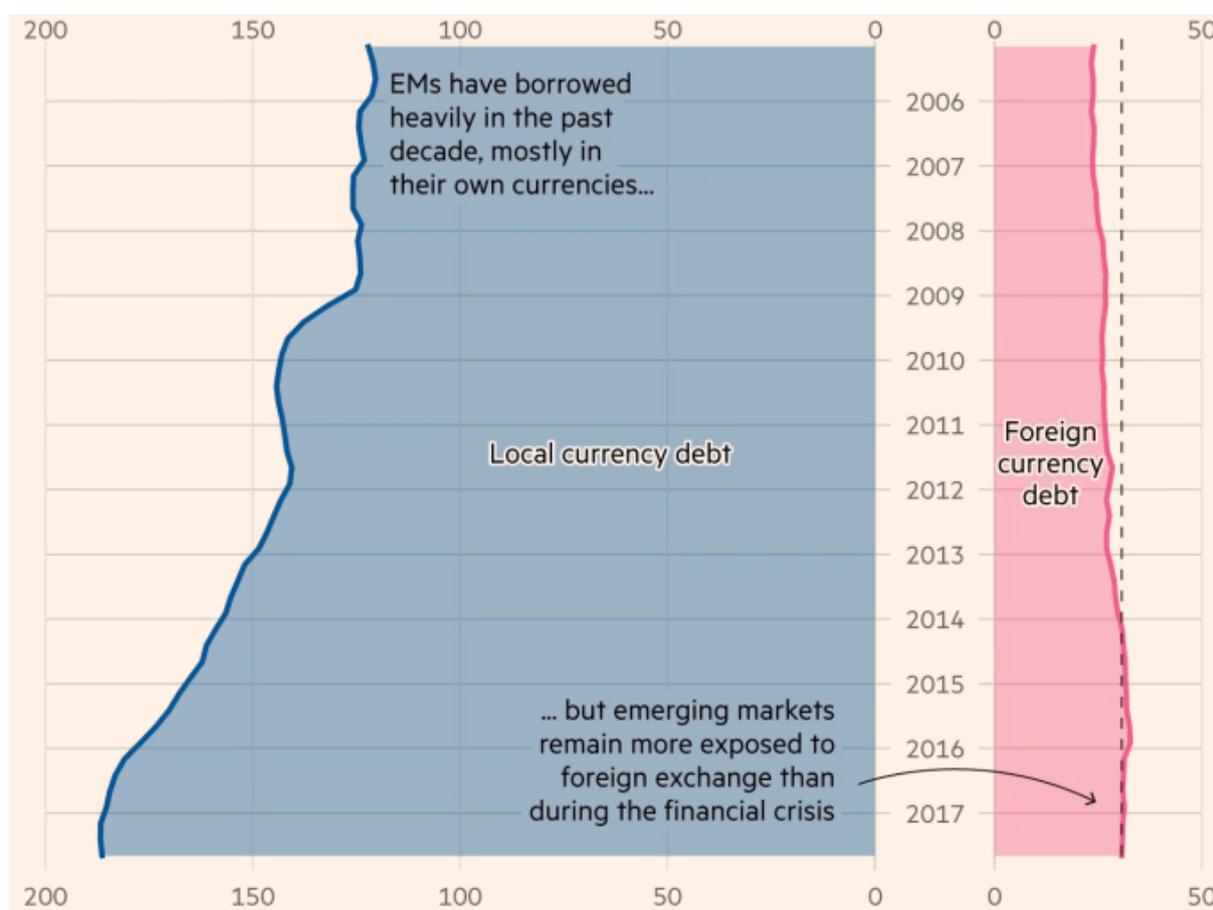


Bored of expensive blue chips? Try EM bond market instead!

Introduction:

The low-interest rate environment which has characterised the markets since the breakout of the financial crisis left fixed-income investors with one way to continue to benefit from high yields: emerging markets. In addition to this, China started a credit expansion in order to keep the levels of GDP growth steadily above 6.5% which has caused its total debt-to-GDP ratio to soar from 143 percent in 2007 to an estimated 280 percent in the first quarter of this year. These factors combined opened the door for a huge increase in debt issuance in emerging markets to a level that actually stands beyond \$60 trillion. EM government indebtedness is set to surpass the 2001 record by 2022. Even if this is a high level of borrowing, it is not a record if compared to the Asian crisis of late-1990s. Nevertheless, an important difference exists: over the past decade of low U.S. interest rates, issuance of U.S. dollar denominated bonds by EM companies and countries has soared to \$1.2 trillion from less than \$200 million. Thanks in large part to a prolonged period of extremely low U.S. interest rates, borrowers around the world have gone on a dollar binge over much of the past decade - making them more vulnerable to the Fed's policy decisions than ever before. In this article we will analyse the main factors affecting the emerging markets, with a particular focus on the bonds asset class, and attempt to speculate on future market movements.

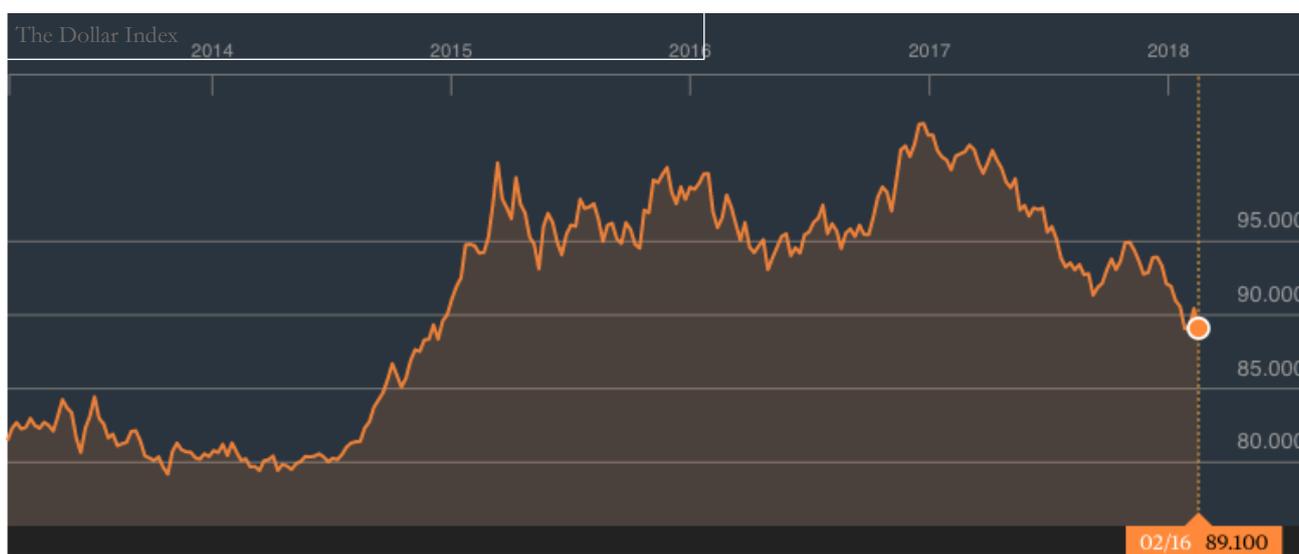


Where we are now:

It goes without saying that the current rate hike cycle that the Federal Reserve is pursuing poses a direct threat to the most USD-bonds issuing countries. It does so in a twofold way: firstly, it causes refinancing

costs to increase, as the higher US interest rates decreases demand for higher-yielding EM bonds, ultimately leading to an outflow of capital from emerging markets. Secondly, it has the effect of strengthening the dollar and increasing the local-currency interest payments and increasing the overall burden of existing debt. This also helps to explain the recent shift to bonds denominated in local currencies, which entails higher interest rates: the forecast of a stronger dollar as a result of the US rate hike might trigger problems in principal repayments, as governments and companies collect revenues in local currency. In spite of the worries, 2017 was a great year: emerging markets debt returned nearly 13%, with local debt outperforming USD-denominated by around 500 bps. External spreads fell 57 bps, local yields compressed 65 bps. These movements are consistent with the current economic cycle experienced: emerging and developing countries witnessed an average 4.9% growth during 2017. However, this was tightly linked to the overall global pace of growth, with USA particularly on the spotlight. Many commentators state that the leading economy expanded by 2.50% and reached its peak in the current business cycle, while the Euro-area showed a solid 2.70% growth providing evidence that it is currently around two years behind the American business cycle. It is worth noting how also the ECB has provided guidance of an upcoming monetary tightening, which might begin as soon as September 2018.

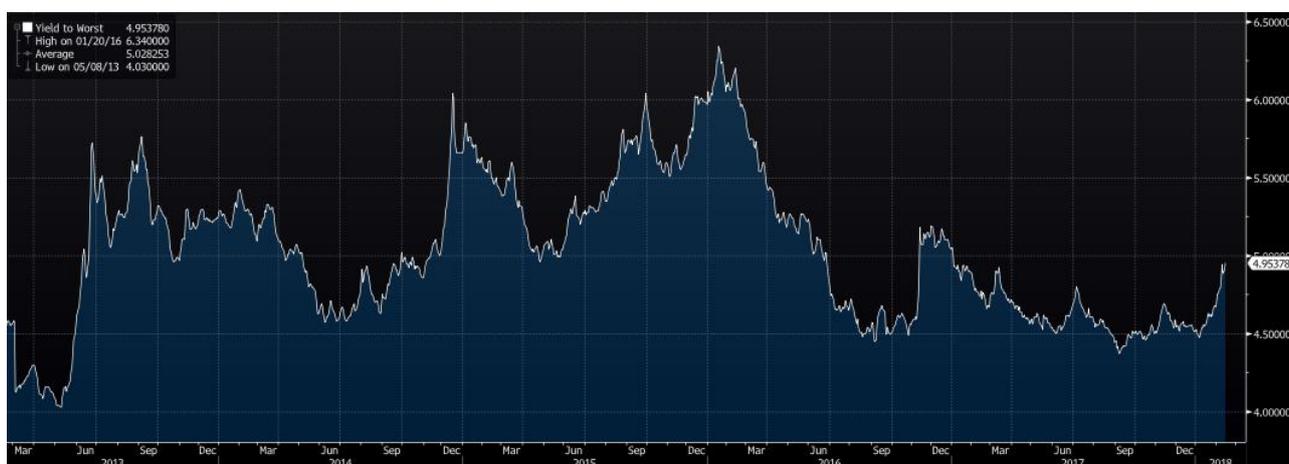
As for the US business cycle, tax cuts might lead to prolong the business cycle and enhance growth in the short term. According to the IMF, the cumulative effect up to 2020 will be 1.2% of the GDP. Such a brilliant moment for global trade materialised into higher commodity prices, thus helping many EM countries to improve their current account and fresh money to start implementing some unpopular structural reforms (e.g. pension reforms in Brazil and Argentina). Furthermore, the much feared protectionist Trump agenda has yet to materialise, and a lower-than-expected inflation in the first three quarters of the year stopped the Fed from increasing base rates too much. As previously mentioned, this also led EM to shift to local debt, a much safer choice for governments and corporates predicting USD value to strengthen over the next years. This trend change was also aided by the good performance of local currencies against a generally weak US Dollar, that allowed the spread between USD-denominated and local currency bonds spread to tighten: a basket of EM countries currencies appreciated 5.8% against the US Dollar over 2017. Indeed, this depreciation of the dollar and the great inflow of cash caused by eager investors willing to satisfy their risk appetite, caused EM debt to over-perform the vast majority of other fixed income instruments.



What is in front of us

The Fed guidance has been of much help to navigate fixed income and foreign exchange markets during the last years. If these rate hike forecasts were to realise, then the first quarter of 2018 will represent the mid-point of the Fed rate hike cycle, with overnight rates reaching 1.25%–1.50%, versus an expected terminal rate of 2.75%. It is recent news that US inflation in January came slightly higher than expected: 2.1% against the expected 1.9%. This was enough to cause a global bond selloff with investors worrying about an imminent hike.

This, along with strong news about the US economy, might signal that the USD might be ready to re-start its rally against emerging markets currencies much earlier than what previously anticipated. However, the earlier stage of European recovery, the good status of peripheral economies and the tax cuts implemented by USA should ensure a high level of global growth for the years to come: the IMF forecasts global growth to accelerate to 3.9% for 2018-2019. This should keep demand for commodities and manufacturing high while allowing emerging economies to further improve their trade balance and to keep up the interest for EM bonds, in spite of some outflows due to the lower need for a hunt for yields. As far as Asia-Pacific area is concerned, credit will be provided also through the One Belt One Road project by China: the ambitious project to build infrastructure in order to foster trade along the ancient Silk Road (and, most importantly, to face the overproduction as far as both industrial production and commodities are concerned). Things might become more blurred when it comes to the long-term perspective for emerging countries, in particular for those which are failing to translate the favourable international situation into sustainable finances.

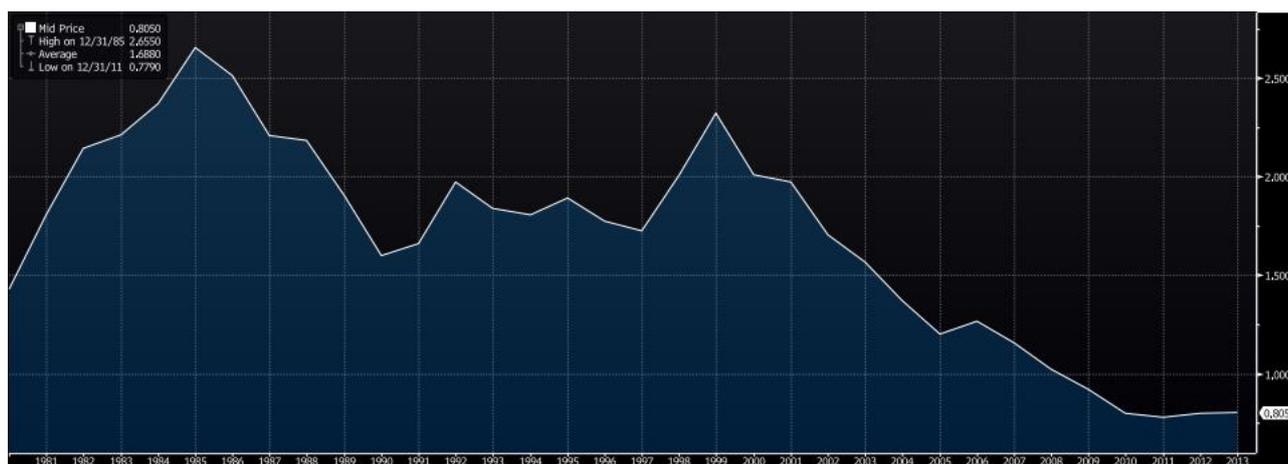


Yield to maturity of a benchmark of EM sovereigns

In our view, the yield for emerging bonds might start to increase significantly between the fourth quarter of 2019 and the first quarter of 2020. US inflation is likely to increase in the coming months, also boosted by the tax reform. Nevertheless, the recent spike in yields for the asset class leads us to think that the short-term rate hikes have already been priced. Moreover, the current macroeconomic scenario and short-term economic forecasts show that the global growth has no apparent reason to cool down in the upcoming year, thus boosting demand for riskier bonds. On the contrary, 2019 will be a key year that has the potential to reverse the appetite for EM bonds due to many different macroeconomic variables. First of all, the US tax reform will begin to be felt in a widespread manner over the price level: inflation level should increase at a higher pace than what previously witnessed. The time lag between the approval of the reform and the spike of inflation is motivated by the moment that passes from the higher

investments firms make to when citizens will actually experience higher disposable incomes. This would force the Fed to raise interest rates more aggressively than expected, in turn causing an appreciation of the dollar over other currencies, and ultimately leading to a higher debt burden (as calculated in local currency) and lower commodity prices, which are vital to exports for the developing economies. Furthermore, in 2019 the peak of the current European business cycle should approach and lead the ECB to finally begin its monetary tightening. Both US and EU monetary policies will cause a lot of money to flow from emerging countries to developed markets as the hunt for yield eases and riskiness of peripheral bonds increases. Finally, the beginning of the long-term deleveraging policy from the People's Bank of China will begin to produce its effect on interest rates all over the Asian continent. In 2017 PBOC raised interest rates three times for a total of a 25 bps increase: while this is not a decisive action, it shows its commitment to the policy and how the global monetary tightening will cause the 280% total debt/GDP country to implement its deleveraging commitment at a faster pace over 2019. It is evident that all these factors would contribute to a spike in yields for emerging markets which would cause the worsening of the long-term perspective of the countries: higher interest rates would cause a higher portion of GDP to be used to pay interests. Credit risk would therefore add to the aforementioned issues.

All these effects will be reflected in long term bonds which have an higher duration and will lose more value in case of a rise in interest rates.



IMF Emerging External Debt Total Service Interest (as a % of GDP)

Countries of interest:

We analysed a variety of over 40 countries and we analysed their current macro situation in relation to the scenario described above. It is fundamental to understand which countries have a high portion of total outstanding bonds denominated in US Dollar that might cause interest payments to be more onerous and would therefore be more impacted by a rate hike. We also took into account their current account: in such a time of global expansion and rebounding of commodity prices it is important not to have a severe deficit, in order to make front to potential future slumps in exports. Finally, internal inflation and the performance of local currencies against the USD were key driver to understand the consequences of a future US rate hike for the country. The following table presents the countries which present the most negative relationship with the increase in US interest rates:

| Country of Risk | % of USD debt* | Current Account/GDP (%) | Inflation 2018 (%) | Currency VS USD (6m) |
|-----------------|----------------|-------------------------|--------------------|----------------------|
| ARGENTINA | 49% | -4,3 | 19,3 | -13,90% |

| | | | | |
|------------|-----|------|------|--------|
| EGYPT | 22% | -3,9 | 14,4 | 0,40% |
| KAZAKHSTAN | 42% | -3,5 | 6,5 | 4,10% |
| PAKISTAN | 14% | -4,5 | 5,6 | -4,90% |
| TURKEY | 16% | -5 | 10 | -6,25% |

*calculated as percentage of total USD-denominated debt over the total level of debt of the country (through the 'country of risk parameter')

Other countries which could have a bad outlook if the current level of debt or current account is not properly managed include:

| Country of Risk | % of USD debt | Current Account /GDP (%) | Inflation 2018(%) | Currency VS USD (6m) |
|-----------------|---------------|--------------------------|-------------------|----------------------|
| BAHRAIN | 68% | -0,3 | 2,7 | 0,30% |
| COLOMBIA | 16% | -3,4 | 3,4 | 3,40% |
| INDONESIA | 39% | -1,9 | 3,7 | -1,47% |
| SOUTH AFRICA | 21% | -3 | 5,1 | 14,50% |

Our strategy:

In order to get the maximum possible exposure in the steepening of the EM yield curve the best strategy is to construct a long-short trade on a two portfolios of EM debt bonds. In particular, since we are expecting that the rates in the high end of the curve will increase more than in the lower end, we need to create a long position on the portfolio of bonds with the shorter maturity and a short position on a portfolio of bonds issued by the same countries but with a longer maturity. In case the rates move following the predicted trend, the strategy will profit because, when closing the position at maturity of the first portfolio of bonds, the short-term portfolio would have realised more gains/less losses than the similar portfolio with longer maturity.

Since our forecasts are on the steepness and not on the level of future interest rates, the strategy should be constructed in a way to have no gains or losses in case the curve shifts in a parallel way and to profit only if the expected steepening or flattening is realised.

Our strategy is thus to “buy the spread” using 2 different portfolios of bonds that have different maturities and that are issued by the same pool of countries which is expected to be mostly affected by the forecasted steepening of the curve.

The main questions to answer before implementing the strategy are:

- 1) What countries to include in the long-short portfolios?
- 2) What maturities instruments should be included in both portfolios?
- 3) How to construct a strategy that has an exposure on the steepening while being unaffected by a parallel shift?

The countries that should be included in the portfolios are the ones which are considered to be more exposed and riskier based on the analysis carried out on the current percentage level of outstanding USD denominated debt, trade deficit/GDP, inflation forecast and performance of the local currency against

the USD. In particular, as suggested by the previous analysis, those countries are: Argentina, Bahrain, Colombia, Egypt, Indonesia, Kazakhstan, Pakistan, South Africa and Turkey. In fact those countries are the ones that should experience an higher increase credit risk between the fourth quarter of 2019 and the first one of 2020. Turkey has lately been under the spotlight for the reform of the judiciary which has been perceived negatively by markets because of the strong influence President Erdogan retain on it. It is also worth mentioning how Egypt has continued to issue dollar denominated debt in spite of the monetary tightening: \$4bn were issued as late as this week (going against the recent trend of turning to local currency debt).

Then, in order to implement the strategy, we should construct two different portfolios that include the debt instruments (denominated in dollars to reduce exchange rate risk) of the same countries previously individuated but with different duration. The first portfolio should include all the obligations with an average duration ranging from 1.5 to 2 years (the period in which we forecast that the EM countries, included in the portfolio, start to limp along) and the second portfolio should be constituted by all the obligations with a longer average duration (ranging between 6-7 years). Once the two portfolios are formed, then the duration of the two should be calculated and one should check that the amount of bonds bought in each should be as such to ensure a good degree of diversification across the EM countries selected.

The final step is to construct a final portfolio that is exposed only to the steepening of the interest rates curve and not to the flattening. In order to do so, we need to match the dollar value of a 1bp change (DV01) in the yield of the shorter-term maturity portfolio with that of the longer-term maturity portfolio where the DV01 can be calculated by multiplying the modified duration of the portfolio times its price and then divide it by 100 (100bps=1%). Given that the DV01 of such strategy will be 0, then, for an homogeneous increase or decrease in rates across maturities, our portfolio will be unaffected. It is important to note that the weight assigned in the two portfolios should be adjusted with time in order to preserve the DV01=0.