



A Silk Invest White Paper

The case for frontier market fixed income

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ABSTRACT

Frontier market debt is becoming increasingly attractive as an asset class, supported by the economic development of the less developed emerging markets. Analysis of the constituents of this off-benchmark asset class shows that allocation to it can potentially result in higher yield and better diversification. The authors argue that frontier fixed income should be included in strategic asset allocation using a technique known as reverse asset allocation

Introduction

Investors have now accepted that emerging market debt is a viable asset class that benefits from the mispricing of risk. Following the credit crisis of 2008/2009 the need for diversification has become a global phenomenon. This, and the strength of the BRIC economies, has boosted interest in emerging market debt. Unfunded long term liabilities, especially in the pensions industry and the low return environment heighten the attractiveness of diversifying through such an asset class. This White Paper takes that trend one step further and investigates the case for frontier market debt, an asset class in a region that is resource rich and underleveraged.

The underlying structural weakness of the United States and developed economies will result in an increasingly dominant role for emerging economies with strong financial balance sheets. Investors should take the new dynamics in the global financial system into account and adapt their asset allocations accordingly. As part of this trend, they should also consider asset allocation to frontier market debt.

Frontier markets are often small, illiquid fixed income markets that are generally considered to be at a much earlier stage of economic and financial market development than emerging bond markets (Broby 2008). They are more relevant than in the past because Central Asia and the Middle East have the benefit of solid capital reserves as a result of the revenues obtained from producing key resources. At the same time, many states in Africa and other smaller geographies are enjoying the benefits of globalization, industrialization, and technology. Meanwhile, the importance of non-oil revenues grows daily.

Suitability is the quintessential problem that faces investors considering frontier market debt. A policy asset allocation between equities, fixed income and cash equivalents is normally determined from the perspective of risk appetite. This allocation is then further subdivided between asset categories, including an international dimension. Clearly risk appetite is the wildcard that can result in the final allocation being sub-optimal in a mean-variance sense. That is because human intervention will mean



that the final allocation will not be the highest return available at the given level of expected risk. This happens largely because it fails to include the subset of assets where risk is structurally mispriced. Frontier markets fall into that category. We strongly believe this should be addressed.

Definition

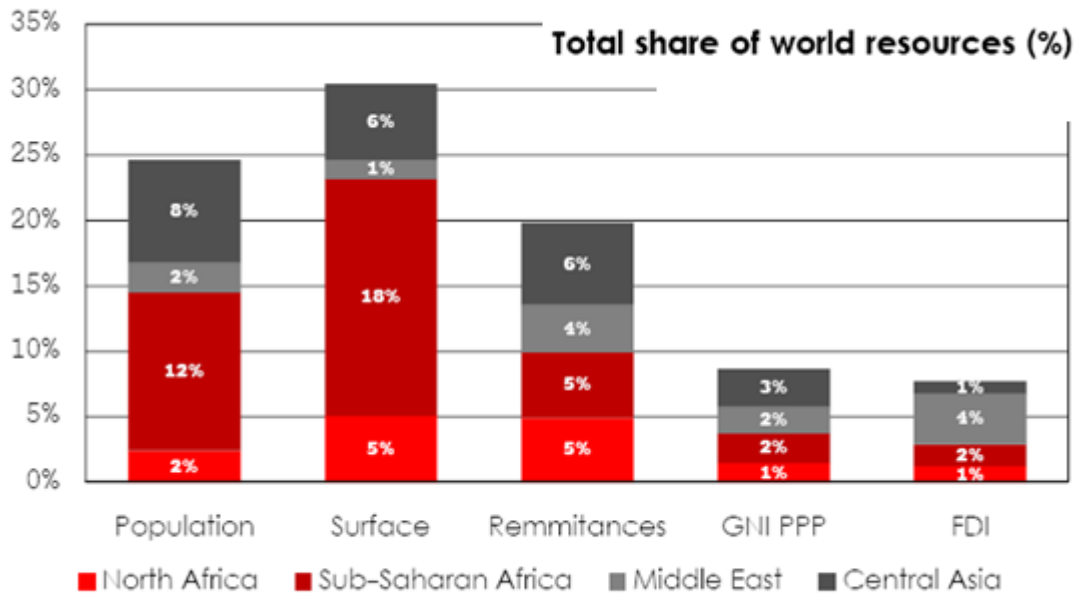
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Examples of frontier fixed income markets include Nigeria, Kazakhstan and Iraq (all oil producers). Some markets are classified as frontier due to their size, rather than economic development. Examples include Botswana, Mauritius and Jordan. Others are frontier due to their poor political infrastructure, such as Ivory Coast, Lebanon and Georgia.

The attraction of the frontier markets is that they are hardly represented in any of the benchmark Emerging Market Bond Indices. For example, Sub-Saharan Africa accounts for under 6%, while North Africa represents only 3% of the JP Morgan Emerging Market Bond Index (EMBI). A country like Venezuela has a larger weighting in the EMBI index than Africa, the Middle East (ex-Turkey) and Central Asia together. Active managers see this as an opportunity.

The Standard & Poor's Frontier Bond Market Index, meanwhile, is heavily biased to Nigeria and Kuwait, which together account for 44% of the index weighting. This again doesn't truly reflect the investment 'opportunities' available to investors. These indexes are built based upon debt outstanding and that the rationale is to have a benchmark in which one can actually invest. We would argue that in frontier markets active management is far more logical in view of the potential default risk from political change.

The frontier markets represent an impressive share of the worlds' resources and population. This is highlighted in the chart below. If we assume that investors instead allocate their portfolios based on Gross National Income (Purchasing Power Parity), investors could be justified in allocating a small percentage of their portfolio to the region. Obviously, debt issuance is lower in these countries, so based on outstanding issuance the weight would not be particularly high. The point, however, is that it would be above the zero percent most investors have in their allocation budget. Aggressive funds seeking return could make a real impact by allocating 5% to frontier markets.



Source: UCTAD; World Bank; Bloomberg; Silk Invest

Frontier markets contain some of the world's most attractive yet overlooked real assets. To name but a few examples:

- Saudi Arabia contains 19.9% of the world's proven oil reserves (the Middle East region has 55.6%);
- Nigeria has one of the fastest growing populations on the planet (at around 2.8% p.a.) with 40% of the populous under the age of 20;
- Angola is currently the largest producer of oil on the African continent;
- Qatar is by far the fastest growing economy in the world as measured by straight GDP growth (18%);
- The Republic of Congo is the second fastest (9.5%); our combined regions contain over one half of the world's natural gas reserves;
- Together, Ghana and Cote d'Ivoire produce nearly 60% of the world's cocoa beans.

These attractions aside, we have identified over \$380bn of fixed income debt across the frontier markets, with the Middle East accounting for 55% of the total (a figure distorted by the most prolific issuer in the combined region, Turkey). Nigeria, Morocco, South Africa, Turkey, Bangladesh, Pakistan and Sri Lanka have all issued over \$10bn equivalent in fixed income products. 86% of issuance across the frontier is in local currency, which in part explains why these regions have been overlooked by many international investors.

The resource nature of the frontier markets provide fixed income investors with some comfort. Take Kazakhstan as an example (Bates 2007). It is a vast, sparsely populated country but at 2.7 million square kilometres it is four-fifths the size of India. Admittedly, this is why it is able to borrow USD 11bn that it is struggling to repay. That said, with 3% of the world's oil reserves, the country is not



totally written off, just cyclically exposed, and thus represents a compelling investment opportunity at these levels.

Likewise, at the higher end of the credit scale, the Kingdom of Saudi Arabia (AA-) is bolstered by its pivotal position in the world oil market and its exceptionally strong domestic and external balance sheet. This is despite having substantially larger population to feed and employ than neighbouring Kuwait or Abu Dhabi, resulting in lower per capita performance numbers.

Background

Until the fall of 2008, emerging markets remained somewhat insulated from the global credit crisis. This changed as the crisis worsened and the flight to quality intensified. Global deleveraging and risk reduction trades led to outflows across emerging market assets.

The 2008 crisis was, however, not the first time emerging market debt has seen such upheavals. One has to acknowledge that emerging market debt now represents a different asset class, even compared to a few years ago. In the 1997-1998 period, after the Asian crisis and at the time of the Russian default, exchange rates were fixed in Russia, Brazil and Argentina. That crisis led emerging market debt countries to devalue and adjust their current accounts. The key emerging market debt players are now much stronger economically. This has led to the emerging market debt benchmark allocation becoming more heterogeneous and as a result, in our opinion, the alpha opportunities have moved off benchmark.

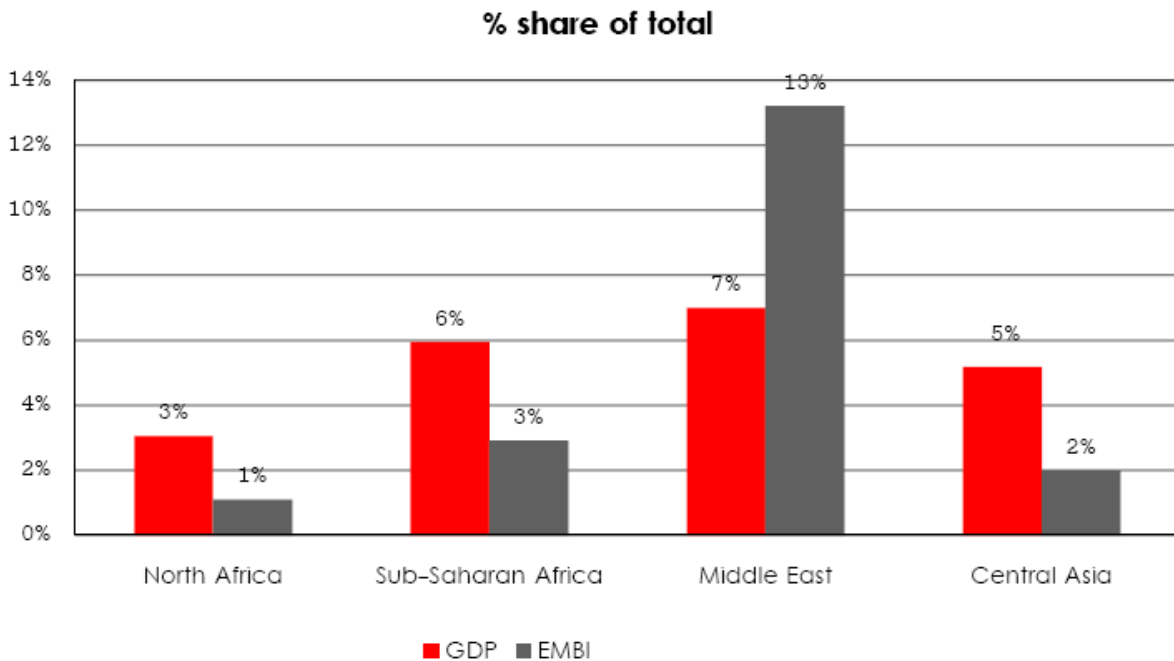
Looking at the riskier part of the credit curve, there are opportunities in frontier markets which are, as previously discussed, by definition off benchmark. In particular, there are opportunities in both local currency and dollar denominated bonds which have substantial upside and limited downside. From a portfolio construction standpoint, these credits with their higher beta and positive convexity profiles would allow investors to capture higher returns.

In searching for these higher returns, we would caution that to some extent dollar denominated frontier market debt and local currency denominated debt are two very different parts of the same asset class. They have different creditworthiness, country composition and are impacted differently by exogenous shocks such as commodity price movements. A balanced approach should be taken to preserve portfolio integrity.

Market microstructure

In the last decade the collective frontier markets have consistently out-stripped GDP growth across the globe as a whole, backed up by increasing FDI and M&A flows, low levels of debt, substantial capital reserves and natural resources, double-digit population growth, generally improving political and reform agendas as well as being located in complimentary strategic geographies.

The chart below shows EMBI issuance compared to GDP. As can be seen, sub Saharan Africa and Central Asia are under-represented.



Source: World Bank; Silk Invest

Note that in the case of the Middle East, the relatively high percentage share of the EMBI is skewed by a high allocation to Turkey within the EMBI weightings.

While sovereign credit is an obvious area to look at, frontier market corporate credit is also potentially attractive, albeit characterized by lack of supply. That said, only the strongest of companies obtain financing, which means the credit quality of these issuers is actually remarkably good. Typically, corporate issuers in the frontier markets have to achieve a strong level of transparency and management competency in order for them to successfully issue debt.

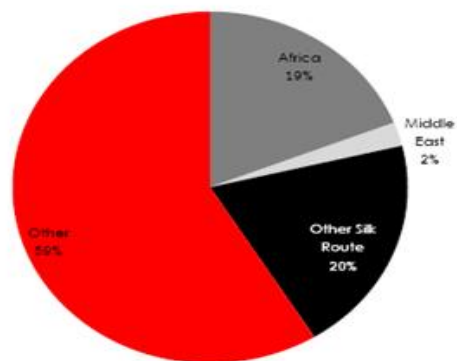
To this end, approximately 90% of frontier market fixed income issuance either carries a rating for either the issuer of the instrument or the issue itself from at least one of Moody's, Standard and Poors or Fitch. Typically, frontier market issues carry ratings ranging from "AA" (or "Aa2") at the more creditworthy end of the spectrum to "CCC+" (or "Caa1") at the lower end of the scale. There are countries such as Kuwait, Abu Dhabi and the United Arab Emirates from the top tier, while Pakistan, Rwanda and Moldova fall into the bottom categories. Approximately 30% of issuance, mostly in the Middle East region has a rating of "A" or above, while 60% of issuance fall between the ratings band of "BBB+" to "B+".

In many cases government-controlled entities or quasi-sovereign companies are able to raise debt capital on the strength of the underlying government support or by virtue of their strategic value to the sovereign as a whole. Normally, the financial sector, specifically banks, is the first to issue bonds due to their own balance sheet matching requirements. As a banking sector matures, the tenor of lending

business is extended, compelling the banks to seek out longer term capital raising solutions such as raising funds on the debt capital markets. For this reason approximately 70% of non-government or quasi-government debt issuance is from the banking sector in the frontier space.

The frontier markets are often associated with the HIPC Paris club, which has USD 330.2bn of outstanding debt. It stands to reason that a high proportion of frontier market countries have, and will continue to benefit from financial assistance, be it Paris Club or from other sources. In most cases the frontier market countries have nearly all be through some form of restructuring program. Cote d'Ivoire, Congo, Togo and Burundi are recent examples of Frontier countries having benefitted from some form of debt restructuring agreement with the Paris Club.

Paris Club global outstanding Debt (total \$330.2bn)



Evolution of markets

The successful evolution of a fixed income market depends on several factors, the first of these being a non-restrictive fee structure for prospective issuers of bonds. In many cases the lack of an established financial exchange makes the handling of debt instruments simply too expensive.

Secondly, volatile economic or political conditions and the ability to fairly price paper in undeveloped markets with little or no track record do not form a natural environment for strong liquidity.

Thirdly, frontier market corporate borrowers tend to have limited experience with the banks and are generally not highly levered (two exceptions being Kazakhstan and South Africa).

Finally, as the balance sheets of local institutions expand due to the growth in the pensions and insurance industries in frontier economies; it will inevitably result in increased demand for long term investment products denominated in local currencies. Essentially, we believe that this trend is what will provide additional support to the development of local currency markets as these investors will need to emancipate their long term investments from hard currencies in order to more efficiently match investments with long term liabilities.

Asset Allocation

The question for institutional investors is whether they should include fixed income in their asset allocation. The woes of the current account deficit countries in developed markets are well known.



They are also unlikely to go away as long as consumers continue to cut spending and increase savings.

Studies on emerging market bonds (Nemerever, 1996) suggest that the benefits of the bonds outweigh their risks. Interest rates and bond yield movements in frontier markets exhibit both stochastic volatility and unanticipated jumps.

A central issue for institutions that wish to include frontier fixed income in their portfolio construction is how much uncertainty should be assigned to risk/return data for the purposes of modelling changes in returns, volatilities, and co-variances given that the relative unsophisticated nature of these markets not always provide a clear view of expected values.

As a result, we would suggest that reverse asset allocation be employed. This involves three steps:

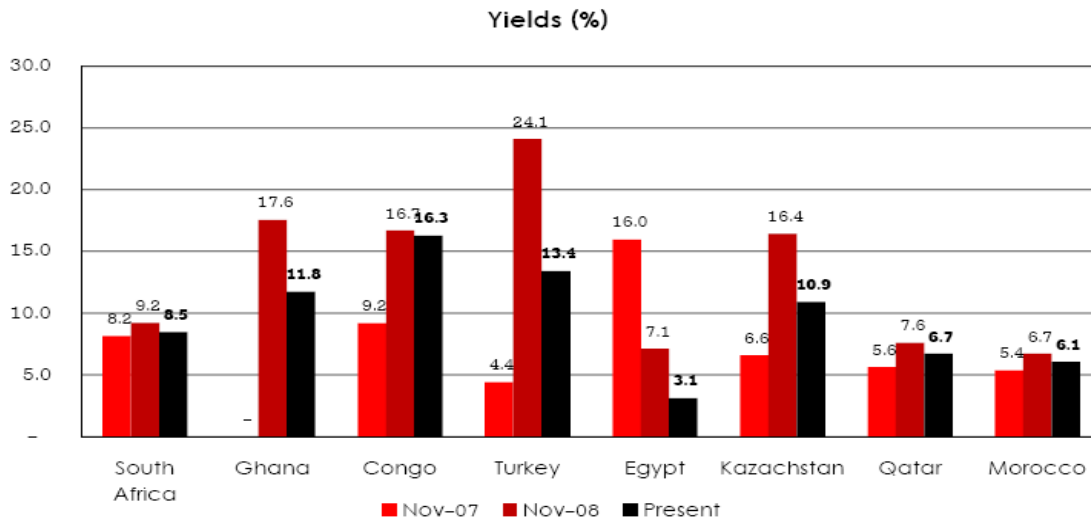
1. Making a conceptual shift that reverses the role of frontier fixed income assets in a diversified portfolio;
2. Setting targets or upper limits for allocations to frontier fixed income due to liquidity
3. Using traditional asset classes (equities and fixed income) to control overall expected portfolio volatility.

The traditional asset allocation process is too rigid to allow for accommodating structural change. As such, rather than thinking of frontier fixed income as an asset classes that should be added to a portfolio, institutions should view these off-benchmark instruments as core long term assets along with other emerging market fixed instruments. In other words, benchmarking to the way the world will be, not the way it is now. That way, developed markets equities and fixed income are really just an asset classes that complete the desired overall set of portfolio characteristics (e.g., expected risk and return).

Chan-Lau and Jorge (2005) conclude that the asset allocation of pension funds to emerging market fixed income in developed countries is likely to structurally increase. The same logic applies to frontier market fixed income.

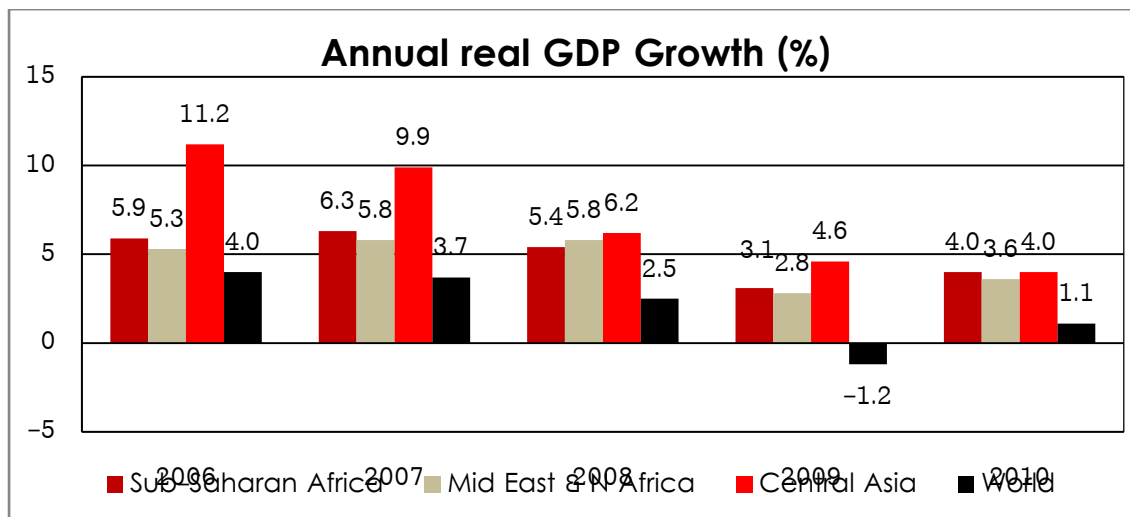
Attractiveness

Although yields have corrected, they still remain attractive relative to pre-Nov 2007 levels. Significant spread differentials exist within the universe. This is not only as a result of increased risk perception versus mainstream benchmarks (Kozhemiankin 2009). The markets, while substantial in size, are largely untapped by international investors and are therefore largely overlooked. The variance in yield across the universe is as high as 25%, while duration ranges from 3 months to perpetual structures. While these bands are extremely broad, it is recommend to apply active management to balance risk weighting across a diverse selection of geographic and industrial markets which will serve to maximise liquidity, as well as minimising credit, duration and currency risk.



Source: World Bank, Silk Invest

In terms of credit fundamentals, the frontier asset class is often underestimated. While enjoying accelerating foreign direct investment, having growing and young populations, being substantial contributors to world resources and having generally improving political and regimes are all key contributors to the investment case for the frontier markets. Indeed, GDP growth in the frontier regions far outstrips levels of the world as a whole.



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Frontier market corporate issuers tend to have relatively strong balance sheet fundamentals and are generally well managed. In most cases it is the most creditworthy companies which are able to tap the financial debt markets, and for this reason, the credit risk tends to be manageable. In the case of quasi-sovereign issuers, nearly all have credit ratings at the ceiling level of their respective government rating levels.

The biggest issue with the asset class is its liquidity. On the whole, government debt issues have stronger liquidity than corporate issues, although much depends on the absolute size of the issue in question, as well as the underlying creditworthiness. Liquidity risk exists within frontier fixed income markets because it may not be possible to sell bonds in the market at precisely the time an investor would wish to do so, at least at an attractive price.

In order to assist in tackling liquidity risk Silk Invest has developed a unique Liquidity Rating model, which enables close monitoring and the scoring of relative liquidity levels across the assets in the universe. Just as it is prudent to monitor exposure to less liquid assets, Silk Invest is mindful of the fact that when markets become vulnerable to liquidity flight, it is usually the more liquid assets which suffer the most because investors are more easily able to exit. We would recommend spreading liquidity risk across a diverse asset base.

Conclusion

The frontier fixed income asset class offers unique investment opportunities with the potential for high income and high total returns in a low return environment. These markets are relatively uncorrelated with other asset classes, thus providing significant diversification potential for both fixed income and equity portfolios.

With improving fundamentals, many frontier market economies are undergoing a multi-decade reform process toward more open economies. This will lead to higher credit quality, lower defaults, and more supply.

Going forward, we expect strong economic growth in Africa and the Middle East and additional IMF assistance to the remaining countries that are demonstrating good fiscal management. This all equates to opportunity in frontier fixed income. We would argue that this means that a small proportion should be allocated to the asset class as part of the strategic asset allocation of institutions.

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References

Bates, John., 2007. Kazakh Bank Comps (for ABN AMRO)

Broby, Daniel., Spring 2008. Professional Investor. 'One of the world's best kept secrets. Daniel Broby explains why the times has come to take notice of Africa's fixed income opportunities.' p 42-p43

Chan-Lau, Jorge A., 2005. Pension Funds and Emerging Markets. Financial Markets, Institutions & Instruments, Vol. 14, No. 3, pp. 107-134, August 2005.

Cross, James., 2008. Managing foreign debt and liquidity risks in emerging markets: selected issues from a South African perspective – pp,147-153

Kozhemiakin, A, 2009. What is Emerging in Emerging Market Debt, CFA Institute Conference proceedings, June, Pages 56-65.

Nemerever, William L., 1996. Opportunities in emerging market debt. In Investing worldwide vii: Focus on emerging markets. Charlottesville, VA: Association for Investment Management and Research

Important information

Stock and bond values fluctuate in price so the value of your investment can go down depending upon market conditions. Investing in frontier fixed income involves risks, including risks related to foreign currency, limited liquidity, less government regulation, and the possibility of substantial volatility due to adverse political, economic or other developments.

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