THE CASE FOR FRONTIER DEBT

White Paper

For Qualified Investors in Switzerland or Professional Investors or Eligible Counterparties as defined by the relevant laws

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Union Bancaire Privée

Key points

- *Fixed-income frontier markets have seen significant growth in both importance and liquidity over the past decade. While still mainly thought of as part of global EM investments, frontier markets have "grown up" and deserve to be considered separately.*
- *Frontier debt offers a compelling investment opportunity, with historical returns outpacing both broader EM sovereigns and the developed market high-yield segment.*
- *The efficient frontier of a balanced portfolio is also improved by adding frontier debt.*
- *Investing in frontier market sovereign bonds means lending money to those governments that need it most, increasing GDP growth in the world's poorest countries and contributing to positive change.*
- *The coronavirus-induced sell-off provides investors with the possibility of entering the asset class at yields near the historically high levels seen during the global financial crisis.*

After significant growth over the last decade, we believe that it is time for global investors to start considering EM frontier debt as a stand-alone investment opportunity. All of the traditional arguments for allocating to emerging markets – faster growth, higher yields and diversification benefits – are even more significant in the case of frontier markets.

Frontier debt markets: a growth story

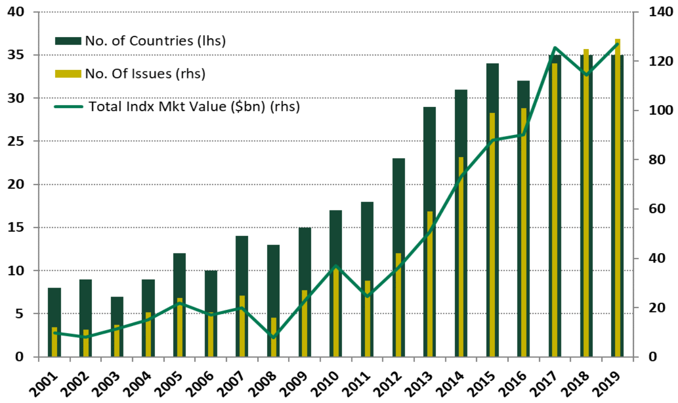
Frontier markets offer a strong growth story – both in terms of the economies of the countries in the frontier space, and when it comes to their sovereign bond markets.

Around fifteen years ago, frontier markets (as defined by JP Morgan's NexGEM index) included fewer than ten countries with a combined market capitalisation of USD 15 bn. Since then, the markets have seen impressive growth: ten years ago, the index counted just sixteen countries and a USD 37 bn market cap; five years ago the numbers were 34 and USD 88 bn; and at the end of 2019 the index had 35 countries and a market cap of USD 129 bn.

Indeed, after a decrease in market capitalisations in 2018, in part due to the removal of Ecuador, growth continued in 2019, with thirteen new bonds entering the index, including a first-time issuer, Uzbekistan. Despite Egypt leaving the index during the year, the index's market capitalisation grew to its highest ever level of USD 129 bn. Several countries included in this index have also issued euro-denominated bonds, so the investable universe of hard-currency debt has grown even more than the index's figures would suggest. While this growth has created higher debt loads on average, many bonds have come from a range of debut issuers. Average-debt loads as a percentage of GDP remain manageable at just over half of what is seen in developed markets (DM).

As frontier markets continue their impressive growth, investors would be wise to start to think of frontier debt as its own asset class, and therefore assess its merits in more detail. Frontier debt is no longer a small and illiquid market best left to a few small specialist funds. Under normal market circumstances, many frontier countries' bonds trade in significant amounts daily, and getting liquidity is generally not a problem for a well-diversified strategy until a reasonably large capacity (i.e. at least USD 1 bn) is reached.

Rapid growth of frontier debt markets (JPM NexGEM)



Sources: UBP and J.P. Morgan as at 31 December 2018.
Past performance is not a guide to current or future returns.

Along with its stand-alone growth, frontier debt also accounts for a growing proportion of the broader sovereign index. Indeed, in contrast to equities, where emerging and frontier markets' indices are separate and mutually exclusive, in the bond space the frontier index is a subset of the commonly used JP Morgan EMBI Global Diversified.

Over the last ten years (2009–2019), frontier markets' weight within the broader EM index grew from 5% to a peak of almost 25% before decreasing slightly in the recent sell-off due to mark-to-market effects. This means that anyone invested in funds benchmarked to the EM sovereign index has already been growing their allocation to frontier markets – perhaps even unknowingly in some cases. Having exposures that are not deliberate means investors are not able to assess – and ultimately optimise – their investments. We believe that this is what has happened to some investors' frontier allocations.

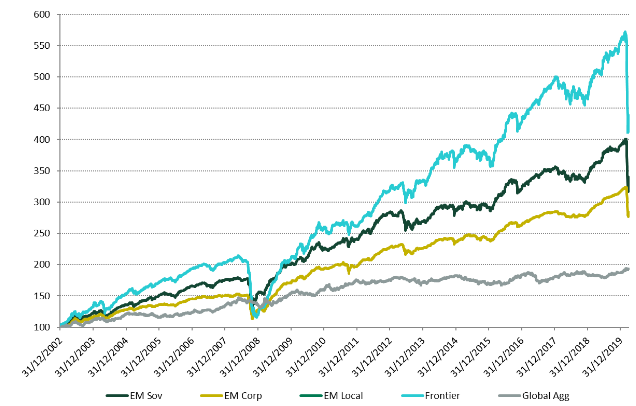
Not viewing frontier markets as investments in and of themselves causes two separate problems. Firstly, the specific facets of this investment universe are ignored and are instead grouped together with broader emerging markets with which they at times have little in common. Secondly, investing through the largest global EMD funds means one could be foregoing significant alpha opportunities within the frontier debt space. Of the 35 countries included in the JP Morgan NexGEM index at the end of 2019, twelve had USD 1 bn or less worth of bonds in the index. A manager with a large global EM sovereign fund would be practically unable to invest in a country such as Tajikistan, which has only USD 500 mn worth of bonds outstanding. If this hypothetical fund wanted to build a 1% position, it would end up owning too much of the outstanding debt. Acquiring such a position – or potentially selling it later on – would take a significant amount of time and, even with the most skilled trader(s), it would almost certainly move the market, both on the way in and on the way out.

As a result, we believe investors should view frontier debt as a potential stand-alone investment. The investable universe is now sufficiently large and liquid, and its history long enough that its merits as an allocation can be appropriately considered, either as an alternative, or as a separate opportunity, to any broader EM investments.

High yields and low default rates mean impressive returns

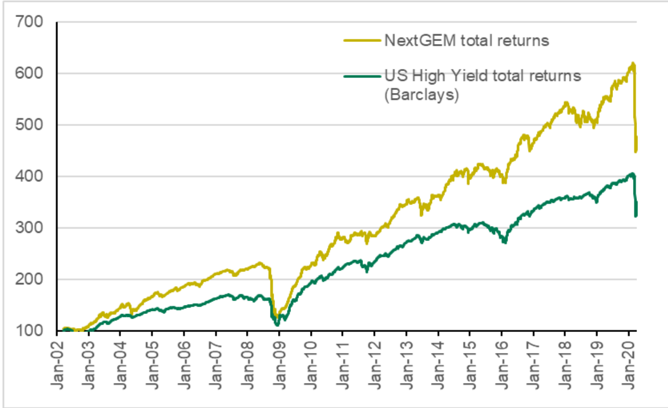
Frontier markets offer an attractive investment opportunity for a number of reasons. The most obvious is that returns have outpaced most other fixed-income asset classes, even when the recent sell-off is included. The risk premium imbedded in the yields of EM sovereign bonds overcompensates for the risk associated with defaults. This is due to the combination of defaults being relatively rare and recovery rates being relatively high. Firstly, sovereigns are usually loath to default, as it means losing access to capital markets and US dollars. At the same time, multilateral institutions are often on hand and willing to provide concessional financing and technical assistance for any reforms that are needed, as well as support during any restructuring. Recently, the IMF announced that it was making USD 1 trillion of financing available for countries suffering from COVID-19-related issues. While all sovereign debt benefits from this, the arbitrage is most significant for the higher-yielding frontier part of the index. This is because defaults only comprise a slightly higher proportion of the frontier than of the broader emerging market space, while recovery rates are similar. The slightly higher incidence of defaults is not nearly enough to wipe out the pick-up in yields. The NexGEM index was launched in 2011 but the data has been created back to end-2001, meaning there is almost twenty years of data for analysis. Over this period, the NexGEM index returned 8.8% (annualised to 31 March 2020), significantly outpacing all other EMD sub-asset classes.

Frontier shows very attractive historical returns



Sources: UBP, Bloomberg Finance L.P. and JP Morgan as at 31 March 2020. Past performance is not a guide to current or future returns.

Frontier also outperforms all DM bond indices that we have reviewed over time. The most natural comparison is with US high yield (both indices are purely high yield and USD-denominated). Since the start of 2002, frontier bond markets have outperformed US high yield by 1.66% (annualised).



Sources: UBP, Bloomberg Finance L.P. JP Morgan and Barclays as at 31 March 2020. Past performance is not a guide to current or future returns.

Yields on NexGEM have historically been only marginally higher than US high yields, but defaults have been meaningfully lower and recovery rates higher.

	Avg losses from Defaults		
	Avg % defaults	Avg Haircut	Annual Losses
Frontier	2.1%	33.3%	0.7%
USHY	4.5%	59.0%	2.6%

Sources: UBP, Bloomberg Finance L.P. and the IMF as at 31 December 2018. Past performance is not a guide to current or future returns.

Of course, frontier market debt does not come without volatility. That being said, over the last ten years, EM frontier debt markets have been able to deliver higher returns with similar Sharpe ratios to EM sovereign debt (and much greater risk-adjusted performances than EM local debt or global aggregate indices).

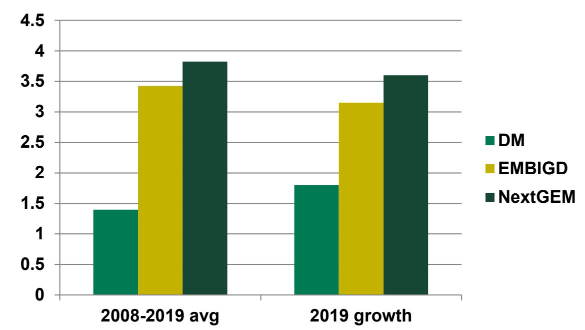
last 10 years	EM Sov	EM Loc	NexGem	Global Agg
Ann Return	4.94	0.49	6.48	2.47
AnnVol	7.66	12.02	10.89	4.69
Sharpe	0.53	-0.03	0.51	0.34

Sources: UBP, JP Morgan and Bloomberg Finance L.P. as at 31 March 2020. Past performance is not a guide to current or future returns.

Many of the factors that have contributed to frontier debt's strong performance remain in place and indeed some are even stronger today than they were previously.

Growth rates in frontier markets continue to outpace not only those of developed markets, but also emerging markets more generally. Indeed, with many of the traditional BRICs slowing down, the faster growth rates of frontier economies should continue to stand out.

Growth levels outpacing DM and broader EM



Sources: UBP, Bloomberg Finance L.P. and the IMF as at 31 December 2018. Past performance is not a guide to current or future returns.

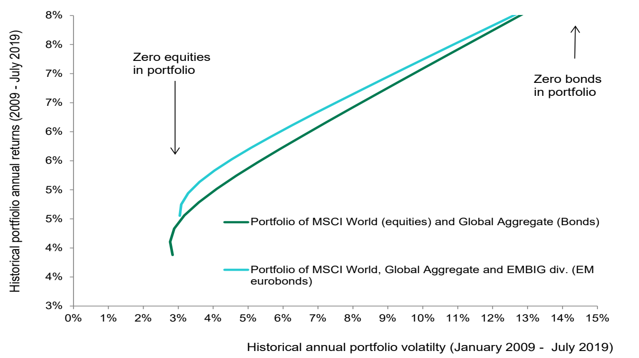
Clearly the coronavirus-induced market sell-off is having a significant impact on projections for both global defaults and growth rates. Frontier countries will not be immune to this. That said, we are still projecting growth in 2020 for frontier markets to outperform both developed markets, with likely negative growth, and EM more broadly. We have also seen a number of EM countries default, but among the NexGEM markets only Zambia has thus far announced an intention to re-profile its debt but we expect others will as well (we see Angola and Sri Lanka as being most at risk). However, we believe these risks are being compensated by yields and spreads that are near the historically wide levels seen in the global financial crisis in 2008 at aggregate level. We see relatively strong borrowers offering very attractive yields and believe the majority of the countries currently in default or at risk of default are already pricing in very negative restructuring scenarios, having overshot our estimates. It is not the case for all issuers, however, hence investing in frontier markets requires active management and in-depth fundamental research to limit the risks associated with potential credit events.

Recovery rates, meanwhile, have also trended higher in recent years. The emergence of so-called "vulture funds" which buy distressed debt with the aim of going through the courts to eventually realise profits, means that sovereigns are less likely to apply punitive terms to any restructuring for fear of being dragged into drawn-out litigation.

A superior diversifier

Absolute and risk-adjusted performances are, of course, among the most crucial factors of any investment. That said, few investments happen in a vacuum. One of the traditional supporting arguments for investing in emerging markets – and indeed any "new" asset class – is the diversification it offers to an existing portfolio. Indeed, emerging market debt offers an improvement on the efficient frontier of a portfolio made up of global equities and bonds.

EM debt improves the efficient frontier

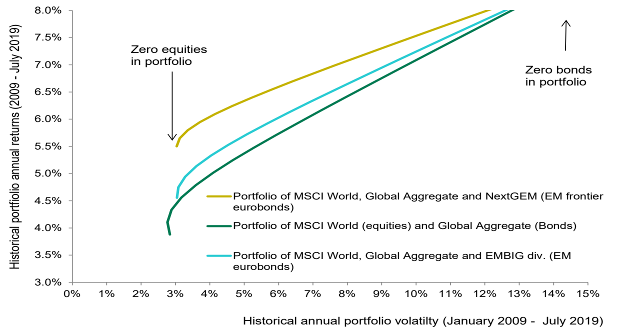


Sources: UBP, Bloomberg Finance L.P. and MSCI as at 31 May 2019. Past performance is not a guide to current or future returns.

However, a significant proportion of the broader sovereign index – the JP Morgan EMBI Global Diversified – offers little by way of diversification. The higher-rated countries in Latin America, such as Peru and Chile, tend to trade with high correlations to US investment grade debt, with very similar – and tight – spread levels. Meanwhile, CEE countries – Poland and Hungary, for example – are highly correlated to developed Europe; to a large extent the fates of all of this debt, along with that of highly rated Asian sovereign and quasi-sovereign issuers, are generally closely linked to US Treasuries.

The real diversifiers in the index are found in frontier markets. This effect can be seen when we take our efficient frontier of global stocks and bonds, and swap the EMBI Global Diversified for the NexGEM index instead. The improvement in the efficient frontier is much more significant with frontier debt than with broader EM sovereign debt.

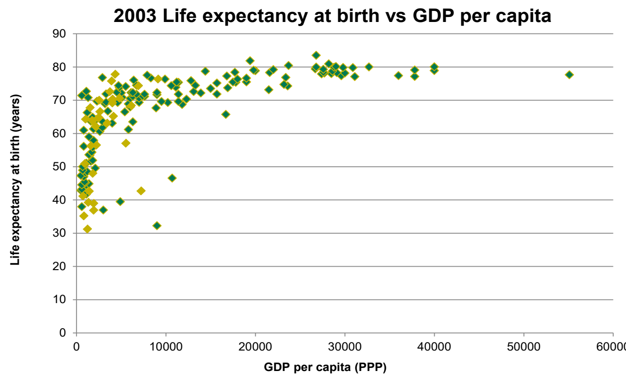
Frontier debt vastly improves the efficient frontier



Sources: UBP, Bloomberg Finance L.P. and MSCI as at 31 May 2019. Past performance is not a guide to current or future returns.

Contributing to positive change

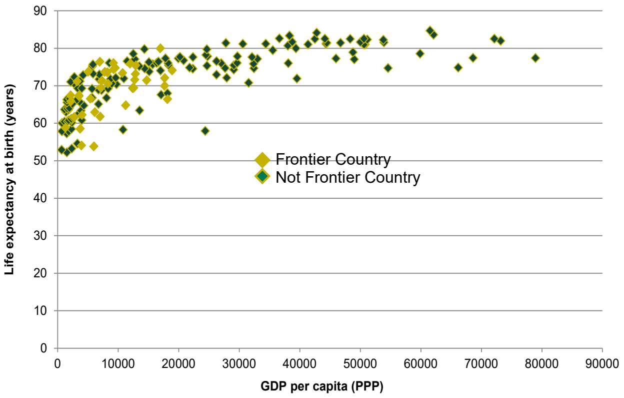
Investing in frontier market sovereign bonds means lending money to governments that need it most. Access to foreign capital allows governments of frontier countries to undertake important infrastructure projects, which in turn increases GDP growth and brings up median incomes. However, a point can be reached at which increasing debt loads become an impediment to growth. The BIS estimates this threshold to be 85% of GDP for government debt. With the average debt-to-GDP ratio below 60%, we are not at risk of reaching this level in frontier economies any time soon. The World Economic Forum states that foreign currency debt has become an important source of development finance for African economies. Infrastructure investments can help improve access to clean water, food and sanitation, as well as to improved healthcare facilities, which sets off a virtuous cycle that, in turn, increases life expectancy. In the last fifteen years, significant progress has been made and many of the poorest countries in the world (including a number of frontier countries) have seen marked increases in life expectancy. In 2003, there were thirty countries in the world where life expectancy at birth was less than fifty years, including nine with a life expectancy below forty.



Sources: CIA Factbook and the World Bank as at 31 December 2003.

In 2017, no country in the sample had a life expectancy below fifty. Despite this, a number of countries, many of which are a part of frontier debt markets, still have room for significant improvement. Specifically, many of the countries whose life expectancies remain below sixty now have international debt, or are looking at potentially issuing it.

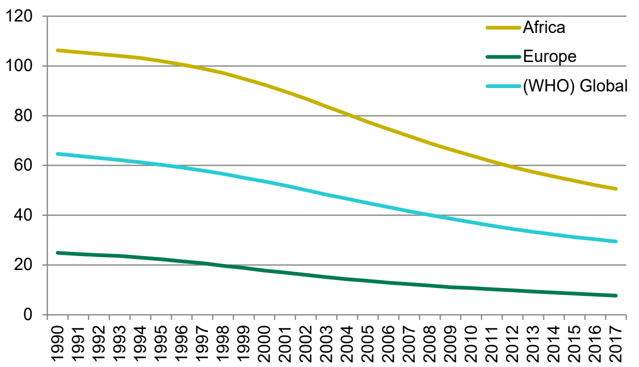
2017 Life expectancy at birth vs GDP per capita



Sources: the IMF and the World Bank as at 31 December 2017.

One factor that can help bring down life expectancy in a given country is its infant mortality rate. The Royal Society of Medicine has found that, before adjusting for covariates, the relationship between income and infant mortality is -0.95. That is, if a country has an infant mortality rate of 50 per 1000 live births and GDP increases by 10%, infant mortality will decrease to 45 per 1000 live births. They conclude that, "…income is an important determinant of child survival." Global infant mortality has declined drastically in the last few decades from 65 deaths per 1000 in 1990 to 29 deaths per 1000 in 2017, thanks largely to improvements in Africa, where it has declined from 107 deaths per 1000 live births to 51. However, there is still much work to be done in Africa, as 51 deaths per 1000 live births still is well above the average and far from the European regional average (8 deaths per 1000 live births). With Africa making up a significant – and growing – part of the frontier debt markets, an investment could positively contribute to the continuation of this trend.

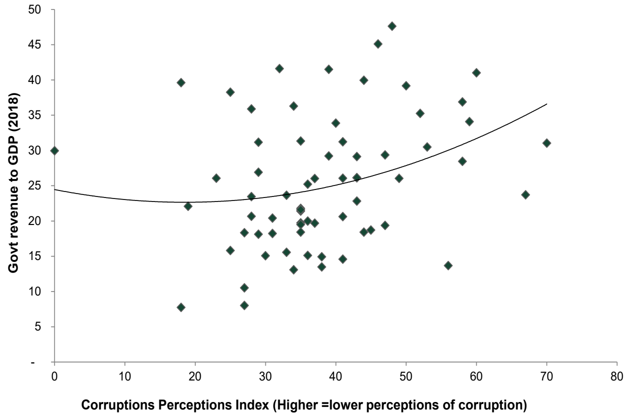
Infant Mortality Rate (per 1000 live births)



Source: World Health Organization (WHO) as at 31 December 2017.

While higher GDP growth shows a strong correlation to higher life expectancy and lower infant mortality, this correlation is not constant across countries. Countries with more inclusive growth, a greater focus on infrastructure investment and with less corrupt governments show a higher correlation. Therefore, while a blanket investment in frontier debt would be likely to have a positive impact on the world, this effect is most powerful when an active assessment is made as to how strong governance is, and therefore how constructively the money will be spent.

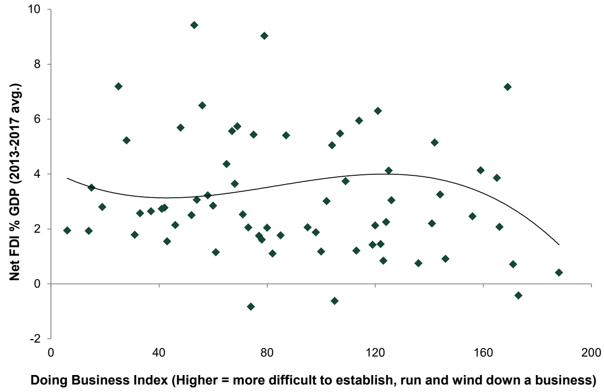
"Corruption is Corrosive"



Sources: World Bank and Transparency International as at 31 December 2018. Past performance is not a guide to current or future returns.

Stronger governance and social factors also make for a more attractive destination for FDI. Saying what proportion of the contribution to GDP growth is due to FDI and what is due to government debt is impossible, but it is fair to assume they have each played a significant part in the positive stories we have seen.

Institutions: "Build it and they will come"



Sources: World Bank and Transparency as at 31 December 2018. Past performance is not a guide to current or future returns.

Ultimately, a less corrupt government spending borrowed money to improve the country and spurring on growth is also likely to lead to improved credit metrics and positive returns for clients. The investment team therefore attaches significant importance to both the motives and abilities of the governments of the countries in which we invest.

As a result, the investment process gives both subjective and quantitative weight to governance and societal factors. From a quantitative standpoint, credit screening and scoring tools give significant weight to assessments generated by, for example, the World Bank Doing Business, the Heritage Foundation Corruption Index, the Heritage Foundation Economic Freedom and Monetary Freedom, the World Bank Governance Voice and Accountability Index and the World Bank Government Effectiveness Index.

While the quant tools used provide inputs, all investment decisions are discussed and debated beyond just the numbers. The investment team spends a significant amount of time discussing the clarity of the governments' objectives and the motivations behind them. At this stage, other factors are also assessed, such as the World Press Freedom Index.

Thomas Christiansen
Head - EM Sovereign Debt

Karine Jesiolowski
Senior Investment Specialist – EM fixed income

Union Bancaire Privée, UBP SA
Rue du Rhône 96-98 | P.O. Box | CH-1211 Geneva 1
T. +41 58 819 21 11 | F. +41 58 819 22 00
mail@ubp.com | www.ubp.com

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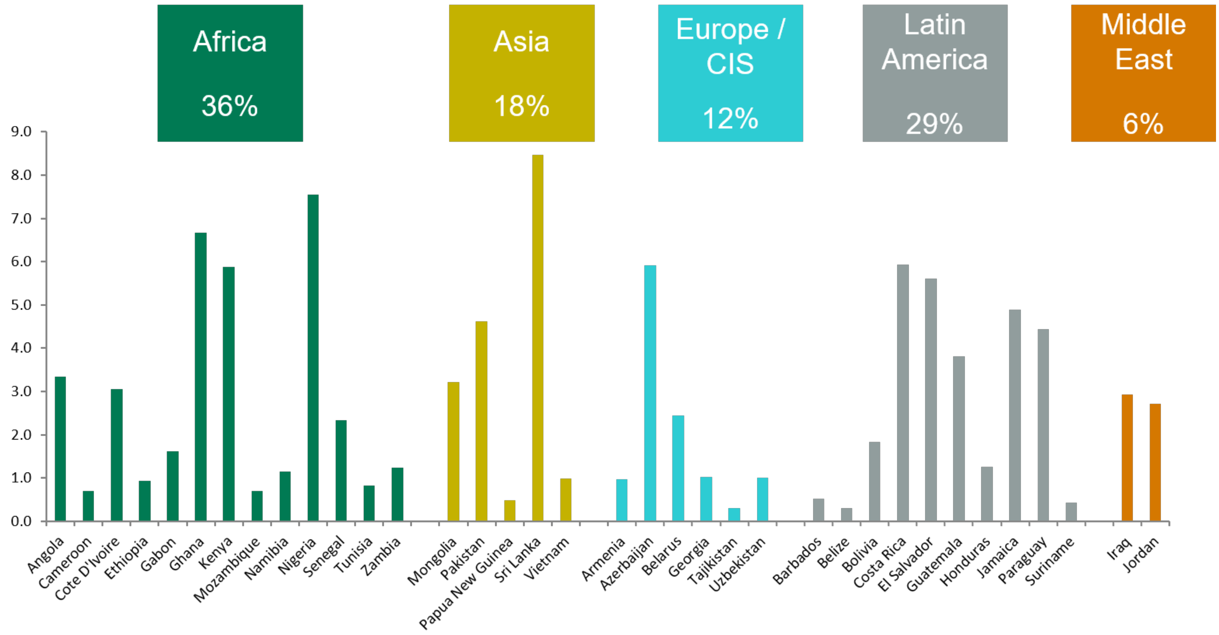
Appendix: frontier markets – a primer

Frontier countries are emerging markets with smaller external debt markets than the larger BRIC countries or other EM economies where external debt issuance is frequent and large. Frontier countries' Eurobonds (that meet benchmark requirements of at least USD 500 million) are included in the traditional EM sovereign index, the JP Morgan EMBI Global Diversified.

However, in 2011 JP Morgan created a carve-out of the broader EMBI Global Diversified Index – the JP Morgan Next Generation Market Index (NexGEM). A unique set of criteria exists for the NexGEM to select smaller countries of lower credit quality. Specifically, members of the EMBI Global Diversified, rated Ba1/BB+ or lower by both Moody's and S&P, which are not in the EU (nor seeking EU membership), and with a weight below 2% in the EMBI Global Diversified.



Sources: JP Morgan and UBP as at 31 March 2020.

The NexGEM Index currently accounts for 17.5% of the EMBI Global Diversified, a proportion that has been growing significantly in the past two decades where data is available (data goes back to 2001) until dropping recently with mark-to-market weakness. The index currently includes 35 countries and has a yield north of 6.25% with a duration of around six years. This compares favourably with emerging markets more generally, as you are compensated for the lower credit quality.

Most of the bonds in the frontier space are relatively liquid and trade in considerable volumes on a daily basis. The index does, however, also contain several smaller issues with only one bond outstanding that trades less frequently and in smaller volumes.

Frontier Markets	35 countries	YTW: 10.7%	Duration: 5.6 Y
Emerging Markets	74 countries	YTM: 7.0%	Duration: 7.2 Y

Sources: JP Morgan and UBP as at 31 March 2020.

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Rue du Rhône 96-98 | P.O. Box 1320 | 1211 Geneva 1, Switzerland | T +41 22 819 21 11 | ubp@ubp.ch | www.ubp.com