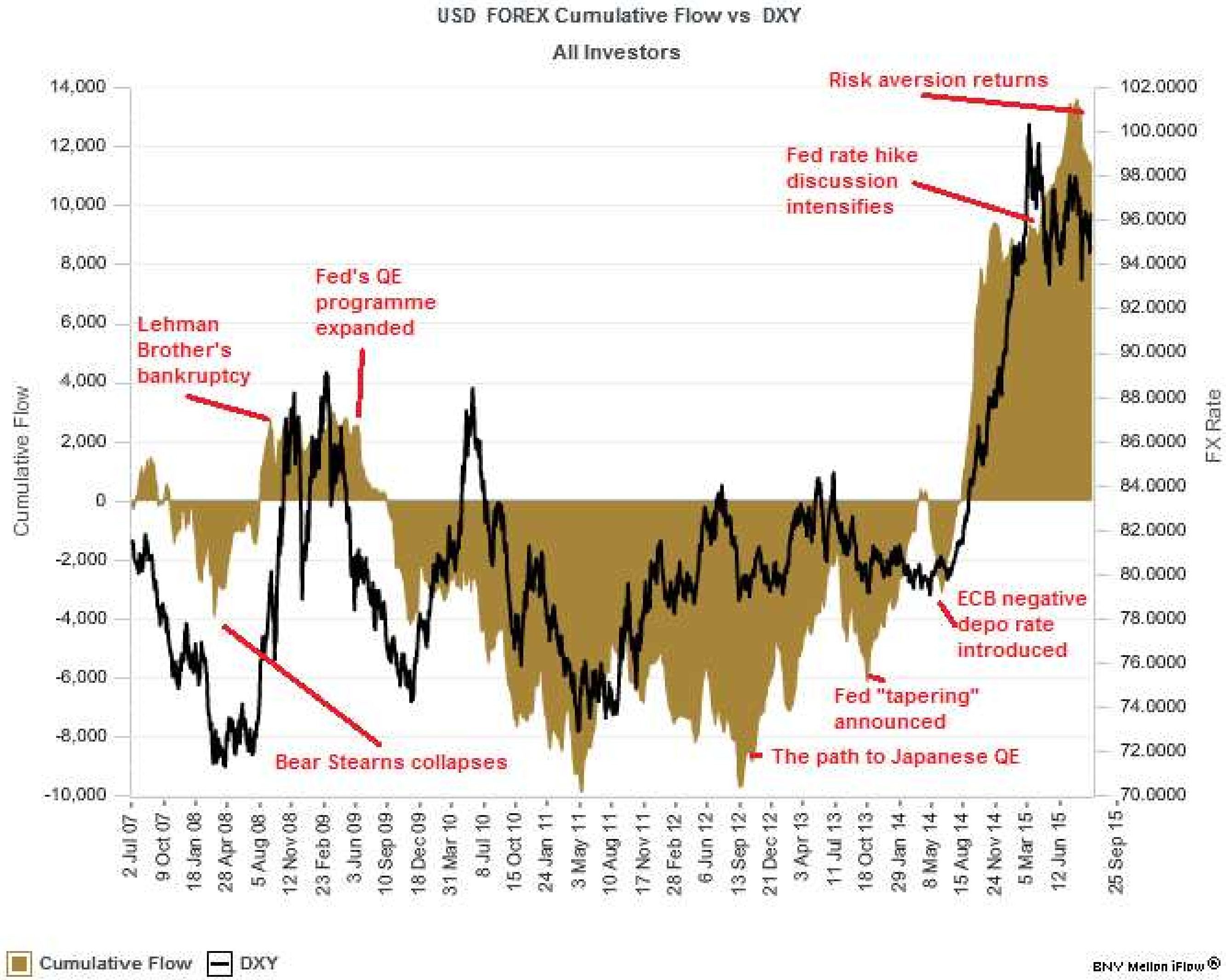
USD DEMAND



Source: BNY Mellon iFlow®

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THE 1990'S USD RALLY

- The post spring 1995 USD rally came on the back of a tightening of monetary policy and the overt pursuit of a "strong USD" policy.
- By end of August 1998 the USD index was up 27%, while the Dow Jones Industrial Average had gained over 100%.
- The USD index continued to rally for another two years (taking the total gains from April 1995 to 48%) while the Dow Jones Industrial Average topped out in the January of 2000.
- The NASDAQ Composite more than doubled in price between January 1999 and its 2000 peak.
- Period was characterised by intermittent scares in a variety of emerging markets as USD inflows dried up and funding costs rose.

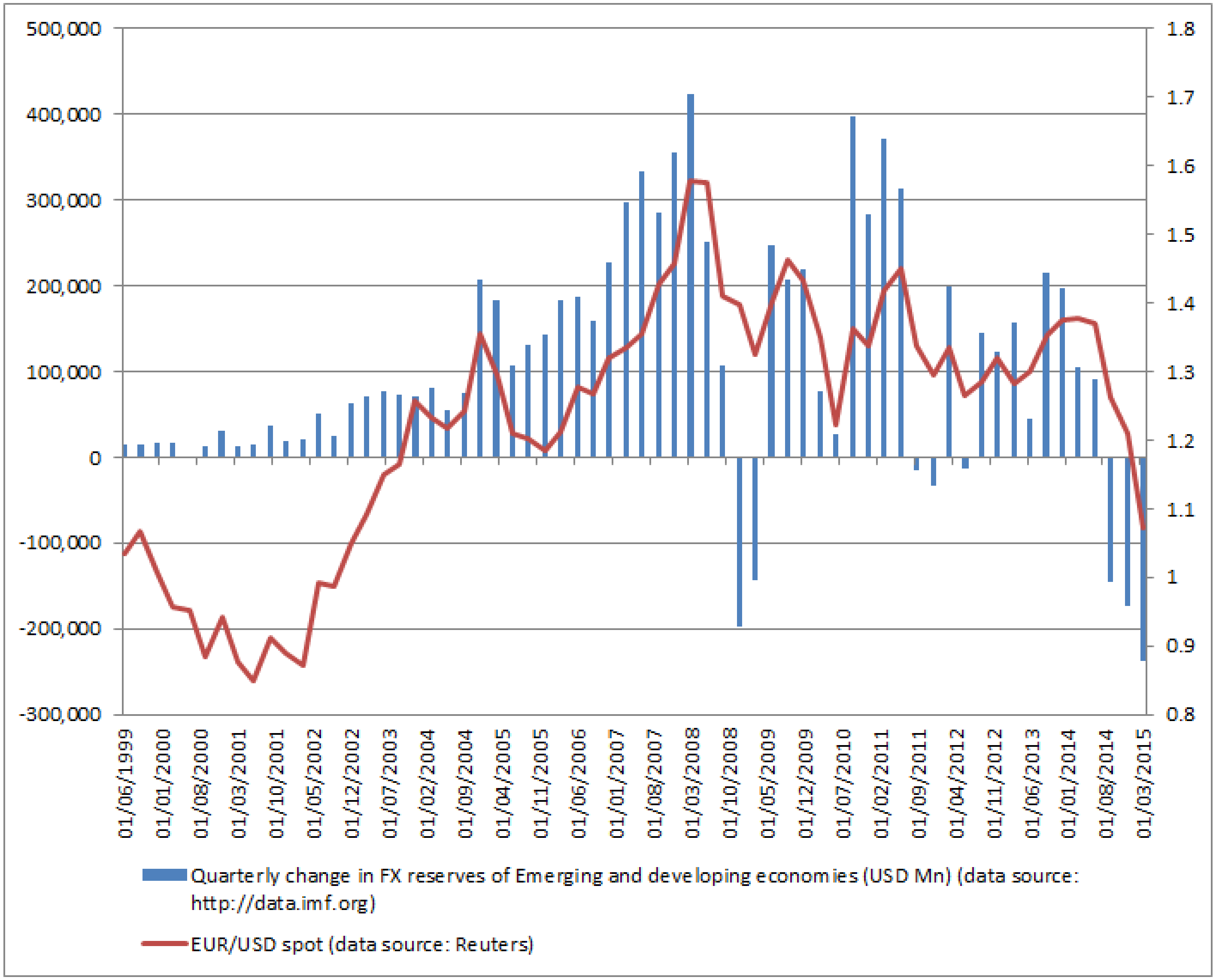
COMPARING SUMMERS

- **1998**
  - July 21: Federal Reserve Chairman Alan Greenspan stood up to give a relatively hawkish semi-annual Humphrey Hawkins testimony on July 21
  - July 21 to September 28: The Dow Jones Industrial Average collapsed just under 18% by the end of August before rebounding through until September 28.
  - Much of the damage to US stocks came in the aftermath of a decision by the Russian government on August 17 to devalue the RUB. This also proved a turning point for the USD index.
  - September 23 to mid-October: The NY Federal Reserve organised a bailout of Long Term Capital Management. Between September 23 and October 1 the DJIA dropped by around 6% before stabilising. the USD index dropped 4.3% by the time of the Fed rate cut on October 16.
- **2015**
  - July 15 2015: Fed Chair Janet Yellen gave her semi-annual testimony indicting that the Fed will likely hike rates before year end.
  - July 15 to September 25: Between July 15 and August 25 the Dow Jones Industrial Average fell over 13% before rebounding into September. The lion's share of the declines came after the sharp falls seen in the CNY on August 11 and 12.
  - September: Volkswagen? Brazil? EM?

THE REAL COMPARISON?

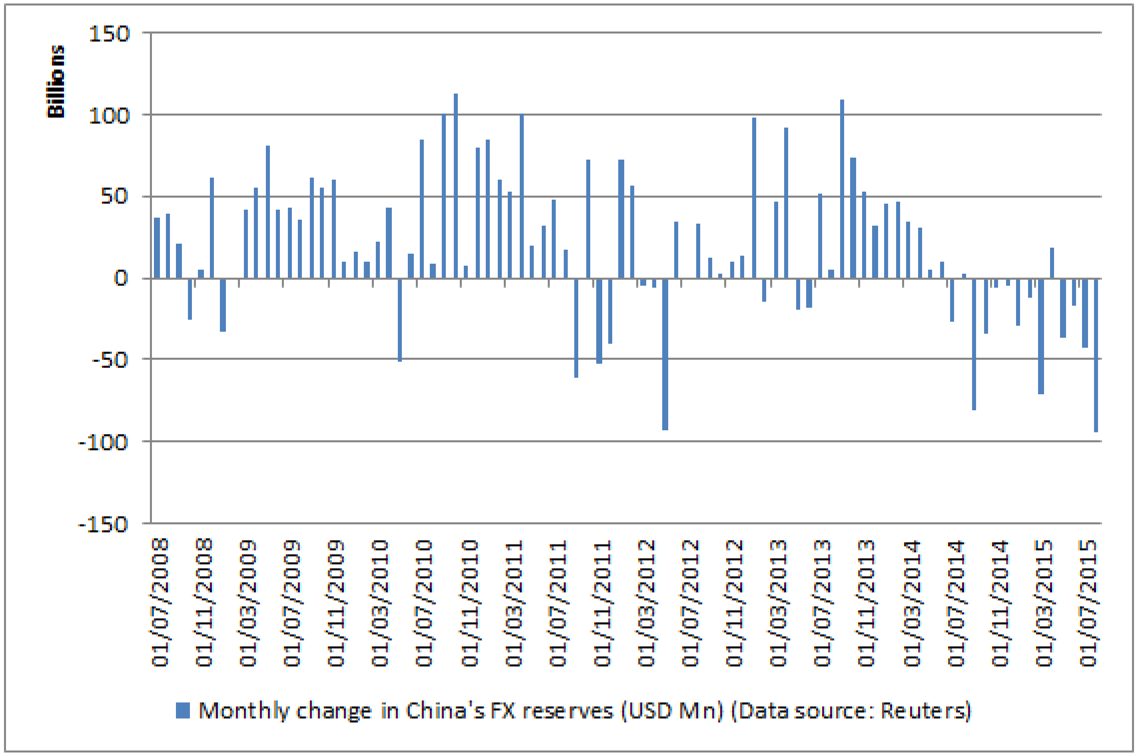
- **October 1987 stock market crash**
  - After the losses seen on Monday, October 19 the Federal Reserve issued a short statement saying: "The Federal Reserve, consistent with its responsibilities as the Nation's central bank, affirmed today its readiness to serve as a source of liquidity to support the economic and financial system."
  - The Fed also used open market operations to drive interest rates down by more than 50 bp on the day to below 7%
- **H2 1998**
  - The FOMC cuts rates three times in three months (including an intra-meeting cut in October) following the Russian crisis and the collapse of LTCM
- **2001**
  - Concept of the “Greenspan put” now commonly accepted (http://www2.warwick.ac.uk/fac/soc/csgr/research/workingpapers/2001/wp8301.pdf).
- Once investors became convinced that the "Greenspan put" existed then the logical response was to take as much risk as reasonable possible certain in the knowledge that the central bank would be there in the bad times to minimise the losses with ever easier monetary policy settings.
- This allows us to place the September 2015 decision by the FOMC in the appropriate context.

CHANGING BEHAVIOUR OF RESERVE MANAGERS



CURRENCY WARS

- The move by China in August bears interesting comparison with Beijing's refusal to devalue the CNY in 98 when everyone else in Asia was allowing their currencies to weaken.
- Although the short term move in USD/CNY in August was large, in the broad scheme of things it could be argued it was small, particularly given how strong the USD has actually been.
- Evidence from August was that China was keeping the CNY stronger than it should be.



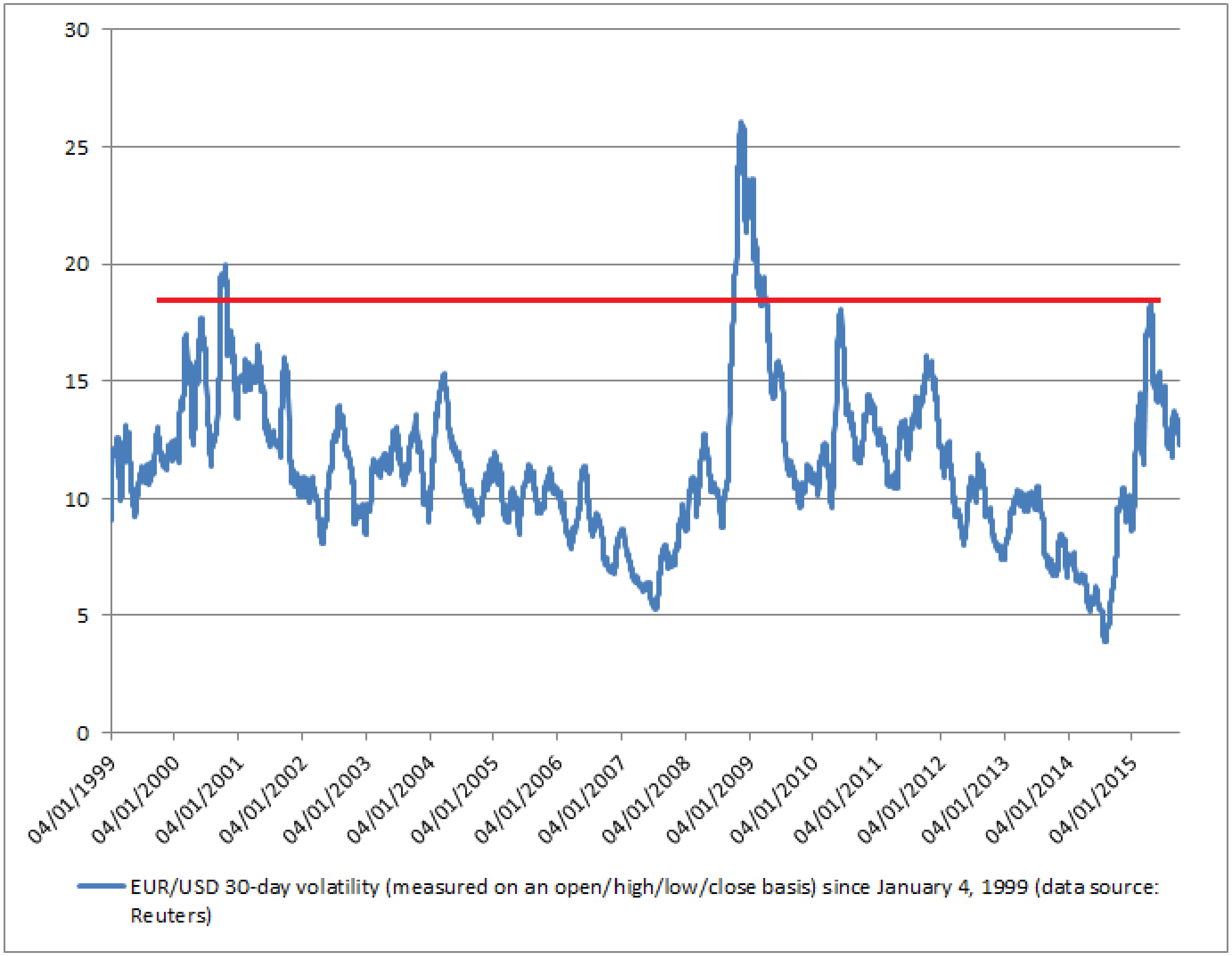
CHANGING BEHAVIOUR OF RESERVE MANAGERS

- The overall USD value of the FX reserves of emerging and developing nations shrank from USD 8.058 Trn at the end of Q2 2014 to USD 7.505 Trn by the end of Q1 2015 (close to a 7% decline).
- Allocated reserves dropped from USD 2.821 Trn last summer to USD 2.558 Trn at the end of Q1 this year (a 9.3% decline).
  - USD holdings fell from USD 1.694 Trn to USD 1.626 Trn (-4%).
  - The amount held in EURs declined from EUR 486 Bn to EUR 465 Bn (also -4%).
  - GBP reserves increased from GBP 82 Bn to GBP 86 Bn (+5%).
  - AUD holdings rose from AUD 64.75 Bn to AUD 68 Bn (+5%).
  - Holdings of CAD rose from CAD 71.5 Bn to CAD 72.2 Bn (+1%).
- http://data.imf.org/?sk=E6A5F467-C14B-4AA8-9F6D-5A09EC4E62A4)

CHANGING MARKET CONDITIONS

- There have been a number of extraordinary moves in the currency markets over the past year
  - Last December saw the largest daily move for the RUB against the USD since the Russian crisis in 1998.
  - January 2015 saw one of the largest (if not the largest) move for a mainstream currency pair when the Swiss National Bank removed its minimum exchange rate for EUR/CHF.
  - March saw the EUR gain then lose close to 4% against the USD overnight.
- All of these moves have emerged since September of last year (when the ECB reduced the rate on its deposit facility from -10 bp to -20 bp).
- Arguable that the collective actions of the ECB, SNB and DNB have put a significant group of investors into a situation where they are effectively forced to take on far greater risk than they would have otherwise preferred.
- With a market that is being forced to be structurally long of risk even relatively minor shifts in expectations can lead to substantial moves while genuinely major events (e.g. the SNB move) can lead to unprecedented moves emerging.

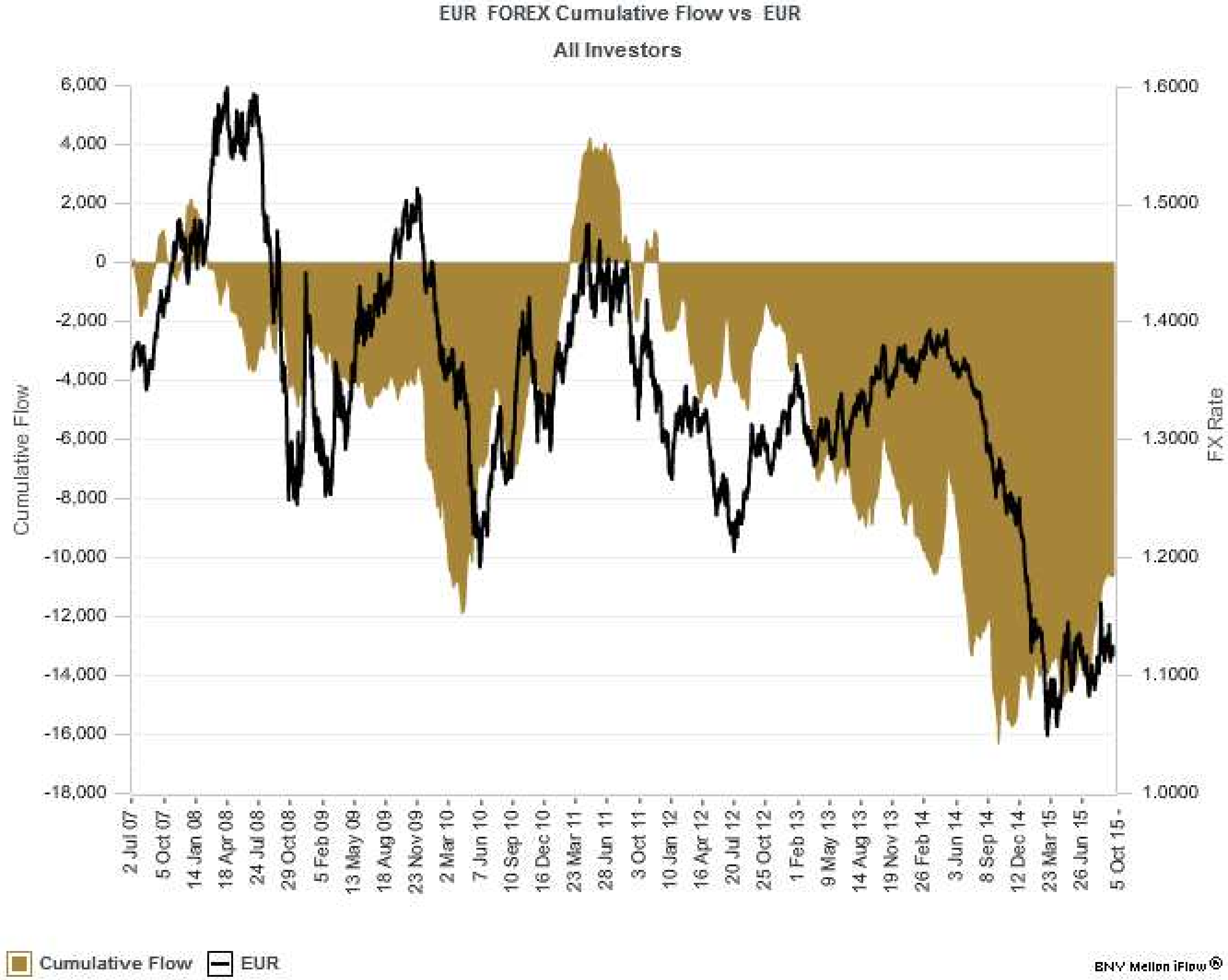
Volatility Returns



OIL AND THE CURRENCY MARKETS

- Easy to make a linkage between major moves in crude oil prices and shifts in demand for the USD over the past fifteen years
    - The start of the 2001-2008 rally came after 11 months of aggressive easing by the FOMC
    - Latter stages of the rally (between August 2007 and June of 2008) were fuelled by a rapid series of rate cuts from the Fed in the face of a slowing housing market.
    - Between the end of November 2008 (when the US first introduced QE) and the summer of 2014 (as the FOMC came close to ending its asset purchase programme) Urals crude in USD terms had nearly tripled in price.
- Renewed USD inflows from June 13 of last year coincided with start of bear market for oil prices.
- According to the US Energy Information Administration's in 2012 Russia was the second largest net exporter of oil (7.201 Mn bpd), Norway was the eleventh (1.685 Mn bpd) while Canada was the thirteenth (1.506 Mn bpd).
    - Our rolling correlation between the performance of Urals Crude and USD/RUB (measured over 200 days) continues to run at over 85%.
    - The relationship between Brent crude and USD/NOK comes in at 78%
    - For WTC against USD/CAD it stands closer to 79%.
- Also worth noting that the post Nixon Shock average for USD/CAD is met at CAD1.2100 while the average for the period since the December 1992 float for USD/NOK is just NOK6.80.

MEANWHILE



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A SHORT HISTORY OF “GREXIT” (PART 1)

- On September 12, 2011 Spiegel Online reported the German finance ministry had prepared a paper indicating that the damage caused by Athens leaving the EUR could be contained.
  - According to the paper German Finance Ministry officials had concluded there were two possibilities for a Greek bankruptcy: Either the country remained in the monetary union, or it withdrew.
  - Either option would involve a haircut (50% was the number quoted in the article).
  - The paper argued: "In reality, Athens would have no choice: The government could only hope to boost its languishing economy if Greece reintroduced its own currency and sharply devalued the new currency against the EUR."
  - The article also provided the first evidence of capital controls being considered.
  - http://www.spiegel.de/international/europe/euro-zone-exit-scenarios-germany-plans-for-possible-greek-default-a-785690.html
- On August 24, 2012 MNI quoted senior Eurozone officials as saying the German finance ministry was seriously considering a plan in which Greece would be obliged to ask for a temporary exit from the Eurozone until it sorted out its public finances.
  - An official noted: "The hawkish team of the German finance ministry believes that since Greece will need more money, it would be better given as a bridge loan to facilitate a temporary exit."
  - A second official said: "In the German finance ministry's scenario, Greece's temporary exit would be initiated by the Greek government, at least publicly, so that Berlin could avoid being seen as the "villain.“
  - http://www.fxstreet.com/news/forex-news/article.aspx?storyid=dab6f55c-a03f-4637-b2d3-1f71c67dbd73

A SHORT HISTORY OF "GREXIT" (PART 2)

- On May 14, 2014 The FT reported (while describing the events of the summer of 2012):
  - *"Unbeknown to almost the entire Greek political establishment, however, a small group of EU and International Monetary Fund officials had been working clandestinely for months preparing for a collapse of Greece's banks. Their secret blueprint, known as "Plan Z", was a detailed script of how to reconstruct Greece's economic and financial infrastructure if it were to leave the EUR."*
- The paper noted that "a "hard default" was long seen as the most likely route to Grexit since, if there was no one left to lend to Athens, it would not be just the government that ran out of money."
- It argued that "the only way to restart the banking system would be for Athens to set up its own central bank and begin printing its own currency."
- The paper also noted: "Inside the ECB, there was broad consensus that the call that would lead to Grexit should not be made by central bankers. Instead, they would pass the decision to Eurozone politicians."
- http://www.ft.com/cms/s/0/0ac1306e-d508-11e3-9187-00144feabdc0.html?siteedition=uk#axzz3TDDaqWpW

A SHORT HISTORY OF “GREXIT” (PART 3)

- On January 5, 2015. Der Spiegel published an article called "Grexit Grumblings: Germany Open to Possible Greek Euro Zone Exit"
    - *"The result is that officials in Berlin and Brussels no longer subscribe to the so-called "domino theory," which held that a Greek collapse would be followed by others. It has been replaced by the "chain theory," which holds that the entire chain would become stronger were its weakest link to be eliminated. Indeed, Berlin officials fear that giving in to a new, leftist government in Athens would further call into question controversial austerity and reform policies -- an eventuality that would be welcome in France and Italy, countries where reform has not been welcomed with open arms"*
    - *"Technically, such an exit would become reality were, for example, the ECB to refuse to supply more money to Greek banks due to insufficient reserves or were Athens to no longer receive sufficient money from the bailout fund or from capital markets to cover expenses. In such a situation, the government would be forced to print its own currency, the new drachma. But Greece's euro debts would remain. Some 80% of those debts are held by the ESM, the ECB, the IMF and individual partners in Europe. Were Greece to introduce a new -- and devalued -- currency, it seems unlikely that Athens would be able to service or pay down those debts. The result would be that creditors, Germany first and foremost, would be forced to write down their claims."*
- http://www.spiegel.de/international/europe/merkel-and-germany-open-to-possible-greek-euro-zone-exit-a-1011277.html

AND NOW?

- Over the final weekend of negotiations between Greece and the Euro group in July:
  - The WSJ reported that a document prepared by Germany's finance ministry and seen by the Journal floated the idea of a "timeout" for Greece from the Eurozone for "at least the next five years" as one of two options for dealing with the debt overhang.
  - http://www.wsj.com/articles/german-document-floats-5-year-greek-exit-from-eurozone-1436642043
  - Der Spiegel provided further detail here
  - http://www.spiegel.de/international/germany/schaeuble-pushed-for-a-grexit-and-backed-merkel-into-a-corner-a-1044259.html
  - The Guardian listed nine nations within the euro-area that were open to a Grexit, five that were wavering but would prefer to avoid an exit and four that wanted to keep Greece in the EUR at all costs.
  - http://www.theguardian.com/business/2015/jul/12/eurozone-crisis-which-countries-are-for-or-against-grexit
  - The FT reported that on the morning of July 13 "Alexis Tsipras of Greece and Angela Merkel, the German chancellor, decided after 14 hours of anguished talks that they had reached a dead end. With no room for compromise, neither saw any reason to carry on. Grexit was the only realistic option." It notes that the only reason they didn't take this route was the intervention of Donald Tusk, the president of the European Council.
  - http://www.ft.com/cms/s/0/f908e534-2942-11e5-8db8-c033edba8a6e.html?siteedition=uk#axzz3flFuWuno
  - Kathimerini subsequently reported that an extensive study covering all the consequences of Grexit was compiled in the run up to the deadline for Greece by a team of EU officials. The contents of the study were explained to Prime Minister Alexis Tsipras by European Commission President Jean-Claude Juncker before the Eurozone leaders' summit.
  - http://www.ekathimerini.com/199713/article/ekathimerini/news/european-commission-prepared-extensive-report-on-grexit#

THE REAL RISK NOW?

- Perhaps the period from October 98 to Jan 2000 gives us a useful model of what the coming months could look like.

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