CHAPTER 1

EMFX and Fixed Income: Where the Opportunities Lie

1.1 EM DEBT – GROWING TOO FAST TO IGNORE

Two main growth stories in the emerging market fixed-income space offer major opportunities and lead to increased investor interest and participation: local markets and external debt.

Ever since the emerging markets (EM) crisis of the late 1990s and 2000s, EM countries have tried to unwind the *original sin* of previously having issued large stocks of USD-denominated debt.[1] The reason is that it was the USD debt that caused, or at the very least intensified, the EM crisis in the 1990s. Back then, the USD was in a strong bull market, making USD-denominated debt more expensive to carry and eventually causing mayhem in EM. The main way to reduce this vulnerability stemming from USD debt has been to develop markets for local currency sovereign debt and to substitute external debt for local debt. Many countries have been successful in this undertaking, and as a result, local sovereign debt markets have grown with a 15% compound annual growth rate (CAGR) between 2003 and Q3 2019, compared to about 7% annual growth for USD-denominated sovereign debt. Amazingly, the 2008–2009 global financial crisis made only a shallow and short-lived dent in the high growth of local debt, even when translated into USD terms, as can be seen in Figure 1.1. This is surprising, as EM currencies depreciated sharply during the crisis, impacting the USD value of these markets very negatively. This strong growth in adverse circumstances demonstrates that local emerging market debt has become a major investible asset class and is here to stay.

At the end of the third quarter of 2019, EM sovereign local currency debt markets were capitalized at USD 10.5 trillion. Around USD 5.1 trillion in local government bonds sit in China (roughly evenly split between Chinese Government Bonds (CGBs)

[1]Initially, EM were forced to borrow in USD because local currency debt was seen as too risky for most international lenders. This has been referred to as *original sin* (Eichengreen et al. 2007).

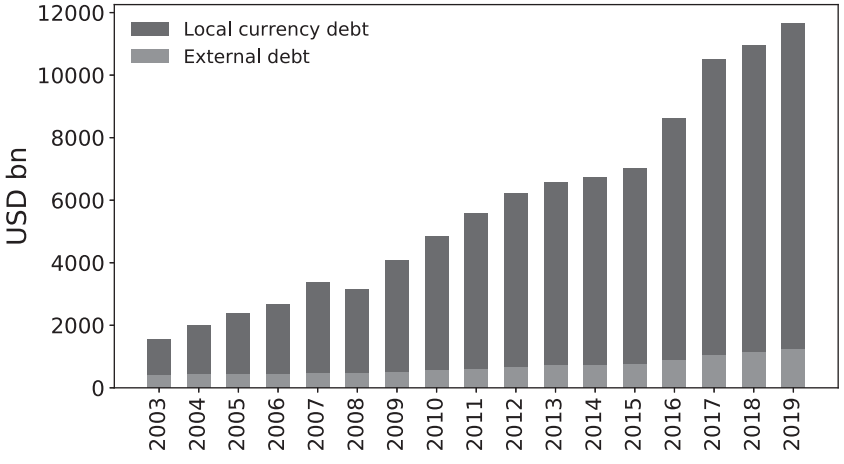

FIGURE 1.1 EM Sovereign Debt Grew Even Through the Great Recession.
Source: Bank for International Settlements.

and policy bank notes).[2] The share of Chinese local government debt as a percentage of EM local debt continues to grow (Figure 1.2).

Another USD 1 trillion of local sovereign debt sits in India. Chinese and Indian local fixed-income markets are not widely owned by foreigners, but this is changing rapidly, partly as China's weight in the global fixed-income indexes grows. China is clearly too large to be ignored by global debt managers, and so is India. China and India are the single biggest sources of growth potential for emerging market debt trading.

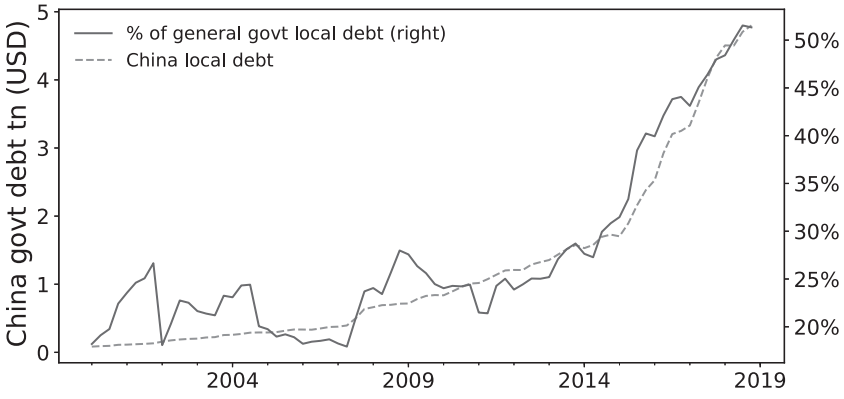

FIGURE 1.2 China is 50% of Local Currency Government Debt – and Rising.
Source: Bank for International Settlements.

[2]Adding China's corporate debt and sub-national government debt results in a total market capitalization of around USD 12 trillion.

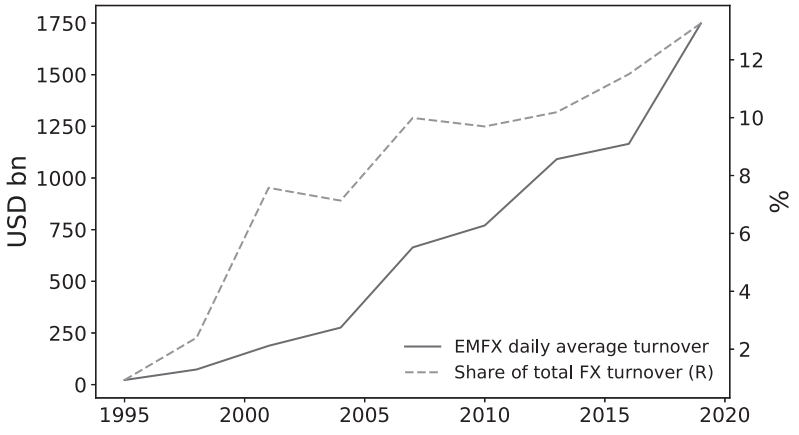

FIGURE 1.3 EMFX Gaining Market Share From G10 FX.
Source: BIS triennial survey.

Furthermore, China entering various developed market fixed-income indexes at a time when it is arguably still an emerging market will force global investors to engage more actively with investing in emerging market local currency denominated bond markets. This is why we dedicate a full chapter of this book to China.

To invest in local currency debt, there is also a need to trade emerging market currencies. Rising EMFX trading volumes are therefore logically going hand in hand with the rise in outstanding local currency debt. As of the last data point (2019) from the Bank for International Settlements, the turnover in EMFX reached USD 1.7 trillion per day, or 13% of the total FX volume, rising from close to zero in 1995 (see Figure 1.3).

External debt is also growing quickly. As of Q3 2019, USD 2.3 trillion of bonds are outstanding. But the shift by sovereign issuers to local markets has muted the growth from existing sovereign issuers. Instead, EM corporate debt issuers are growing rapidly, happily filling this gap. The market has welcomed such corporate issues, in particular from exporters that are considered naturally currency hedged given their USD export revenues. While external corporate issuance has moderated from its earlier breakneck pace, we think it will accelerate again whenever global growth, and therefore corporate capital expenditures (capex), pick up. At the end of 2019, corporate external debt stood at around USD 1.1 trillion. But there also is a growth driver for sovereign external debt, a market that has increased from USD 394 billion in 2003 to USD 1.2 trillion at the end of 2019. Here, the growth story is mostly the increasing number of issuers. Figure 1.4 shows the number of effective country members[3] included in the EM local currency bond index (JPMorgan Government Bond Index-Emerging Markets, or GBI-EM), as well as the EM sovereign bond index (JPMorgan Emerging Market Bond Index, or

[3]Effective country members are calculated as $e = \frac{1}{\sum_{i=1}^{n} w_i^2}$, where w_i is the percentage weight of each country in the benchmark. This formula helps to mitigate the impact of countries with a very small weight, as those do not tend to sufficiently diversify the index.

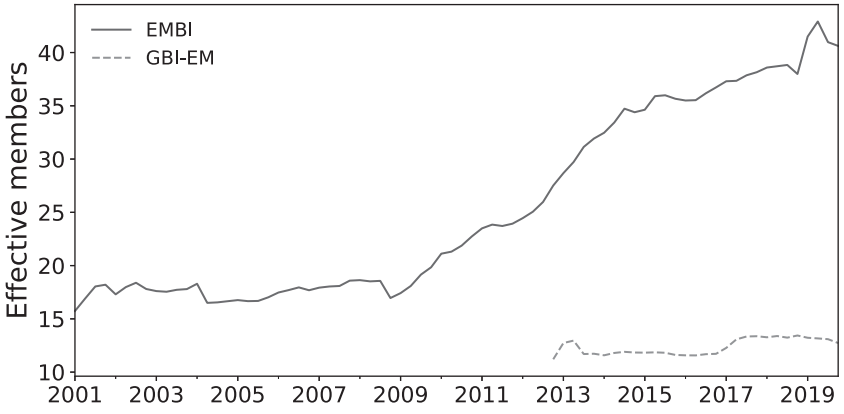

FIGURE 1.4 Growth Coming From the Increasing Number of Traded Countries. *Source:* Bloomberg. Index data courtesy of JPMorgan Chase & Co., copyright 2020, as of 31 December 2019.

EMBI). As can be seen in the chart, post crisis, the number of external sovereign issuers in the index has soared, while the much smaller number of index constituents in the local bond index has barely budged. With new issuers finding it easier to tap the seemingly safer external markets first, this growth of external issuers will eventually spill over into local market issuance and increase the number of countries where local market debt will be actively traded, too.

These EM fixed-income markets are already very substantial and will continue to outgrow their G10 equivalents. In our opinion, EM are currently in a sweet spot. They are large, liquid, and volatile enough to make meaningful investments possible even for large investors, but not so liquid that all the alpha has been arbitraged away.

1.2 RETURNS TOO ATTRACTIVE TO IGNORE

Figure 1.5 shows the historical returns of the most widely followed EM benchmarks for external (EMBI), local (GBI-EM), and (external) corporate debt (Corporate Emerging Market Bond Index, or CEMBI), all produced by JP Morgan. EM sovereign external debt has performed the best since 2003. This is followed by the CEMBI, which in turn has slightly outperformed local markets. Local markets have experienced the highest volatility across the three asset classes, leading to lower information ratios than those achieved by EM credit investors.

To illustrate why this is happening, we take a closer look at the local market index and split the performance into FX and rates, where the rates performances is measured as the EM bond index with FX hedges. As can be seen in Figure 1.6, it turns out that almost all the volatility comes from FX. On a FX-hedged basis, local market bonds display even less volatility than credit indexes. If investors have no edge to forecast FX, the bias has to be to lever up local markets on a FX-hedged basis, rather than to keep EM risk unhedged.

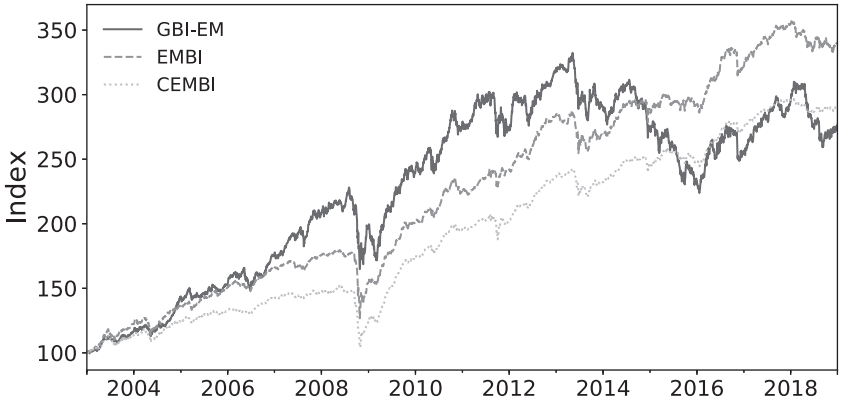

FIGURE 1.5 EM Credit with More Attractive Returns than EM Local.
Source: Bloomberg. Index data courtesy of JPMorgan Chase & Co., copyright 2020, as of 31 December 2018.

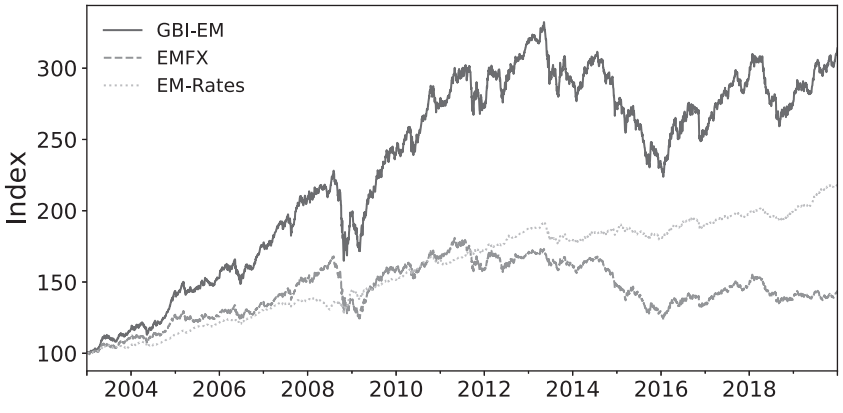

FIGURE 1.6 Most of the Volatility in Local Currency Debt Comes from FX.
Source: Bloomberg. Index data courtesy of JPMorgan Chase & Co., copyright 2020, as of 31 December 2019.

How do those returns compare to global fixed-income indexes? Table 1.1 illustrates the return characteristics of EM versus global fixed-income benchmarks from 2003 to 2019. The table also sheds light on how returns are impacted by the USD. While the early 2000s were characterized by a USD bear market in the aftermath of the bursting Nasdaq bubble, the USD started to rise significantly from 2013 onward. By the end of 2019, this USD bull market has not yet come to an end. Table 1.1 suggests that EM benchmarks have a better return profile than their comparable global fixed-income peers over the full USD cycle. In particular, the EMBI outperforms the broad US credit index (US AGG) over the full cycle and even during the USD bull market (which went hand in hand with an EMFX bear market). Similarly, the GBI-EM outperformed the

TABLE 1.1 EM Fixed Income Outperformed Developed Markets.

Full period	2003–2019			2013–2019		
	Mean	Vol	IR	Mean	Vol	IR
GBI-EM	7.0%	9.5%	0.73	0.17%	8.80%	0.02
EMBI	7.9%	5.5%	1.44	4.52%	4.41%	1.03
EM rates	4.5%	2.6%	1.74	2.13%	2.53%	0.84
CEMBI	6.9%	4.1%	1.67	4.66%	2.67%	1.74
US HY	6.7%	5.1%	1.32	4.94%	3.95%	1.25
US AGG	4.0%	3.5%	1.14	2.64%	3.09%	0.85
WGBI exUSD	4.0%	8.2%	0.49	0.52%	7.28%	0.07

Source: Bloomberg, London Stock Exchange Group plc and its group undertakings (collectively the "LSE Group"), copyright LSE Group 2019, JPMorgan Chase & Co, copyright 2020, as of 31 December 2019.

non-USD portion of the FTSE Russell World Government Bond Index (WGBI) during the full cycle, even though it underperformed during the EM bear market after 2012. Overall, past performance has broadly favoured EM.

Going forward, these trends are likely to continue. On the external market side, this is the case because ratings-adjusted, EM sovereign credits typically trade at a higher spread than US corporates, even though default ratios are usually lower for sovereigns than for corporates; recovery values are also on average higher for sovereigns than for corporates. On the local currency side, rates in developed markets (DM) are so low that EM local rates on a hedged basis will likely continue to outperform. Furthermore, the long-lasting USD bull market, which has undermined unhedged local bond exposure, must, like all things, eventually come to an end.

We also note that from an alpha generation point of view, EMFX deserves special attention. Information ratios in EM credit and in FX hedged local markets may be sufficiently high to bias investors toward a buy-and-hold strategy. But information ratios are too low to buy and hold EM currencies. A more active trading style is therefore needed to generate alpha. On the one hand, this is bad news, as FX is notoriously hard to predict with accuracy and alpha generation is difficult. On the other hand, a focus on FX is a boon for investors, who have an edge as transaction costs for FX are much lower than they are for bonds and leverage is easier to obtain.

There have also been significant differences in performance by region, as can be seen in Table 1.2. In both local and external markets, the highest returns came from Latin America. Luckily for the asset class, Latam also has the highest weight in both local and external debt indexes. In external markets, the Middle East's performance comes close, but on a much smaller index weight. The lowest returns have occurred in Asia for both asset classes. As Latam is famously high carry, while Asia is mostly low carry, returns are in line with the carry on offer. This would suggest that the regional pattern is going to persist, as carry differentials still favour Latam over Asia. Asia also has the lowest volatility in both asset classes. This results in information ratios in Asia that are quite competitive and actually higher than they are for Latam in local markets. In external markets, the Middle East has the lowest volatility, leading to a superior information ratio. For investors with access to leverage, lower-yielding and safer regions outperform.

TABLE 1.2 Latam as a Key Contributor to Index Returns.

	Mean	Vol	IR	Weight
Local markets				
Africa	8.1%	20.5%	0.4	8%
Latam	8.7%	11.6%	0.75	35%
Europe	6%	12.9%	0.47	32%
Asia	5.9%	6.7%	0.88	24%
External markets				
Middle East	5.1%	7.2%	0.70	12%
Africa	4.9%	7.8%	0.62	13%
Europe	4.9%	8.2%	0.59	21%
Latam	5.2%	9.2%	0.57	35%
Asia	4.1%	7.5%	0.54	19%

Note: 2003 to 2019.
Source: Bloomberg, authors' calculations. Index data courtesy of JPMorgan Chase & Co., copyright 2020, as of 31 December 2019.

We address this topic more thoroughly later in the book. But if there is one region that deserves most of the focus, at least for cash-constrained investors, it is Latam, due to its high index weight and strong returns.

1.3 EM AS AN ALPHA OPPORTUNITY

As EM investors understand, and as we will illustrate in Chapter 2, the global macro environment is of paramount importance for EM performance. This poses the question of whether, in the period under study, EM credit investors simply got lucky because US credit did so well. Similarly, EM local investors first benefited from a weak USD environment in the early years, especially in conjunction with broadly falling yields in the US, before getting unlucky with a stronger USD environment in the latter years. If the outperformance of EM was really only about the global environment, it might be better for investors to just trade DM bonds, credit, and currencies, rather than wading into less-liquid EM. To see if EM truly justify the investment of time and resources, we try to replicate the GBI-EM with US rates and the big USD Index (DXY). We first calculate one-year rolling betas of the GBI-EM to those two global factors. We then use the betas to determine the size of the position in US Treasuries and DXY to replicate GBI-EM. Figure 1.7 shows that the GBI-EM strongly outperforms this simple replication strategy. We conclude that there are substantial alpha opportunities in EM and that EM cannot be easily replicated by the equivalent DM assets. At the same time, we also note that the correlation between EM indexes and their G10 replication strategy is high enough to make the applicable G10 assets good hedges for an EM portfolio.

In addition to the alpha that comes from correct global macro or specific EM asset class calls, there is significant scope to generate alpha within the asset class. Figure 1.8

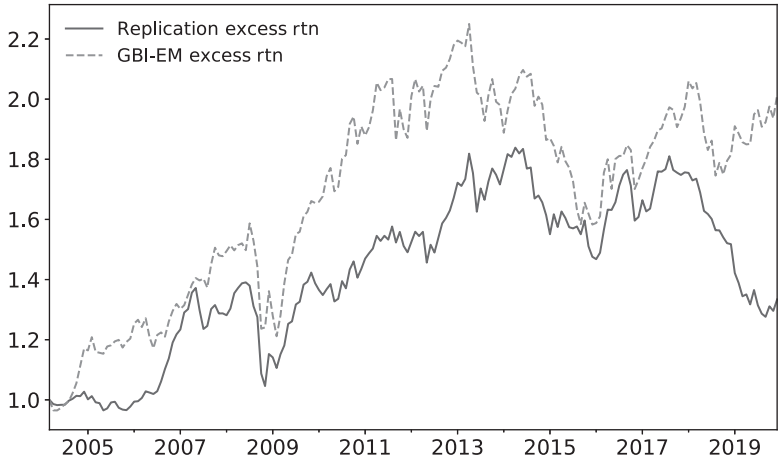

FIGURE 1.7 EM Returns are Hard to Replicate.
Source: Bloomberg, authors' calculations. Index data courtesy of JPMorgan Chase & Co., copyright 2020, as of 31 December 2019.

shows the dispersion of returns for EMFX, EM rates, and EM sovereign credit, defined as the return of the top 10th percentile minus the return of the lowest 10th percentile of the countries in the index. All three asset classes offer significant alpha opportunities from country selection, as dispersion is often greater than 10%, and rises even higher during crisis episodes. Interestingly, dispersion in EMFX is the highest. Dispersion in credit is very similar to EMFX, while dispersion in EM rates is much lower. To be precise, the median dispersion from 2004 to 2018 was 6.9% in FX and 6.3% in EMBI, but only 4.0% in local rates. The high EMBI dispersion is likely the result of a wide variety of countries being included in that index as compared to the local currency version. It is an interesting observation that dispersion of EMFX returns is high, in spite of the fact that the DXY sets the tone for trading in most EM currencies. One reason for this is the presence of highly managed currencies, which offer attractive hiding places during downturns. Low dispersion in EM rates is likely due to an important US Treasury component, especially in the long end of the curve, which is the key driver for generating local currency bond performance. Our conclusion is that the emphasis for the country selection effort should lie with FX and credit markets, rather than rates, at least for cash-constrained investors who are unable to take leveraged positions in rates.

While inflows into local markets have been slow due to challenging returns, EM credit has seen many years of strong inflows. But the living for EM credit managers has not been as easy as the strong returns would suggest. Not unlike what is happening in other asset classes, passive investment vehicles are gaining share. The good news for active fund managers in EM is that the speed of this development is not as fast as it is for DM. The switch to passive funds is slower because EM indexes are both more difficult and also costlier to replicate. This is reflected in the fact that exchange-traded funds (ETFs) in EM fixed income tend to underperform their benchmarks. In spite of these handicaps, EM ETFs have grown significantly. In the end, such growth may be

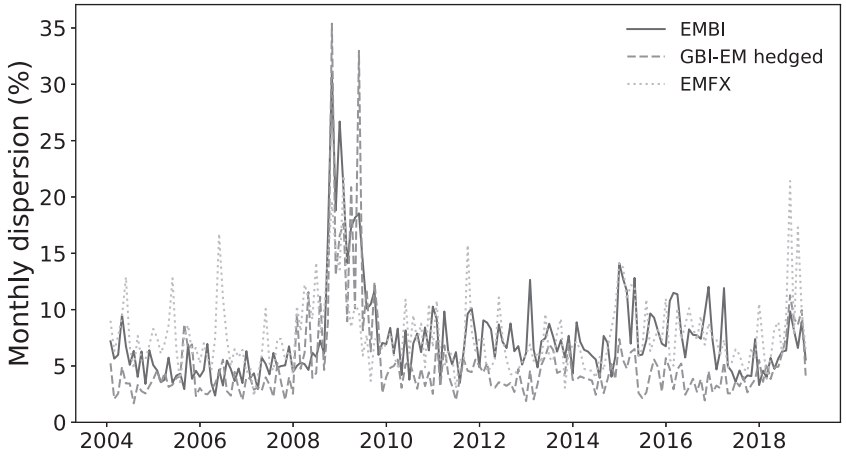

FIGURE 1.8 Dispersion of Returns is Highest in FX and Credit.
Source: Bloomberg, authors' calculations. Index data courtesy of JPMorgan Chase & Co., copyright 2020, as of 31 December 2018.

self-limiting, as an overwhelming share of monies managed by ETFs may well lead to arbitrage opportunities for active managers. But for now, the market share of EM ETFs is still quite limited, especially for local markets. For EM credit, the ETFs are more relevant and can be market moving, though their volumes so far don't offer sufficient arbitrage opportunities to add meaningfully to the returns of active managers.

1.4 SCOPE FOR EVEN MORE ALPHA

When investigating fund performance in the EM space, it has to be taken into account that trading and clearing costs are high, and some countries levy taxes on portfolio investments by foreign investors. For example, Indonesia and Colombia have withholding taxes, as does Brazil, depending on the jurisdiction of the investors. In the past, Brazil also charged a significant financial transaction tax that had to be paid to gain access to local bonds (the *IOF tax*, which is still on the books, even though the rate is currently set to 0%). Such costs are not taken into account by index providers and, ceteris paribus, lead to underperformance for active managers (as well as the ETFs). On the other hand, meaningful outperformance of the new issue market helps active managers offset some of the trading costs mentioned. Furthermore, EM fixed income is still a relatively inefficient asset class. This allows for pockets of alpha, which are harder to find in the developed world. Given all these diverging factors, it is not clear whether EM funds should ex ante be expected to outperform or underperform their benchmarks.

To shed some light on this issue, we summarize the performance of the EM funds in Table 1.3. Here we show the excess returns of EM credit and local currency funds over their corresponding benchmarks. Overall, the excess returns for EMBI benchmarked funds have been relatively solid in the long run but have suffered since the *taper tantrum*

TABLE 1.3 EM Funds Add Alpha in Credit But Not Much in Local.

Periods		EMBI	GBI-EM
2003–2018	Active return	0.63%	−0.14%
	Tracking Error	1.70%	2.64%
	IR	0.37	(0.05)
2008–2018	Active return	0.39%	−0.23%
	Tracking Error	4.0%	4.2%
	IR	0.10	(0.06)
2013–2018	Active return	−0.22%	−0.02%
	Tracking Error	1.16%	1.26%
	IR	(0.19)	(0.02)

Note: Excludes Neuberger Berman funds.
Source: Bloomberg, authors' calculations. Index data courtesy of JPMorgan Chase & Co., copyright 2020, as of 31 December 2018.

in 2013. For local currency funds, excess returns of actively managed funds have been slightly negative over the full sample, though returns have become slightly less negative since 2013. One reason for the superior performance by EM credit managers is likely that trading costs and taxes are more relevant for local bonds than they are for credit. Furthermore, investors generally find it easier to generate alpha in bull markets (for example, by increasing market beta) than in markets that require considerable timing skills, such as FX.

The next question to answer is how the alpha is currently being generated. In EM credit, this is illustrated in Figure 1.9, which charts the beta of the excess returns to

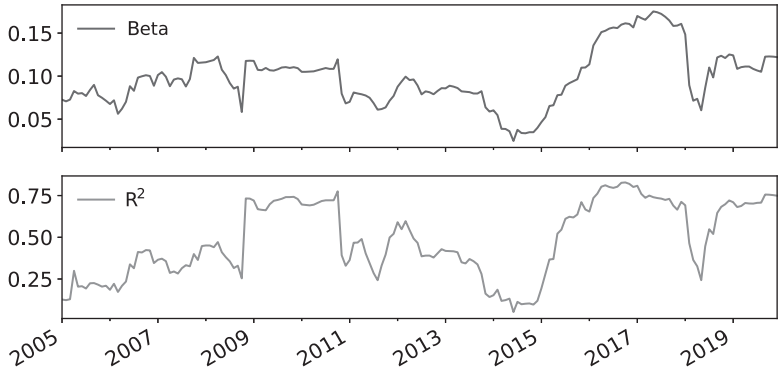

FIGURE 1.9 Alpha in EM Credit from High Yielders.
Note: Beta and R^2 regressing EM credit funds' excess returns on the HY component of the EM credit benchmark.
Source: Bloomberg, authors' calculations. Index data courtesy of JPMorgan Chase & Co., copyright 2020, as of 31 December 2019.

the high-yielding EMBI components (first panel), as well as the R^2 (second panel). This illustrates how much of the excess return is explained by being overweight the high yielders (i.e. HY credits as opposed to IG rated credits). We can see that the average beta of the excess returns to the high-yield subindex is 10%, i.e. quite large. This high beta was only briefly reduced during the commodity sell-off in 2014 and 2015. Furthermore, the R^2 is high and usually fluctuates between 25 and 75%. This suggests that one of the key ways fund managers currently generate alpha in credit is to consistently go overweight high-yielding index components. On average, 37% of outperformance is explained by this strategy.

The same exercise for local bonds is shown in Figure 1.10. Excess returns were close to zero for a long time, starting in 2011. Only in 2018 were funds able to outperform their benchmark. Just like in EM credit, this was largely due to overweights in the high yielders.

While this analysis focuses on the average return of EM funds, we are also interested in seeing whether most funds follow the same strategy of adding exposure to high yielders or whether more differentiated strategies are employed. To answer this question, we run a principle components analysis (PCA) on fund excess returns to see how unique each fund's strategy is with respect to its peers. Figure 1.11 shows the results of our analysis. The first principal component explains about 90% of the variance in EM hard currency fund returns. This suggests that many EM credit funds engage in similar strategies. Of course, there is nothing wrong with this approach, given that EM credit funds in aggregate generate positive alpha. But the heavy use of more volatile high yielders to outperform is obviously a bull market strategy. While managers would surely switch strategies in an adverse market environment, it is still important to realize that a bear market would upend what has traditionally been the main source of alpha in EM credit.

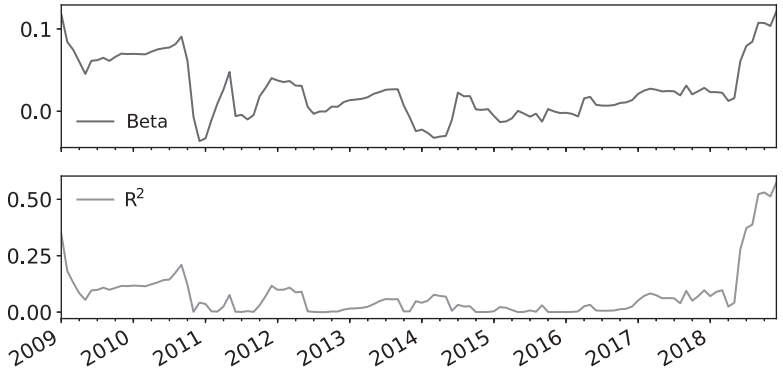

FIGURE 1.10 (Smaller) Alpha in GBI-EM Funds, Also from High Yielders.
Note: Beta and R^2 regressing EM local funds' excess returns on the high yielding component of the EM local benchmark.
Source: Bloomberg, authors' calculations. Index data courtesy of JPMorgan Chase & Co., copyright 2020, as of 31 December 2019.

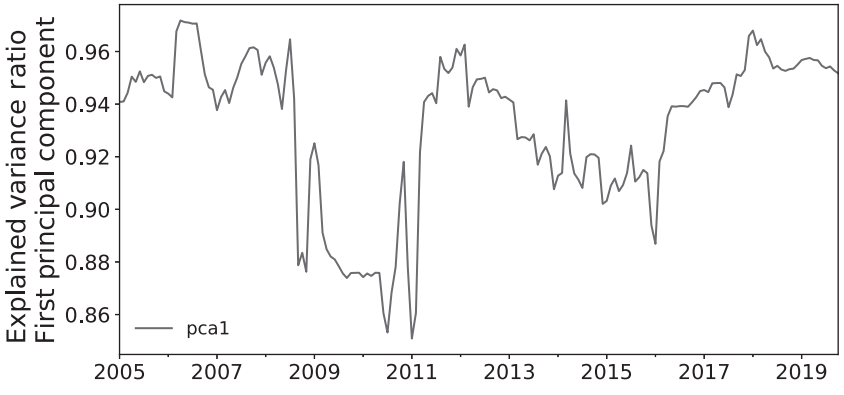

FIGURE 1.11 Herding Behaviour At Work.
Source: Bloomberg, authors' calculations.

1.5 SUMMARY

EM fixed income is a large and fast-growing asset class. It offers important sources of alpha that cannot be ignored. This alpha isn't something that can be easily replicated with G10 assets. Currently, the EM fund industry is focused on adding alpha by overweighting high yielders. We think that many typical strategies employed in EM investing can be improved upon. More systematic strategies are going to be part of the solution. Part of the problem with this solution may be that the history of EM is still relatively short, and therefore many of the lessons on how to trade EM have not been fully quantified. This book aims to offer the tools necessary to EM fund managers and analysts. The alpha from a more systematic trading effort will be a crucial weapon for EM active managers in the fight to fend off the onslaught of passive investments.