

# EM risk-free return

By Jan Dehn and Romain Bocket

Last night's S&P downgrade of El Salvador's credit rating to Selective Default makes this report on Emerging Markets (EM) external debt extremely timely<sup>1</sup>. The report quantifies defaults in EM external debt since 1998 and concludes that the asset class is far less risky than commonly perceived. As such, S&P's downgrade of El Salvador is highly symbolic. Just as El Salvador will continue to service its debt so EM external debt continues to offer good value, even after controlling for defaults.

Investors in EM external debt have been paid a risk-free spread of nearly 350bps per year since 1998.<sup>2</sup> Over this period the benchmark JP Morgan EMBI Global Diversified has paid a yield of 7.33% net of defaults compared to 3.85% for similar duration US 10-year bonds. Default-related losses, which have averaged just 39bps per year since 1998, have declined to just 20bps per year since the Argentinian default of 2002. Total return has been even greater, because the asset class has also delivered strong capital gains. Altogether, this has enabled EM external debt to handsomely outperform the S&P 500 index since the inception of the asset class – with lower volatility.

High risk-free spreads in EM external debt are attributable to a combination of low default-related losses and high yields. Default rates are low because of modest levels of debt, solid growth rates, frequent reforms, greater index diversification and the emergence of local bond markets as the dominant source of funding for most established EM countries. High yields can be attributed to lingering market inefficiencies, given low realised default-related risks.

The risk-return proposition remains attractive for EM external debt. The fundamental outlook is strengthening and spreads are well wide of previous tights. The asset class has become more than twice as diverse over the past ten years, which implies that spreads ought to be tighter than they are today. Investors should conservatively expect beta of more than 30% over the next five years with realistic expectations of alpha of 100-200bps per year from active management in this, by now, very broad asset class with more than 65 sovereign index names.

## Defaults

There have only been seven episodes of sovereign default in EM external debt since the Russia Crisis of 1998. Figure 1 (overleaf) shows each of these default events, the recovery rate on the associated bonds and the estimated losses from default assuming a passive allocation based on the weights in JP Morgan's EMBI Global Diversified (GD) and EMBI Global (G) indices, respectively. The main difference between the two versions of the index is that the diversified index limits the weight of any single country to a maximum of 10%. Hence, if a default occurs in a large country the corresponding loss will be smaller in the diversified index than in the undiversified index. On the other hand, if the defaulting country is small the diversified index will be more heavily impacted. Most investors benchmark their funds against the EMBI GD index.

Based on Figure 1 the main stylised facts about EM sovereign defaults can be summarised as follows:

- The average **realised loss** per year from default has been 39bps for the EMBI GD and 50bps for the EMBI G based on default rates and recovery rates for the period from 1998 to 2017. For the more recent period since the Argentinian default in 2002 the average annual losses have been just 20bps and 13bps for the two indices, respectively.
- The average annual **default rate** in the EMBI GD was 0.7% of the notional index value between 1998 and 2017 with a corresponding default rate for the EMBI G of 0.8%.<sup>3</sup> The higher default rate for the EMBI G is due to the larger weight assigned to Argentina in this index. Since 2003 the average default rates for the EMBI GD and EMBI G have declined to 0.5% and 0.3%, respectively. This is mainly because no large EM countries have defaulted since Argentina and recovery rates have been marginally better.
- The average recovery rate on defaulted bonds was 49% for the full period from 1998-2017 and 52% for the period from 2003 onwards.
- EM sovereign defaults have been caused mainly by country-specific events rather than global factors. This testifies to considerable resilience of EM fundamentals – see box, overleaf.

<sup>1</sup> S&P downgraded El Salvador because of a recent restructuring of domestic debt instruments (so-called Certificates for Pension Investments, or CIP), which S&P deems to constitute a 'distressed offer'. The restructuring of CIPs is highly positive for El Salvador's ability to service external debt, which has rallied as a result.

<sup>2</sup> External debt refers to Dollar-denominated bonds issued by sovereigns and quasi-sovereigns in Emerging Markets. The bonds are usually euroclearable and issued off-shore under New York or English Law.

<sup>3</sup> We use the JP Morgan method of calculating default rates, that is the price of the bond times the notional of the bonds as a percentage of the index notional.

Figure 1: EM sovereign defaults (1998-2017)

Year	Default event	Recovery rate	Index default rate per year		Estimated loss from default (bps)	
			EMBI GD	EMBI G	EMBI GD	EMBI G
Average (1998-2017)		49%	0.7%	0.8%	39	50
Average (2003-2017)		52%	0.5%	0.3%	20	13
1998			0.0%	0.0%	0	0
1999			0.0%	0.0%	0	0
2000			0.0%	0.0%	0	0
2001	Argentina	28%	6.5%	10.9%	467	787
2002			0.0%	0.0%	0	0
2003			0.0%	0.0%	0	0
2004			0.0%	0.0%	0	0
2005			0.0%	0.0%	0	0
2006			0.0%	0.0%	0	0
2007			0.0%	0.0%	0	0
2008	Ecuador	31%	1.7%	1.1%	119	79
2009			0.0%	0.0%	0	0
2010			0.0%	0.0%	0	0
2011	Ivory Coast	38%	0.8%	0.5%	52	32
2012	Belize	40%	0.2%	0.1%	10	6
2013			0.0%	0.0%	0	0
2014	Argentina	66%	2.3%	1.6%	77	53
2015	Ukraine	78%	2.3%	1.7%	51	37
2016			0.0%	0.0%	0	0
2017	Mozambique	62%	0.1%	0.1%	6	3

Source: Moody's, JP Morgan, Bloomberg, Ashmore.

## EM defaults

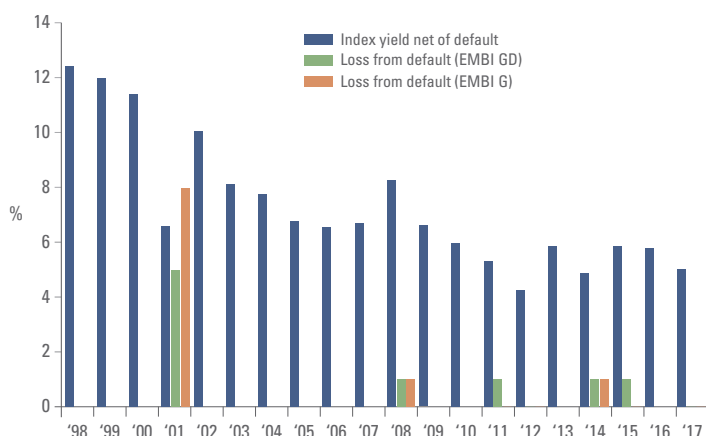
EM external debt defaults have mainly been caused by country-specific problems rather than global factors. This is evident from the fairly random distribution of defaults over time.

- The big default of the modern EM era was **Argentina** in **2001/2002**. Argentina's default was very clearly caused by events specific to that country and did not trigger widespread contagion to other EM countries. Argentina's default was nevertheless atypical of subsequent defaults, since all defaults since Argentina have afflicted smaller, lower income countries. Unlike Argentina, these latter day defaulters have all sought to cure the defaults rapidly and usually the resolutions have delivered better recovery rates than in Argentina.
- **Ecuador** was the only EM country to default in the middle of the Developed Markets Crisis of **2008/2009** and did so solely for political reasons as President Correa deemed two of Ecuador's three sovereign bonds to be 'illegitimate'.
- **Ivory Coast** missed two coupon payments in **2011** due to a political crisis, but cured the default as soon as political stability was re-established.
- **Belize** defaulted in a conventional sense, i.e. the country was unable to service its debt (**2012**).
- **Argentina** defaulted again in **2014**, but neither willingness nor ability to pay was impaired. The default happened when a New York judge keen to resolve the long-standing stand-off between holdout investors from the 2001 default and the Argentine government barred the payment agent from processing coupon payments until the conflict was resolved. In this particular default investors were ultimately repaid in full.
- **Ukraine's** restructuring in **2015** was related to a combination of domestic economic mismanagement and the Russian invasion of Crimea. Recovery was just shy of 80%.
- Finally, the saga related to the **Mozambique** Tuna-bond of **2017** was clearly related to poor fiscal management on the part of the Mozambican government.
- There were **no defaults 70% of the time** between **1998 and 2017**.

## High risk free yields

EM external debt has paid investors a remarkably high yield net of defaults due to the very low level of default-related losses. The ex-post realised risk-free yield for EMBI GD has averaged 7.33% per year since 1998 and 6.26% for the period since 2003. Figure 2 shows how risk-free yields have evolved over the period along with the realised losses for each of the indices.

Fig 2: Yield net of defaults and realised losses for EMBI GD and EMBI G



Source: Moody's, JP Morgan, Bloomberg, Ashmore.

Figure 3 compares the risk-free yield in EM external debt with the yield on US 10 year Treasury securities. A comparison with this bond is insightful, because some investors still refer to this bond as the risk-free benchmark for EM external debt and the bonds has roughly the same duration as EMBI GD. The main take-away from Figure 3 is that EM external debt has paid investors a risk-free spread over the 10 year US treasury bond of between 348bps and 297bps per year for the 1998-2017 and the post-2002 periods, respectively.

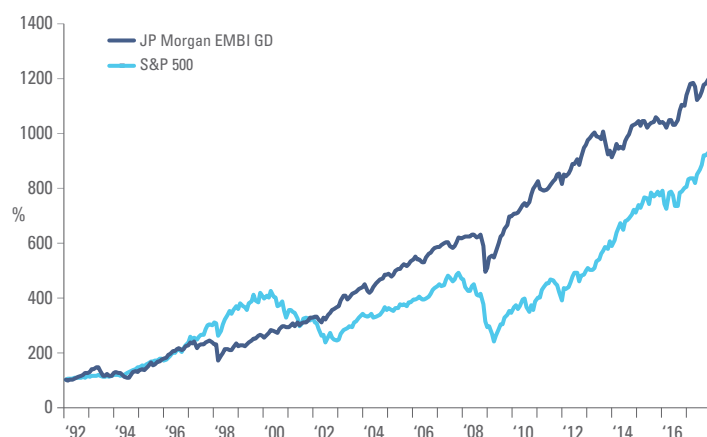
Fig 3: EM yields and spreads versus US 10 year bonds

	EMBI GD yield (%)	EMBI GD risk-free yield (%)	10 year UST yield (%)	EM risk free spread (bps)
Average (1998-2017)	7.72	7.33	3.85	348
Average (2003-2017)	6.47	6.26	3.30	297

Source: Moody's, JP Morgan, Bloomberg, Ashmore.

The yields in Figure 3 understate the total return of EM external debt. In addition to yield the asset class has also delivered decent capital gains supported by massive improvements in macroeconomic fundamentals as well as declining US Treasury bond yields over the period.<sup>4</sup> Figure 4 shows the total return of EMBI GD compared to the total return on the S&P 500 index. EM external debt has handsomely outperformed the S&P 500 index since the inception of the index in 1992 with visibly lower volatility.

Fig 4: Total return for EMBI GD and S&P 500



Source: Ashmore, Bloomberg, JP Morgan.

## Increased index diversification and the emergence of local markets as EMs' primary sources of funding justify tighter spreads

### Valuations

EM external debt today trades roughly 295bps over US Treasuries. This compares to a spread of 179bps over Treasuries in 2007 and 220bps over Treasuries in 2010. However, comparisons with historical spreads do not do justice to current spreads, since the number of countries in the EMBI GD has more than doubled in the past decade. All else being even, the increased diversification of the index alone justifies a narrowing of spreads of about 100bps, according to our own analysis.<sup>5</sup> We also think markets have yet to fully recognise the importance of the emergence of local bond markets as the main source of financing in most EM countries. Since local bonds now provide the bulk of the financing issuers have little to gain and a lot to lose in terms of reputation from defaulting on external debt.

### Future returns

Suppose that EM external debt does not rally at all in the five year period from 2017 through 2021, that is, yields do not decline from current levels. In this scenario investors can expect to be paid a total return of 35.7% in Dollar terms, which is equivalent to a compounded annual return of 6.3% (Figure 5). This scenario assumes zero capital gain, zero alpha and a one-off 100bps spread compression at the end of the period as the markets price in lower index volatility due to increasing index diversification.

How much of this return will be risk-free? Needless to say, the incidence of default in the next five years cannot be predicted with any certainty. However, if the past relationship between the EM external debt spread and realised losses holds constant then the implied default-related losses per year should be 19bps per year for EMBI GD. In turn, this implies that investors can expect to take home a risk-free return of 34.5%, or 6.1% per year on a compounded basis. Alternatively, the return given default would be some 36 times larger than the predicted loss.

<sup>4</sup> For example, since the late 1990s EM sovereigns have reduced their gross debt levels as a share of GDP by 50%, accumulated about 80% of the world's FX reserves, become successful inflation targeters and established local bond markets.

<sup>5</sup> See Jan Dehn and Romain Bocket, 'Free Money: Arbitrage opportunities in EM external debt', Market Commentary, June 2016.

Suppose the markets wake up and price out the arbitrage from greater index diversification immediately. Then the yield will be 100bps lower over the entire forecast period and the total return will be correspondingly lower. This scenario leads to a predicted total return of 28.9%, or 5.2% CAGR. However, if the past relationship between spreads and realised losses continues to hold, then the implied loss rate will also be lower at 13bps, wherefore the pay-out given defaults actually rises to 44 times the expected loss.

Fig 5: Return scenarios (2017 to 2021)

	Return from yield	Total including arbitrage	CAGR	Return to predicted loss ratio
Return before defaults	28.7%	35.7%	6.3%	
Risk-free return (arbitrage in last year)	27.6%	34.6%	6.1%	76
Risk-free return (arbitrage in current year)	22.0%	29.0%	5.2%	92
<b>Scenario inputs</b>				
Yield today	5.17%			
Predicted loss per year at today's yield (bps)	0.09%			
Post-arbitrage yield	4.17%			
Predicted loss per year at post-arbitrage yield (bps)	0.06%			

Source: Ashmore, Bloomberg, JP Morgan.

## Risks

EM external debt faces three main sources of risk: systemic events, idiosyncratic events and shocks emanating from the US bond market.<sup>6</sup> EM has weathered multiple potential systemic risks in recent years, including a taper tantrum, the start of the Fed hiking cycle, a massive Dollar rally and a halving of commodity prices.

Country-specific events are likely to continue to be a source of alpha opportunities for active managers in an asset class. EMBI GD now has more than 65 sovereign names. A small number of these countries – usually in the low single digits – get into trouble each year. However, as shown above, very few of these events

end in default. Hence, we believe investors should prepare to buy into weakness, when countries blow up, albeit aware that on rare occasions these events can lead to permanent loss.

As for the US Treasury curve and US monetary policy, we expect the Fed to normalise monetary policy extremely slowly and to scale back asset purchases before making major rate hikes beyond what is already priced into the market. This sequencing is the least risky option for the Fed and by de-risking the stock market somewhat ahead of aggressive rate hikes the risk to the economy is minimised. For now the modest rates of inflation make it possible for the Fed to remain dovish with respect to rates.

## Conclusion

EM external debt has paid investors an ex-post risk-free spread close to 350bps since 1998. Default-related losses in EM external debt have been remarkably modest despite very turbulent global markets and major EM headwinds, including the Taper Tantrum, a halving of commodity prices and the start of the Fed hiking cycle in late 2015. The width of this spread is prima facie evidence that the asset class is mispriced, which begs the question what is keeping investors from buying more? Volatility is always a great deterrent to inflows to the asset class. This is deeply ironic, because most episodes of volatility in the EM asset class are caused by investor behaviour rather than a deterioration in EM fundamentals, as evidenced by low default rates.

<sup>6</sup> For a more detailed discussion of the risks facing EM right now please see *'The main risks in EM'* Weekly Investor Research, 18 September 2017.

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