



Altica Perspectives:

Resolving the Emerging Markets Portfolio Allocation Conundrum

Africa: Diversified

Altica Partners Management Ltd. August 2018.

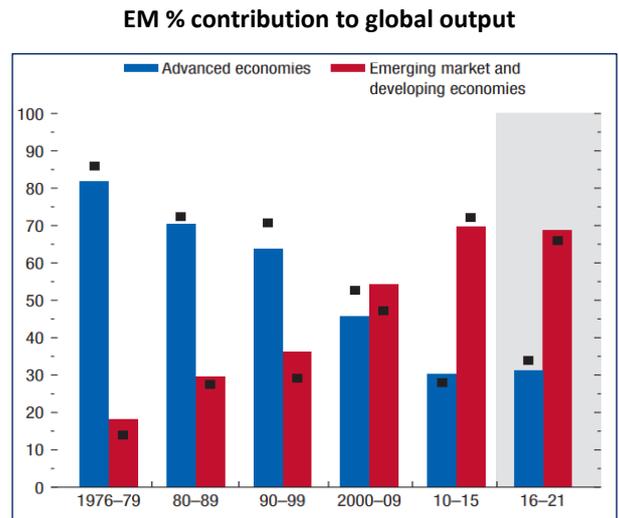
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Introduction

- Today, two-thirds of global growth is occurring in emerging markets (EM), yet investors are structurally under-allocated to these economies.
- Allocations to EM debt only represent 2 – 5% of institutional portfolios (and only 20% of pension funds have any allocation), whilst EM equity exposure is typically 5 - 10%.
- We characterise this as the ‘EM Portfolio Allocation Conundrum’.
- This paper explores possible reasons behind this remarkable incoherence between EM growth and portfolio allocations, including risk perceptions related to the extrapolation of historic volatility and geopolitical risks.
- We discuss several challenges facing investors in developed markets (DMs) including: funding ratio adequacy, rising pension liabilities, plan return assumptions and optimistic long-term capital market return assumptions. We believe secular concerns in DM will reinforce these challenges. These concerns relate to lower growth, higher debt burdens and low yields in highly distorted and mispriced markets. Cumulatively, these factors reinforce lower long-term asset return prospects.
- We proceed to argue the case for higher EM and frontier debt exposure (at an asset class level) on their fundamental merits. These include higher economic growth, stronger creditworthiness and attractive Sharpe ratios, amongst other factors.
- We conclude by observing that by maintain excessive allocations to DMs, particularly in fixed income, investors are locking in low – and inadequate - returns at unattractive asymmetries.
- Higher allocations to EM should therefore enhance both return potential and diversification power for international portfolios.

The Increasing Dominance of EM Growth

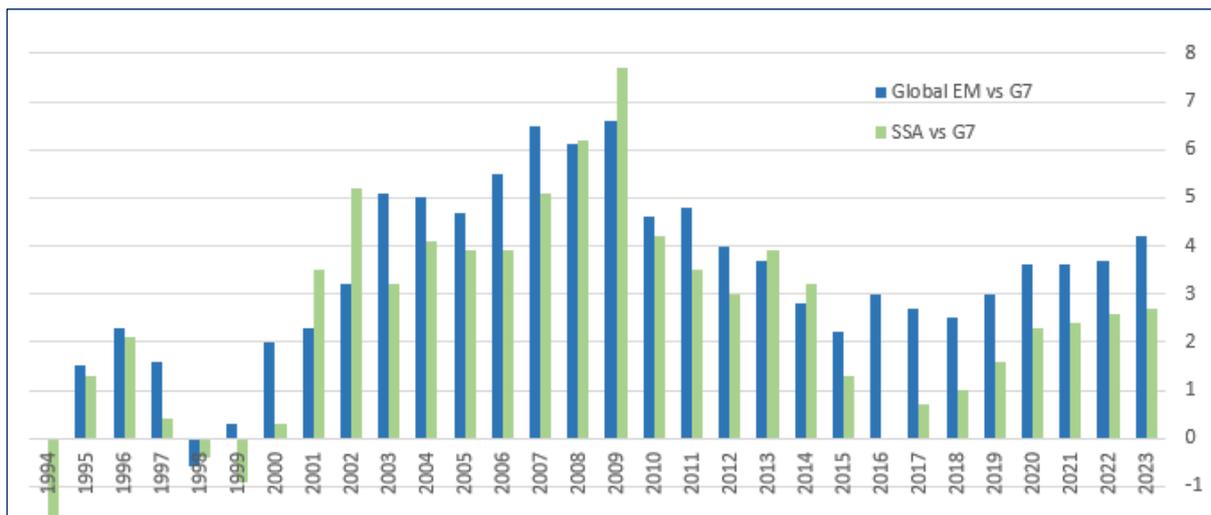
- Emerging markets now account for over two-thirds of global growth.
- McKinsey’s ‘Emerging 440’ cities are expected to generate 50% of global GDP growth by 2025.
- Emerging markets’ contribution to global GDP (PPP basis) is estimated to comprise 45% by 2020, up from 35% in 2010.
- The Institute for International Finance estimates by 2030, EMs will contribute 60% of global GDP.
- 85% of the world’s population lives in emerging markets.



Source: IMF World Economic Outlook, April 2017.

Growth levels and momentum are structurally higher across global emerging markets, led by developing Asia. Sub-Saharan Africa has consistently been the second fastest-growing global region since 2000. In contrast, growth is trending lower in advanced economies (G7).

Evolution of growth premia between EM and DM, 1994 – 2023(p)



Source: IMF World Economic Outlook (April 2018) and Altica Partners.

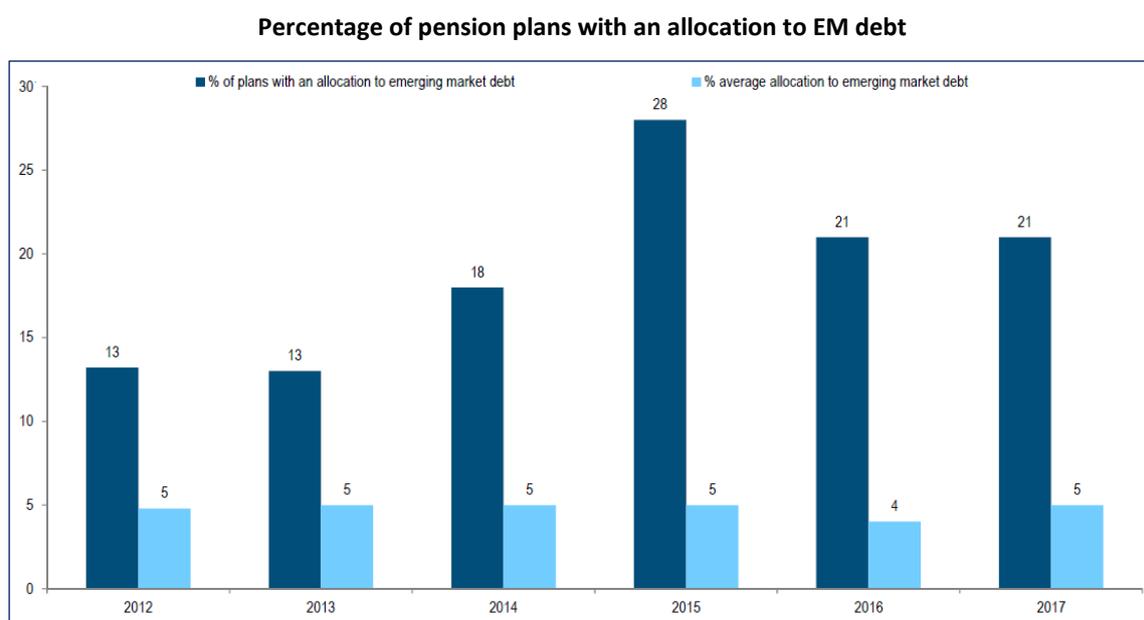
IMF World Economic Outlook projections (April 2018) foretell a **material growth divergence** over the next five years, with advanced economics averaging 1.6% growth, and emerging and Sub-Saharan Africa economies averaging 5.1% and 3.8%, respectively.

EM Portfolio Allocations: A Conundrum

Emerging markets are a heterogenous group of countries shaped by different characteristics. Yet EM practitioners have observed for some time that this reality continues to be under-appreciated by many international investors. **EM risk is frequently aggregated in a portfolio context;** moreover, investors are structurally under-allocated to emerging economies.

Various surveys of global investor allocations (including pension funds, insurers and official institutions) indicate that dedicated portfolio allocations to EM debt allocations are 2 – 5%, and exposure to EM equities is typically 5 - 10%. **This under-allocation is remarkable given the persistence of diverging growth fortunes between emerging and developed markets over the last two decades.**

To illustrate, research by JP Morgan¹ indicates European institutional investors' typical EM debt exposure.



Why Does This Conundrum Exist?

We believe many investors suffer from what we think of as a 'developed market bias'². Such a low level of EM exposure is usually attributed to risk perception across two dimensions:

1. An **extrapolation of higher historic asset class volatility in EM**, despite higher realised and prospective risk-adjusted returns.
2. A **perception of greater geopolitical risk in EM** relative to 'developed' markets where such risk is less well perceived.
3. Investors also frequently cite an **insufficient understanding of EM** as a barrier to investment.

¹ JP Morgan, EM Local Markets Guide 2018.

² We see this as a more specific form of the generalised 'home bias' phenomenon. Another way of looking at this is to see it as a behavioural bias known as "core/periphery disease" – a self-referential belief system, or prejudice, that emerging markets are fundamentally riskier places to invest than DM. The term was introduced by Jerome Booth (ex-Head of Research at Ashmore Group) in Emerging Markets in an Upside Down World: Challenging Perceptions in Asset Allocation and Investment, 2014.

Challenges Facing Investors in Developed Markets

We believe generating adequate and consistent returns from conventional asset allocations in DMs will be increasingly challenged in future years due to well-telegraphed adverse secular trends. These include demographics (dependency ratios), slowing labour force expansion, productivity, capital formation, and sovereign and private debt levels.

The dominant challenges facing pension plans with excessive allocations to DMs include:

1. Funding ratio adequacy
2. Rising pension liabilities
3. Plan return assumptions
4. Optimistic long-term capital market return assumptions
5. Secular concerns in DM reinforcing lower asset return prospects

Funding ratio adequacy

Taking US state and local pensions as a proxy, the aggregate actuarial funding level was 72%, according to NASRA's 2017 Public Fund Survey³, where liabilities have grown to USD4.4 trillion.

This level of underfunding is not unique to the public sector. A Mercer study in 2018 of S&P 1500 corporations over the last decade found that overall funding ratios⁴ oscillated between c.70 – 85% on average. In 2017, MSCI⁵ undertook a global study of corporate pensions on a per country basis (with varying sample sizes) and estimated funding ratios ranging from 99% in Australia to 87% in Switzerland.

Rising pension liabilities

Reinforcing the **global nature of these challenges**, a World Economic Forum⁶ study published in 2017 found that for the world's six largest pension systems (USA, UK, Japan, Netherlands, Canada and Australia), together with the two most populous countries in the world (China and India), the combined pension shortfall (or, equivalently, retirement savings gap) by 2050 will be USD400 trillion. This equates to a growth rate in liabilities of 5% annually. Further, 75% of the USD70 trillion gap (as of 2015) is an **unfunded government pension liability**, with the remainder obligated to the private sector.

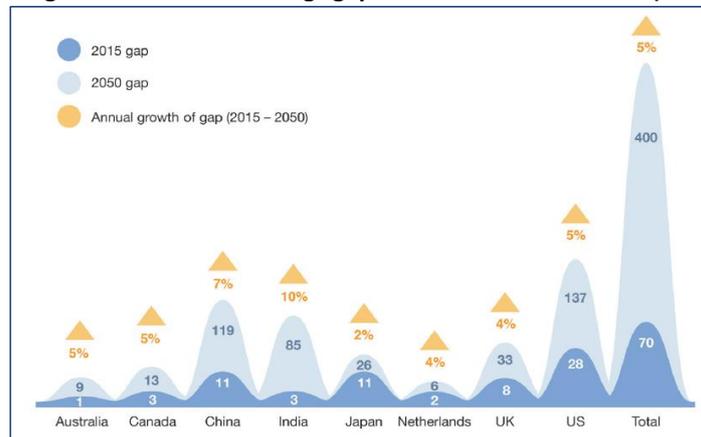
³ National Association of State Retirement Administrators. <https://www.nasra.org/publicfundsurvey>.

⁴ Mercer, May 2018. <https://www.mercer.com/newsroom/may-2018-pension-funded-status-remained-level-in-may.html>.

⁵ MSCI Global Pension Study, September 2017.

⁶ World Economic Forum, Global Pension Timebomb, May 2017.

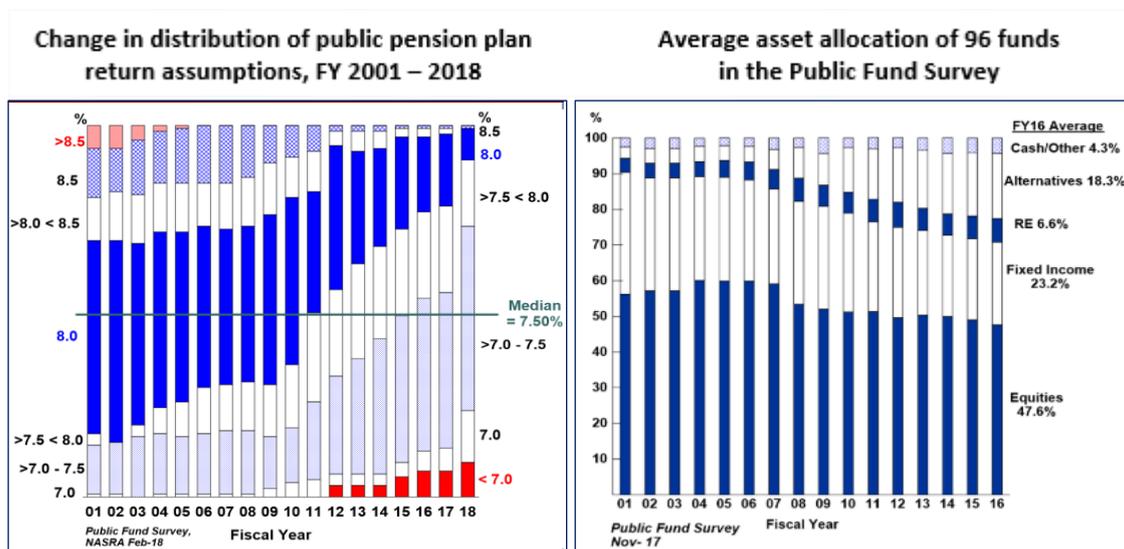
Size of the global retirement savings gap between 2015 and 2050 (USD, trillion)



Source: World Economic Forum, 2017.

Plan return assumptions

Driven by low interest rates and a lowering of expected capital market returns, **projected return assumptions are being progressively marked down**. Pre-financial crisis, the median expected pension plan return was 8%; in 2018 that figure had fallen to 7.5%⁷. This cadence is illustrated in the chart below (left); the evolution of typical asset allocations is also shown (below right).



Source: National Association of State Retirement Administrators, 2018.

⁷ Some industry participants argue that even a 7.5% plan return is too optimistic, and that pension plans should be more conservative and lower the target towards 5%. One such example is Howard Marks, Co-Chairman of Oaktree Capital Group. Cited in "5% Is the New 8% for Pension Funds", Bloomberg, August 2017.

Long term capital markets return/risk assumptions

Long-term expected returns across multiple asset classes are presented in the table below.

Capital Markets' Long Term Expected Returns (10+ years)							
Asset Class	Annualised Returns (%)	Annualised Volatility (%)	Return/Risk Ratio	Asset Class	Annualised Returns (%)	Annualised Volatility (%)	Return/Risk Ratio
SOVEREIGN DEBT				EQUITIES			
Global government bonds	2.0	5.3	0.37	DM equities (ex US)	6.2	15.5	0.40
US Treasuries (intermediate)	2.4	5.6	0.42	US large cap equities	6.5	15.1	0.43
US Treasuries (long)	2.8	13.0	0.22	US small cap equities	7.5	19.1	0.39
EUR govts	1.8	4.0	0.45	Japan equities	6.8	15.3	0.45
JBGs	0.3	3.5	0.09	European equities	7.7	18.9	0.41
EM sovereign credit	5.5	10.9	0.50	EM equities	9.8	21.5	0.46
EM local currency sovereigns	7.3	12.8	0.57				
CORPORATE DEBT				COMMODITIES			
Global corporates	2.6	6.0	0.43	Commodities	5.2	17.3	0.30
US IG corporates	3.2	5.9	0.54	REAL ASSETS			
US HY corporates	5.4	10.3	0.52	US private equity	8.5	22.8	0.37
EUR IG corporates	2.6	4.0	0.65	US private debt	7.2	9.8	0.74
EUR HY corporates	2.8	12.0	0.23	US real estate	6.3	17.5	0.36
EM corporates	5.8	8.5	0.69	Global infrastructure debt	4.4	5.5	0.80

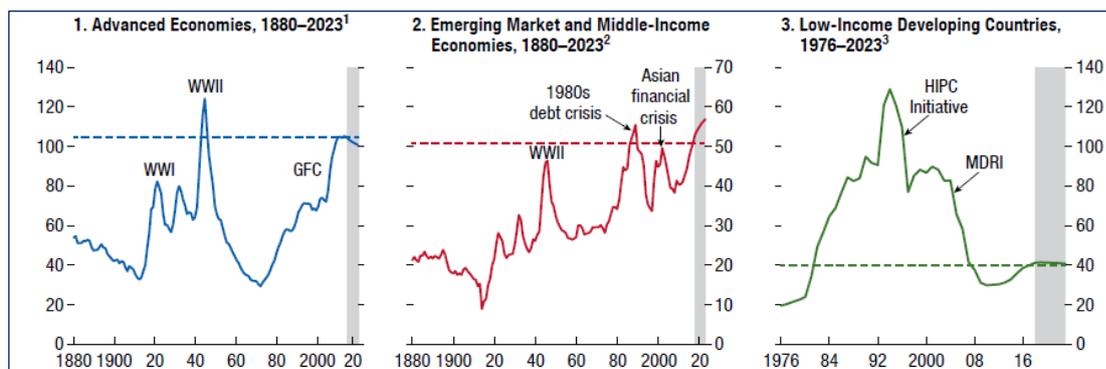
Sources⁸: JP Morgan, SSGA, Altica Partners.

Expected returns in DM sovereign fixed income average 1.8% (annualised) over the next decade, with a corresponding volatility of 6.3%, resulting in a reward/risk ratio of 0.31. In comparison, EM debt expected returns are 6.4%, with a corresponding volatility of 11.8%, and a reward/risk ratio of 0.54. **Effectively, by investing in EM, investors are being paid x3 the return for taking less than x2 the volatility.**

Secular concerns in developed markets

Considering both secular economic trends and asset class characteristics, we believe that high allocations to DM (relative to EM) appear increasingly unjustified, taking into account the following considerations:

- DM economies have become increasingly encumbered with an unenviable mix of **structurally lower growth rates and higher debt/GDP burdens** that have been accentuated since the GFC.



⁸ JP Morgan Long-Term (10 – 15 years) Capital Market Assumptions, 2017; and SSGA Long-Term (10+ years) Asset Class Forecasts, 2017.

- **Official debt metrics materially understate true sovereign debt burdens in DM.** Eg: the official central government debt for USA is 108% of GDP. Including pension and health care liabilities raises the true debt burden to 258% of GDP (Source: IMF Fiscal Monitor, April 2018).
- **Central bank balance sheets (USD 16 trillion, 40% GDP) globally will remain high over the next decade in absolute terms and as a % of GDP, barring exceptional policy shifts.** Central bank dominance will continue to suppress core yields. Eg: the BOJ owns 43% of outstanding government debt.
- We anticipate **demographic challenges and productivity growth constraints will contribute to dampening the upside level of policy rates in DM**, with the zero lower bound being encountered more frequently in the years ahead.
- A combination of extraordinary monetary policy (particularly in the USA, Europe and Japan) - reinforced by investors' demand for yield - has given rise to **historically elevated valuations in artificially priced and distorted markets.**
- **Long-term expected return projections** in DM on both an absolute and risk-adjusted basis.
- **By maintaining excessive DM exposure, investors are effectively locking in low – and inadequate - returns at unattractive asymmetries** which are most pronounced in DM assets.

Using the Barclays Global Aggregate Bond Index as a proxy, investors have never been paid so little (2% yield) to take so much duration risk (7). This means a 1% rise in US Treasury yields translates into a loss of 7%.



- To summarise, we believe that **investors are not being adequately compensating for taking risk in DM.**

The Case for Higher Exposure to Emerging Markets

Emerging market debt

The term ‘emerging (or ‘growth’) markets’ refers to a set of countries that are in a process of transformation between developing and developed status.

We believe that EMs offer investors:

- **Attractive risk-adjusted returns,**
- Additional **diversification through lower correlations** to mainstream bond markets, and
- **Exposure to superior macroeconomic growth prospects.**

The attractions of EM are driven by:

- Burgeoning consumer markets driven by **urbanisation** and **private consumption trends**.
- A **structural demographic dividend** and **growing labour force** underpins higher and sustained long-term demand for goods and services.
- Improving **business and regulatory environments**.
- Greater focus on **structural reform** (eg: trade, pensions).
- **Lower public sector debt / GDP ratios** and **stronger creditworthiness** than DMs.
- **Infrastructure** investment requirements.
- **Rising FDI and portfolio investment**, attracted by growth and productivity potential.

Frontier market debt

Frontier markets can be seen as **subset of emerging markets** which encompass countries across Asia, Latin America and Africa. Here we believe **international investors can benefit from exposure to a diverse set of economies with distinctive economic/political systems and financial cycles which are at earlier stage of development** than mainstream EMs.

We believe frontier markets should form a **complementary EM allocation** to international investors’ portfolios because they offer:

- Portfolio diversification benefits through:
 - **Higher risk premia** (absolute and relative to DM and mainstream EM); and
 - **Materially lower correlations** to competing risk assets and US Treasuries.
- Drawdowns offer **competitive levels of resilience** to competing markets.
- Fixed income markets are **driven more by idiosyncratic country risks**.
- Stronger opportunities for alpha generation in **less efficient capital markets**.
- **More attractively priced risk** (lack of distortionary effects by central banks).
- Access to a **diversity of economic opportunities** with distinctive financial/political cycles.

One challenge for ‘super large’ investors investing in frontier markets relates to size and liquidity considerations. These can be limiting factors to making significant allocations (as a % of their portfolios) to frontier markets.

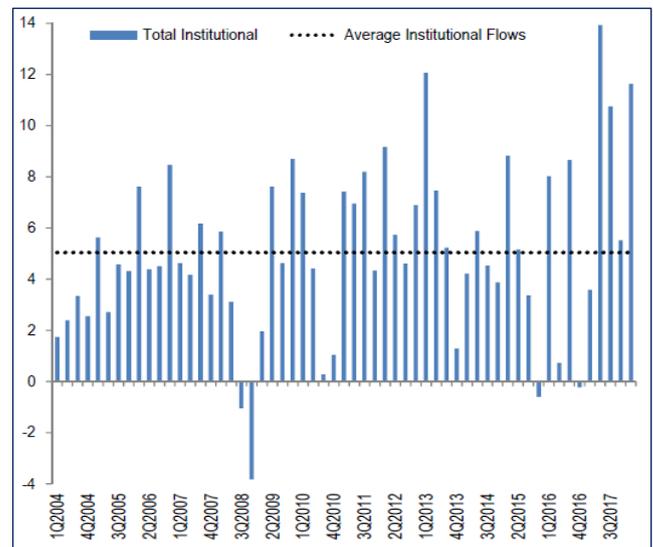
It is worth remembering that in a historic context, **the evolution of the size and depth of mainstream EM debt markets has been profound as countries’ borrowing needs have grown and yield curves have been extended**. Having grown in size from c.USD3 trillion in 2000, they now represent c.20% (equivalent to c.USD20 trillion) of global debt markets, with the majority of growth coming from local currency markets. In comparison, the size of the US Treasury market is c.USD15 trillion.

With this in mind, we think that such investors should see taking a notional level of exposure as an opportunity to **engage early and learn about the characteristics of frontier debt markets** as they evolve, with a view to allocating more over time as markets develop.

Ultimately, we see a **virtuous cycle** emerge where investors provide liquidity, which in turn reinforces financial market and economic development.

Institutional inflows to EMs (USD, billion)

Encouragingly, despite the persistence of the EM portfolio allocation conundrum, institutional investors are increasingly recognising the importance of emerging markets, and gradually raising their exposures.



Source: JP Morgan, 2018.

Further Considerations for Investing in Emerging Markets

Here we revisit the 'EM Portfolio Allocation Conundrum' and seek some reasons as to why it is persistent. We previously attributed much of the answer to risk perceptions stemming from an extrapolation of historic volatility and geopolitical concerns. We present our views on more detail.

First, we observe that preconceptions, or biases, exhibit a tendency to suffer from inertia. Emerging markets as a group still seem to suffer from what Daniel Kahneman⁹ described as a 'negative halo effect'. This despite the fact that many **EMs in aggregate are fundamentally more creditworthy than DMs, have more attractive Sharpe ratios, and have arguably better priced risk.** Indeed, geopolitical risk in emerging markets is entirely expected, yet often comes as a surprise in the developed world where one can postulate that it has been structurally underpriced as we saw with the European sovereign debt crisis starting in 2010, and more recently following the Italian general election in 2018, particularly in front end yields.

Second, perspective matters. Economic transformations are invariably decades in the making. Indeed, they are frequently unappreciated until the shift has reached the conceptual equivalent of a half-life. This might be attributed to a reference point bias: comparisons are frequently made on current growth data rather than historic development patterns.

Perhaps surprisingly, economists less than a decade hence were still debating¹⁰ the precise reasons for India's economic transformation which started in 1991, when the nation launched a wide-ranging liberalisation programme and progressively opened up its markets to entice foreign investment. Once popularly characterised as suffering from the 'Hindu rate of growth' for much of the 20th century, the country has, since 2000, achieved an average annual growth rate in excess of 7%. In April 2018, PM Modi announced that all villages had access to electricity, whereas in 1990, only 72% had access. This point captures the scale of adjustment that has taken place in the world's second largest country in the space of only three decades.

⁹ Daniel Kahneman, *Thinking Fast And Slow*, October 2011.

¹⁰ See for example 'India's economic transformation – a snapshot' from an inaugural address by Dr K C Chakrabarty, Deputy Governor of the Reserve Bank of India. Published by the Bank of International Settlements in September 2009.

Asset class volatility has fallen as EMs have matured

Investors with long memories will recall periods when EMs underwent recurrent phases of considerable volatility. **Latin America's 'lost decade' in the 1980s** occurred due to a combination of debt build-ups and high real interest rates, having benefitted from a recycling of petrodollars in the prior decade. Defaults occurred in Mexico in 1982, followed by Brazil, Argentina, Uruguay and Venezuela.

In 1990s and early 2000s, the region again succumbed to a series of crises. Mexico effectively defaulted on its tesobonos following the devaluation of its peso in 1994; Brazil suffered financial crises in 1998 and 2002. Argentina's USD95 billion default occurred in 2002.

The **Asian currency crisis in the late 1990s** was precipitated by a mix of capital inflows attracted by high short term interest rates and excessive property speculation. Implicit dollar pegs were the weak link. Thailand's central bank suffered losses on FX intervention in mid 1997, setting off a wave of contagion around the region. Malaysia, Indonesia, the Philippines and South Korea were compelled to obtain significant IMF bailout packages. A default, debt moratorium and FX devaluation soon followed in Russia in 1998.

Since these volatility episodes, the more successful EMs have learned to appreciate the perils of fiscal improvidence, as they embarked on a process of minimising external vulnerabilities. These included fortifying their balance sheets through FX reserve accumulation, undertaking market-orientated reforms and shifting towards orthodox policy management, including the progressive adoption of inflation-targeting regimes.

Mainstream EMs were not immune to the **2008 global financial crisis** emanating from developed countries in 2008. Yet two observations are informative from GDP growth comparisons: i) they did not suffer *more* than DMs, avoiding the historic pattern of amplification from external shocks and ii) they recovered more quickly than DMs which were more highly leveraged across multiple sectors.

So what changed and why? As the World Bank, IMF and others have argued¹¹, this represented a 'structural break' from previous crisis episodes.

- In aggregate, **EMs policy responsiveness had matured** and become more sophisticated and so the countercyclical policy response was considerably faster and effective.
- **EMs also had a lower incidence of vulnerabilities** including lower credit risk, and stronger buffers which fortified their resilience to external shocks.

¹¹ How resilient and countercyclical were emerging economies to the global financial crisis? World Bank, April 2011. How Did Emerging Markets Cope in the Crisis? IMF, June 2010. Emerging market resilience, VOX CEPR Policy Portal, August 2011.

The **Taper Tantrum in 2013** can be seen as a healthy reminder to EMs of the importance of retaining their comparative resilience. In response to the Fed signalling a tapering of asset purchases, risk premia rose sharply across more vulnerable countries. Bond yields rose on average c2.5 percentage points and currencies depreciated nearly 15%. Vulnerabilities across the so-called 'Fragile Five' - namely Indonesia, Brazil, India, Turkey and South Africa - were characterised by a combination of weaker growth, large external financing needs and current account imbalances.

The **composition of the investor base in EM has also changed since the 1990s**, where speculative and leveraged money was more dominant and amplified capital flows. There have since been higher levels of participation from Western institutional investors, as well as domestic (ie EM) investors in local currency markets.

Cumulatively, **these developments have contributed to a decline in short-term asset price volatility** at an asset class level.

To illustrate, **the average volatility (rolling 1 year basis, monthly frequency) of the J.P. Morgan EMBI Global Diversified Composite has fallen to 14.9% over the January 2012 to June 2018 period, from 29.8% between January 1996 to December 2001**. Comparative figures over the same periods for the Bloomberg Barclays Global-Aggregate Total Return Index were 9.6% and 10.9%, respectively.

The symmetry of geopolitical risks between EM and DM has become more balanced

There is a prevailing misperception that geopolitical risk is, by construction, higher in EM relative to DM. This view had merit in past decades, especially in the 1980s through to the early 2000s.

Our contention today is that we see geopolitical risk as a global phenomenon inherent in both developed and emerging markets (ie it is not unique to emerging or frontier markets) as illustrated in the chart below.

Geopolitical risks: are emerging markets unique?



Source: Altica Partners¹².

A primary source of geopolitical risk in 2018 emanates from developed markets (not unlike 2008) with respect to US policy formation and trade. Emerging markets that are the most highly integrated into the world economy through their supply chains and financial markets have repriced the most, particularly in Asia (at the time of writing). Notably, countries that are less integrated into the world economy, such as those in Africa, have been less affected and asset performance has lagged risk aversion seen in other EMs. Clearly there are other sources of idiosyncratic risk in EM, most prominently in Turkey and Venezuela, although we see contagion effects from these as negligible.

More generally, **we think that events in the decade since the GFC have demonstrated that the scope of geopolitical risk has shifted to DM** given policy challenges and the so-called rise of 'populism'. More importantly, we think this shift will continue to propagate in the years ahead, such that this **prejudice towards EMs will become increasingly invalidated**.

¹² Headlines from various sources primarily over 2016 – 2018 period. Sources include Bloomberg, Reuters and the FT. *RBC economist Tyler Broda (2018). [^]Arif Naqvi (2015). ^{^^} George Soros, address to European Council on Foreign Relations in May 2018.

The process of convergence

In the late 1970s, EMs accounted for less than 20% of global growth, whereas now they account for two-thirds, with the cross-over point occurring around the turn of the 21st century. **This trend is set to intensify over the coming decades.**

The fall of the Berlin Wall in 1989 and end of the Cold War in 1991 marked an ideological shift towards capitalism for many countries around the world. A focus on promoting economic development and liberalisation accelerated the process of globalisation. **Over the 1990 – 2016 period, annualised per capita GDP growth rates experienced by EMs have been significantly higher than DMs.** For example, the USA and Europe have averaged GDP per capita growth rates of 3.5%, where in Asia, India has grown at 7%, and Vietnam at 7.6%; in Africa, Ethiopia has achieved 5.7% and Ghana, 4.9%.

Following an accelerated growth trajectory can only be achieved by countries with the right blend of macroeconomic endowments, demographic profiles and governance frameworks. **The central challenge for investors is to distinguish between countries which are likely to outperform (and in time, graduate) vs those that will languish.**

For example, as Charles Robertson¹³ has pointed out, the industrialisation process that took the UK a couple of centuries to achieve was emulated by the USA and Germany in the 19th century, followed by Japan which embarked on economic reform and industrialisation in the 1960s.

Driven a remarkable fusion of state capitalism, China embarked on a series of market-orientated economic reforms in 1978 and became the world's 2nd largest economy in the space of 30 years.

The high income Asian 'Tiger' economies of Hong Kong, Singapore, South Korea and Taiwan experienced significant growth rates of 7 – 10% pa from the 1970s, with countries like Thailand, Malaysia and Indonesia replicating this performance over the 1980-90s. **One remarkable aspect about this regional transition was that it was not widely anticipated,** as prior to the 1970s the region was threatened with war and geopolitical instability, as well as being resource poor.

We think the idea of convergence is therefore of fundamental importance as a secular theme. It is a complex topic. Nonetheless, it captures the idea that less developed nations, given certain conditions, can experience accelerated growth rates over long horizons relative to mature countries where growth is slower as diminishing returns are encountered.

¹³ Renaissance Capital's Global Chief Economist & Head of Macro Strategy.

Conclusions

In this paper, **we have observed that despite two-thirds of global growth occurring in EM, investors are structurally under-allocated to these growth economies.** Portfolio allocations to EM equities are typically 5 - 10%, and EM debt allocations are smaller still at 2 – 5% (and only 20% of pension funds have any allocation). Reasons for this incoherence have been discussed.

Looking forward, Sharpe ratios across multiple asset classes - especially in DM fixed income - are likely to be markedly lower than in previous decades. Of particular concern to investors is that we think low growth and bond yields in DM, for myriad reasons, are insufficient to generate the required returns for liability-driven investors.

Such considerations prompt the question as to whether liability-driven investors are being adequately compensated for risk in mainstream fixed income asset classes. In this respect, **volatility is not the same thing as risk.** To reinforce the point, the true “risk” for a liability driven investor is the risk of not generating a sufficient level of return to meet future contingencies, in turn putting additional strain on sovereign balance sheets.

Ultimately, we think this herding behaviour in DM allocations creates an illusion of safety and a risk of complacency. Investors are effectively locking in low – and inadequate - returns at unattractive asymmetries. In effect, we are saying that excessive caution can be imprudent. Indeed, as Warren Buffet¹⁴ recently observed, “high-grade bonds in an investment portfolio increase its risk.”

On the other hand, we believe EMs offer the prospect of higher risk-adjusted returns in fundamentally more attractive economies from growth and creditworthiness perspectives. **Higher allocations to EM should therefore enhance both return potential and diversification power in international portfolios.**

Encouragingly, we observe that forward-looking investors have in recent years extended the diversification parameters of their portfolios by increasing allocations to alternatives, including private markets. For the most part however, this reconfiguration is only partially complete, as much of the diversification has taken place within DM. Nonetheless, **we believe portfolio allocations to EM are poised to accelerate in the coming years.**

¹⁴ Warren Buffet quotation from his annual Omaha meeting in February 2018. <http://www.berkshirehathaway.com/letters/2017ltr.pdf>.

Investment Risks

Frontier markets in general pose similar, albeit accentuated risks to more established emerging markets, in part to their smaller size, less well developed and tested institutional frameworks, less liquid capital markets and overall level of development. Frontier countries typically have non-investment grade credit ratings. Key risks can result from: less liquidity, currency depreciations/controls, commodity prices, higher economic volatility, inflation, less predictable geopolitical and policy environments, as well as capital outflows, amongst others.

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