

# Emerging Markets

## The Case for Small Cap Equities

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## Foreword

Investors are clamouring for exposure to the explosive growth of consumption in emerging markets from a burgeoning middle class that is rapidly increasing in affluence. Yet traditional investment strategies in this space typically track or reference market capitalisation-weighted indices. In many cases, developing nations' stock markets are dominated by commodity or energy giants that offer only secondary exposure at best to what is likely to be the biggest future driver of these markets – domestic consumption. Indeed, most institutional emerging market portfolios concentrate on only a few hundred stocks that make up the “standard” indices of providers such as MSCI, S&P, FTSE and Russell. Whilst many investors are now increasing exposure to Emerging Markets, and may be diversifying managers, they are often only buying more of the same large cap companies. This does little to aid diversification or enhance long term returns. Moreover, it ignores the vast majority of emerging market listed stocks. This paper explores the opportunities for investors seeking to broaden their emerging market exposure through investing in smaller capitalised companies.

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## Executive Summary

### Background

- Emerging countries are decoupled from developed in the sense of having sustainably higher growth rates. This is being driven by the rise of increasingly affluent middle class consumers.
- Globalisation and the liberalisation of economies has been a prime mover behind this development.
- Institutional investors are moving to the realisation that emerging market equities should form a core component of their portfolios. However, many of the best known managers have reached capacity constraints.
- Frameworks for investment in emerging markets inevitably focus on the largest and most liquid stocks. As a result, investors may find themselves underweight smaller companies that are much more exposed to the growth drivers of the domestic economies rather than exports.

### Tapping into domestic consumer demand

- The rise of middle classes with enough disposable income to fuel domestic growth is essentially an urban phenomenon.
- Urbanisation is occurring at a rapid rate with forecasts of between 130m to 200m Chinese moving from rural to urban areas over the next decade.
- Experience suggests that governments create the right conditions for high domestic consumption through three key areas: establishing a safety net for old age; developing the use of credit; and developing a retail infrastructure.

### Benchmarks

- Emerging markets represent a very heterogeneous grouping, making devising benchmarks a somewhat arbitrary process.
- Traditional capitalisation weighted indices have considerable flaws when applied to emerging markets.
- GDP weightings reflect a better appreciation of the relative importance of countries, and a purchasing power parity adjustment is better still.

## Emerging market small caps: relative performance

- Over the last decade, emerging market small caps have beaten large caps by a considerable amount.
- Correlations between markets have increased over the last decade so the attraction of small caps should be their return potential rather than diversification.

## Pragmatic approaches

- The large number of emerging market small companies (at least 5000), their relative illiquidity and the paucity of research on them creates difficulties for both active and passive approaches to investment.
- Focussing on just a small number of the most liquid stocks can ignore the much larger liquidity still available in the rest of the marketplace in total.
- Investment approaches with larger numbers of stocks can take advantage of this.
- Strict indexation through replication can be costly.
- Active traditional approaches are difficult to undertake given the huge numbers of companies and their geographic dispersion across the globe.
- The improvement of accounting standards globally does enable quantitative fund management approaches to be successfully applied to emerging market small companies.

## Background

Emerging market equities are the elephant in the room for any institutional investor.

### Increasing emerging market exposure

Emerging market equities are the elephant in the room for any institutional investor. They ignore them at their peril. The financial crash and the bounce back in the second quarter of 2009 revealed both the strengths of emerging markets and also the weaknesses. The volatility seen in emerging market equities was horrendous, yet emerging market economies emerged relatively unscathed by the global crisis. Moreover, if one saw only the figures and not the names, it would be the developed economies that would be deemed to be the more risky, with high debt to GDP etc, rather than emerging economies flush with foreign currency reserves.

The wealth creation that is now lifting billions of people out of abject poverty is a direct consequence of the adoption of liberal economic policies predicated on free trade in a global economy.

Whilst the crash showed that emerging countries' stock markets are not decoupled from the problems that originate in the developed markets, the economies are decoupled in the sense of having sustainably higher growth rates. What is driving this phenomenon is not their exports to the developed countries, but the rise of domestic consumers through the creation of increasingly affluent middle classes in countries across the globe. The wealth creation that is now lifting billions of people out of abject poverty is a direct consequence of the adoption of liberal economic policies predicated on free trade in a global economy. This has led to the rise of increasingly affluent middle classes. These fundamental themes are driving the sometimes incredible performance of emerging markets, and are being played out over a timescale of decades rather than years and will continue for decades to come.

Globalization has always existed, but in the past, it was confined to the elite and perhaps in a different way, to the have-nots. In the middle ages, it was silk from China to Venice for the elite. More recently, at the other end of the social spectrum, it was Indian labourers sent to South Africa and Chinese sent to the US to build railways. Making globalization have a profound effect on the day-to-day existence of the middle-income population across the globe has permanently altered the dynamics of international trade. America has imposed its structure on the global economy and catalyzed a global trading system. WTO is the medium through which this has happened, and the impact of WTO and GATT preceding it, is still unfolding. Governments may be given grace periods for opening up certain sectors (e.g. generic pharma in India or financials in China) and a foreign company may still need local joint venture partners in certain sectors but liberalization has become structural. Furthermore, accession to the WTO requires countries to systematically liberalize sectors of their economies. While this may play out over decades the trend is unmistakable. There will be sustained growth over the next 20-30 years and ultimately, those impediments will disappear.

Countries are being mandated to opening up markets. The impact of the rules based system that has been created means that a nation state cannot afford to de-link itself from the world community because it then ends up being a Burma or a North Korea. If a country wants to "plug in and play", it needs to abide by the rules so it opens up its industries over time. So if a country wants to export catfish to the US, it needs to allow US companies to buy 40% of its banks. This free movement of capital created by an interlinked capital system has created enormous wealth.

**Finding companies that are geared towards domestic growth rather than exports inevitably means looking for smaller companies that lie outside the scope of the most popular benchmarks.**

The impact of WTO has been an uncorking of entrepreneurial zeal throughout the universe of emerging markets in every single market bar the “pariah” states, such as Burma and North Korea. Economic liberalization has resulted in the removal of previous impediments to growth, imposed by governments and this has resulted in incredibly dynamic growth across economic sectors creating a virtuous cycle. Asian countries, post the debt crisis, have restructured their economies and are now net creditors to the US. As incomes have risen, there has been a rapid expansion of domestic demand across emerging countries. Tapping into this theme should be a clear objective for institutional investors; a theme that stands in contrast to that of emerging markets portfolios of yore that had primarily owned exporters with hard currency earnings. It also means that investors should look beyond the large cap portfolios that dominate the emerging market indices. Finding companies that are geared towards domestic growth rather than exports inevitably means looking for smaller companies that lie outside the scope of the most popular benchmarks.

**Today, Mercer is recommending a 20% exposure to emerging markets as sensible for a pension fund.**

### **Growth of demand amongst institutions**

The importance of emerging markets has increased immeasurably post the crisis, and many would argue that what we are witnessing is a seismic change in the structure of the global economy in their favour. The change in the reality is slowly percolating into changes in the perceptions that investors have had over the past 30 years. Emerging markets equities have moved from being an opportunistic asset class that was suitable for shorter term tactical allocation, to representing a strategic allocation for an institutional fund that may justify weightings that are even above the 14% or so market weightings seen in the MSCI ACWI index: “5 or 6 years ago, we were recommending a 10% exposure to emerging markets and people thought that was high and relatively risky. Today, Mercer is recommending a 20% exposure to emerging markets as sensible for a pension fund, with some offsetting low volatility equity strategies” says Deb Clarke, head of equity manager research at Mercer. She goes on to add: “If you look at GDP weightings, current emerging markets could account for 40% plus of investors equity portfolios in ten years time.” Mercer are now seeing more pension funds investing in dedicated emerging market mandates. They are also seeing the adoption of global benchmarks that include emerging markets such as the MSCI ACWI All Cap Index, replacing the MSCI World Index which does not. Including emerging markets in the benchmark has led to pension funds having the confidence to regard emerging markets as core components of their portfolio rather than as off-benchmark bets.

The increased weightings reflect an underlying economic driver in the transference of savings from aging populations in the developed world, to the higher growth potential evident in many emerging markets with much younger populations. It will take some time for pension funds to increase their exposures and Mercer advise funds to spread their investment over time, to avoid being caught out by investing everything at the top of the market. What still deters investors from emerging markets is that on several occasions in the last 20 years, they have epitomised default risk, high indebtedness and hyperinflation. The current political turmoil seen in the Arab world epitomises the political risk that is perceived as still present across the globe in emerging markets. As a result, whilst some institutional funds may have 20% or more of

The transformation of many emerging markets is a structural phenomenon that has developed a momentum of its own

their portfolios in emerging markets, others may still have close to zero, afraid of perceived risks arising from macro-economics, corporate governance and liquidity. But are these perceptions misguided? Emerging market proponents would argue very much so: “Which markets would be perceived as more risky today, developed or emerging markets? The emerging markets have broadened out, their corporate governance has improved and a lot of emerging countries are being managed in a prudent manner” argues Mercer’s Clarke.

The transformation of many emerging markets is a structural phenomenon that has developed a momentum of its own and is leading to an irreversible transformation of the dynamics of GDP growth and international trade in emerging markets. Their sensitivity to the US economy, as measured by the share of goods and services that emerging markets export to the US, has decreased; Europe has become more important and, more profoundly, emerging markets are doing more business amongst themselves.

The overall demand for emerging market equities has led to capacity constraints for most if not all of the better known emerging market managers.

Top 10 Companies in Europe by Emerging Markets AUM					
Active funds			Exchange Traded Funds		
Rank	Investment Co.	AuM (mn Eur)	Rank	Investment Co.	AuM (mn Eur)
1	Fidelity	17,024	1	iShares	10,741
2	Franklin Templeton	16,859	2	db X-trackers	8,768
3	Schroders	16,517	3	Lyxor	8,014
4	JP Morgan	16,438	4	CS ETF	1,255
5	HSBC	11,778	5	Source	552
6	BlackRock	10,779	6	Amundi	299
7	Aberdeen	9,834	7	Easy ETF	283
8	Baring	8,238	8	Market Access	202
9	Invesco	7,669	9	BBVA-ACCion	121
10	First State	7,551	10	ComStage	95
	<b>Total</b>	<b>122,687</b>		<b>Total</b>	<b>30,330</b>

As of: February 2010

Source: Feri EuroRating Services AG

As of: December 2010

Source: Deutsche Bank

As a result many firms have “soft closed” their funds to new customers. This squeeze on capacity does raise a number of issues for investors on what the

appropriate strategy should be for gaining exposure to emerging market equities, if they do not already have a commercial relationship with a strong fund manager with capacity to spare. Options include taking a passive approach through ETFs, even though the inefficiencies and illiquidity of emerging markets would suggest that active approaches can add value; choosing a manager open to business with a poorer record who shows signs of being able to do better in the future; or choosing a strong fund manager who is introducing a new strategy and thereby has new capacity. Another alternative would be to choose a multi-manager global portfolio with investments in good single country and regional managers who do have capacity. In the US marketplace, assets under management of emerging market ETFs have grown by 250% in the past two years (as of December 2010) and since 2007, have attracted more net new assets in absolute terms than active funds in every year. Such flows have inevitably been focussed on larger and more liquid stocks.

### Establishing a framework

There has been and will continue to be a number of attempts to develop a framework that can be used to differentiate the attractive from the less attractive within the emerging market universe. Perhaps the most popular recent attempt has been the BRICs (Brazil, Russia, India and China). This acronym was invented by Goldman Sachs economist Jim O'Neill in his 2001 paper which identified the BRICs as key emerging markets that would achieve significant global economic status within a period of just a few decades. The success of the concept led to many funds focussed purely on the BRICs and often only on the largest and most liquid stocks within them. The "next eleven" that Goldman Sachs also introduced consists of countries seen as having a high potential of becoming, along with the BRICs, the world's largest economies. Goldman Sachs identify these as Bangladesh, Egypt, Indonesia, Iran, Mexico, Nigeria, Pakistan, Philippines, South Korea, Turkey, and Vietnam. More recently, Citigroup have produced their own nomenclature for analysis, arguing the case for "3G" countries with the most promising "global growth generators", which they see as Bangladesh, China, Egypt, India, Indonesia, Iraq, Mongolia, Nigeria, Philippines, Sri Lanka and Vietnam. Whilst China and India are also amongst the BRIC countries, the other two BRICs, Brazil, and Russia do not feature in Citigroup's 3G list at all, and Mongolia and Iraq are countries few investors would immediately identify with.

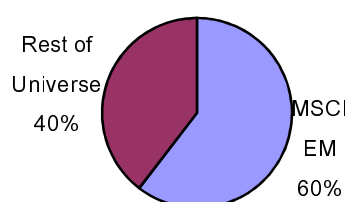
**Investors may find themselves underweight smaller companies that are much more exposed to the domestic economies whose growth is the key attraction for emerging market investment.**

Initiatives such as the identification of BRICs and 3G countries raise the profile of emerging markets as a group and also individual groupings of countries within the broader universe. But their very success tends to focus investment into thematic ETFs focussed on the most liquid and hence the largest stocks within the thematic universe selected. As a result, investors may find themselves underweight smaller companies that are much more exposed to the domestic economies whose growth is the key attraction for emerging market investment.

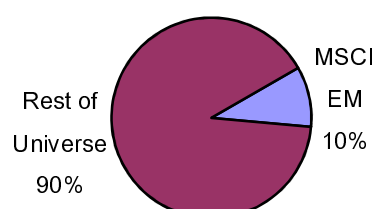
## Moving beyond the large caps

Whilst emerging market equities have become very much a mainstream investment for many institutional investors, the nature of the exposure reflects the limitations of current indices rather than a fundamental assessment of value and potential. Pension funds awarding dedicated emerging market mandates in addition to global equity mandates that incorporate emerging markets, may find themselves double counting the larger names that global managers are likely to include. Adopting an approach for dedicated emerging market mandates that is based solely around using the large cap emerging market indices such as the MSCI, S & P /IFC or Russell indices as benchmarks produces portfolios that are heavily weighted towards large capitalisation stocks with the top 100 companies in the indices typically accounting for over 50% of the market capitalisation. Yet the MSCI universe as a whole, only accounts for 60% of total market capitalisation and 10% of companies larger than \$50m in size.

### Market capitalisation



### Number of stocks



Source: Factset; Nomura Asset Management. Data as of end Feb 2010.

Notes: Only countries included in the MSCI EM index are considered. Companies which do not trade or whose market cap is below \$50mln are excluded from the universe.

These large cap companies are also less reflective of the domestic economy and often tend to be dominated by specific sectors such as commodities. In Russia, the proportion of the stock market that is commodity linked is far higher than the role of commodities in the GDP would imply. It is rather like an investor seeking exposure to the US equity markets who invests only in the S & P 500, completely ignoring the huge number of small and mid-sized companies in the US marketplace that provide immense opportunities for outperformance and are much more geared towards the domestic economy than the S & P 500, but require a much more sophisticated way for a foreign investor to gain access.

As the table below shows, the Russell Emerging Markets Small Cap Index has over double the weighting to the consumer discretionary sector compared to the Russell Emerging Markets Large Cap index. The large cap index also has a much larger weighting to energy, reflecting the prominence of oil and gas exports in many emerging market economies.

Russell Emerging market index weightings (as of Dec 31 2010)		
	EM Large Cap	EM Small Cap
Technology	12.2%	14.1%
Health Care	1.0%	4.6%
Consumer Discretionary	7.3%	14.7%
Consumer Staples	6.2%	7.5%
Energy	15.9%	3.8%
Materials & Processing	15.5%	16.3%
Producer Durables	5.8%	15.2%
Financial Serves	25.2%	19.5%
Utilities	11.0%	4.4%

Source: Russell Indexes

**A lot of the flows into emerging markets has been into ETFs which are invested in the larger companies, the state owned enterprises and so on.**

A lot of the flows into emerging markets has been into ETFs which are invested in the larger companies, the state owned enterprises and so on. But by going underneath, you get really exposed to the retail sectors in emerging markets that are showing the high growth. Capitalising on the demand led future growth of emerging market economies, means having access to companies that are supplying domestic markets, rather than exporters. These tend to be smaller companies that not only show the innovation etc that you see in the developed markets, but have huge growth potential as their markets expand with increasing affluence. Such emerging market smaller companies can look very different from those in the developed markets. In Europe, the average age of companies in a portfolio will often be well over half a century. In contrast, in Asia, the founders are often still running the business.

One aspect of investment in smaller companies in emerging markets is that economies can be buoyed by macro-economic factors that provide a fertile backdrop for smaller companies to flourish, even if macro-economic factors do not play a part in a fund manager's process. Brazil is a good case in point. There has been a large increase in real personal income with the growth of a middle class and Brazil has thriving trade with China in both soft and hard commodities. Some believe a game changer is the recent discovery of the Tupi oil field. This could hold as much as 15 billion barrels which would double Brazil's known oil reserves and would also be the largest oil field discovered in the region since the giant Cantarell field in the Gulf of Mexico in 1976. Such an environment can produce a wealth of opportunities for smaller companies to flourish by providing services to the oilfield operators.

## Tapping into the domestic consumer demand story

### Who are the future consumers?

It is very clear what is driving the increase in consumption seen in emerging markets. It is the growth of the middle classes, particularly in fast growing Asia. As Willem Buiter and Ebrahim Rahbari of Citigroup point out in a recent paper<sup>1</sup> the number of households with an annual income of at least \$10,000 USD per annum in India and China combined is likely to exceed that in the US from 2011 on and that in all of Western Europe 2 or 3 years later. There are already well over 100 million households with income over \$10,000 USD in India and China combined.

**The rise of the middle classes with enough disposable income to fuel domestic consumption is essentially an urban phenomenon.**

The rise of the middle classes with enough disposable income to fuel domestic consumption is essentially an urban phenomenon. China and India are becoming the pre-eminent examples of such domestic demand led growth. This is being driven by increasing urbanisation with forecasts of anywhere between 130m and 200m Chinese migrating from rural areas to cities over the next decade with similar figures for India. Such movements require massive investment in infrastructure, housing, transportation, and services to support the city dwellers. It is not only the requirements for investment in infrastructure and housing that are in high demand, but the whole paraphernalia associated with urban life encompassing home appliances, education, transport, retail outlets, entertainment and medical services. The demand for supermarkets, clothing retailers, restaurants, beauty parlours, local banking and all the other conveniences of urban life creates opportunities for the development of significantly sized national businesses as the successful local businesses expand to a regional and then national level.

Experience in developed markets suggests that governments can create the right conditions for domestic consumption to take off through a few key areas. Establishing a safety net in the form of old age provisions removes the absolute necessity to save as much as possible in order to ensure an income post retirement, freeing funds for current consumption; developing the use of credit enables high value goods to be purchased with their costs spread over their lifetimes; and developing the retail infrastructure to package and transport manufactured items to consumers in diverse locations enables consumers to easily purchase goods. As these initiatives develop across the globe in the emerging markets, consumption will continue to rise still further.

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<sup>1</sup> Global Growth Generators: Moving beyond 'Emerging Markets' and 'BRIC', Feb 2011

## China: Country case study – the speed and impact of change.

China is still predominantly a rural country, which may seem surprising given the extensive coastal urbanisation, but it's population is still just less than 50% rural, which is average for the world as a whole. What is astounding though is the sheer numbers and the rate of increase expected over the next couple of decades. China had 622 million urban residents at the end of 2009 (according to China's National Bureau of Statistics). Shahid Yusuf<sup>2</sup>, an economic advisor at the World Bank points out that if urban migrants are included, there were 650 million Chinese resident in urban areas in 2008 compared with 191 million in 1980. Moreover, 16.4 million per year on average, moved from rural areas to urban in the period from 1982 to 2000. If this trend continues, the urban population would reach 890 million by 2020. As the urban sector accounted for 80% of China's GDP in 2007 and agriculture just 11%, Yusuf, like many others, argues that mass migration to urban areas is inevitable and will help to fuel China's economic growth.

If this trend continues, the urban population would reach 890 million by 2020.

The Central Government is also encouraging this migration to the cities. It is making it easier for qualified rural workers to seek employment and residency in urban areas, particularly in small and medium-sized cities and townships. The younger generation migrating to cities are also quickly regarding themselves as city dwellers and in contrast to the older generation, are more reluctant to send their earnings back to their villages. Consumption patterns also quickly become urbanised, reflected in a quest for better quality and more fashionable goods. Most have higher educational qualifications than those left in the villages and having never been farmers, are eager to embrace city life. Those who are successful end up joining China's rapidly burgeoning middle class. About 100 million of China's population had incomes of above \$12,500 per year in 2006 and hence seen as middle class in 2006, according to Yusuf. It is this market that is growing both in size and purchasing power that is fuelling domestic consumption.

The Chinese government itself is combining efforts to expand consumer spending and promote urbanisation as part of a strategy to fuel domestic demand. The retail infrastructure in the cities is well developed and continuously being upgraded as companies vie to capture consumer spending. However, one obstacle to rising consumer spending in China has been the high savings rates in China. Post crash, the government has been flooding the marketplace with liquidity and developing domestic stimulus measures through large-scale infrastructure projects. Yet a fundamental cause of the global misalignments has been the propensity for Chinese consumers to save, indirectly financing the US consumers' propensity to spend! But the reasons for such high savings rates lie essentially in the lack of social security systems within China that enable the working population to be assured of being able to provide for old age and illness. China is tackling these issues and over the next few years as the effects of these measures start coming through, the requirements to save will be dramatically reduced, releasing pent-up consumer demand. This may be particularly strong amongst young unmarried consumers who are already less inclined to save.

The third key factor for consumption is the provision of credit. China's financial services sector is also being reformed to boost domestic spending. In July

<sup>2</sup> Urban China: Trends and Challenges, Shahid Yusuf 2008

2009, the main banking regulator (the China Banking regulatory Commission) put into place legislation described as “Administration Measures for Pilot Consumer Finance Companies” to provide consumer loans at all levels. There appears to be a shift in behaviour between the older generation and the young. Those over the age of 50 would have faced huge uncertainties in their lives during China’s journey from a capricious and rigid central planning regime under Mao, to today’s essentially mixed economy. Saving to provide for future uncertainties would have been seen as a necessity whilst “living on credit” virtually unheard of. But as the country becomes more affluent and the young can see social security and pension provisions being put into place, using credit to purchase high value goods and services such as cars, electronic consumer items, designer clothes, education and travel will become increasingly acceptable.

## Company case study: Jet Airways

The impact of increasing domestic consumption can be seen across a wide range of sectors and companies throughout the emerging markets. One striking illustration can be seen in the growth of domestic airlines such as Jet Airways in India.

The sheer size of the Indian sub-continent has inevitably meant that journeys between major cities takes a day or more by rail and even longer by road. Internal flights for many years were possible only through the state monopoly Indian Airlines, following the nationalisation of all Indian major air transport providers under the Air Corporations Act in 1953. The cost meant that their client base was only a small business elite and the ultra wealthy alongside foreign tourists. The act was finally repealed in 1994 leading to the creation of a number of new domestic airlines. India's growth has fuelled demand for air traffic but India still only has 0.04 trips per capita, compared to 2.12 in the US, according to V.P. Agrawal, Chairman of Airports Authority of India (AAI), at an aviation summit in Hyderabad in March. He estimated that air traffic is set to grow at 1.5 to 2 times GDP growth; that is around 15% p.a. till 2015. The domestic market in India crossed the 50 million passenger mark in 2010, registering a growth of nearly 19 per cent. This market is expected to grow at around 10 per cent annually to reach a level of 150 to 180 million passengers by 2020. Departures per week have almost doubled from about 6,500 per week in 2006 to more than 12,000 per week in Q1 2011.

Jet Airways has been a prime beneficiary of this huge growth in air traffic. It was set up by Naresh Goyal in May 1993 to compete against state-owned Indian Airlines in the domestic market with a fleet of four leased Boeing 737-300 aircraft. It is now the largest domestic airline with a more than 25% market share and offers a wide international connectivity. It has approaching 400 flights daily to over 60 destinations in India and abroad and is the second largest international carrier out of India after government owned Air India. It also has a number of other related activities in areas such as online reservations and baggage clearance services.

The growth of Jet Airlines has been both through expanding its own business and also through acquisitions, most notably that of Sahara Airlines in 2007, now renamed Jetlite, operating as a low cost, all economy no frills subsidiary. It also launched another subsidiary Jet Airways Konnect in May 2009, as a way of facing the recession without having to dilute the main brand through reducing fees or incurring legal issues vis a vis Jetlite, where there is an ongoing dispute with the Sahara Group concerning final payment.

With an increasing number of international routes, Jet Airways illustrates how small companies with a strong domestic presence in a major emerging market can build on that to potentially grow into major international businesses. Jet Airways also illustrates one of the problems of emerging markets in that whilst the company is listed on the Bombay Stock Exchange, 80% of its stock is still controlled by Naresh Goyal (through his ownership of Jet's parent company, Tailwinds).

## Benchmarks – the problems with EM indices

### Overview

The term “emerging markets” was originally coined by the World Bank economist Antoine van Agtmael in 1981, as an alternative to pejorative terms such as “third world”. The phrase encompasses the hope and now in many cases the reality, of countries in transition from an underdeveloped state to the developed status of nations represented by groupings such as the OECD. Yet the variations between emerging markets can be far greater than the differences between some of them and the developed markets. The only thing that emerging markets as a group have in common, is the fact that they have not yet reached developed market status. But even here, there is some dispute as to what the status of countries such as Singapore, Taiwan and South Korea should be.

**What does unify countries within the emerging markets umbrella, is that post the financial crash, the term has now come to represent the main driver of global GDP growth for the foreseeable future.**

What does unify countries within the emerging markets umbrella, is that post the financial crash, the term has now come to represent the main driver of global GDP growth for the foreseeable future. It is this that is driving investor interest, and is a theme that may well last for decades. However, for an institutional investor, the heterogeneous nature of the investment universe combined with an essentially arbitrary set of rules imposed by benchmark indices in their selection, means that emerging market equities are probably the most complex of all equity mandates to consider.

### What should be included?

The World Bank definition of a “developing country” is based on Gross National Income (GNI) per capita figures which in 2008, defined any country with a figure lower than \$11,905 p.a. as developing. Over 140 countries representing over 80% of the world’s population come into this category. What matters for equity investors though, are those countries that have stock markets suitable for foreign investment. But establishing a framework for analysis, comparisons and investment in such a heterogeneous group as emerging market equities has been and will continue to be an evolving process.

For institutional investors, investment has typically been based on a framework set by one of the traditional index providers. The main index providers MSCI, S & P, Russell and FTSE each have their unique approach to classifying which markets come into their emerging market indices based on both qualitative and quantitative factors. They can vary in their assessment of factors such as the level of economic development, the depth and breadth of the stock markets, efficiency of custody and settlement and of course the political risk that has now risen again to the fore with the turmoil seen in the Middle East and North Africa region (MENA). Only a small fraction of the World Bank’s developing countries make it into the main global emerging market indices, which typically have less than 30 countries within them. Index providers have tried to respond to the demand for exposure to some of the higher risk countries by developing “frontier market” indices, which incorporate countries which are seen to have investable markets, but not at the same quality as those in the emerging market indices as a result of factors such as poor liquidity, inadequate financial reporting, inadequate regulation and political instability. Clearly, the boundary

between which countries should be included within an emerging market index and which within a frontier market can be both unclear and controversial. Argentina was downgraded by MSCI to a frontier market in 2009 whilst its neighbours, Chile, Peru, Brazil and Colombia are all in the emerging markets index. S & P leave out Colombia from their emerging markets index. Tunisia is a frontier market for MSCI whilst Morocco is an emerging market. Russell include United Arab Emirates whilst MSCI do not.

The MSCI emerging market index has 21 countries whilst the Russell Index has 22 with the addition of the United Arab Emirates. MSCI has an additional 26 countries in the MSCI Frontier Market Index.

<b>Emerging Markets Indices</b> (MSCI, S & P and Russell)		
<b>Americas</b>	<b>Europe, Middle East &amp; Africa</b>	<b>Asia</b>
Brazil	Czech Republic	China
Chile	Egypt	India
Colombia (MSCI and Russell only)	Hungary	Indonesia
Mexico	Morocco	South Korea (MSCI and Russell only)
Peru	Poland	Malaysia
	Russia	Philippines
	South Africa	Taiwan
	Turkey	Thailand
	UAE (Russell only)	

Institutional investors are faced with a very confusing intellectual framework for investment in emerging markets. The traditional route of many has fundamental flaws. This situation may have been acceptable when emerging markets were seen as an opportunistic short term play. But now that they have become a core component of institutional portfolios, investors should recognise the limitations of many of the most popular approaches and adjust their strategy accordingly.

### **The drawbacks of cap-weighted indices**

Historically, the approach to construction of emerging market indices has been based on the market capitalisation of stocks both at the country level and at the stock level. Weightings of countries have therefore been determined by an analysis of relative stock market capitalisations on specified dates. Weightings of stocks within each market have then been determined by their market capitalisation. In recent years, this has been modified to base weightings on “investable capitalisation” which is capitalisation adjusted for the “free float”, i.e. the actual value of shares able to be traded in the marketplace, thereby eliminating cross-holdings and shares held by state institutions not available for sale. Free float adjustments have now become accepted as standard in the creation of capitalisation weighted indices. Emerging market such as China and

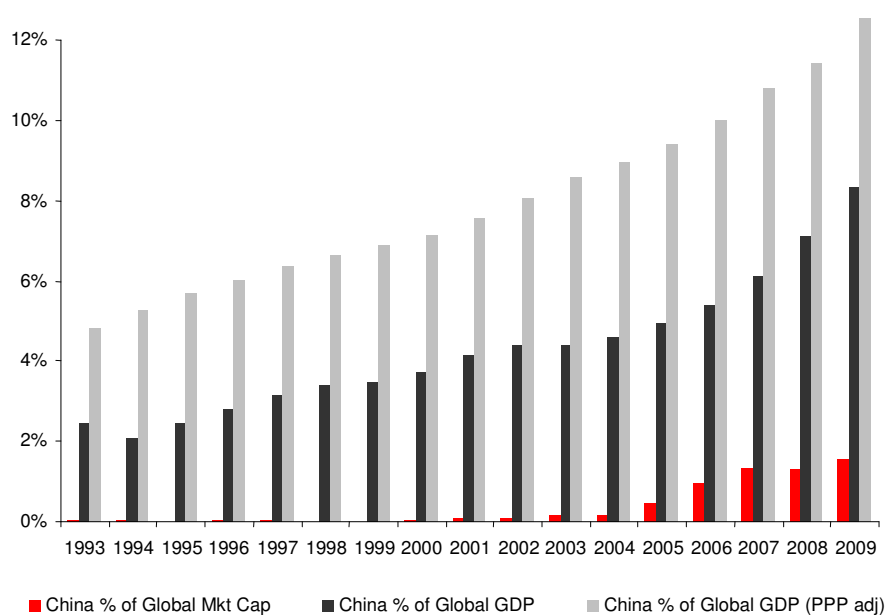
Russia have stock markets dominated by partly privatised enterprises of which the government remains the controlling shareholder. In such markets free float adjustments can be particularly significant. For the index provider seeking to build a replicable index, free float adjustment is vital in the emerging world, but an investor should not be deceived into thinking that the weight of a company in a free float adjusted index accurately represents a company's size or power. Countries with large free float adjustments would have weightings that whilst reflecting the size of the universe available to external investors, under-represents the economic size, effectively penalising emerging countries in a state of transition.

The use of capitalisation weighted indices has now become so ingrained with trillions of dollars invested in or benchmarked to indices such as the S&P 500 Index and the Russell 1000 Index that adopting such an approach for emerging markets can appear to be the most sensible approach to take. It has certainly attracted acceptance by institutional investors as they first ventured into global emerging markets. Capitalisation weighted indices appear to have the support of the capital asset pricing model (CAPM) that forms the basis of modern portfolio theory. CAPM states that the "market portfolio" is the most efficient and the implicit assumption behind capitalisation weighted emerging market indices is that they are sufficiently close to the CAPM market portfolio to be nearly efficient. But as Arnott et al. point out in an influential paper on fundamental indexation<sup>3</sup>, the CAPM market portfolio should theoretically be a portfolio that includes all assets, which should include corporate bonds, commodities etc. Even in a single country context such as the S & P 500 Index, there is a weight of academic evidence to suggest that it is not a true proxy for the theoretical market portfolio.

**Many of the shortcomings of capitalisation weighted indices are exacerbated when applied to emerging markets.**

Many of the shortcomings of capitalisation weighted indices are exacerbated when applied to emerging markets. The fact that a capitalisation weighted index is only an approximation to the market portfolio concept behind CAPM, becomes extremely apparent when stock markets of many emerging markets are very underdeveloped relative to their economies, but growing very fast as more state companies become privatised and rapidly growing private companies are listed on the domestic exchanges. China is the classic example of this phenomenon. During the period 1990-2004, China's stock markets were barely visible. Instead, the top 5 countries in the MSCI EM index were South Africa, Malaysia, South Korea, Brazil and Mexico which accounted for two-thirds on average of the total market capitalisation of the index. Yet there is no fundamental rationale for having concentration of investment in those five of the emerging markets, apart from the fact that they happened to be the largest historically.

<sup>3</sup> Arnott, Robert. Hsu, Jason. Moore, Phil. "Fundamental Indexation." Financial Analyst Journal. Volume 61. Number 2.



Source: IMF, Datastream, Nomura. January 2008. Note China was included in the Datastream Global Index in 1993

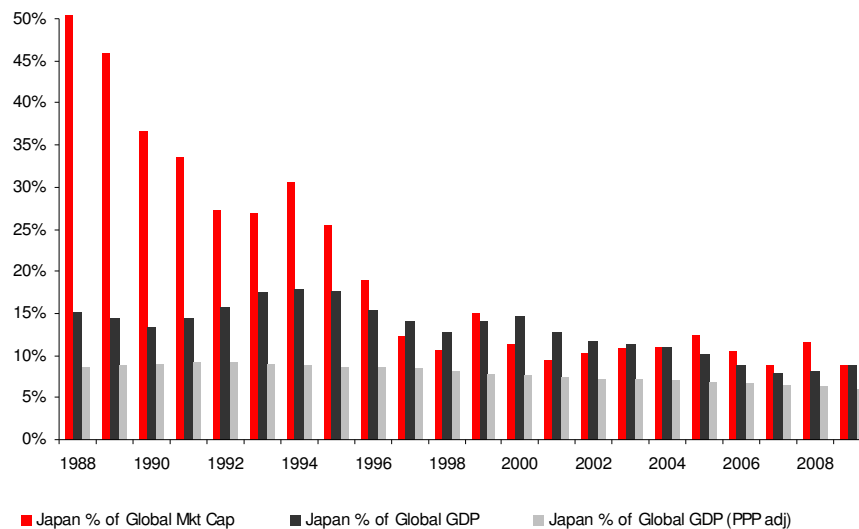
## Alternatives to cap weighted benchmarks

The fact that market weights are so different to GDP weights has led to a number of studies looking at alternative weighting schemes for emerging markets. Hamza et al<sup>4</sup> looked at GDP-weighted portfolios and also a naive equally weighted portfolio as alternatives for capitalisation weighted indices using data from the time period 1990-2004. They found that a GDP weighted portfolio gave an annualised 3.88% market-adjusted return over the standard capitalisation weighted index. The equally weighted index did even better. Hamza et al. attribute this to the lower concentration, more frequent rebalancing and a larger allocation to smaller countries seen in the equally weighted index. However, as they conclude, an equally weighted index suffers from serious implementation issues arising from much lower investment capacity and liquidity as well as much higher turnover.

GDP weighted approaches appear to have substantial attractions but the relationship between GDP growth and stock market returns is not strong over the short term. Emerging market stock markets have also been characterised by high volatility often driven by the lack of a diversified domestic investor base that can provide liquidity when foreign investors choose to pull out, for reasons that are often nothing to do with the longer-term fundamentals. Indeed, the Russian stock market was at one stage 80% owned by foreigners and the Russian market fell over 70% in 2008 because there were no transmission mechanisms between savings and investment within the domestic economy. Yet over long time periods, the change in stock market capitalisation has to reflect the changes in the size of the economy itself, or else there will be an unsustainable misalignment. Japan is the classic example of this. In 1990, its stock market represented 50% of global market capitalisation at a time when

<sup>4</sup> Hamza, O., M, Kortas., J, LHer., M, Roberge (2006). "International Equity Portfolios: Selecting the Right Benchmark for Emerging Markets." *Emerging Market Review*, 7,111-128

its GDP was 15% of global GDP and approaching half that figure on a PPP basis. As the chart below shows, its subsequent history showed its stock market capitalisation dramatically fall to levels much closer to its share of global GDP.

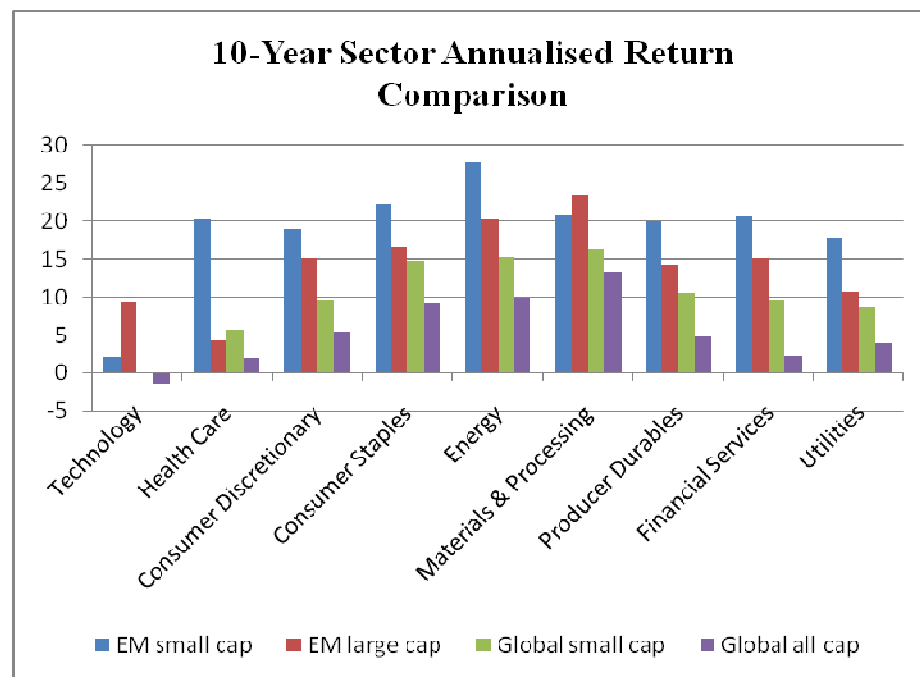


One adjustment that does appear to add some value to a GDP weighting is to remedy the issues arising from currency conversions in calculation of GDPs. Translating domestic currency figures into US dollars at market rates introduces distortions into GDP weightings as currency rates are themselves both subject to large fluctuations, but also to large distortions when the currencies are not freely tradable. Allowing for purchasing power parity (PPP) of currencies in the calculation of GDP means calculating the sum value of all goods and services produced in the country valued at prices prevailing in the United States, ignoring the official exchange rates. This provides a better estimate of underlying economic activity as lower wage costs in emerging markets means any labour intensive services such as having a haircut will cost less in an emerging market than in the US. As a result, non-tradable goods and services in particular, tend to be undervalued when using market prices. One trend that many economists would argue is likely to continue is a convergence of GDP at market prices and at PPP. This would imply convergence of relative price levels and imply a currency appreciation in emerging markets where GDP at PPP is typically considerably higher than at market prices.

## Emerging Market Small Caps: Relative Performance

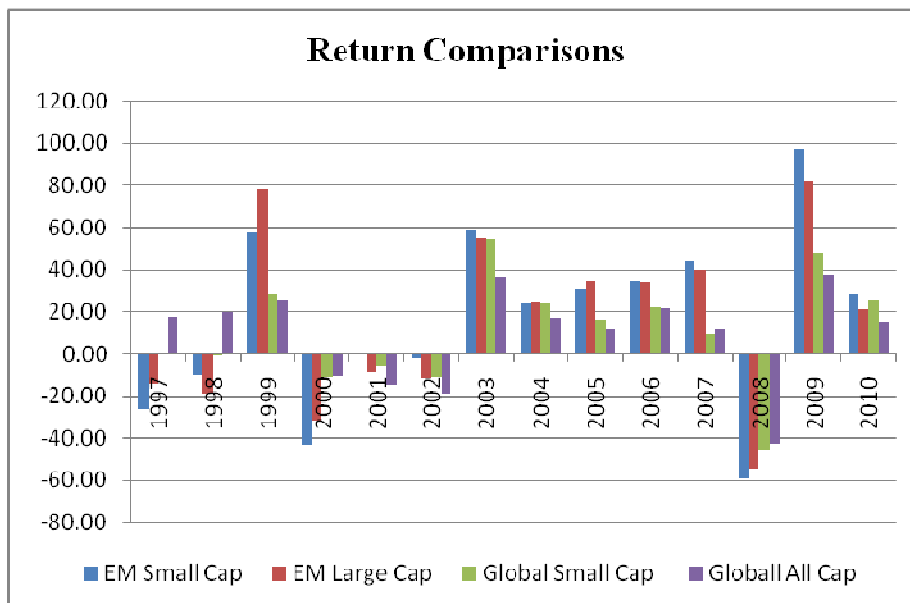
### Returns

Traditional approaches to emerging market investment have focussed on capitalisation weighted frameworks at both the country and stock level. Yet the consumer demand story that is driving GDP growth is not a function of the large export driven and commodity driven companies that tend to dominate the stock markets of many emerging markets. It is the smaller companies that better reflect the dramatic developments in their economies. This can be seen in the fact that emerging market small cap companies have outperformed their large and mid-cap peers by significant margins in the last decade. For example, in the 10 years ending December 31<sup>st</sup> 2010, the Russell Emerging Markets Small Cap Index posted a 17.6% ten-year compound annual growth rate (CAGR), which compares with 14.7% for the Russell Emerging Markets Large Cap Index. It also beat the large cap index in seven of the 10 years of that decade. Moreover, the outperformance of emerging market small caps over large has been pretty much across all sectors as can be seen in the chart below.



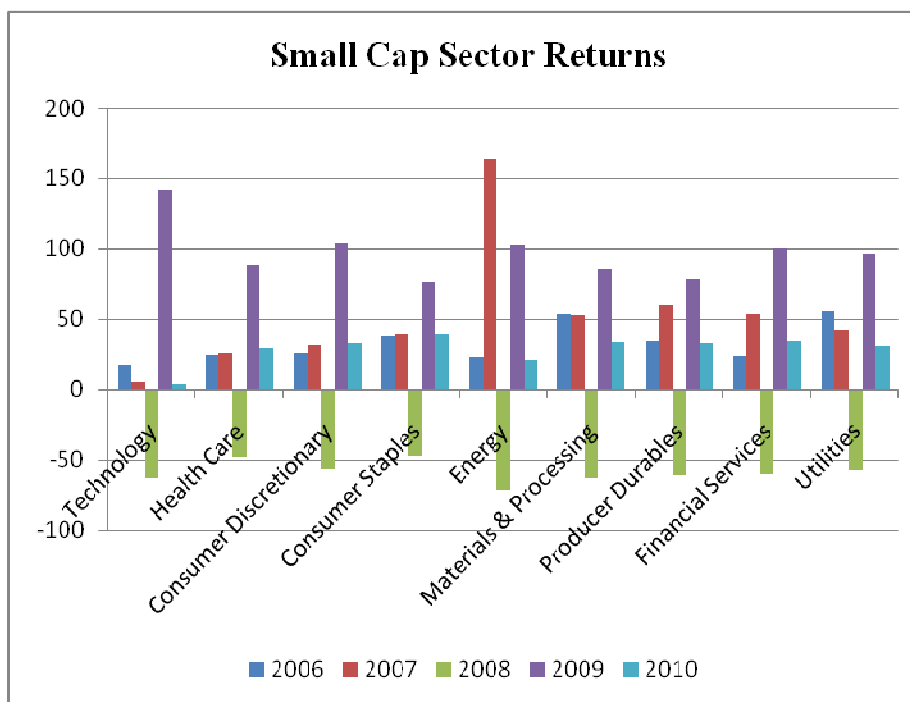
Source: Russell Indexes. Data as of Dec 31, 2010.

What is also interesting is that small caps did not generate such an impressive performance prior to that decade as can be seen in the return comparisons below. This tallies with the fact that the rise of domestic consumption as a driver for GDP growth has been very much a phenomenon of recent years.



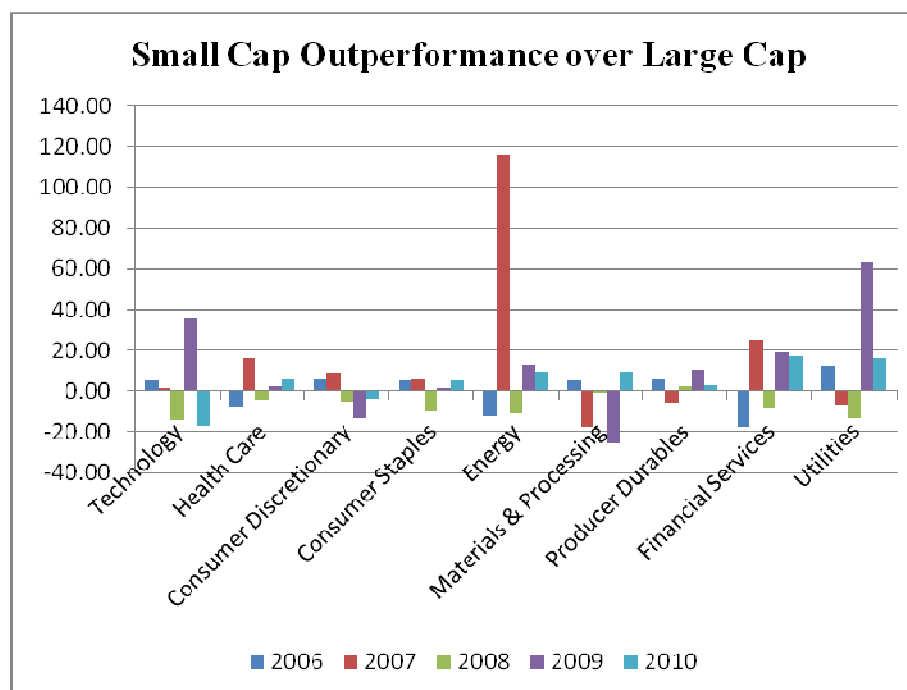
Source: Russell Indexes

The financial crisis caused an indiscriminate sell-off across all sectors in 2008, only to be followed by a large rebound the following year.



Source: Russell Indexes

The spectacular performance seen in 2007 in the small cap energy sector was not matched by large caps as can be seen in the chart below where small cap energy stocks outperformed large caps by over 100% in 2007.



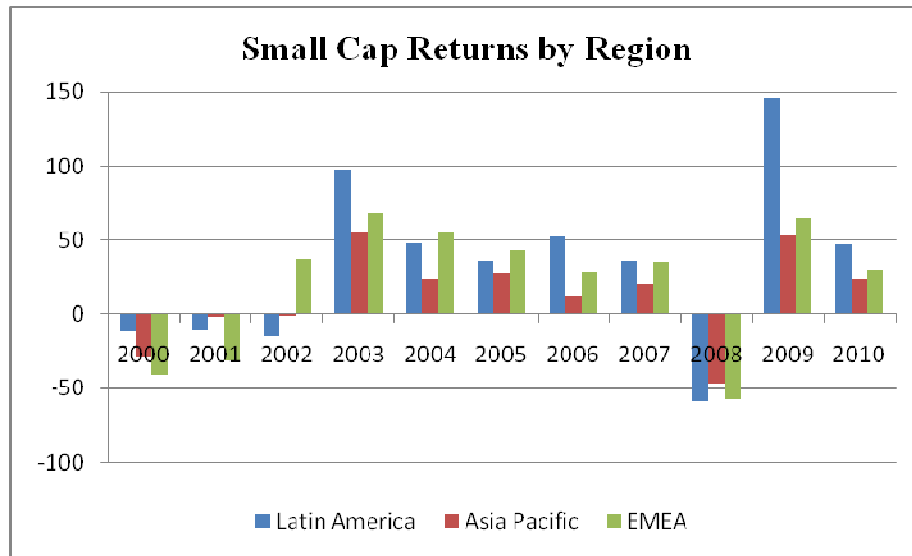
Source: Russell Indexes

Rob Balkema, research analyst for global equities at Russell Investments, attributes the massive outperformance of small cap energy over large cap in 2007 to three factors:

- i) Stock specifics: PetroBras and PetroChina are large weights in the emerging market large cap index due to their sheer size, accounting for 25% and 10% of the energy sector weight, respectively. In 2007, Petrobras, depending on the share class you look at, returned just north of 100% while PetroChina returned 'only' 30%. These two names were one reason the large cap energy sector returns were not as high as the Small Cap Index in total (mostly PetroChina). The Small Cap Index does not have any weight above 8% so single stock impacts are less of an issue there.
- ii) Country specifics. 2007 was a quite strong year for China and India (some used bubble descriptions) and this was driven by the Energy and Materials sectors as the market focussed on the industrialization of the countries and growing demand for energy sources. Smaller caps in Chinese Energy outperformed Large Cap Energy by nearly 500% (driven by strong coal company returns) and by over 200% in India. These two countries make up 43% and 35% of the Large and Small Cap Emerging Market Energy sectors. As such the spreads in these countries drives a good deal of the differences.
- iii) Industry subgroup weightings of the two indices: As mentioned above, coal was an area where global and emerging market growth managers focussed onto and drove up prices in 2007 on rising demand. The subsector in Large Cap rose 190% and by 320% in Small Cap. The relative weighting differences here is again a factor – 24% of the Small Cap energy sector is in Coal and Consumable Fuels while only 6% of the Large Cap Emerging Market index Energy sector is in the industry. Integrated energy companies which did not

produce as strong returns in 2007 ('only 70+') make up 56% of the Large Cap Index and 0% of the Small Cap Index.

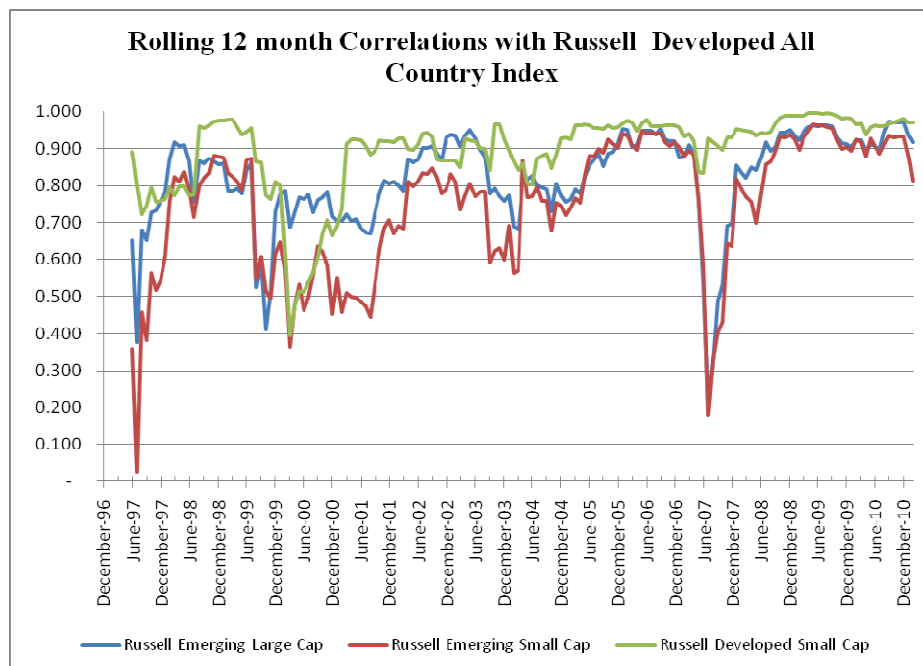
The regional variations are also pronounced. Latin America came out best post the crash, and Asia Pacific has so far lagged the other two regions. Going forward, few would bet that this will continue to be the case.



Source: Russell Indexes

### Correlations

Perhaps not surprisingly, increasing globalisation has also led to increased correlations of emerging market small caps with global equities. The 2008 emerging markets crash caused a short term blip to correlations as emerging markets performance diverged significantly, but the longer term trend is unmistakable. Whilst emerging market small caps are a possibly attractive source of return, using ETFs to gain broad market exposure will not add much in terms of diversification to a portfolio. Instead, their attraction is the return potential, and the large and diverse universe of opportunities which provides an environment to develop outperforming strategies.



Source: Russell Indexes

## Pragmatic approaches

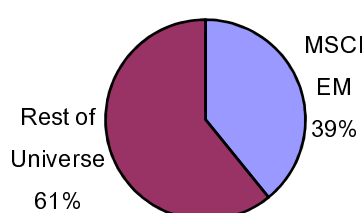
### Liquidity

Global small cap is tough to do. Emerging market small cap is even more difficult!

Gaining exposure to a global portfolio of emerging market smaller companies is not straightforward. The sheer number of companies in the universe at around 5000, their relative illiquidity and the paucity of research on them creates difficulties for both active and passive approaches to investment. Mercer, according to Deb Clarke, have seen less than 10 managers offering global emerging market small cap strategies: “The huge number of companies makes it very difficult for fundamental managers. Global small cap is tough to do. Emerging market small cap is even more difficult!” Capacity has been and will continue to be a challenge for an individual manager. With typically only between \$1bn-2bn seen as the maximum fund managers expect to be able to manage, the total capacity in the market place for dedicated small cap mandates is very limited.

A fundamental aspect of any investment approach to gaining exposure to the sector is the liquidity variation across market capitalisation. Focussing just on the large caps within the MSCI universe for example, can ignore the liquidity that is available outside it.

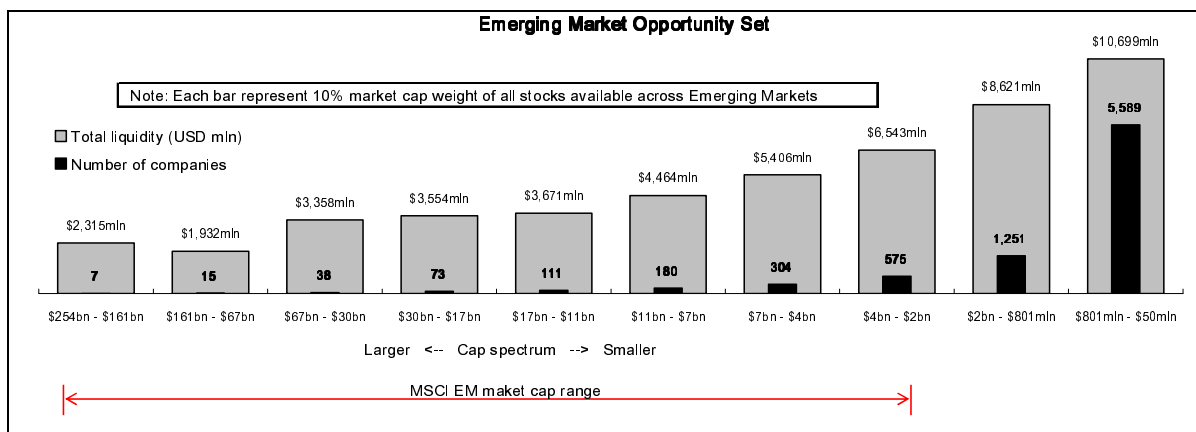
### Liquidity



Source: Factset; Nomura Asset Management. Data as of end Feb 2010.

Notes: Only countries included in the MSCI EM index are considered. Companies which do not trade or whose market cap is below \$50m are excluded from the universe.

Nomura Asset Management’s analysis shown in the chart below, takes the total market cap of the sector and splits it into 10 buckets, each accounting for exactly one tenth of the total market cap, but with companies placed in each bucket in descending order of market capitalisation. It takes only the 7 largest companies to fill the first bucket, and they have a total daily liquidity of around \$2.3 billion.



Source: Factset; Nomura Asset Management. Data as of end Feb 2010.

Notes: Only countries included in the MSCI EM index are considered. Companies whose market cap is below \$50mln are excluded from the universe

What is interesting is that the total daily liquidity of subsequent buckets increases, albeit with the number of companies in each bucket increasing substantially. What this implies is that investment approaches that have large numbers of stocks may have less issues with liquidity than highly concentrated portfolios unless the latter are focussed on just the larger and hence more liquid stocks. Active stock picking approaches based on concentrated focussed portfolios may have significantly more problems associated with liquidity than more broad based strategies.

### Valuation and weighting issues

Moving away from the pseudo-academic respectability of capitalisation weighted indices, does enable a more sensible and pragmatic evaluation to be made of how best to construct small cap portfolios within an emerging market context. As Arnott et al. pointed out, cap weightings within a portfolio gives additional weight to stocks that are currently overpriced relative to their (unknowable) discounted future cash flows (the true fair value) and reduces weights in stocks that are currently trading below that true fair value. The less liquid small cap stocks are more likely to be prone to market distortions caused by investor flows, often driven by momentum trading. This can be seen in 2007 when small caps underperformed large caps during the crash in emerging markets. Setting benchmarks for either indexation or as a basis for active quantitative approaches based on fundamental approaches to valuations can therefore be particularly attractive for emerging market small caps.

### Alternative approaches to EM small cap investing

There are a number of different approaches that can be taken to achieve a satisfactory exposure to emerging market small caps. The liquidity constraints do however impose constraints that add a layer of complexity.

### Indexation

Indexation is usually seen as most effective in liquid, easy to access and open markets and clearly, emerging market small caps do not come into this category. As a result, indexation can be difficult and costly to undertake on a pure replication basis. Even in emerging market large caps, there can be problems. Deutsche Bank point out in a recent presentation<sup>5</sup> that the largest MSCI Emerging Market ETF at \$60bn, based in the US uses a direct replication technique. But this ETF as of January 2011, was invested in 892 shares compared to 752 shares in the index and was invested in at least 18% in assets that are not included in the underlying index. More worryingly, the tracking error was over 2.3% in the last three years and since the beginning of 2009, the ETF had underperformed the index by more than 2.5%.

ETFs based on a sampled approach to existing and new indices are feasible and may produce a better compromise between tracking errors and costs. Van Eck for example, has recently detailed plans for the launch of a sampled index fund based on GDP weightings of countries.

### Passive investing

Whilst indexation is often thought of as a passive approach, the index changes that occur on a regular basis means that turnover has to take place to keep up to ensure that tracking errors are kept low. However, there is an inevitable trade-off between having a low tracking error to an essentially arbitrary index, and keeping expenses low within a broad exposure to the asset class. Dimensional Fund Advisors get round this by the simple expedient of ignoring external indices, constructing their own index based on first of all, screening countries for basic legal protections for investors, liquidity constraints etc and then screening purely on liquidity for companies, weighting by free float. They then purchase stocks within the bottom 20% to 40% of the market value in each country they choose to invest in, excluding stocks of less than \$50m. As of December 31<sup>st</sup> 2010, their emerging markets small cap portfolio had 2,689 securities within it and an annual turnover of 15%. Taiwan and China had the largest allocations with over 25% between them, whilst Russia was excluded completely. India, South Korea, Brazil and South Africa each had over 10% weightings.

### Active fundamental approaches

Adopting a traditional fundamental approach for the small cap universe can be effective, but care has to be taken that external indices are used for performance comparisons and not as a risk management tool, if the manager is guided towards picking stocks because they are in the index, rather than on their own merits. The challenge is to find a methodology that enables the universe to be screened down to a more a manageable size for detailed analysis. The alternative that can be effective is for talented managers to pick stocks on their own merits, to form concentrated portfolios without reference to the structure of the universe or indices.

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<sup>5</sup> Emerging Markets – Invest in Momentum, Deutsche Bank db X-trackers, February 2011

### Multi-manager approaches

One variation of the above would be to select single country or regional specialist strategies and combine them to form a global small cap emerging market exposure. Whilst this has not yet been undertaken, and there are issues regarding double layers of fees, it may become a more viable option as the markets expand in size and demand grows to the extent that little or no capacity is available in global single manager approaches.

### Active quantitative

Emerging markets have been seen as lacking the transparency, reliability and credibility in their accounting that developed countries were deemed to have had. The financial crisis may have cast doubts on this however, given the rapid collapse of many seemingly strong developed market banking institutions! What has been the case for many years now, is that accounting standards in emerging markets have been generally improving to the extent that many successful quantitative fund managers have been able to adapt their existing models to produce successful emerging market strategies. In a universe of 20 or more highly disparate countries, quantitative analysis as a basis for fund management approaches give the ability to adopt a consistent analysis across a whole universe. This is particularly valuable in the small cap space, where the number of companies is so large. Nomura Asset Management for example, start with the entire universe of emerging market stocks before excluding only the 800 or so companies in the standard indices, and non-index large cap names, leaving a universe of 5000 names. Screening out illiquid names and stocks with market capitalisations less than \$50m still leaves 3,200 names to consider. This is essentially the universe that an active quant process can be applied to.

## **Conclusions**

Emerging market small cap portfolios appear to be able to provide a valuable complement to global equity portfolios and to mainstream emerging market strategies. The key issue that investors face is finding good managers with capacity. As Mercer's Clarke points out, quantitative managers can have an advantage in this space given their ability to analyse a vast universe in a consistent and unbiased manner. Over half of their, admittedly small, universe of small cap managers are "quant". However, there is plenty of scope for new managers to enter the marketplace and as emerging markets as a whole grow in importance, so will that of emerging market dedicated small cap portfolios.

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“Our”                    style, company structure and other policies which are consistent across the Group.  
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