

Global Macro Strategy

Theme #1: EM enters a new, dangerous phase

Strategy

Global

Weak income statements have now compromised EM's balance sheet strength

In recent years we have pointed to a clear distinction between EM's weakening ability to generate earnings (weak income statements) and a healthy ability to service its debt (strong sovereign balance sheets). However, balance sheets can't remain independent of income statements forever. Weak global trade and delayed reform implementation have caused enough erosion in EM's leverage, fiscal and external dynamics to now make balance sheets a concern in their own right.

Measuring sovereign risk: Introducing our Macro Balance Sheet risk score

We introduce a macro balance sheet score to quantify EM risk. Today EM's score is (at an aggregate, EMBI+ weighted level) consistent with a sub investment grade credit rating, and is slowly but persistently heading in the wrong direction.

Where do we stand relative to previous crises?

Our macro risk score is still some distance away from 1996-2002, the last spell of fully-fledged crises in EM. However, it has now given back all the improvement of the last 10 years, a period over which debt inflows into EM have boomed. Macro risk scores in Brazil, South Africa and particularly Turkey have now risen close to levels consistent with previous crises. Risk scores in Malaysia, India and China are comfortably amongst the weaker half of an already weak EM macro risk spectrum. The stronger stories are confined to smaller markets such as Israel, the Philippines and the CEE3.

Asset implications: How the nature of EM's sell-off may change

Rather than merely reacting passively to USD strength or rising US rates, weakening balance sheets imply that EM's own problems may compromise asset performance. We have previously referred to hard currency debt as the rockstar of EM assets owing to its strong Sharpe Ratio. However we expect structurally lower returns and higher volatility in this asset class over the coming 1-3 years, and expect DM credit to outperform. EM credit spreads will likely widen further, even as the pace of deterioration may be more subdued. Widening credit spreads are typically consistent with trade-weighted depreciation in EM currencies. At higher levels of credit spreads, some local currency debt markets morph to trade like credit. As EM macro balance sheets worsen the cost of equity for listed firms may rise, adding to the existing woes from earnings. Valuations have adjusted in EM equities, but not to compelling levels.

Signs that may lead us to a more constructive view

We would regard the following as positive inflection points. First, FX depreciation may begin stimulating improvements in trade competitiveness. Second, a faster than expected clear-out of China's housing inventories may lead to a rebound in commodity prices. Third, it is possible that global growth strengthens, especially in sectors in which EM holds a comparative advantage. Fourth, EM embraces macro and micro reform in earnest. Last, but not least, if the bid for EM debt is indeed deeply structural, this may defer the formation of negative feedback loops between balance sheet strains and market performance.

Bhanu Baweja

Strategist

bhanu.baweja@ubs.com

+44-20-7568 6833

Manik Narain

Strategist

manik.narain@ubs.com

+44-20-7567 3218

Patrick Lamaa

Associate Strategist

patrick.lamaa@ubs.com

+44-20-7567 4485

Maximillian Lin

Strategist

maximillian.lin@ubs.com

+65-6495 8429

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Bhanu Baweja

Strategist

bhanu.baweja@ubs.com

+44-20-7568 6833

Manik Narain

Strategist

manik.narain@ubs.com

+44-20-7567 3218

Patrick Lamaa

Associate Strategist

patrick.lamaa@ubs.com

+44-20-7567 4485

Maximillian Lin

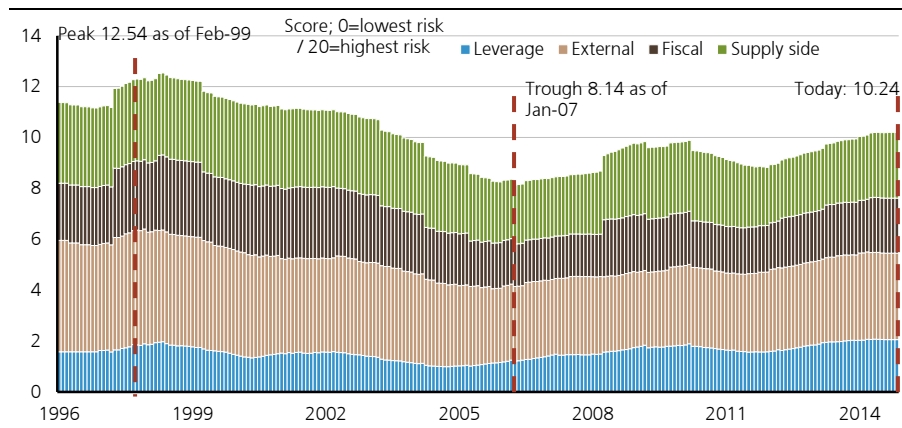
Strategist

maximillian.lin@ubs.com

+65-6495 8429

Pictures that tell the story

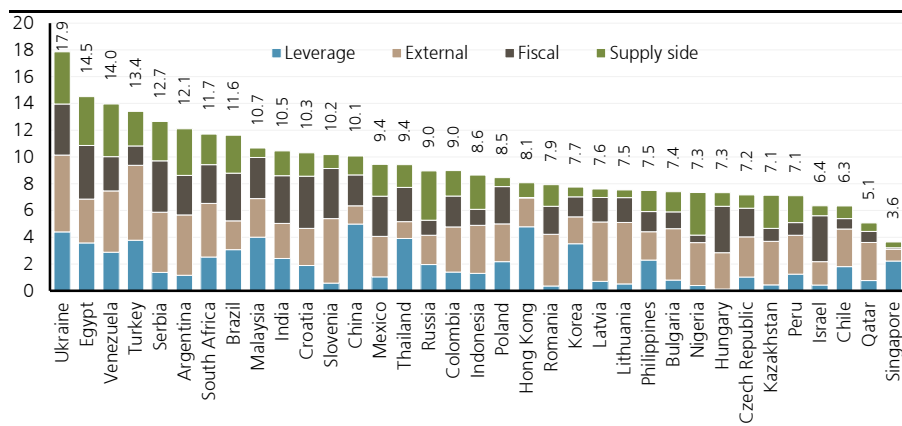
Figure 1: EM macro balance sheet risk score broken down by sub-components



Source: Haver, UBS estimates. The EM aggregate presented here is EMBI+ weighted. MSCI EM and GBI EM weighted balance sheet scores are also available.

Based on our EM macro balance sheet risk score, EM sovereign risk has not risen to levels consistent with a crisis at an aggregate level. However, we do find EM balance sheets at their worst state in a decade, with the deterioration proving persistent.

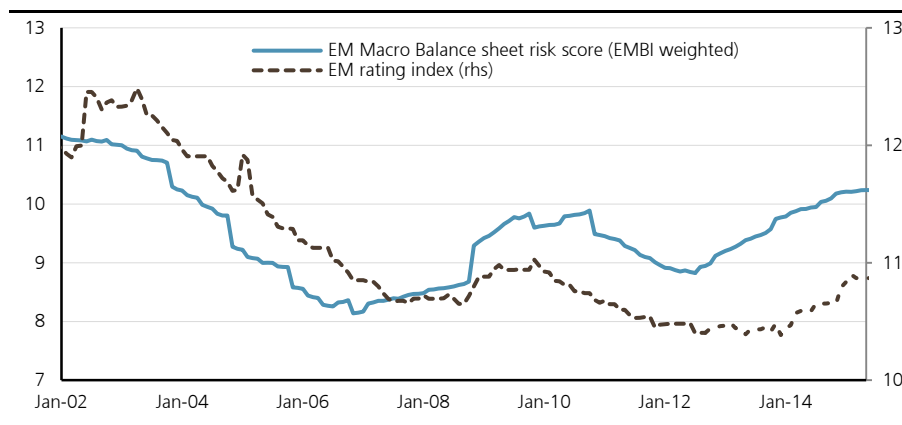
Figure 2: Current macro balance sheet risk score by country and risk component



Source: Haver, UBS estimates.

The macro risk scores of Turkey, Brazil and South Africa are not far from those registered during previous crises in these countries.

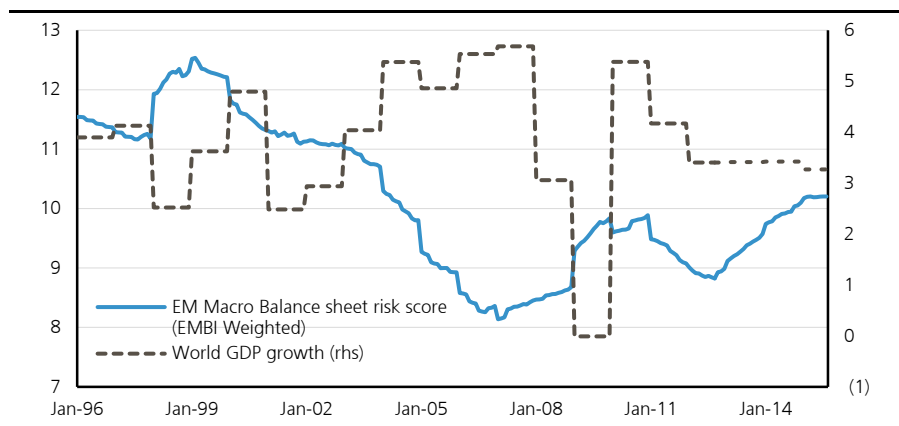
Figure 3: EM macro balance sheet risk vs EM ratings



Source: Bloomberg, UBS estimates.

Our EM macro balance sheet risk score leads an EM ratings index, and presently shows a greater deterioration in EM credit fundamentals than do EM ratings.

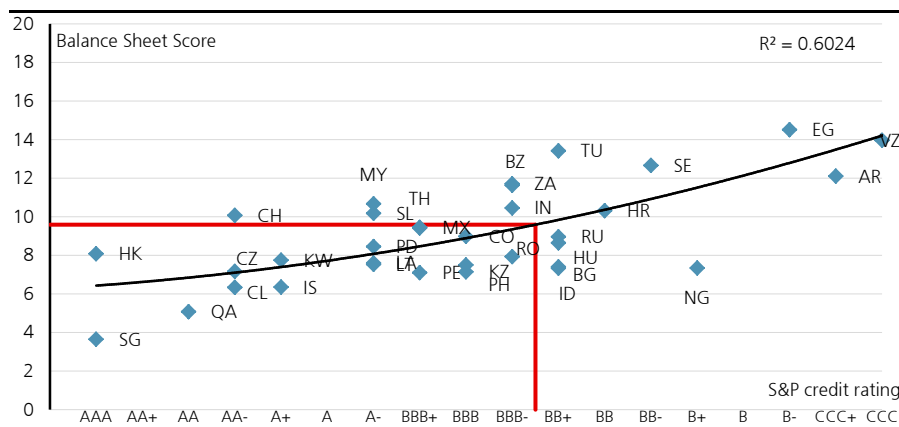
Figure 4: EM macro balance sheet score & global growth: Negatively related



Source: UBS estimates, Haver

The improvement in EM balance sheets through 2002-2007 took place in the context of a serious rise in debt-financed expenditure in the developed world. There are few balance sheets that can expand aggressively to support EM in a similar way this time around.

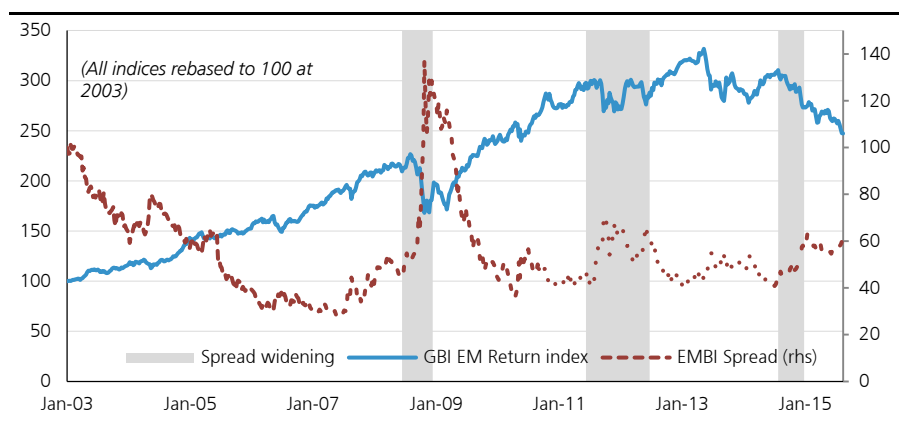
Figure 5: Current macro balance sheet risk scores and (generous) ratings



Source: Haver, UBS estimates, Bloomberg. The red line in this chart denotes the threshold between speculative and investment grade credit ratings; broadly consistent with a macro risk score just below 10

At 10.2, EM's macro balance sheet score today is consistent with a sub investment grade credit rating.

Figure 6: EMBI+ Credit spreads and GBI EM



Source: Datastream, UBS

As we see it, EM credit selling off is a sufficient - though not necessary - condition for other assets in EM to weaken. Each time in the last decade EM credit spreads have widened, EM equities and EM local debt have felt the pressure.

A dangerous phase begins as EM balance sheets show strain

Summary

In recent years, we have pointed to a clear distinction between EM's weakening ability to generate earnings (weak income statements), and its healthy ability to service debt (strong sovereign balance sheets). Weak income statements began dragging EM currencies and equities southwards as early as Q2 2011. Strong balance sheets kept EM debt strong.

However, balance sheets can't remain independent of income statements forever. EM sovereign balance sheets have now accrued enough bad news to become a concern in their own right. Our EM macro balance sheet risk score, a proxy for the state of EM balance sheets, has now given back all the improvements of the last 10 years. It is already consistent with a sub investment grade rating for EM at an aggregate level, and is still headed the wrong way. The deterioration in EM macro risk is not as acute as it was in previous recessions, but is more persistent. Also, given high leverage globally, external help will be less forthcoming compared to previous spells of deterioration in EM balance sheets.

Macro risk scores in Brazil, South Africa and particularly Turkey have already risen close to levels that have been consistent with previous crises. Risk scores in Malaysia, India and China are comfortably amongst the weaker half of an already weak EM macro risk spectrum. Only Israel, the Philippines, and the CEE3 have below-average risk scores and improving momentum.

EM hard currency debt, an asset class we have previously referred to as the rock star of EM due to its strong Sharpe ratios, will likely come under increasing pressure. We calculate that a 1 point rise in our macro risk score is consistent with a 70 bps widening in EMBI credit spreads. The cleanest asset implication of eroding balance sheet strength is a short position on EM credit relative to DM credit.

EM's real Achilles heel is corporate credit. Companies have issued copious amounts of debt to finance investments in sectors which are facing adverse revenue profiles, or simply to play the carry trade. However, most investors will be able to express a negative view only through sovereign indices like CDX EM.

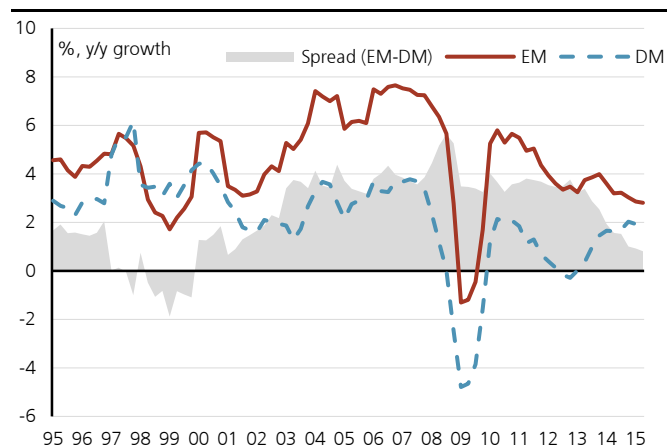
While the opposite is not always true, a hit to credit is typically meaningful for local FX, equities and even local currency debt. Worsening balance sheets are consistent with higher volatility and trade weighted depreciation in EM currencies. As spreads widen out beyond a point, high beta fixed income markets in EM begin trading like credit. Widening credit spreads will likely shock the weighted average cost of capital for companies even if US rates don't rise aggressively. This likely deepens EM's underperformance in equities. We calculate that EM equities will de-rate against DM by 8-10% for every 1 point rise in our balance sheet risk score.

What are the upside risks to our thesis? First, signs that competitiveness gains from FX depreciation overwhelm the rise in pressure on externally levered companies. Second, evidence that the bid for EM debt is strongly structural, implying yields stay low despite pain in other assets. Third, the level and texture of DM demand becomes more EM growth friendly. Fourth, a rapid clearing of inventories in China's property market. Lastly, that EM accelerates macro and micro reform.

Weak income statements, strong balance sheets since 2010

Median EM growth has now slipped below 3%, dragging its premium over developed market growth to the lowest level since the 1998/99 Asian crisis (Figure 7). This weakness in growth, particularly in EM exports, has led to severe weakness in EM company earnings, which have been revised downwards consistently for 4 years. The weakness in EM income statements has been both persistent and intense, leading, we believe, to EM equities underperforming and EM currencies selling off (Figure 8).

Figure 7: EM , DM GDP growth and spread: EM's growth premium over DM was lower only during the Asian crisis



Source: Haver, UBS

Meanwhile, EM's sovereign or macro balance sheets - stock variables that drive its ability to service debt - have held up better. Floating currencies, more orthodox central bank policies, a higher proportion of local currency issuance in EM debt, higher reserves cover to liabilities, and strong fiscal anchors all helped to improve EM macro balance sheets after the tumultuous 1980s and 1990s. Consequently, EM has seen almost no defaults and debt restructurings in the most recent phase of USD strength; a most atypical pattern (Figure 9).

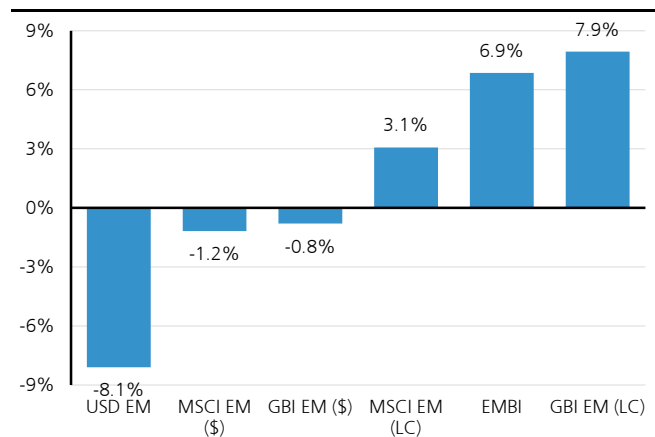
This balance sheet strength has been reflected in the relatively strong performance of EM debt (Figure 8). Since the global financial crisis EM debt, particularly hard currency debt, became a happy hunting ground for many investors. Overall debt portfolio inflows dominated equity inflows by a huge margin (Figure 10). The only countries where cumulative (since 2010) equity inflows have been larger than debt inflows are India and China, in both of which debt access for foreign investors is severely restricted.

So, since 2010, EM income statements weakened but balance sheets, for the most part, held up well.

That was the story.

EM has suffered persistent and intense weakness in its income statements.

Figure 8: Annualised % return since 2010: Currencies and equities underperformed while debt has held firm

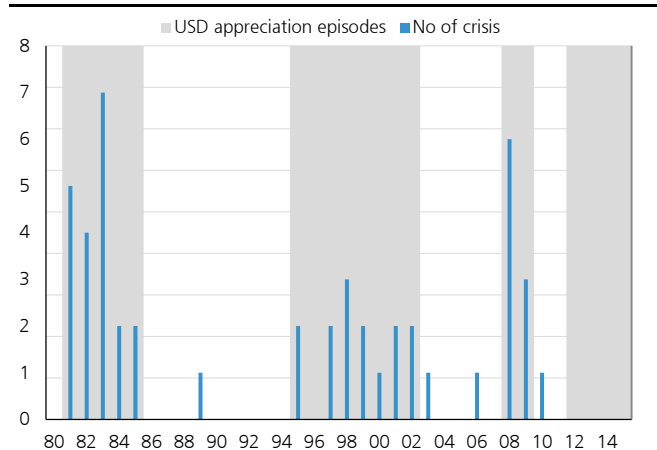


Source: Haver, Datastream, UBS. Note: data runs from Jan 2010 to 4 Sep 2015. USD-EM is a measure of spot returns for GBI-weighted EM currencies

Its balance sheets have been a source of resilience compared with the 1980s and 1990s.

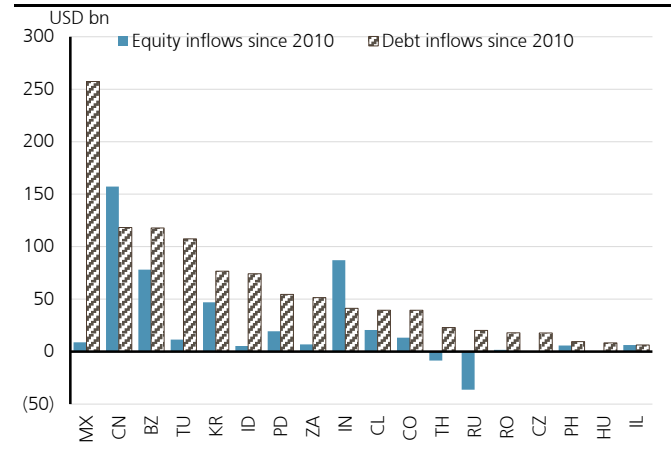
EM became a debt trade much more than an equity trade.

Figure 9: Periods of real USD appreciation* and number of EM crises¹: Stronger balance sheets = fewer crises



Source: IMF, UBS * y/y real trade weighted USD appreciation

Figure 10: Cumulative debt and equity inflows since 2010: EM's been a debt, not an equity, trade



Source: Haver, IMF, UBS. Data runs from Q1 2010 – Q1 2015

Weakness in income statements has now accrued to balance sheets too: measuring sovereign risk in EM

Now, after several years of income statement pain, enough weakness has accrued to EM sovereign balance sheets for them to become a concern in themselves. If this is correct, the nature of the EM selloff will change, with asset class performance becoming more correlated and volatility pushing higher. EM debt, the last shoe in EM – let's think of it as a Blue Suede Shoe, since we have referred to this asset class as the ageing rock star of EM² – may be ready to drop, and this will impact all other asset classes.

On what basis can we say EM sovereign balance sheets are weakening? We measure sovereign or macro balance sheet (MBS) risk in an EM economy by taking a weighted³ average of 4 vulnerability indices: a) leverage (25% weight), b) external sector (35%), c) fiscal (20%), d) supply side / institutional factors (20%). These 4 categories are, in turn, divided into 12 sub categories⁴, the details of which we will publish in a separate note dedicated to our macro balance sheet risk score.

As the EM macro balance sheet risk score shows, the period through 1994-2002 was a rough one for EM (Figure 9 and Figure 11), starting with the 1994 Tequila crisis in Mexico and ending with the Brazil crisis in 2002, with a turbulent Asian crisis in between. Then came the clean-up and, unlike the developed world today, EM did clean up properly. Reserves buffers were built, fiscal rules were instated, knives were taken to failing financial institutions, and reforms improved business perception. Balance sheet risk scores shrunk across all variables, particularly external sector risk (Figure 11). There was a sharp bump through the global financial crisis, but EM's balance sheet strength was apparent again by 2011 even as EM income statements (growth) began to suffer.

Do step on my blue suede shoes.

Our sovereign balance sheet risk score is built from percentile scores of macro variables across all EM countries since 1996.

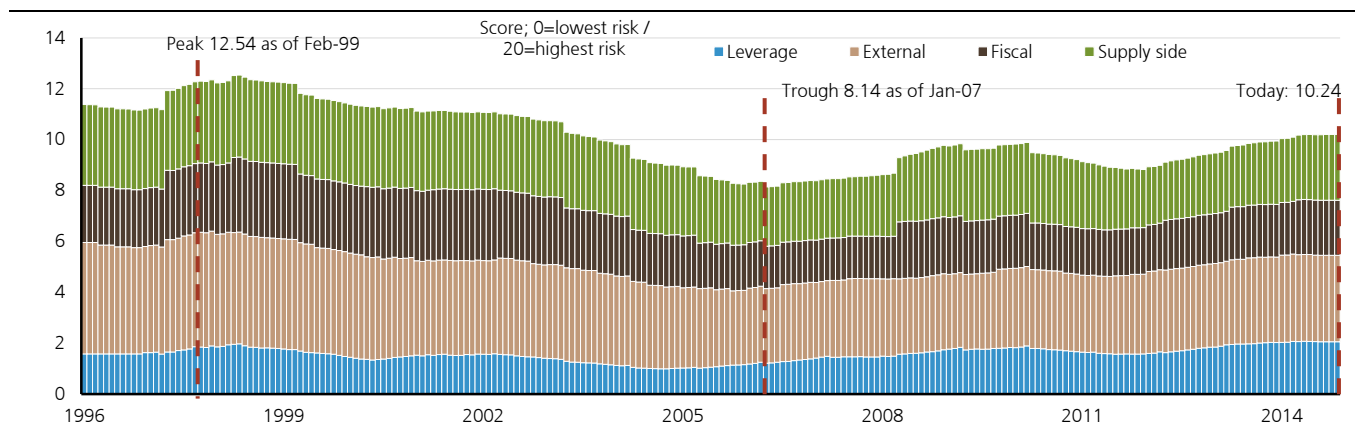
¹ From 'Spillovers from Dollar Appreciation', IMF Working Paper Aug 2015.

² Macro Keys: Where next for the rock star of EM assets?

³ The weights of individual sub sections have been chosen with consideration for their ability to predict previous crises.

⁴ 12 risk variables we score are Credit to GDP level (deviation from per capita income forecasted level), change in credit to GDP, current account, external debt to GDP, short term external debt to reserves, FDI, net international investment assets, the proportion of external debt denominated in foreign currencies, fiscal balance, public debt, WB governance indicators and a proxy for the slope of the Phillips curve.

Figure 11: EM macro balance sheet risk score broken down by components: Back to the Future!



Source: Haver, UBS. The EM aggregate presented here is EMBI+ weighted. MSCI EM and GBI EM weighed balance sheet scores are available too.

Since 2012, however, EM macro balance sheets began to deteriorate as rising leverage (as per the Debtopia thesis by Wooldridge and Macleod), external & fiscal risks pushed up the risk (Figure 11). They have now hit 10.2, noteworthy levels, as we explain below.

Better policy making and a fair global wind helped heal EM balance sheets from 2002 to 2008.

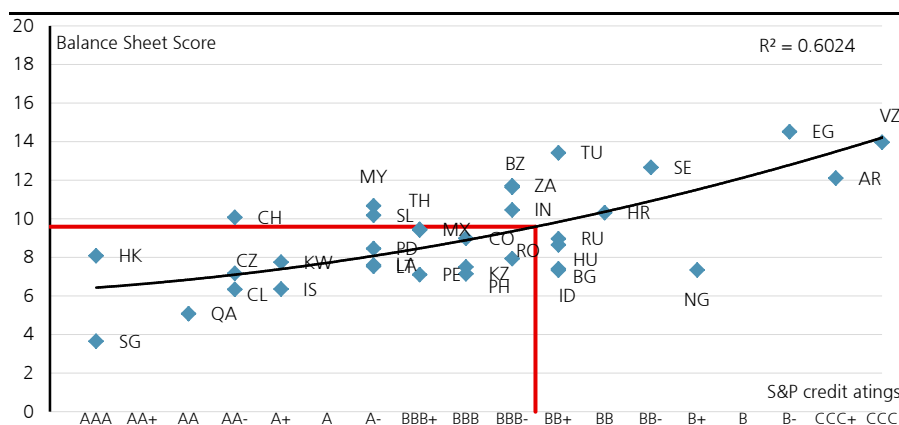
Rules of thumb on country risk scores

Before we go there though, let's try to identify the point at which the macro balance sheet risk score for any country becomes a worry. Learning from past experience and current ratings profiles, a few simple rules of thumb emerge.

1. Based on today's (very generous⁵) ratings profile for EM countries, a macro balance sheet risk score above 10 is consistent with a sub-investment grade rating (Figure 12). The bar for being pushed into sub-investment grade status may come lower (i.e sub investment grade status may become consistent with an even lower macro risk score) as rating agencies' assessment becomes more realistic.

10 is uncomfortable, and consistent with a speculative credit rating.

Figure 12: Current macro balance sheet risk scores and (generous) ratings



Source: Haver, UBS estimates, Bloomberg. The red line in this chart denotes the threshold between speculative and investment grade credit ratings; broadly consistent with a macro risk score just below 10

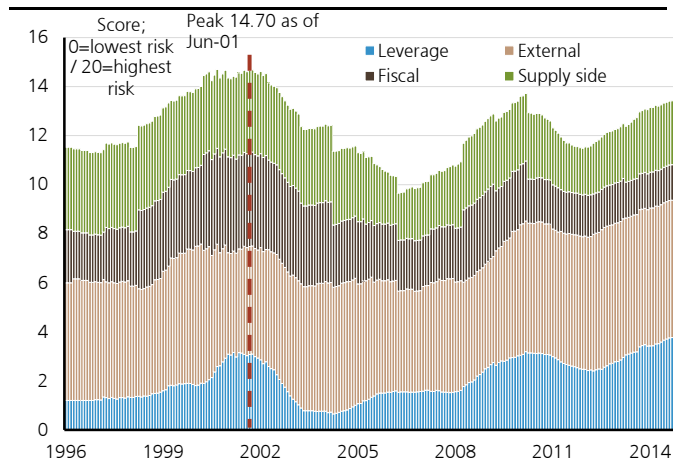
⁵ See Figure 19

2. A country score rising through 12 typically presents a big reason to worry. There are no examples for risks scores pushing through 12 without serious pressure on credit spreads, currencies and equity markets.
3. A country score of 14 is usually consistent with a full blown crisis. Many countries can experience stress at levels well below 14, as did Brazil in 2002 (Figure 14), but few escape a 'sudden-stop' if 14 is hit.

12 is serious trouble.

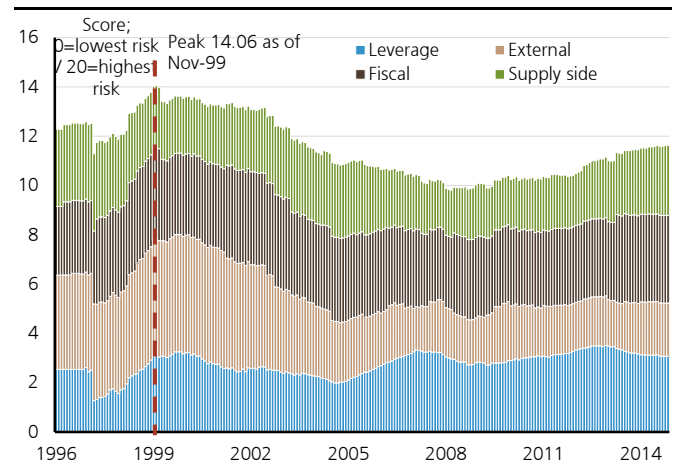
14 is typically a crisis.

Figure 13: Turkey macro balance sheet risk score



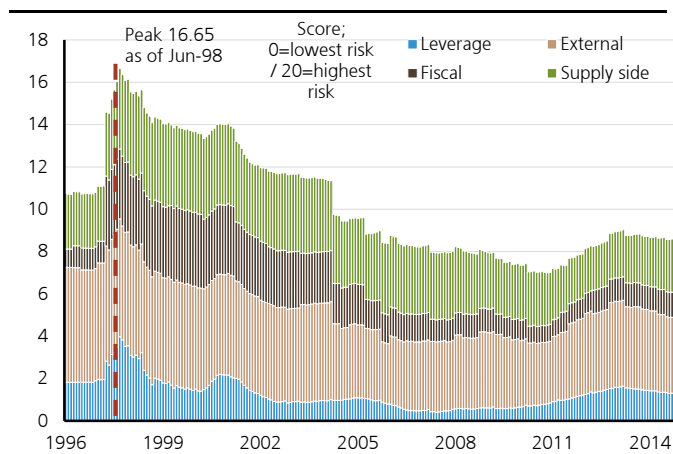
Source: Haver, UBS, Red lines indicates timing of sudden stop in portfolio flows

Figure 14: Brazil macro balance sheet risk score



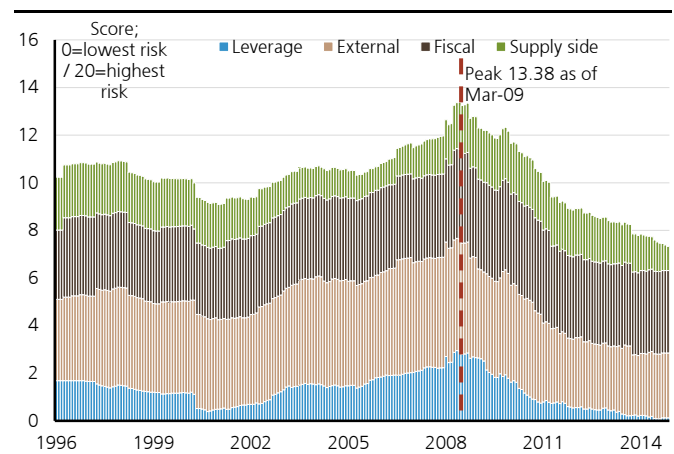
Source: Haver, UBS, Red lines indicates timing of sudden stop in portfolio flows

Figure 15: Indonesia macro balance sheet risk score



Source: Haver, UBS, Red lines indicates timing of sudden stop in portfolio flows

Figure 16: Hungary macro balance sheet risk score



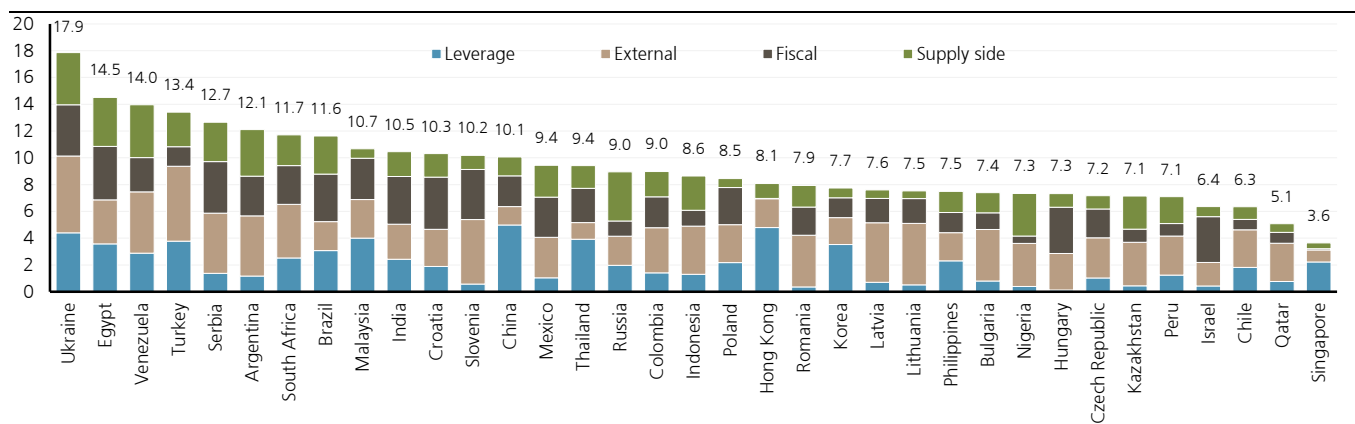
Source: Haver, UBS, Red lines indicates timing of sudden stop in portfolio flows

Across mainstream EM⁶ (lets define that as countries that are amongst the top 15 recipients in EM of debt flows since 2010), Turkey's balance sheet score is already well through 12. It is still rising, and on its current trajectory can hit 14 in a year's time. Brazil and South Africa are flirting with 12, and similar to Turkey, macro risk scores here are on the rise too. Malaysia isn't too far behind with India, China, Thailand and even Mexico comfortably in the wrong half of the EM vulnerability spectrum (Figure 17).

The macro risk scores of Turkey, Brazil and South Africa are not far from those registered during previous crises in these countries.

⁶ There are several economies that one would associate with very weak credit profiles (Venezuela, Argentina etc.) that may screen superior to better regarded EM economies. This is because, even as we try to incorporate institutional and political weakness in our supply side risk weighting, our metric remains a better indicator of ability, rather than willingness, to pay

Figure 17: Current macro balance sheet risk score by country and risk component⁷



Source: Haver, UBS

At any point in time there will always be a few countries that are problematic, we hear you say! At an aggregate level (EMBI weighted) EM macro balance sheet risk score is still some distance away from the crises era levels of 1996-2002 (Figure 11). Indeed, the current macro balance sheet risk score is close to its 20y average, and averages are comfortable places to sit and hide. Why make all this fuss?

Not at crisis levels? So why worry now?

A few reasons, actually.

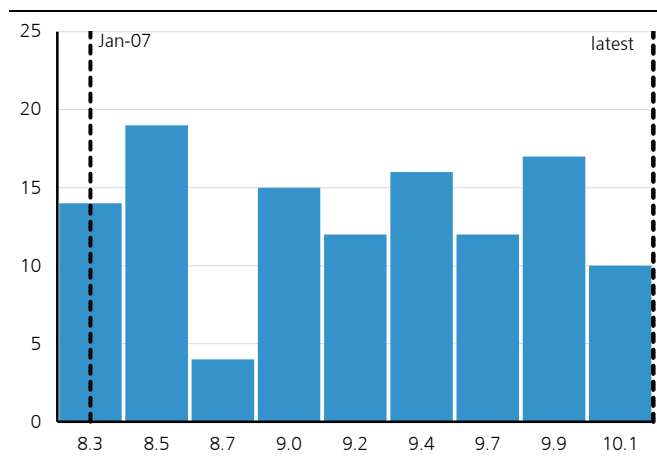
First, based on a 10 year timeframe (Figure 18), EM balance sheets are at their worst state. This is important because it is only since 2005 that EM debt has attracted serious investment. The structural macro improvements that these EM debt investors enjoyed, and hoped would persist, has now all been reversed. Note also that some of countries flirting with the trouble areas of 12-14 on our macro risk score are ones that have attracted debt serious investment. It is not just perennial problem countries of EM credit - Argentina, Venezuela, Ukraine and Egypt - that we find in the left tail today.

Sure, at an aggregate level EM balance sheets are not at a level of distress, but...

...that can't be a consolation to all the money that has flowed into EM debt over the last decade - EM balance sheets have given back all the gains earned over this time.

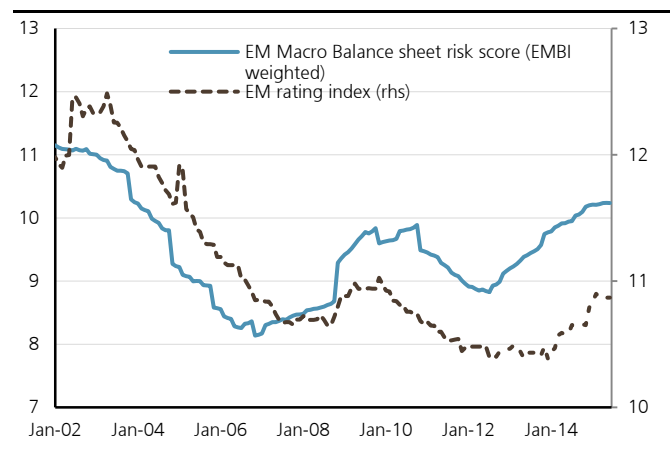
⁷ A couple of points on China's macro balance sheet risk score are in order. First, China's domestic credit/GDP ratio is the highest in EM and has also grown at the fastest pace across EM in recent years. This has resulted in China "maxing out" on our leverage score at 20. As such, continued accumulation of leverage will not lead to higher leverage scores. Second, our fiscal score may somewhat understate the true state of China's debt stock as it is based on the IMF's estimation of a general government gross debt ratio of 41.1% in 2014 which does not fully account for off balance sheet fiscal activities. We use this data in order to be as consistent as possible across countries, as data on off-budget fiscal activity is hard to track and compare across EM. For reference, China's national audit office estimated in December 2013 that local government debt (including debt guarantees and other contingent liabilities) amounted to CNY 17.9trillion in June 2013 or about 1/3 of GDP. Including central government debt (12.4trn in June 2013), overall government debt stood at 30.3trn or 56%/GDP. Our economists think this ratio now stands at about 60%/GDP.

Figure 18: 10y distribution of EM macro balance sheet risk



Source: UBS estimates, Haver

Figure 19: EM macro balance sheet risk vs EM ratings



Source: UBS estimates, Haver

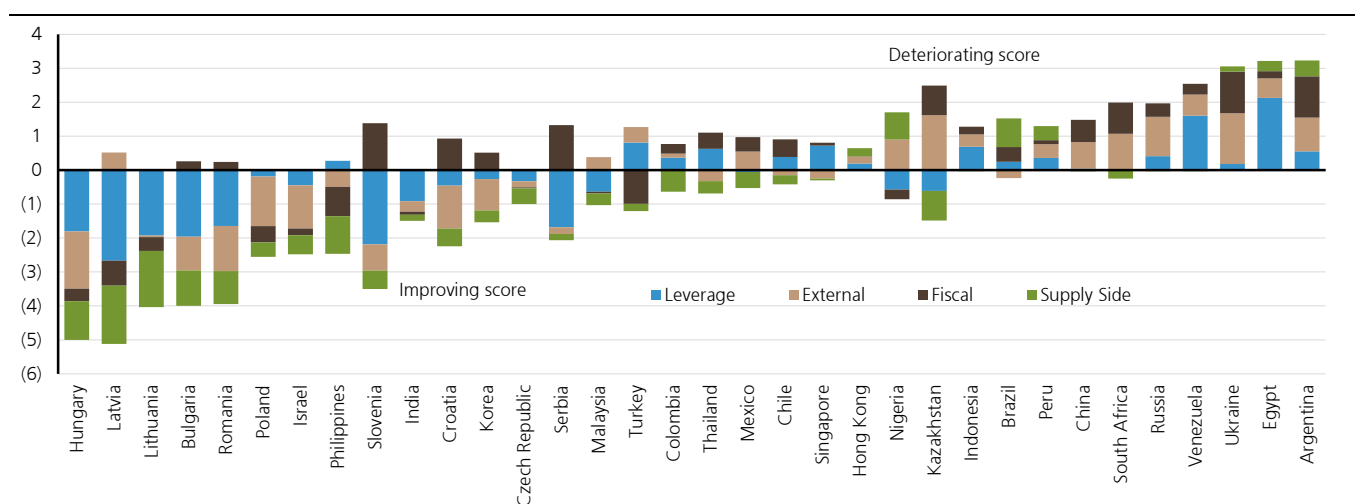
Second, on an EMBI+ weighted basis, the aggregate EM macro balance sheet risk score has reached a level consistent with a sub investment grade rating. Our EM macro balance sheet risk score leads an EM ratings index, and presently shows a greater deterioration in EM credit fundamentals than do EM ratings (Figure 19). Based on the level of our balance sheet score, and the relationship between this score and a ratings index over the last 15 years, EM's aggregate (EMBI+ weighted) ratings should be at least a rating notch lower. Given that EM's aggregate (EMBI+ and EMBI GD) rating is just at the cusp of investment and sub investment grade, ratings agencies waking up to reality could mean flows into EM do get compromised at a time when re-financing needs are likely to rise.

EM balance sheet risk is now consistent with a sub investment grade rating at an aggregate level.

Third, not only are we hitting important levels on the balance sheet risk score, the momentum of the score is tilted the wrong way. Over the last 5 years the majority of EM countries have seen their scores worsen. Once changes are weighted by GDP or asset market cap, the deterioration is more marked– it is only the smaller economies of Israel, the Philippines, and the CEE3 that have macro risk scores that are below average and improving (Figure 20). The worsening of the balance sheet score is not narrow; it is broadening across the EM spectrum.

This is not a narrowly based deterioration in the risk score.

Figure 20: 5y Change in macro balance sheet risk score, by country and risk component

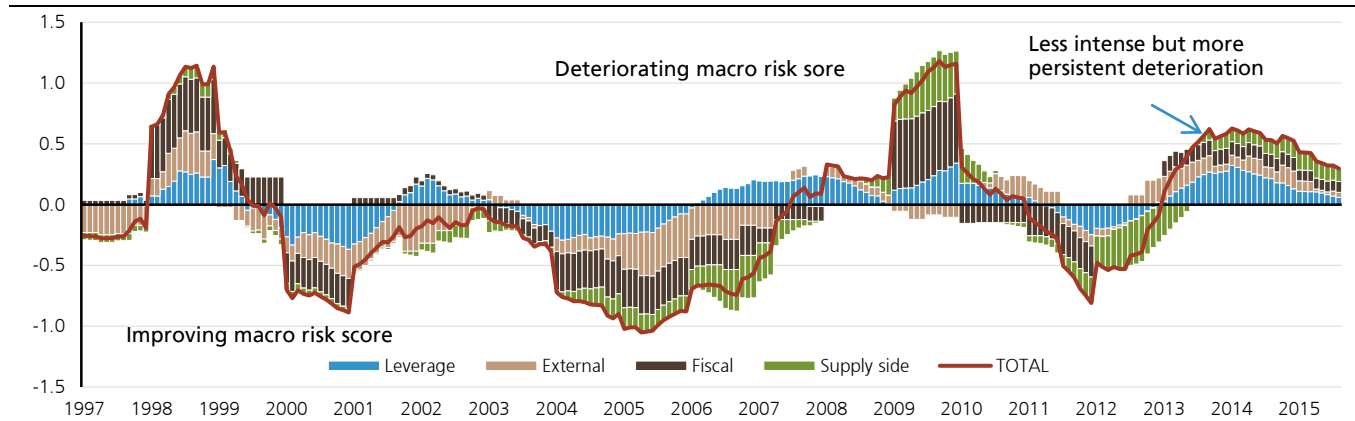


Source: Haver, UBS

Fourth, the deterioration is more persistent than in the past. Although this is a balance sheet score, which deals mainly with stock variables, there are some flow variables in the construct which do lend it some cyclical sensitivity. Typically in a recession, scores for a large proportion of countries deteriorate, but subsequently there is a sharp improvement, as happened in 1998, 2000 and 2008. This time around, while the worsening has been less acute (we are not in a global recession), it is much more persistent.

The level of balance sheet score may not be crisis like, but the persistence of deterioration is higher than any time in the last couple of decades.

Figure 21: Contribution to yearly change in EM balance sheet risk score



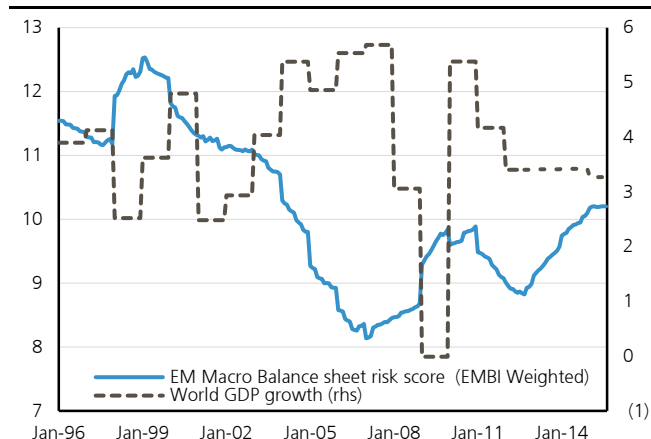
Source: Haver, UBS

Fifth, unlike previous episodes of EM balance sheet deterioration, it is very unlikely this time that a big improvement in global circumstances comes to the rescue. As Figure 22 and Figure 23 show, even the improvement in EM balance sheets through 2002-2007 took place in the context of a serious rise in debt financed expenditure in the developed world. With leverage having reached worrying levels in DM (and EM) there are no global balance sheets that can expand aggressively to propel growth, and bail EM out. Even in the unlikely event that domestic absorption in the developed world does improve strongly, it may mean less for EM than it used to - the relationship between global trade and global growth has weakened compared to the 1990s and the 2000s⁸. This time the rescue for EM will have to be made in EM, not in DM. We aren't holding our breath.

No fair winds to the rescue this time.

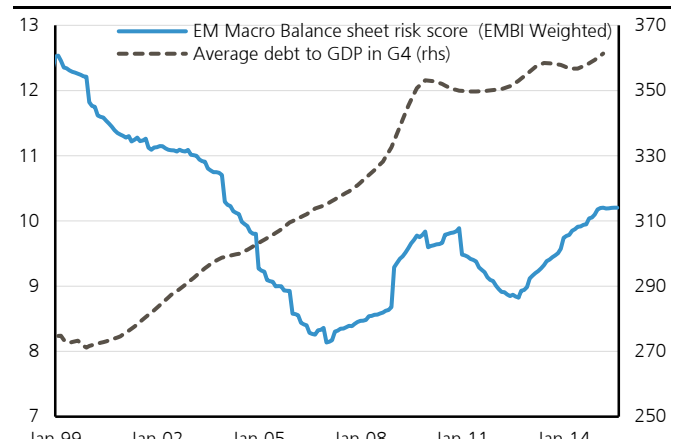
⁸ Please see [EM Cross Asset Navigator: Is the trade slowdown cyclical or structural?](#) and [Macro Keys: Globalization's challenges](#) for details

Figure 22: EM macro balance sheet score & global growth: Negatively related



Source: UBS estimates, Haver

Figure 23: EM macro balance sheet score and G4 leverage*: Little room to expand global balance sheets



Source: UBS estimates, Haver, *Total debt to GDP of US, Eurozone, Japan and China (GDP weighted)

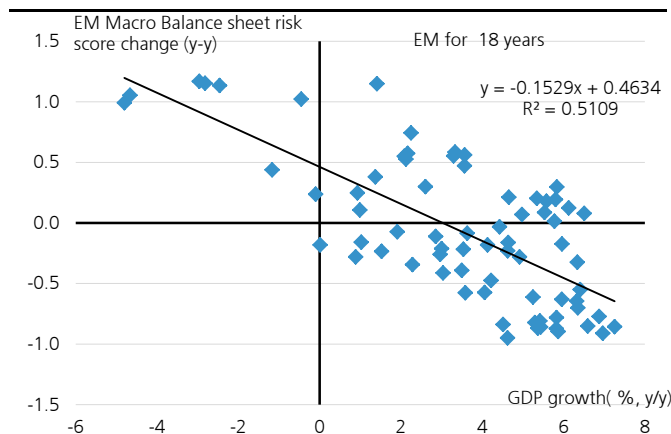
How quickly can things slide, and along which dimension?

What happens to our balance sheet scores if EM growth fails to pick up meaningfully? Growth and balance sheet scores across EM are clearly not exogenous, so any estimate of beta must be thought of as rough at best, but based on their historical relationship, current low levels of EM growth (3.5% MSCI weighted aggregate EM growth, 0.8% EMBI weighted growth, 2.5% median growth) are consistent with the balance sheet score worsening roughly 0.3-0.4 points a year (Figure 24). EM's present balance sheet score of 10.2⁹ can drift higher towards 11 in just around two years. At that level then EM would then not be far from the risky levels of the mid-1990s (Figure 11).

Tick, tock, tick, tock

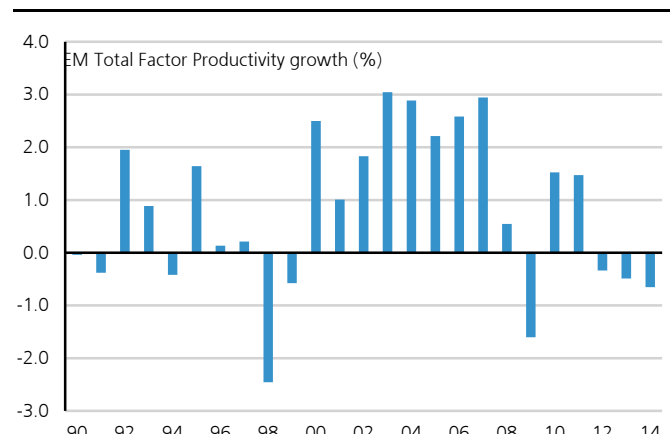
...Unless growth improves from current levels EM's balance sheet score can passively rise by 0.3-0.4 points a year, reaching 11 in two years. Then we are talking mid 1990s risk levels.

Figure 24: EM balance sheet risk score change (annual) and EM y/y GDP growth



Source: Haver, UBS

Figure 25: Total factor productivity growth in EM



Source: Conference Board, UBS. Represents 22 Emerging and Developing economies

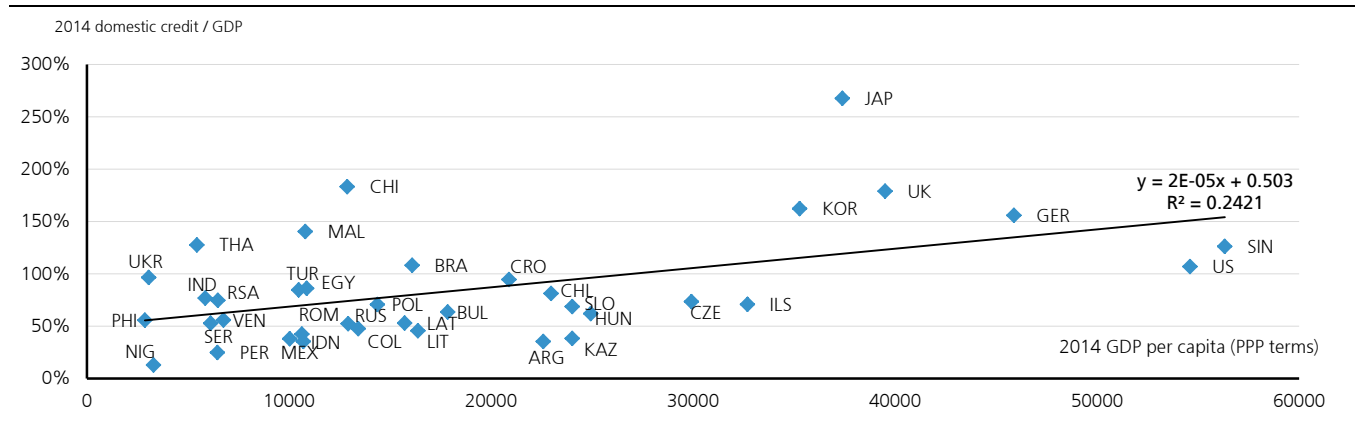
⁹ The precise score of the EM balance sheet risk index will, of course, vary according to the country weights used. An EMBI-weighted measure is 10.2, with an MSCI-weighted measure slightly lower, at 9.7

This simple estimate of the pace of EM's macro balance sheet deterioration is conservative. The deterioration could be quicker, and more active. Our bet is that it will come along the fiscal and external risk dimensions. Why?

Leverage is already at a high level, and can continue to rise passively as growth stays weak, but we don't expect a surge in credit growth. Figure 26 shows that most of the large EMs (Mexico and Indonesia are exceptions) have already seen strong financial deepening relative to per capita incomes.

We expect a very slow deterioration in our leverage score.

Figure 26: Is EM under-levered? Most large EM countries are already highly levered relative to their per capita incomes¹⁰



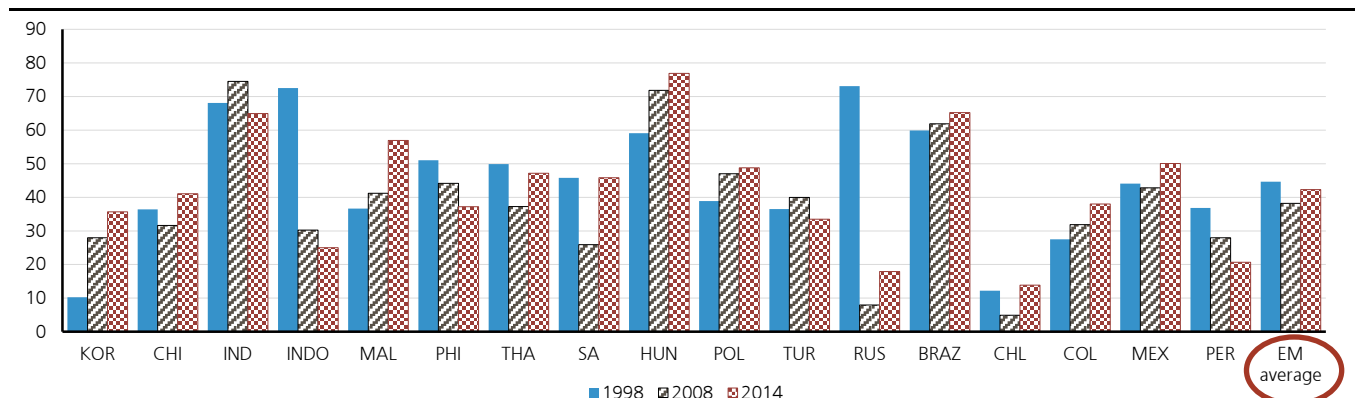
With only scattered evidence of reform in EM, we don't see the supply side of the EM risk score helping bring down EM risk perceptions. Total factor productivity growth remains weak (Figure 25), and 'ease of doing business' or governance indicators are stable to modestly worsening.

Little pressure to reform in EM

The segment of EM balance sheets where, we think, we can get active deterioration is the fiscal score. This has a low weight in our balance sheet risk index (20%) as historically it has responded to crises rather than predicted them (except in LatAm), but still we believe this is the one to watch from here. Why?

EM's considerable fiscal achievements of the last decade may slowly be compromised

Figure 27: General government gross debt/GDP in EM: 2014 vs. 2008 vs. 1998

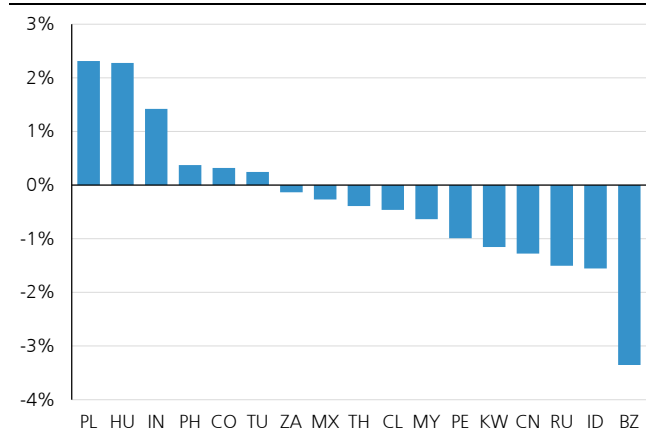


¹⁰ For more details on the growing risk of deleveraging in EM Asia, please see Asian Focus: Debtopia Lives by Duncan Wooldridge and Debtonomics: Five Years In by Niall Macleod

For one, the starting points are worse than many of us choose to acknowledge. Progress has certainly been made in lengthening maturities and the currency composition of government debt, but the fact is that EM public debt levels are now through 2008 levels, and are in fact approaching those seen in 1998 (Figure 27). Note that our calculation here doesn't include EM's contingent liabilities, which have certainly increased¹¹. In the face of weak growth EM has already diluted its conservative fiscal stance of the mid-2000s (Figure 28 and Figure 29).

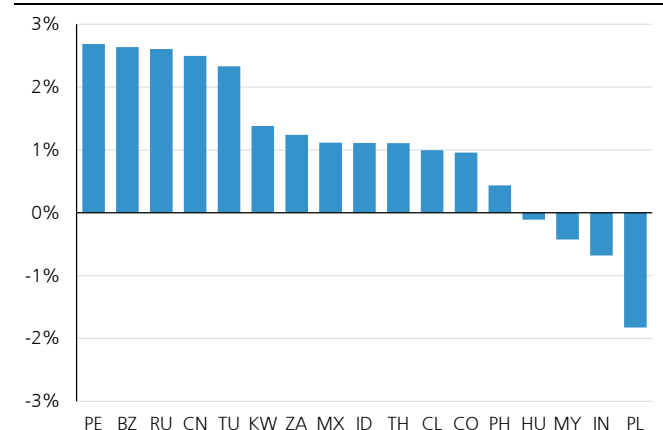
EM public debt levels are no longer low enough to be considered a source of balance sheet strength

Figure 28: Change in structural fiscal balance between 2014 and 2011 (% of GDP)



Source: Haver, IMF, UBS

Figure 29: Change in expenditure (% of GDP) between 2014 and 2011 (% of GDP)

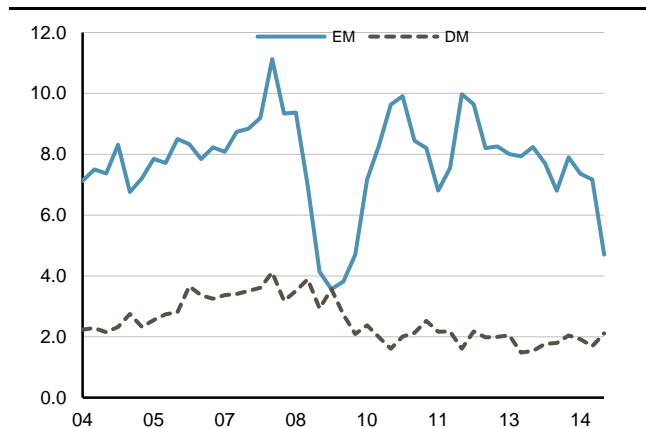


Source: Haver, IMF, UBS

Also, after nearly four years of an EM output slowdown, EM labour markets are beginning to get impacted. Lower wage growth and higher unemployment in EM (Figure 30 and Figure 31) will likely put greater pressure on governments to support growth than would an employment neutral decline in incomes (driven, for example by worsening terms of trade or weaker capital intense spending).

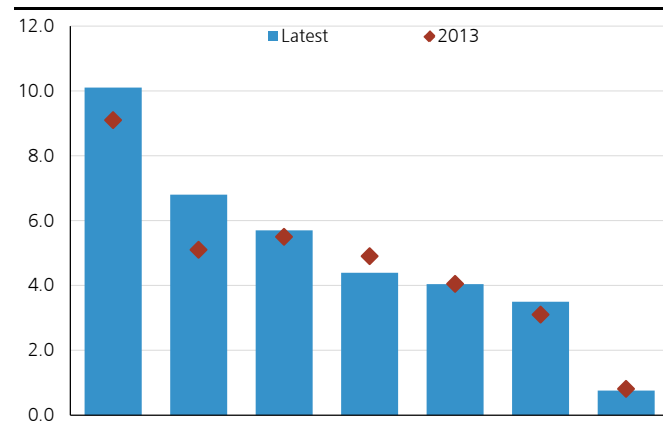
Softening EM labour markets are likely to pressure EM's fiscal anchor

Figure 30: Wage growth across EM and DM (% y/y)



Source: Haver, National sources, UBS. EM data shows 1/3 trimmed mean of y/y wage growth for 13 major EMs. DM is equally-weighted measure of US and EA

Figure 31: Unemployment rates across selected EMs (%)



Source: Haver, National sources, UBS

But can't fiscal easing actually help growth, and support a restoration of balance sheets? In some cases, including in China, Korea, Indonesia, Chile, and Russia fiscal loosening will likely be a conscious policy choice to support growth. These economies have either captive bond markets (China) or run public debt ratios

Can easing fiscal conditions actually cushion growth? Yes, only for a few economies

¹¹ China, Malaysia, South Africa, Russia and Brazil deserve special mention in this regard.

below 30%/GDP which are unlikely to undermine risk perceptions strongly at this stage. Notably, these are not economies which are pushing a macro risk score of 12 or 14. While the fiscal score may worsen, by helping growth and preventing outflows, this lever may bring down overall macro risk for these economies.

For most economies in EM though, the deterioration in fiscal risk is likely to be passive. Brazil, Mexico, Hungary, South Africa, Malaysia, India, Poland, and Turkey¹² don't have much room to expand public expenditure, but are likely to see fiscal gaps widen and public debt rise as tax revenues disappoint. Most of these economies are already flirting with very high levels of macro balance sheet risk.

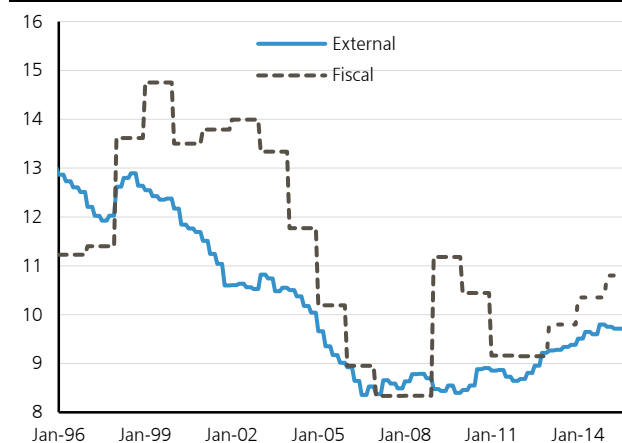
Here we would also like to point out that that EM's fiscal risk and external risk have been very strongly correlated over time (Figure 32). As EM fiscal anchor loosens, we would fully expect the worsening of EM external risk scores too.

We anticipate there will be strong cross currents under EM's external risk score - current accounts could potentially improve as a result of weak domestic absorption, but slowing capital inflows (or capital outflows) may hurt FX reserve levels relative to external debt. EM reserves have already begun to fall (Figure 33) as the USD strengthens and capital flows are slowing or, in some cases, reversing. Thus far FDI, external loans, and currency and deposits have moderated; but it is an exit of portfolio capital (mainly debt) that would more strongly compromise reserves, taking the external risk score higher despite modestly better current account levels.

Our fiscal and external risk scores are strongly correlated

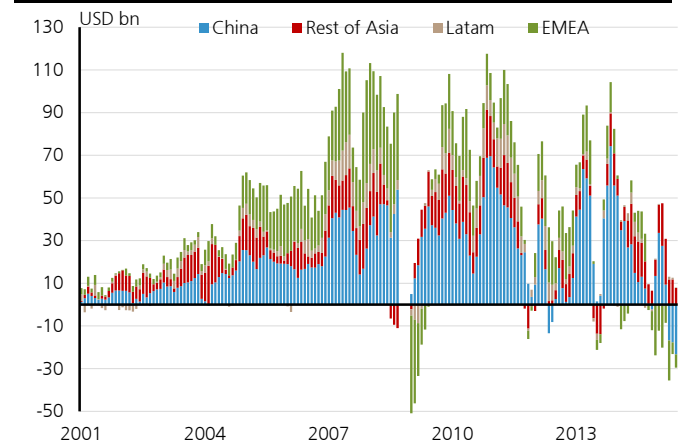
Current account improvements may not be able to neutralise pressure on the capital account; EM reserves may decline from here.

Figure 32: EM fiscal risk score and external risk score



Source: Haver, UBS

Figure 33: Contribution to change in EM FX reserves



Source: Haver, Bloomberg, UBS

¹² Turkey has kept a fairly tight grip on fiscal, so this comment may seem a bit unfair but given the very elevated level of macro risk in other indicators (Figure 13), including a very large external deficit, we don't believe Turkey can take liberties with its fiscal achievements.

Asset implications

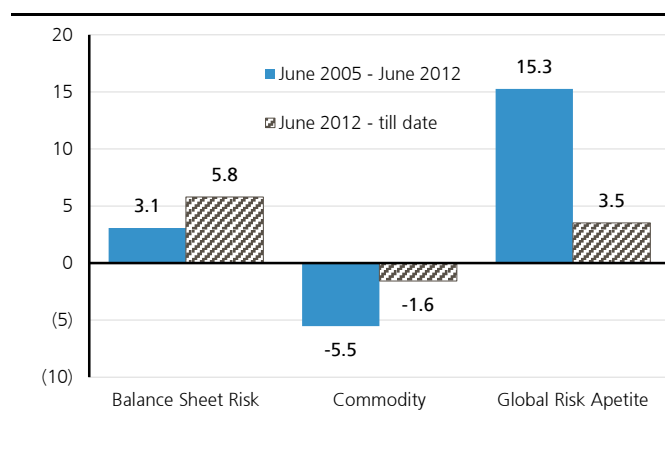
If our thesis on macro balance sheet deterioration is correct, the nature of the EM selloff is likely to change in important ways. As EM wilts under the weight of its own problems we are likely to see it underperform even in a world of low rates and stable to weaker USD. Higher US rates and a stronger USD will compound EM's pressures. We highlight four key asset market implications. 1) EM credit is likely to underperform DM credit, with risks more elevated for EM corporates. 2) We will see EM FX depreciating not in passive response to stronger USD, but in an active trade weighted fashion, driven by its own weakening fundamentals. 3) This new strain of currency selloff is more potent in infecting EM duration even amidst global disinflation. 4) EM equities further underperform DM equities as a higher weighted average cost of capital adds to existing worries on EM earnings.

EM will wilt under the weight of its own problems. Stronger USD or higher US rates, should we see them, will further complicate life for EM, but EM will likely underperform even in their absence.

EM credit underperforms DM credit

With EM balance sheet risks having become elevated, and momentum pointed in the wrong direction, we think EM debt will no longer remain the jewel in the crown, even if it delivers better relative returns than EM equities and currencies.

Figure 34: T stats from regression of EM spreads on global risk appetite, commodity prices & balance sheet risk score

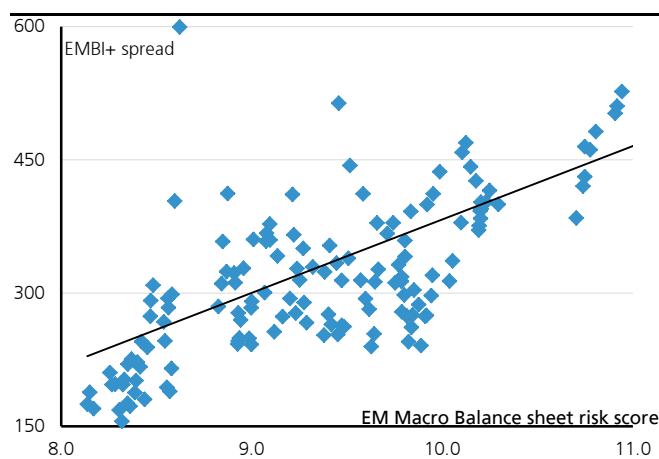


Source: Haver, UBS

Between 2005 and 2012 the performance of EM credit spreads was much more closely tied to that of global risk indicators¹³, including developed market spreads, than it was to EM fundamentals (Figure 34). QE induced tighter developed market term premia and meant that the demand for EM paper picked up strongly. Supply followed, particularly from EM corporates.

Since mid-2013 as EM balance sheets began to worsen, the relative importance of global factors has diminished compared to EM's own fundamentals, which we proxy using our balance sheet risk score (Figure 34). Always true for Argentina, Venezuela and Ukraine, this pattern of fundamental factors dominating global risk premia has extended to Russia and Brazil already, and will likely extend to other countries and corporates in EM.

Figure 35: EM Balance sheet score* and EMBI+ spreads



Source: Haver, Bloomberg, Datastream, UBS *Here the EM aggregate is EMBI+ weighted

EM credit spreads are increasingly being influenced by local, rather than global, factors

¹³ In our analysis and models we measure global risk appetite as the first principal component of volatility in UST bonds & German equities, USDJPY, AUDJPY and EURUSD, spreads in US and EU high yield and US and EU 3m TED spreads.

How much spread widening can EM's worsening balance sheets cause? We anchor fair value in EM spreads in a simple error correction model¹⁴ where we regress EMBI Plus spreads on a) our (EMBI Plus weighted) balance sheet score, b) a proxy for global risk, and c) commodity prices¹⁵. We find that controlling for other variables, a 1 point widening of balance sheet score should cause EMBI spreads to widen out by 68 bps. In reality though, this ordinary least squares estimate is likely to be conservative, as there would surely be non-linearities in the reaction of spreads to changes in the balance sheet score - spreads will widen more when the balance sheet score deteriorates from 10 to 11 than they do when it moves from 8 to 9.

Based on our simple model, shocking the balance sheet score to 11 (10.2 currently) is consistent with EMBI Plus spreads of 485bp (420 at the time of writing), ceteris paribus. However, other things are typically not equal; for instance, any deterioration the profile of commodity prices and global risk appetite will create incremental widening pressures on top of this estimate. A macro balance sheet score deterioration to 11, in addition to a 10% y/y drop in commodities, and a 1 standard deviation worsening in global risk appetite appears consistent with EMBI Plus spreads at 550bp. In order to contextualise these figures, EMBI+ spreads rising to 520bps (a bit over half way between 485 and 550bps), would be roughly equivalent to 1.5% annual total returns for the EMBI+ over the next two years (assuming US Treasuries move purely in line with their forwards, our US economists look for considerably higher yields). This base case for returns is hardly a crisis, consistent with our balance sheet risk score, and implies a slower pace of widening in CDS spreads than seen over the last few, turbulent months. However it is still a strong fall from grace for an asset class that has delivered annual returns close to 7% since 2010, with much lower volatility than local rates or equities. There will be little room to absorb any shocks in the way of US rates, a slower run-rate for GDP growth, or active balance sheet deterioration. The tailwinds that EM credit has provided to other EM asset classes over the past 5 years are set to dissipate and the recent selloff hardly looks consistent with a big buying opportunity.

With EM balance sheets deteriorating these risks are quite real. We think holding a long position on developed market credit relative to EM credit provides offers good risk reward. We prefer playing the developed market leg through a long position in European credit as the external sector in Europe, for instance, has improved considerably, both in terms of surpluses and also in terms of competitiveness. Also, should their own credit markets come under strain, it is highly probable that European market policy makers will move monetary policy levers to limit any damage.

What happens to spreads if we shock the EM balance sheet score? Other things being equal a 1 point climb in the balance sheet index pushes EMBI+ spreads wider by 68 bps. We think this is a conservative estimate.

We think total returns for the EMBI will post around 1.5% p.a. over the next two years. This is no crisis, consistent with our balance sheet score, but is a sharp erosion of the Sharpe ratio and is consistent with lower portfolio inflows into EM

Short CDX EM against European high yield

¹⁴ Below are long run and short run regression equations of the error correction model for spreads. T values are in brackets. The bolded coefficient in the short run model is the error correction term

Long run co-integrating relationship:

$$\text{EMBI} = -315.8 - 1.13 * \% \text{Commodity} + 61.59 * \text{global risk} + \mathbf{68.48} * \text{balance sheet score}$$

(-3.7) (-4.13) (11.5) (7.6) R sq 67%

Short run: (the macro balance sheet risk score is not significant here)

$$d(\text{EMBI}) = -1.35 * d(\% \text{commodity}) + 48.18 * d(\text{global risk}) - 0.21 * \text{Long run residuals}(-1)$$

(-4.1) (7.1) (-4.5) R sq 52%

¹⁵ We use the CRB index to represent commodity prices.

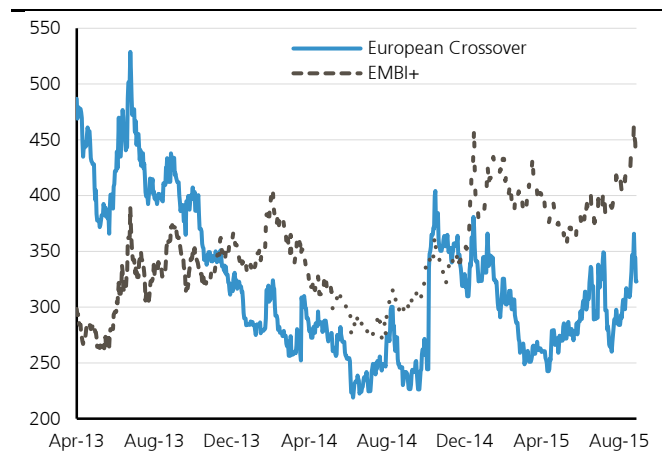
To make a case for spread widening between EM and DM we have relied thus far on a policy induced bid for spread product in DM and a structural worsening of balance sheets in EM, but there are cyclical triggers too. Momentum in both growth and credit (Figure 37) is positive in DM, while it is negative in EM.

Cyclical triggers favour DM credit over EM too

What about EM corporate credit?

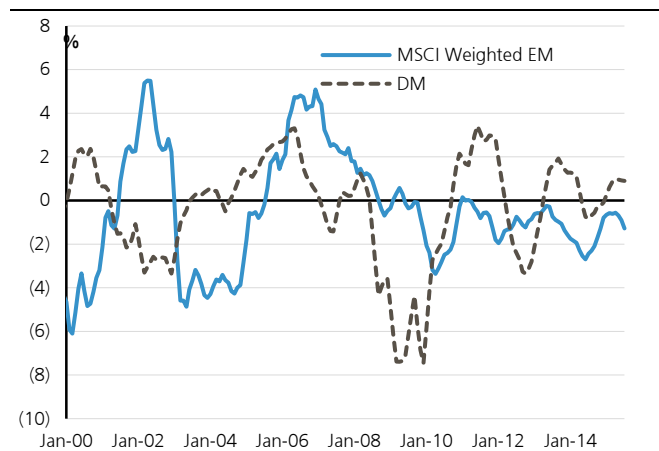
EM's real Achilles' heel is the corporate bond market, wherein the bulk of issuance has taken place (Figure 38). On a nationality basis¹⁶ the biggest issuers have been China (property and financials), Brazil (energy and mining), Russia (energy and financials), Mexico (energy), Korea (financials) and India (financials) South Africa (power) and (financials) Turkey (Figure 39).

Figure 36: European crossover spreads and EMBI Plus spreads: EM's underperformance should continue



Source: Haver, Bloomberg, Datastream, UBS

Figure 37: Credit impulse* in EM and DM: going different ways

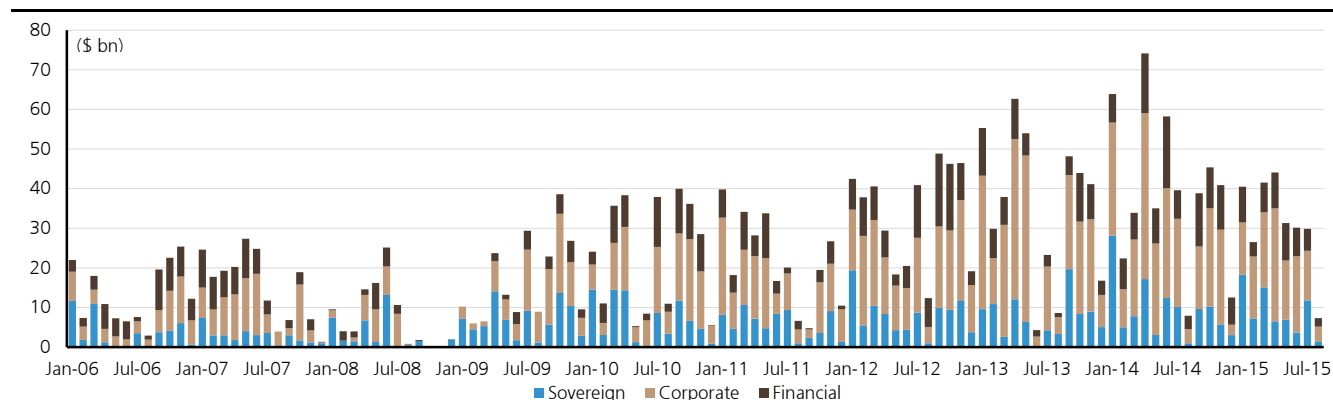


Source: Haver, MSCI, UBS *12m change in smoothed y/y credit growth

It is difficult to access products to play these corporate bonds indirectly; sovereign CDS is the commonly used proxy. Amongst the countries listed above Russia and Brazil CDS have already moved aggressively, but we feel the others can catch up.

Who in EM has issued the paper?

Figure 38: Hard currency debt issuance by sector



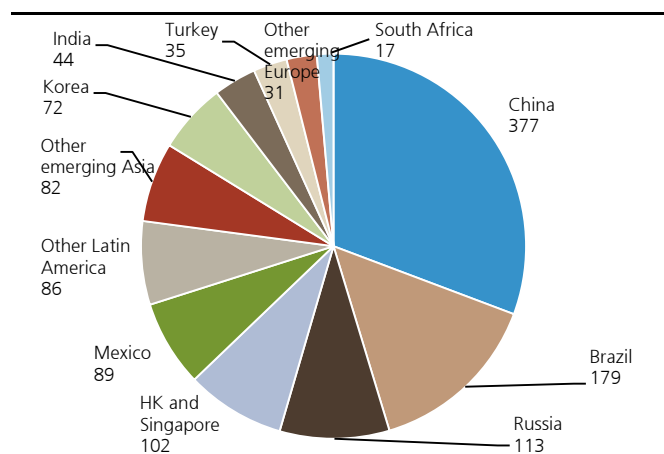
Source: Bond radar, UBS calculations

¹⁶ Most external debt data is released on a residence basis, and therefore misses issuance abroad by the offshore subsidiaries of a company or its financing vehicles

In their recent paper¹⁷ Valentina Bruno and Hyun Song Shin argue that a considerable amount of issuance from EM firms has come from already cash rich corporates, and has not always been used for investment. The purpose has been to play the carry trade. As this cash is deposited in the local banking system after being converted into local currency, it eases liquidity conditions in the domestic economy and allows leverage to build. If the USD appreciates over the long term, there will be a strong adverse impact not just on the net debt of these corporates, but also in liquidity in EM banking systems. According to the authors, this tendency to play the carry trade was not in evidence for DM firms¹⁸. The demand for USDs in EM could rise sharply the quarters ahead as a significant proportion of EM corporate bonds are due by end 2017 (Figure 40). Chinese and Russian companies are notable in this regard.

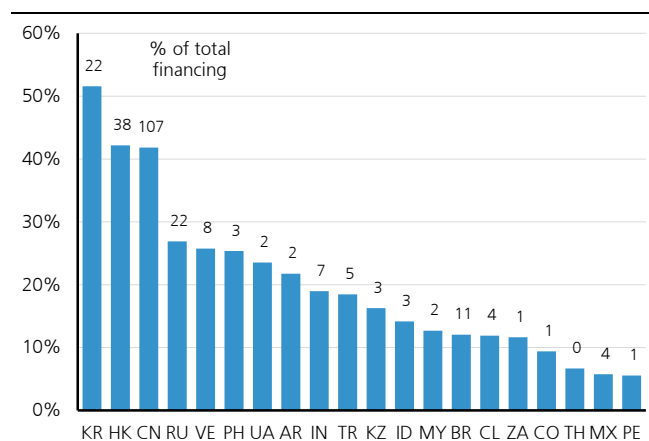
And why have they issued it?

Figure 39: Net issuance of international bonds by EM companies



Source: BIS, UBS, labels indicate amounts in USD bn

Figure 40: Proportion of outstanding hard currency corporate bonds maturing by end 2017



Source: Bloomberg, UBS, labels indicate amounts in USD bn

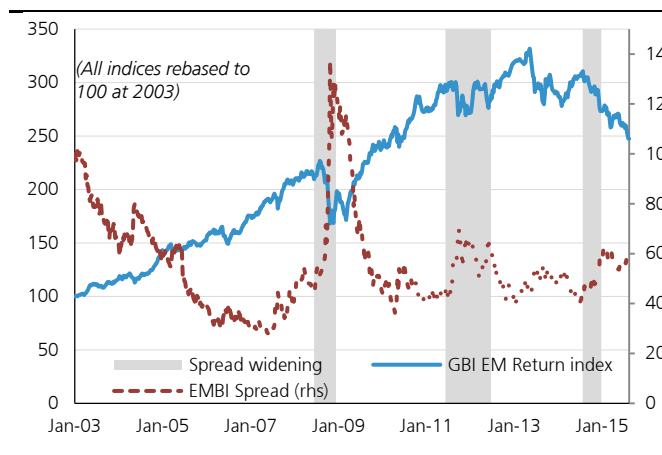
Impact of EM credit widening on other assets

As equities and FX weakened, EM credit was able to hold up for a good few years. We are afraid the opposite is unlikely to be true. As we see it, EM credit selling off is not a necessary condition, but is a sufficient condition for other assets in EM being infected. Each time in the last decade EM credit spreads have widened, EM equities and EM local debt have felt the pressure.

¹⁷ Global dollar credit and carry trades : a firm level analysis, Valentina Bruno and Hyun Song Shin, August 2015

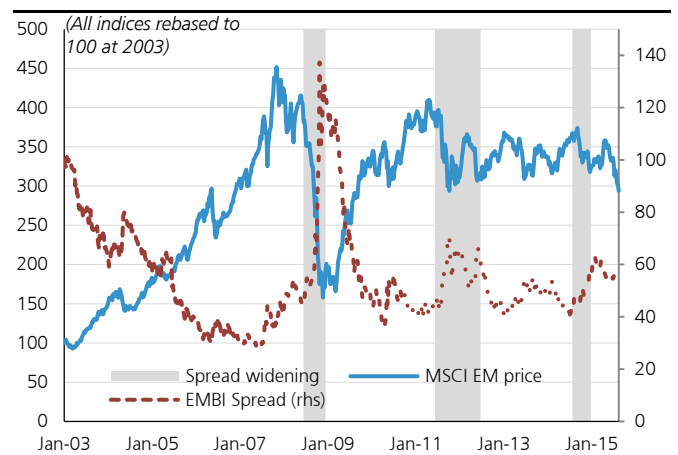
¹⁸ Our colleagues in credit strategy, **Matthew Mish** and **Stephen Caprio**, have also highlighted the very different index compositions of EM vs. European HY corporate credit, with commodities accounting for 30% and 12% of the respective indices. Moreover the maturity profile appears less demanding for European high yield companies relative to EM.

Figure 41: EMBI+ Credit spreads and GBI EM



Source: Datastream, UBS

Figure 42: EMBI+ credit spreads and MSCI EM



Source: Datastream, UBS

EM credit risk probably defines the local risk free rate for a country, upon which is built the pricing of every other asset higher up in the spectrum of risk premia. If the credit risk rises, investors would look for higher compensation to lend money to the sovereign (and corporates) even before asking any questions about inflation risk premium. Higher spreads make it harder for companies levered in hard currency to refinance themselves, pushing up hard currency demand. The local currency suffers over and above the weakness that it must suffer due to the growth slowdown or unfavourable policy mix that causes the credit widening.

FX weakens not just against the USD, but in trade weighted terms, and becomes more volatile

Through most of 2014 and Q1 2015, there were two hallmarks of the move in EM currencies. First, they sold off against the USD but not in trade weighted terms. This was because the driver of global markets was a benign decline in Bund yields, which took the EUR lower against both the USD and EM currencies. EM FX reacted passively to USD strength, which in turn was reacting to EUR weakness. Second, the weakness in EM FX against the USD essentially took place in isolation; it had little bearing on the performance of EM assets in local currency terms.

The nature of the EM currency selloff may now be changing on both these counts.

In addition to persistent growth weakness, rising balance sheet strains in EM can drive an active, EM specific selloff, that will likely drive EM currencies weaker against not just the USD, but also in trade weighted terms. Figure 37 shows that historically when the market prices credit deterioration in EM (i.e. CDS spreads widen), weakness in EM currencies intensifies and plays out on a trade-weighted basis. This has been especially true for LatAm and EMEA FX over the years, though with the nominal anchor of RMB NEER appreciation now seemingly compromised, Asian currencies will also likely to become more sensitive to incremental credit deterioration (the RMB was on a steady course of appreciation in 2012 and 2013 for example).

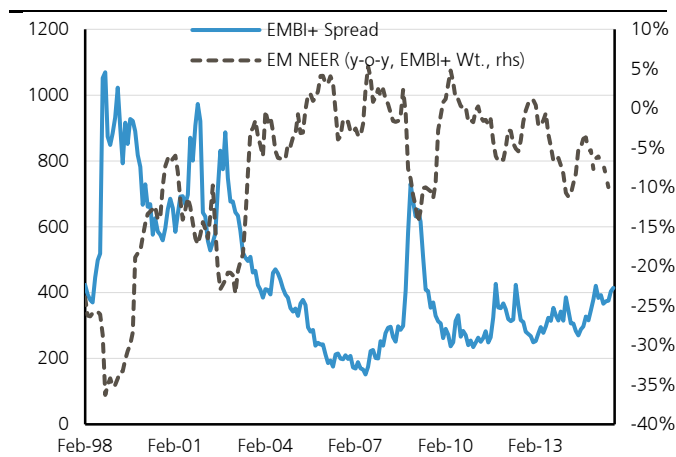
Trade-weighted FX depreciation, as we discuss in the next section, raises the risk of spill-overs from FX weakness into other asset classes, notably local currency debt, and, in turn, a circular negative feedback loop from weakening fixed income flows to yet further FX weakness. The circularity here is precisely the point.

The ECB-fuelled USD rally of 2014 and Q1 2015 meant that EM FX weakness was isolated to the USD, and not damaging to other asset classes

Growth and, increasingly, balance sheet deterioration is likely to drive a trade-weighted move

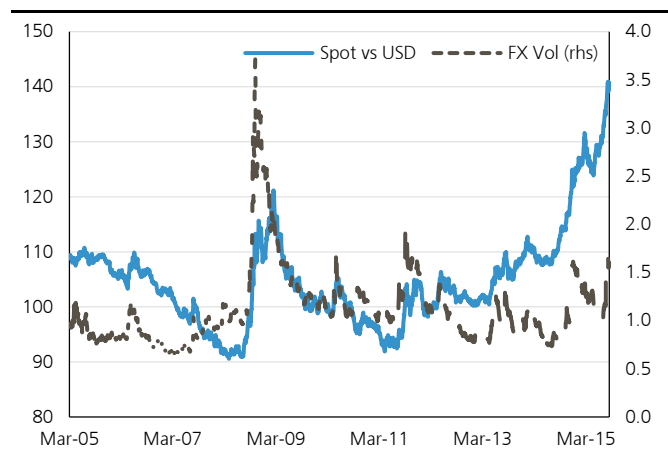
Risks of second-round impacts on EM FX if local debt flows come under greater pressure

Figure 43: NEER vs EMBI performance



Source: Haver, Datastream, UBS

Figure 44: EM FX spot vs volatility



Source: Bloomberg, UBS

As the EM carry trade unwinds and second round impacts are created on currencies, we expect FX volatility to rise further. In the few years there has been clear divergence between spot and volatility in EM FX – a phenomenon we have described as "Slow motion commotion" – directly linking it to the twin facets of income statement weakness and balance sheet strength in EM. As balance sheets weaken this gap will likely be closed through higher volatility (Figure 44).

Have EM currencies already moved in advance to price in significant balance sheet deterioration? Certainly the weakness in EM FX this year is now comparable to 2013 in magnitude, despite much lower US yields. Are EM currencies over-reacting?

We think not. While the 2013 move was driven by a shock higher to US rates (which was subsequently quickly corrected in 2014), today EM is wilting under its own weight, with little sign of improvement ahead. We wonder not whether the bearishness in EM FX has reached extreme, but whether the virtuous cycle of strong flows and strong prices, particularly in fixed income, could turn vicious if credit spreads continue to widen out.¹⁹

Moreover, our fundamental equilibrium exchange rate (FEER) model continues to identify several of the major underperformers in EM FX – BRL, IDR, ZAR, COP, TRY – as fundamentally overvalued (Figure 45). The FEER model has in recent years done a good job of penalising FX valuations in these markets for weakening price and particularly income elasticities of exports, and will also be able to pick up on balance sheet deterioration that results in a moderation of net FDI inflows to EM²⁰. In addition, a pick-up in 'other' investment outflows from EM (due to declining currency and deposit flows, and lighter corporate/bank borrowing from overseas) has been an under-appreciated driver of EM weakness. This bleed can intensify as funding costs and demand for USDs rise in line with CDS spreads (Figure 46).

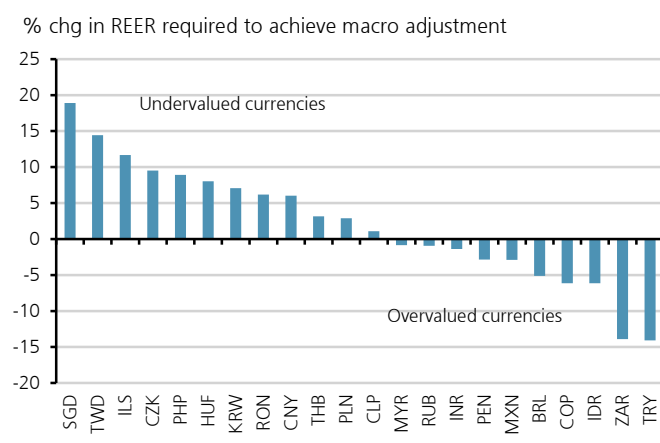
Despite EM FX weakness, the asset class is yet to confront a sizeable adjustment in positioning

FEER is picking up on early signs of balance sheet deterioration and identifies several major EM markets as remaining overvalued

¹⁹ Please see Macro Keys: Has negative sentiment in EM reached an extreme? and EM Cross Asset Strategy: The final leg of the EM selloff? for details.

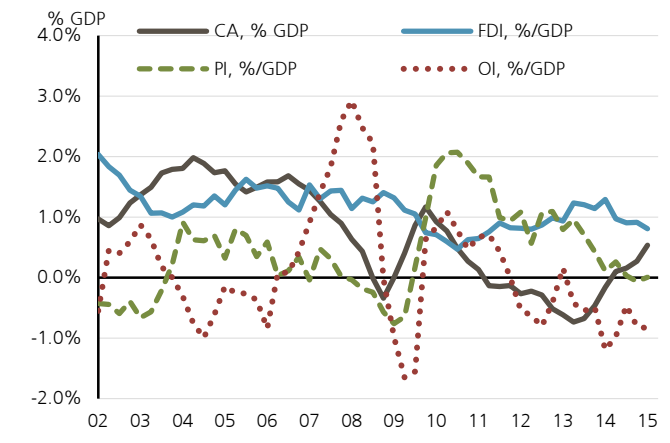
²⁰ For more details on the UBS EM FEER model, please see Macro Keys: How to think about fair value in EM FX and EM Navigator: Where is fair value in EM currencies now?

Figure 45: UBS FEER valuation estimates



Source: Haver, UBS estimates

Figure 46: EM ex-China breakdown of capital flows



Source: Bloomberg, UBS. Chart shows GDP-weighted data for 19 EM economies. China deliberately excluded given its outsized GDP share. Data is 4q rolling

The implication is that the weakness in EM FX, though persistent and rapid through the summer, may continue to fester even in the absence of an aggressive FOMC tightening cycle. Central banks are unlikely to be willing to deplete FX reserves (one of the remaining components of balance sheet strength) significantly until there are much clearer signs of bond market dislocations or FX-pass-through to inflation. Even as the spotlight shifts to the vulnerability of EM credit, expect FX to remain a very weak link in the EM asset spectrum.

Duration Saturation?

The move from EM FX depreciation against the dollar to trade weighted depreciation is a particularly important warning for the EM local currency bond markets, for two reasons.

First, while performance in this asset class has been severely compromised in dollar terms, EM investors were able to protect themselves from isolated USD strength in 2014 and early 2015 by hedging through short EUR positions. The downdraft in EUR/EM through most of this period enabled investors to hedge their FX risks cheaply while still earning an attractive coupon, enabling the asset class to withstand the appreciating USD. Yet while isolated USD strength against EM is easy to hedge away, a persistent trade weighted EM depreciation isn't, even for institutional investors with the capacity to look through short term volatility. We estimate that yields on the GBI EM GD fall from 7.5% to about 1.1% after FX hedging, an inferior coupon to US Treasuries and one which offers scant protection against inflation/term premia risks.

Second, to the extent that trade-weighted FX depreciation is a manifestation of broadening concerns about EM's creditworthiness, EM local yields are likely to rise in tandem with persistent CDS widening. Figure 48 shows that over the past decade the relationship between credit spreads and local yields has intensified when EMBI+ spreads widen beyond 350bps (note the higher beta, and higher R-squared relative to Figure 47)²¹. In other words, while local currency yields often trade like low-risk fixed income securities when credit concerns are modest and

EM FX weakness is easy to hedge away if it is transient, or isolated to the USD. A persistent, trade-weighted depreciation is much more likely to infect local currency returns in this asset class

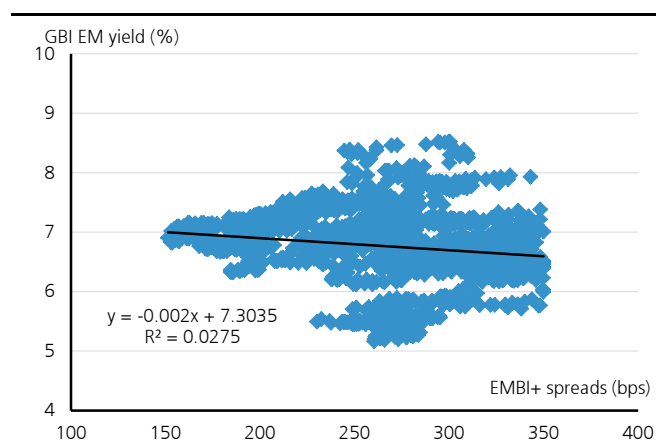
EM duration becomes much more sensitive to balance sheet deterioration at higher levels of credit risk. CDS levels today imply room for concern

²¹ Granger-causality tests point to no clear causality from CDS widening to higher local currency yields, or vice versa. This confirms the circularity of the relationship, whereby weakness in either asset class can contaminate the other e.g. higher local yields drive increased demand for hedging via CDS, while wider CDS increases inflation risk/term premia.

manageable, the relationship is non-linear and they may morph into equity/credit-like securities when the stress intensifies beyond a certain point²². Regardless of the negative growth implications of balance sheets deterioration, term premia can increase and force local yields to adjust higher²³.

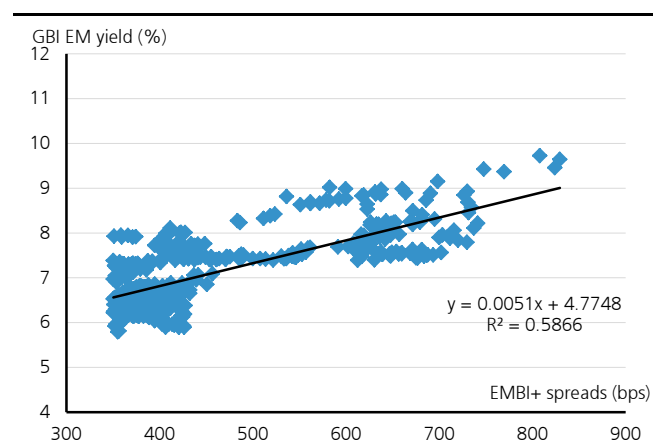
Admittedly more flexible currency frameworks, greater issuance in local currencies, and improved inflation credibility have meant that EM local yields have recently held up quite well to CDS widening. There have been almost no examples of money markets being contaminated by weaker credit perceptions thus far and foreign positioning in this asset class has not experienced a major adjustment as the USD has risen. However as EM FX now depreciates against most majors, the FX move is more likely to infect duration and non-linearities can set in. This is particularly likely for economies where balance sheet scores have worsened to critical levels – Turkey, South Africa, Indonesia and Malaysia are key examples. The market's confidence in a shallow Fed rate hike trajectory and moderate EM inflation may be justified, but overshadowed by balance sheet strains and unconvincing local debt valuations.

Figure 47: GBI EM Global Diversified yields vs. EMBI+ spreads – when EMBI+ spreads are below 350bps



Source: Datastream, UBS estimates. Based on daily data, 2006-2015

Figure 48: GBI EM Global Diversified yields vs. EMBI+ spreads – when EMBI+ spreads are above 350bps



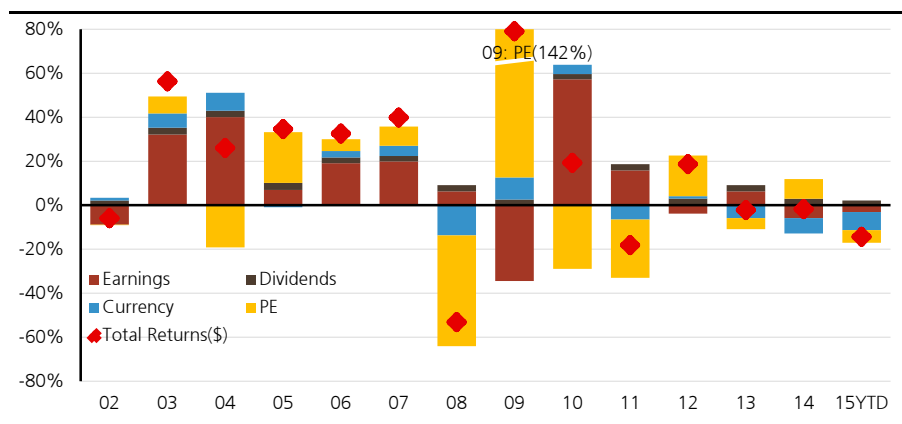
Source: Datastream, UBS estimates. Based on daily data, 2006-2015

²² This relationship is, of course, likely to be stronger for those EM countries with weak balance sheets. For example countries with large current account surpluses, high savings rates, and locally financed banking systems are likely to be relatively well insulated from sudden stops in foreign portfolio flows and more able to pursue counter-cyclical monetary policies

²³ Admittedly this result is influenced by the extreme circumstances of late 2008/early 2009. However readers should note that EM's balance sheet score is now the worst it has been in the post-crisis period and it may thus be equally wrong to fully discount the relationship seen during this period.

EM Equities get further WACCed

Figure 49: MSCI EM annual returns attribution

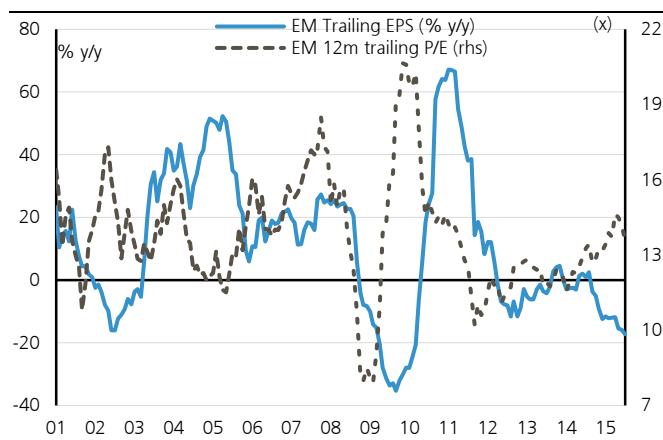


Source: Datastream, UBS

Since 2008, earnings have gone sorely missing from EM equities' return profile (Figure 49). While GDP and earnings growth are comfortably in the bottom 10 percentile of a 15 year distribution, EM stock valuations²⁴ trade above the median over the same period. Why have investors not de-rated EM equities as much as one might think?

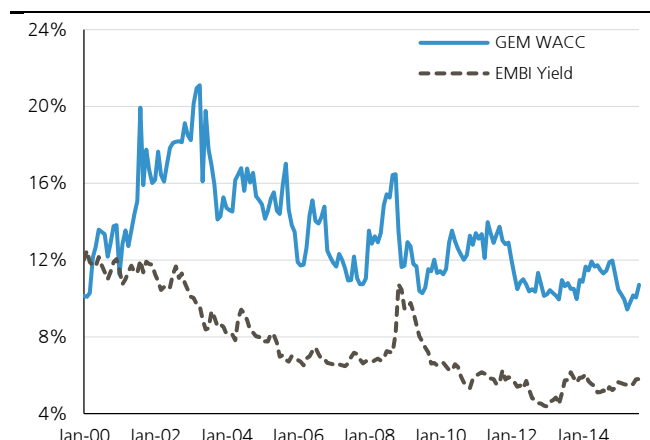
**When the facts change...
valuations don't?**

Figure 50: Trailing earnings growth and PE



Source: MSCI Datastream, UBS

Figure 51: EM weighted av. cost of capital (WACC) proxy



Source: Bloomberg, Datastream, UBS

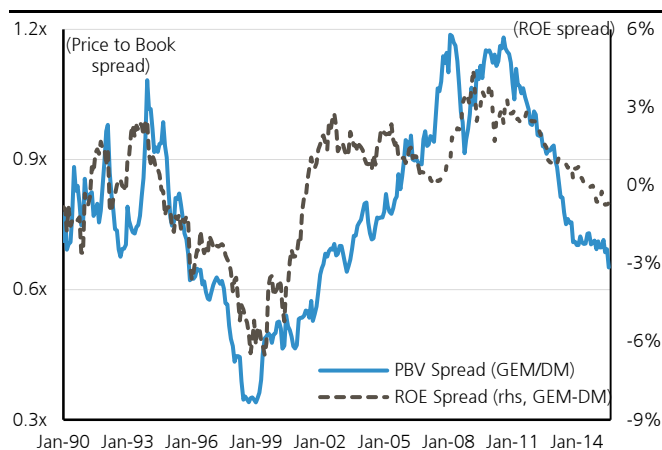
²⁴ Given how poor analyst forecasts for forward earnings have been (last 4 years have seen the longest, most autocorrelated string of forecast errors) we measure valuations based on trailing earnings here.

The other is that weak growth has been compensated to some extent by declining discount rates which investors use to deflate future earnings. The decline in discount rates, or the weighted average of capital (WACC) in EM equities, in turn, has been driven both by a decline global government bond yields, and the decline in country and company credit spreads that improvements in EM balance sheets had afforded. We believe that today EM's (WACC) isn't far from the lowest level in 15 years²⁵ (Figure 51)

Markets valuations have been cushioned by low WACC. This discount rate has been pulled lower both by declining risk free rates and declining risk premia (credit spreads).

If, as we expect, balance sheet risk in EM worsens, EM credit spreads will widen further from here, potentially also leading to higher local rates. This will mean weighted average cost of capital for individual companies will rise, very likely leading to a de-rating of EM equities against DM. Many investors point out that EM equities already trade at low valuations relative to DM, and that the positive 'hit' to stock valuations from a lower WACC has accrued just as much to DM equities as much as it has to EM. This is absolutely correct, but doesn't furnish the full picture.

Figure 52: EM -DM relative valuations (P/B) and EM -DM relative RoE: EM valuations haven't fallen in a vacuum

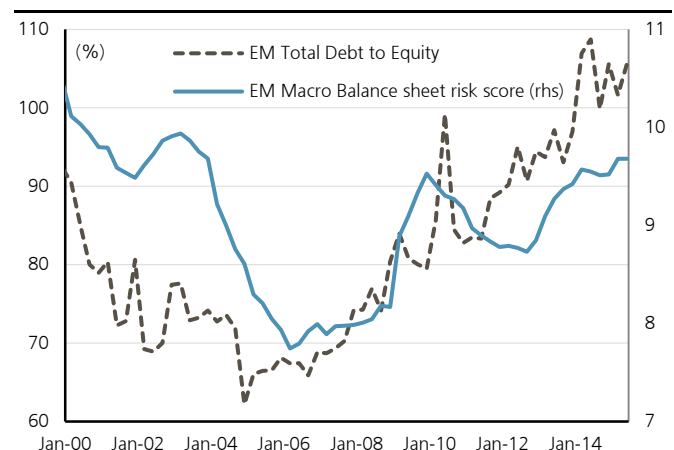


Source: MSCI Datastream, UBS

The truth is EM's valuations relative to DM have not declined in a vacuum; they have closely tracked the decline in EM's earnings and return on equity relative to DM (Figure 52).

Importantly, the sensitivity of EM company returns to higher risk free rate and wider credit spreads has become quite elevated as a result the steady increase their debt to equity ratios over the last 10 years (Figure 53). This higher leverage contributed to higher RoE before the crisis, but since then falling margins and asset turns overwhelmed still rising leverage, and RoE has fallen.

Figure 53: EM Balance sheet score* vs Total debt to equity in EM



Source: Bloomberg, Haver, UBS *Here the EM aggregate is MSCI EM weighted

More companies are more sensitive to WACC at a time when wider credit spreads are likely to send it higher

²⁵ This WACC is unobservable, of course, but we've tried to build a proxy. Using current enterprise value and near term cash flows. Claire Jones from UBS' quantitative analytics team helped us back out the WACC for individual EM companies, and from there built up an EM aggregate WACC. We've backed out the WACC from analyst forecasts for cash flows in CF0, CF1 and CF2 on the assumption that the terminal value is CF2. We define the WACC as whatever solves:

Current EV = CF0 + CF1/(1+WACC) + CF2/(1+WACC)^2 + CF2/ WACC /(1+WACC)^3
Given this definition, we have to restrict down to stocks which have data for EV and for CF0 / CF1 / CF2. We also need to drop stocks when CF2 is negative. These restrictions may unfairly skew the sector level WACC estimates sometimes. Also, if this method suggests the WACC is negative or more than 100% we drop the stock.

This means that today, not only is EM's RoE low, its make-up is unhealthy²⁶. EM remains very susceptible to higher discount rates, which is exactly what we expect will be seen as EM macro balance sheets deteriorate further.

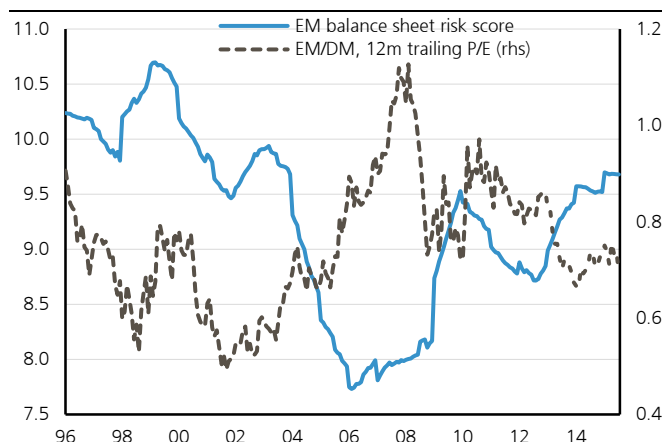
How susceptible exactly?

We model²⁷ the relative valuations of EM equities to DM equities against EM balance sheet score (this time MSCI EM weighted), commodities and our global risk appetite proxy. We find that a 1 point increase in the EM balance sheet risk score is consistent with an 8-10% de-rating of EM equities relative to DM equities. Also the model does not point to EM equities being cheap relative to DM equities.

Not just the levels, the make-up of EM RoE is also poor. High leverage makes it more susceptible to higher EM WACC

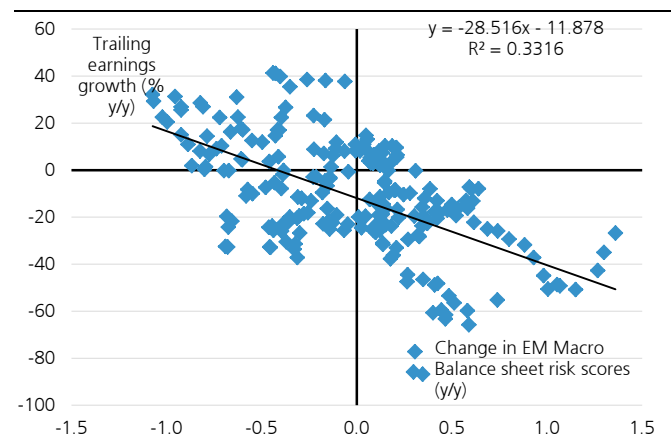
A 1 point increase in balance sheet risk is consistent with 8-10% de-rating EM relative to DM

Figure 54: EM balance sheet score and relative EM v DM valuations



Source: MSCI Datastream, UBS

Figure 55: EM macro balance sheet risk score and EM earnings



Source: Haver, MSCI Datastream, UBS

EM equities have already suffered at the hands of weak income statements. Unfortunately they will now have to carry the burden of weakening balance sheets in EM. We are not ready to call a turn in EM equity performance relative to DM.

Not ready to call the turn in EM equity performance v DM

What could go right for EM?

1) FX depreciation begins to heal exports

We have been of the view that export price elasticity in EM has always been very poor, and that recently income elasticity, the dominant lever guiding EM exports, has fallen as globalisation has plateaued. This has meant that currencies have needed to depreciate more than historic models would suggest. Thus far weaker currencies haven't translated into market share, GDP or earnings gains for EM. Instead, they have put pressure on companies levered in USDs. We will be

²⁶ RoE can be broken down as Margins * Asset Turnover * Leverage. Today leverage is higher than it should be while margins and asset turns are weak.

²⁷ We model relative P/E valuations of EM equities to DM Equities against EM macro balance sheet score (MSCI weighted), commodity prices and a global risk appetite proxy. Data is monthly from June 2006. The beta of MBS score rises modestly if we use quarterly data from 1996. The equation of the model is as follows. Values in brackets denote t values

$$\text{Rel EMvDM valuation} = 1.5 - 0.08 * \text{Balance sheet score} + 0.01 * \text{Risk appetite} + 0.0016 * \% \text{ Cmdty Rsq} = 40\%$$

(6.65) (3.16) (3.97)

watching closely for any changes in this dynamic. If we do see FX depreciation leading to market share gains, it could become more positive than negative for EM balance sheets. We aren't there yet.

2) Pace and texture of developed world recovery becomes more EM friendly

We have argued that it is important to understand the structural factors limiting growth in global trade. But there certainly are cyclical elements at work as well. These can become more EM friendly in the months and quarters ahead. US residential investment, arguably the most commodity-import intensive sector of the US economy, has remained weak but can improve as the labour market gains traction and household formation picks up. A stronger labour market will also buoy US consumption. A rebound in US domestic absorption may help not just EM trade, but also FDI inflows into EM. In Europe, while the credit impulse has improved, it has only done so from very anaemic levels. To the extent that the European consumer is not burdened by high leverage and benefits from lower oil prices, European import demand from EM can pick up.

3) The bid for EM debt is much more structural than we account for

EM policy makers are now much less interventionist in currency markets than they were in the 1990s. It is not surprising then that money and bond market rates have not reacted nearly as sharply to FX depreciation as they did then. We do think, however, that if pressure on EM credit persists, EM local rates will behave more like credit, which may then also create a negative second-order impact on the currency markets. This view is premised on the idea that seeing poor returns in EM bonds, there will be some reversal of debt flows into EM. If we are wrong, and given other motivations (such as diversification or low starting points) there is no exit from EM debt funds despite poor performance FX, any selloff may not reach a stage where weakness in one asset class feeds on another, and loops back also to macro balance sheets. If the bid for EM debt is structural indeed, the accelerated worsening of EM macro risk score may well be short-circuited.

4) Stabilising Chinese growth helps commodity prices rebound

If the inventory levels in Chinese property clear quicker than we anticipate, helping construction growth recover earlier than UBS' base case view of 2017, terms of trade and balance sheets for commodity producers may improve. Labour markets and consumption spending can also firm up from here - retirement ages can be raised to boost the working age population, further deregulation of the services sector could boost labour productivity and thus wages, while hukou reforms could lead to an accelerated pace of rural migration. This could offer more support for manufacturing economies in particular within EM.

5) EM embraces reform at a macro and micro level

The precise policy prescriptions for this will vary significantly by country, but in general accelerating privatisation, expanding tax bases, reforming land and labour laws, and improving the business climate to attract greater FDI can help to boost growth and structural capital inflows. At a company level, improving corporate governance, staying focussed on costs and positive free cash flows would be a positive. To be fair, we have already seen costs come down in EM. At this point this is being overwhelmed by weak top line growth, but the high operating leverage that lower costs are contributing to could be material if things improve on the growth front.

6) **Highly levered markets tackle NPLs head on**

UBS' global banks analyst **Philip Finch** is underweight on EM banks in the global context as he sees weaker growth impairing loan quality. It would be a big positive for the medium term if EM consciously avoids the path of bank balance sheets decay Japan suffered in the 1990s and 2000s. It is a bit early to make the pronouncements on whether EM is following Japan's path, but a positive credit cycle can only emerge when growth stabilises and is greeted by unencumbered bank balance sheets.

7) **EM pursues more orthodox monetary policy**

One can't describe EM as having been particularly unconventional when the ECB, BoJ and Fed are expanding at their monetary base at the pace they are, but it must be noted that real policy rates in EM are not considerably above zero. Thankfully, central banks are not complicating a bad situation by intervening to keep currencies strong, but it would help, in addition, if more positive real rates could be engaged to push up EM savings rate in economies such as Turkey, Brazil, South Africa and Mexico.

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Neutral	FSR is between -6% and 6% of the MRA.	42%	32%
Sell	FSR is > 6% below the MRA.	13%	20%
Short-Term Rating	Definition	Coverage ³	IB Services ⁴
Buy	Stock price expected to rise within three months from the time the rating was assigned because of a specific catalyst or event.	less than 1%	less than 1%
Sell	Stock price expected to fall within three months from the time the rating was assigned because of a specific catalyst or event.	less than 1%	less than 1%

Source: UBS. Rating allocations are as of 30 June 2015.

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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

Company Disclosures

Issuer Name	Credit Rating	Outlook
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Brazil ²²	-	-
Bulgaria	-	-
Chile	-	-
China (Peoples Republic of)	-	-
Colombia	-	-
Croatia	-	-
Czech Republic	-	-
Egypt	-	-
Hong Kong Government International Bond	-	-
Hungary	-	-
India (Republic Of)	-	-
Indonesia (Republic of)	-	-
Israel (State of)	-	-
Kazakhstan	-	-
Korea (Republic of) ²²	-	-
Latvia	-	-
Lithuania	-	-
Malaysia	-	-
Mexico	-	-
Nigeria	-	-
Peru (Republic of)	-	-
Philippines (Republic of)	-	-
Poland ^{2, 4}	-	-
Qatar (State of)	-	-
Republic of Serbia	-	-
Romania	-	-
Russia	-	-
Singapore	-	-
Slovenia	-	-
South Africa (Republic of)	-	-
Thailand (Kingdom of)	-	-
Turkey	-	-
Ukraine	-	-
Venezuela	-	-

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