

# Fed Lift-off Matters for Emerging Markets

## Evidence of Connection Between Fed Policy Rate and Emerging Market Spreads

**Market Turmoil Stresses EMs:** Recurring bouts of volatility in credit markets since the “taper tantrum” of 2013 suggest a strong connection between market expectations about US monetary policy and investor risk appetite towards emerging markets (EM). Fitch Ratings’ research finds evidence for this in the data.

**Fed on Launch Pad:** Fitch Ratings expects the US Federal Reserve to raise rates before the end of 2015 in what will be the first rate hike for eight years. The rise has been well-signalled, and we expect the pace of tightening will be slow compared with previous cycles – with the Fed Funds rate averaging 1.1% in 2016 and 2.3% in 2017. However, there is a substantial gap between the pace of rate hikes envisaged by the Fed and what the market has priced in. An outcome closer to the Fed’s own guidance would be a shock to the markets.

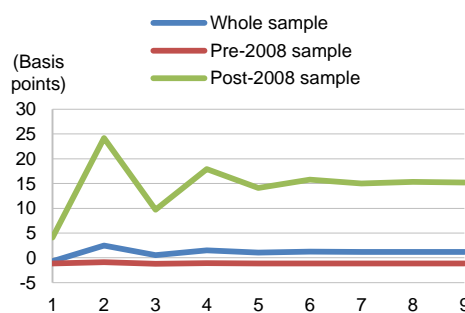
**EMs Exposed to Fed:** A close look at credit spreads back to 1996 suggests EM borrowers have become more exposed to an impact on their funding conditions from an increase in interest rates by the Fed. Fitch’s modelling output suggests a 50bp hike in the Fed Funds rate is associated with 16bp widening in the JP Morgan Emerging Markets Bond Index (EMBI) – although there is no guarantee that this relationship will remain stable when the Fed next lifts rates.

**EM External Debt Growth:** The gross external debt of Fitch-rated EMs rose by USD2.9trn between 2008 and 2014. Of this rise, USD1.3trn came from the corporate sector, USD1trn from sovereigns, and USD0.6trn from banks. The sovereign element was split evenly between sovereign foreign currency-denominated borrowing and foreign purchases of local-currency EM debt. Latin America has seen the fastest growth in external debt.

**Moderate Debt Ratios:** Overall, EM net external indebtedness remains negative, even excluding China. Aggregate ratios of gross and net external indebtedness to GDP remain moderate as GDP has risen alongside debt stocks. However, previous instances of global EM stress (eg 1994-1997) have occurred even at moderate levels of aggregate EM indebtedness, and pockets of vulnerability could still be exposed

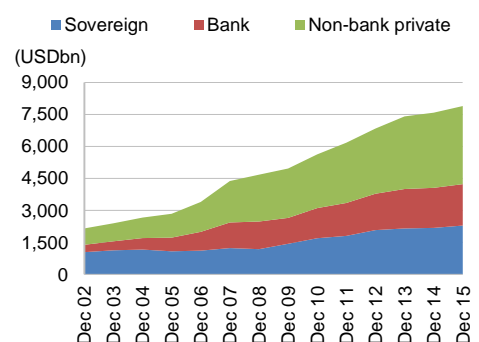
**Portfolio Rebalancing Effect:** Part of the rationale for ultra-loose monetary policies from global central banks has been to depress risk and term premiums via a portfolio rebalancing effect. This is consistent with the emergence of pressure on EMs as the Fed lift-off approaches.

Figure 1  
**Estimated Impact of 50bp Fed Rate Change on EMBI Spread**



Source: Fitch

Figure 2  
**EM Gross External Debt**



Source: Fitch Sovereign Comparator

**Related Research**

[Global Economic Outlook \(July 2015\)](#)

**Analysts**

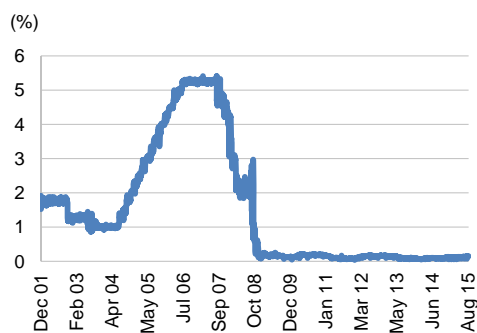
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### Fed on the Launch Pad

Fitch’s view of the Fed lifting the target range for its main policy rate before end-2015 is also the consensus view in the markets (at the time of writing), and in line with the guidance being offered by the Fed itself.

Figure 3

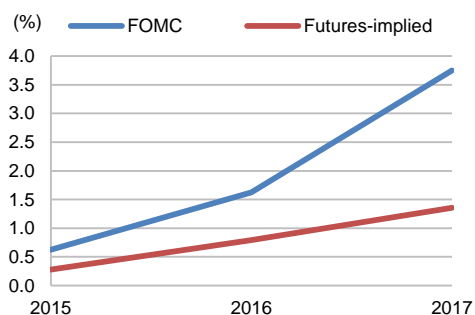
#### Fed Funds Rate



Source: US Federal Reserve

Figure 4

#### Rate Expectations



(Futures-implied rate as at 4 September 2015)  
Source: CBoT, FOMC, Fitch

The Fed’s intentions for rates have been telegraphed clearly enough, although there is nonetheless considerable uncertainty over the market impact of tightening (when it eventually happens) and over the pace and extent of rate hikes. There remains a gap of about 240bp by end-2017 between market expectations and what the Fed itself is signalling (Figure 4).

This report addresses the possible impact on credit markets, and the outlook for US monetary policy is beyond the current scope. For reference, Fitch’s baseline, as described in the agency’s *Global Economic Outlook* report, is that the pace of tightening will be slow compared with previous cycles, with the Fed Funds rate averaging 1.1% in 2016 and 2.3% in 2017.

### Fed Rate Matters For EM Spreads Since 2008

Fitch adopted an econometric approach that sought to isolate an impact from Fed rates on credit spreads across different market segments, allowing for the US economic cycle, using data going back to 1996. The market segments examined were US non-financial corporates (NFCs), split by rating category, and EM spreads as measured using the EMBI. (The econometric approach is detailed in the *Appendix*).

The exercise provided some evidence of the impact of Fed rates on EM spreads in the period since 15 September 2008 (the date Lehman Brothers filed for Chapter 11 bankruptcy). The modelling suggests that a 50bp change in the Fed Funds rate is associated with a 16bp move in the EMBI (in the same direction). There is no meaningful effect in the pre-2008 period.

It should be stressed that the results are purely indicative, and do not imply that the same statistical relationship between the Fed rate and a given spread will persist in the future.

By contrast, the exercise found little evidence of an impact from Fed rates on the US NFC market segments that were considered, and for any time period<sup>1</sup>. The study itself does not provide an explanation for this dichotomy. Intuitively, it could reflect the fact that Fed policy is set with respect to US cyclical economic conditions, and should therefore not be expected to have much additional explanatory power for US corporate credit spreads. EM economic conditions could conceivably have a strong effect on EM spreads, but would influence the Fed rate decision only at a remove via their impact on the US economy.

<sup>1</sup> The only suggestion of an impact worked in the “wrong direction”, in that Fed rate reduction was associated with higher ‘BBB’ category spreads than expected from the economic cycle

### Fed Impact on EM is Structural, Not Just Cyclical

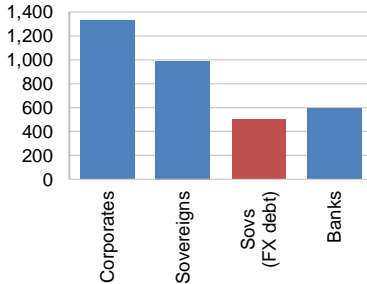
The results from Fitch’s modelling provide some evidence that the Fed rate has had an impact on EM spreads beyond what can be explained from the US economic cycle. This point is interesting in the context of the consideration that higher US rates cannot be taken alone as a risk factor for EM, but must be seen in the context of a stronger US macroeconomic performance – with the implication that the net impact is ambiguous. Fitch reads the evidence in this report as suggestive that Fed policy has had a structural impact on EM spreads and therefore funding conditions. This in turn implies an impact on EM from Fed lift-off, separate to any uplift from a stronger US macro performance.

### Rapid EM Debt Growth

The statistical results above, and the theory behind ultra-loose monetary policies, underscore the impression from the data that EMs have experienced strong funding conditions since the worst of the global financial crisis passed in 2009. Flows into the 30 biggest EMs were USD1.3trn in 2007, up from an average USD0.4trn per year over 2001-2006. Inflows almost halved to about USD0.7bn in 2008 and 2009, but then rebounded to pre-crisis levels of around USD1.3trn per year in 2010-2014 – which were already high. This tallies with activity in US high-yield markets and investors’ search for yield in the low-rate environment. US high-yield bond issuance of USD180bn in the first six months of 2015 alone was more than the entire issuance in 2007 (USD136bn).

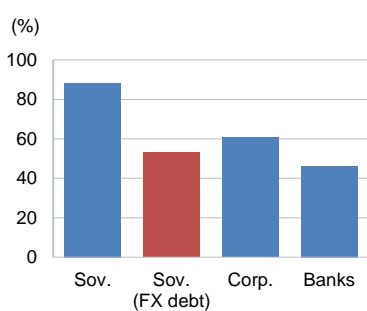
High volumes of capital inflow into EM have occurred in conjunction with spreads that were broadly similar to levels in 2004-2007 – that were themselves quite compressed compared with the more distant past. The EMBI spread averaged 333bp over July 2008-May 2015, compared with 391bp for 2002-June 2008. By comparison, US non-financial corporate spreads have been wider than pre-2008 averages, although in neither case is there a marked difference.

Figure 5  
**Growth in External Debt 2014 vs. 2008 (1)**  
(USDbn)



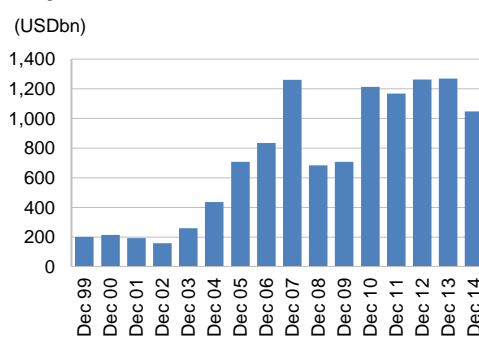
Source: Fitch

Figure 6  
**Growth in External Debt 2014 vs. 2008 (2)**  
(%)



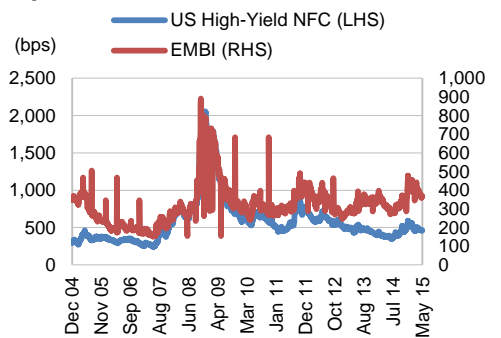
Source: Fitch

Figure 7  
**Capital Inflow Into EM**  
(USDbn)



Source: IIF

Figure 8  
**Spreads**



Source: Fitch Ratings, JP Morgan

### Sectoral Picture: Corporates, Sovereigns Lead Borrowing

EM gross external debt rose by USD2.9trn between 2008 and 2014. EM corporates saw the strongest absolute rise in their external borrowing, of USD1.3trn, a 61% growth rate. Sovereign debt rose by less in absolute terms (USD1trn), but the growth rate was faster at 88%. These figures include non-resident participation in local debt markets. Only half the growth in sovereign external debt was in foreign currency (USD0.5bn), with the remainder consisting of cross-border local-currency borrowing. Sovereign FX borrowing also rose more slowly than overall corporate borrowing (53% versus 61%). Separate figures on corporate foreign-currency borrowing alone are not available, although anecdotal evidence suggests that foreign investors have also increased their participation in local currency-denominated corporate debt markets since the global financial crisis. EM banks have lagged the overall growth in EM debt: their external borrowing rose by “only” 46% over the period, by USD0.6bn.

Gross External Debt

Figure 9

Eastern Europe

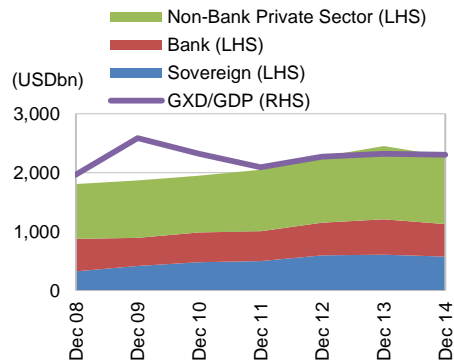


Figure 10

Emerging Asia

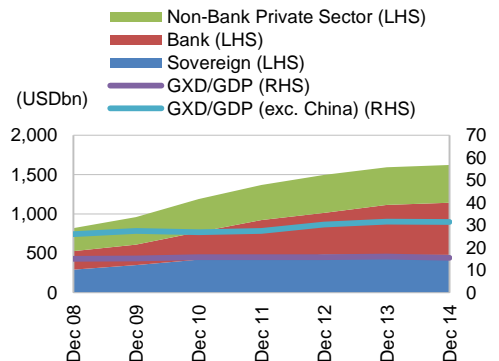


Figure 11

LatAm

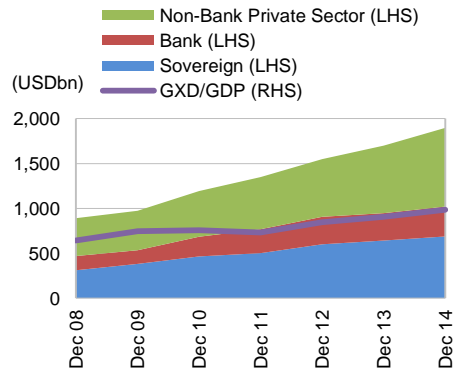
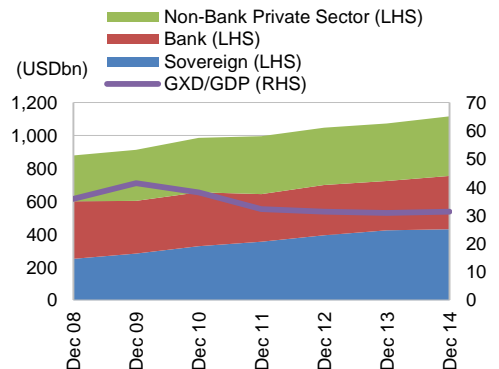


Figure 12

Middle East and Africa



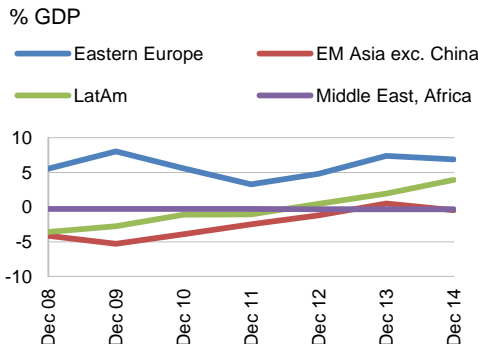
Source: Fitch Sovereign Comparator

In Fitch’s latest European investor survey, respondents singled out EMs as the most likely to experience deteriorating fundamental credit conditions. Those polled were much more concerned about EM corporates’ refinancing risk than that for EM sovereigns.

Latin America has seen the fastest growth in the stock of gross external debt (GXD), at 113% between 2008 and 2014. Central and eastern Europe is carrying the most GXD both in cash terms (USD2.3trn as of end-2014) and relative to GDP (54%). The other regions all have gross external indebtedness of around 30% of regional GDPs if China is excluded. Moreover, GXD/GDP ratios have risen only moderately. For EM as a whole, GXD/GDP has been almost flat since end-2008 (27% versus 26.5%), although excluding China the ratio is higher and has drifted further upward: 37.7% from 32.8%.

Figure 13

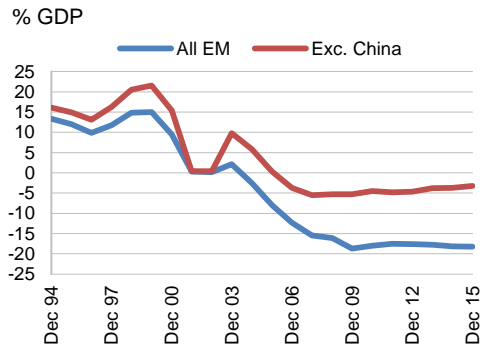
EM Net External Debt



Source: Fitch Sovereign Comparator

Figure 14

Net External Debt



Source: Fitch Sovereign Comparator

Emerging markets have also recycled capital back into developed markets, largely (but not entirely) in the form of acquisition of foreign-exchange reserves. Overall, emerging markets have very low levels of net external debt, even excluding China's vast USD3.6trn foreign reserves stockpile, although there is considerable variance across EM; Mongolia's net external debt was 136% of GDP at end-2014, by far the highest of any EM globally. Overall, emerging-market net external indebtedness remains negative, even excluding China, although previous instances of global EM stress (eg 1994-1997) have occurred even at moderate levels of aggregate EM indebtedness, and pockets of vulnerability could still be exposed.

## Appendix: Econometric Approach

The econometric model used to derive the results discussed above was a Vector Auto-Regression (VAR), built on daily data for credit spreads and for a suite of indicators intended as a proxy for the business cycle in the absence of daily-frequency macroeconomic data. The selected indicators were the change in the 10-year US Treasury yield, the slope of the US risk-free curve (10 year minus 3 months), and the return on the S&P 500 equity index. Additional inclusion of the VIX (implied volatility on S&P 500 index options) and the TED spread (3-month LIBOR minus 3-month Treasury bill yield) did not affect output significantly, and so these variables were excluded.

We assume the following Cholesky ordering of the model variables: Fed Funds rate; change in US 10-year yield; change in slope of US risk-free curve; return on the S&P 500; and change in the relevant spread. This implies that the earlier variables in the ordering (eg the Fed Funds rate) are assumed to contemporaneously influence all the later variables in the ordering, but not the other way around.

We estimate a separate Value-at-Risk (VAR) for each of the six spreads of interest: non-financial corporate 'AAA', 'AA', 'A', and 'BBB' spreads, the non-financial corporate high-yield spread, and the spread on the JP Morgan EMBI index. The equation with the change in the spread as the dependent variable explains 20%-30% of the variation in the 'A', 'BBB', high-yield, and EMBI spreads, but less than 10% of the variation in non-financial corporate high-grade spreads.

It should be stressed that the model results for the period since 15 September 2008 capture a period during which Fed rates have only fallen (three times, by a cumulative 175bp). This factor in particular should lead to caution in extrapolating the results to a scenario of rising Fed rates. The confidence intervals on the impulse response functions are very wide.

For the VAR with EMBI spreads, results are robust to using two lags, but the estimated response of the spread to the Fed rate is greater in magnitude with a greater number of lags (however, they take more time periods to be fully realised). Only the return on the S&P 500 Granger-causes the change in EMBI spread, but the return on the S&P 500 is Granger-caused by all other variables (including the change in Fed rate); this suggests that the effect of Fed rate changes on EMBI spreads may be indirect.

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