Moving toward the mainstream

Stock market development and performance in the rapid-growth markets

Ernst & Young

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SKOLKOVO
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Institute for Emerging Market Studies

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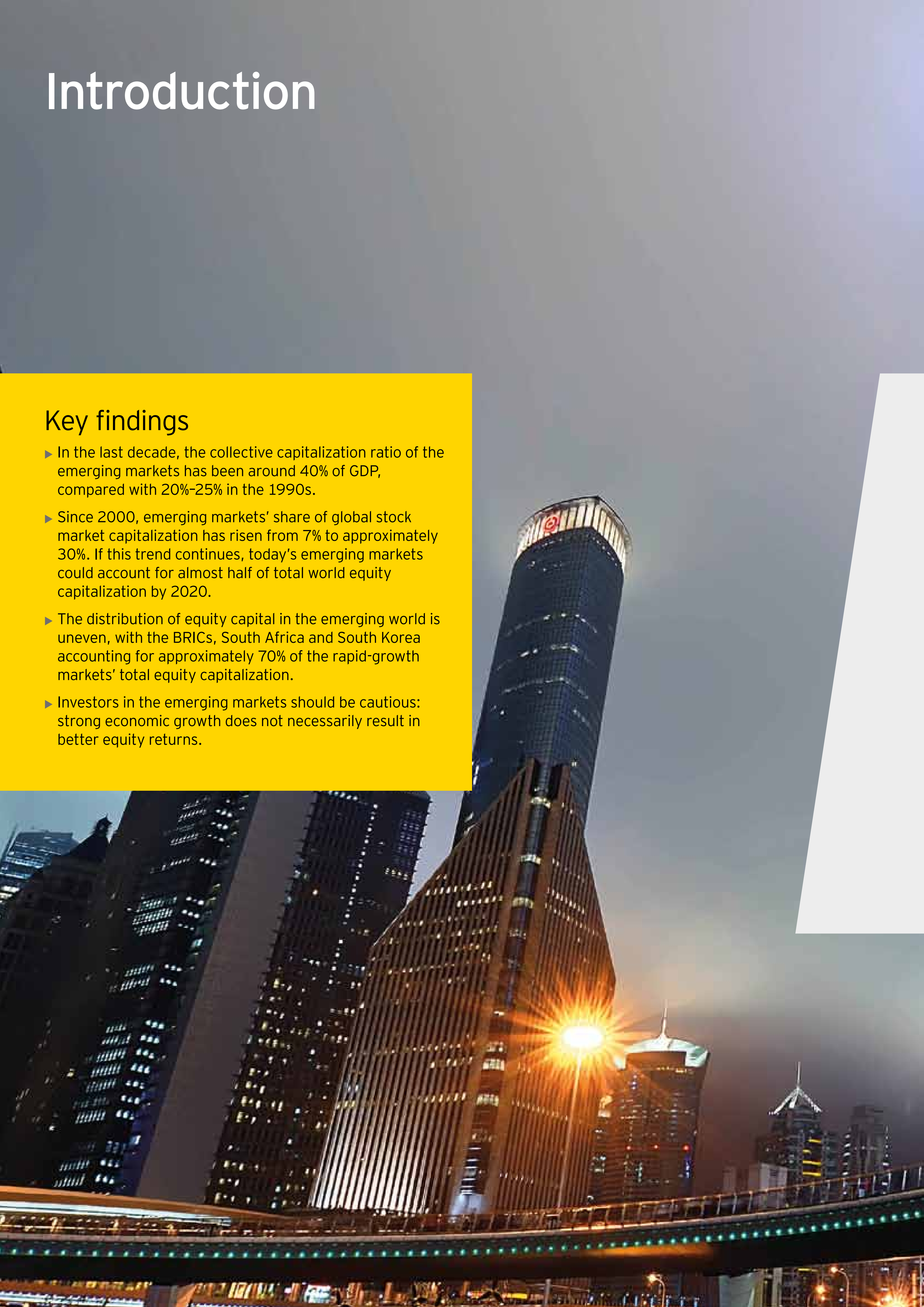
Introduction



Key findings

- In the last decade, the collective capitalization ratio of the emerging markets has been around 40% of GDP, compared with 20%–25% in the 1990s.
- Since 2000, emerging markets' share of global stock market capitalization has risen from 7% to approximately 30%. If this trend continues, today's emerging markets could account for almost half of total world equity capitalization by 2020.
- The distribution of equity capital in the emerging world is uneven, with the BRICs, South Africa and South Korea accounting for approximately 70% of the rapid-growth markets' total equity capitalization.
- Investors in the emerging markets should be cautious: strong economic growth does not necessarily result in better equity returns.

Risk and return — the incredible growth of equity markets in emerging economies

The growth of stock markets in emerging nations has been one of the biggest stories in international finance in recent years.

The long-term returns of developing market equities have firmly outpaced those offered by developed markets. In addition, capitalization ratios — stock market capitalization as a share of GDP — in the emerging economies have risen hugely in the last decade. Developing stock markets were hit particularly hard by the financial crisis of 2008, but showed their resilience by bouncing back — today returns have nearly recovered to pre-crash levels.

In this paper we explore the expansion of emerging equity markets and examine how this tale of remarkable progress relates to the broader economic growth that these markets have enjoyed over the last 25 years. We reveal a complex picture of strong markets that have given unrivaled returns to the investor willing to risk high levels of volatility. As developing nations' equity markets become increasingly integrated with the financial mechanisms of the developed world, we look forward to a possible future where emerging markets (EMs) are increasingly stable, but are unable to offer returns comparable to a decade ago.[1]

1. In this paper, emerging markets (EMs) refers to all of the non-OECD countries. Rapid-growth markets (RGMs) refers to the 25 countries tracked for Ernst & Young's *Rapid-Growth Markets Forecast*.

Background

Mature stock markets encourage economic growth

Typically, economists see financial development and economic growth as related in two ways (see Appendix 1):

- Financial deepening promotes economic growth
- Economic growth stimulates financial development

In principle, a well-developed stock market should increase savings and efficiently allocate capital to productive investments, which in turn leads to an increased rate of economic growth. Stock markets allow savers to diversify their portfolios by making more financial instruments available to them, which contributes to the mobilization of domestic savings. In this way, stock markets provide an important source of investment capital at relatively low cost.

In a mature stock market, share ownership provides individuals with a relatively liquid means of sharing risk when investing in promising projects. Stock markets help investors to cope with liquidity risk by allowing those who are hit by a liquidity shock to sell their shares to other investors with better liquidity. The result is that capital is not prematurely removed from firms to meet short-term liquidity needs.

Moreover, stock markets play a key role in allocating capital to the corporate sector, which has significant effects on the economy as a whole. Debt finance is likely to be unavailable in many countries, particularly those in EMs, where bank loans may be limited to a selected group of companies and individual investors. In addition, well-developed and active stock markets alter the pattern of demand for money. Booming stock markets create liquidity, and hence spur economic growth.

Through the takeover mechanism, stock markets ensure that past investments are used most efficiently. A free market in corporate control provides financial discipline and is therefore the best guarantee of the efficient use of assets.[2]

The rise in equity capitalization in emerging markets

Equity markets in EM economies have surged at a breathtaking speed in the last decade. After hovering around 20%–25% of GDP for most of the 1990s, EM's stock market capitalization, as a share of collective GDP, more than doubled from 2000 to 2007 (Figure 1).[3] From late 2007, the global recession caused a sharp correction in EM share prices that continued through 2008. There was recovery in 2009 and 2010 and since then the collective capitalization ratio for developing markets has been hovering at just under 40%.

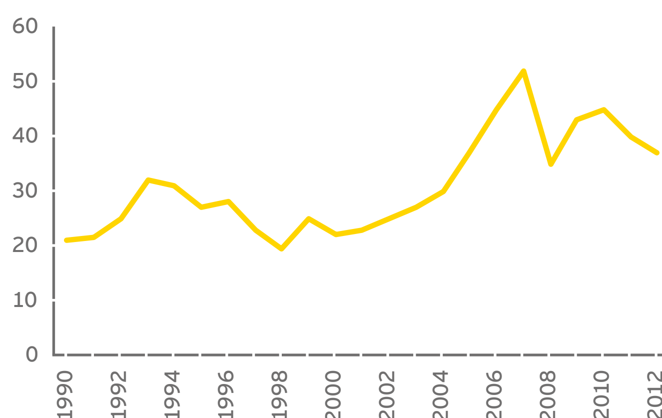
The total market capitalization of EM countries has increased approximately tenfold over the past 15 years: from less than US$2 trillion in 1995 to about US$5 trillion in 2005, to approximately US$13 trillion by the end of 2011. By comparison, over the same period, total market capitalization in the developed markets has only doubled. Since the beginning of the 21st century, the EMs' share of global stock market capitalization has risen from 7% to a current figure of approximately 30% (Figure 2).

Looking to the future, even if EM capitalization only grows in line with GDP, by 2030 it could account for as much as half of the world total. In fact, EM equity capitalization is likely to grow even more swiftly: the ratio of a country's capitalization to GDP tends to rise as markets develop because there is increased equity issuance and a greater number of initial public offerings (IPOs). If this happens, today's EMs could account for almost half of total world equity capitalization by as early as 2020.

Figure 1

Stock market development in emerging markets, 1990–2012

(Market capitalization-to-GDP ratio for EMs)

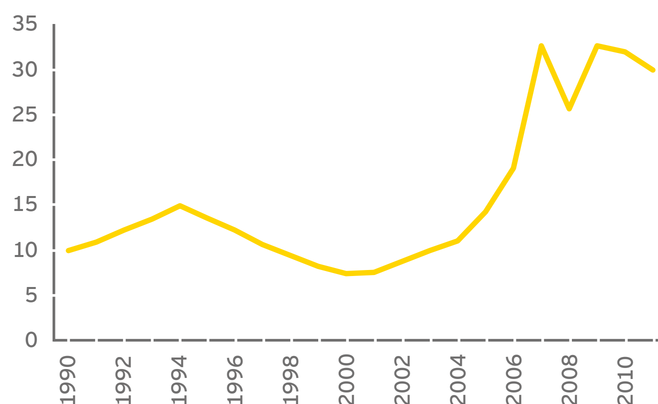


Source: ***World Development Indicators***, World Bank (IEMS calculation), 2012.
Note: Based on averages of a sample of 69 EM countries.
See Appendix 2 for the full list of countries.

Figure 2

Emerging market stock market capitalization

(Percentage of global stock market capitalization, end of year)



Source: ***World Development Indicators***, World Bank (IEMS calculation), 2012.

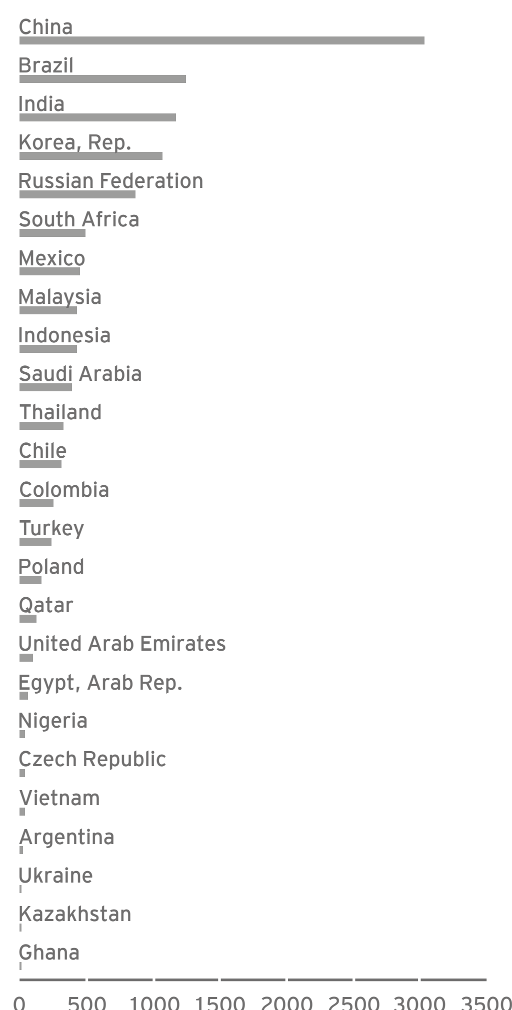
2. Parts of this analysis provided by Caporale et al., "Stock market development and economic growth: the causal linkage," *Journal of Economic Development* Vol. 29. No. 24. June 2004, pp. 33–50 pp. 34–35.
3. Market capitalization is the total value of the tradable shares of a publicly traded company; it is equal to the share price times the number of shares outstanding.

Figure 3 lists the 25 rapid-growth markets (RGMs) tracked for the Ernst & Young *Rapid-Growth Markets Forecast* by their total market capitalization at mid-year 2012. While the benchmark Shanghai Stock Exchange has been trading at around half of its 2007 peak for some time, it is still ranked first with a total market capitalization of US$3.1 trillion. The distribution of equity capital in the emerging world is uneven, with Brazil, Russia, India and China (BRIC), plus South Africa and South Korea accounting for approximately 70% of RGMs' total equity capitalization. To provide some scale, the United States and France had a stock market capitalization of US$16.7 trillion and US$1.5 trillion respectively by mid-year 2012.[4]

Figure 3

RGM stock market capitalization

(June 2012, US$ billion)

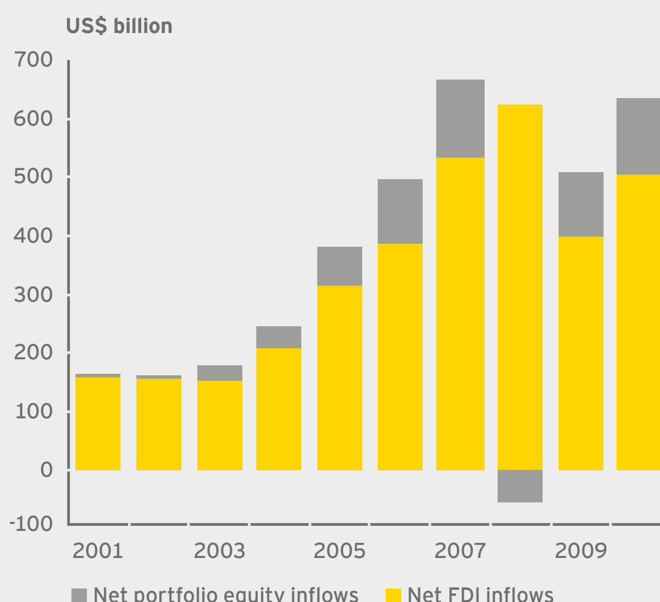


Source: Bloomberg, 2012

As Figure 4 shows, net equity inflows have become a very important source of funds for EM economies in recent years, growing fourfold between 2001 and 2007. Relative to foreign direct investment (FDI) net inflows, the share of net portfolio equity inflows has gained in prominence in recent years, having reached roughly US$130 billion in 2010, a historic high.[5]

Figure 4

Net equity flows to emerging markets 2001–10



Source: ***World Development Indicators***, World Bank (IEMS calculation), 2012.

4. Unless otherwise noted, all figures are from May 2012.

5. FDI inflows refer to the net inflows in investment to acquire a lasting management interest in the company.

The Middle East and North Africa (MENA) and the Southeast Asia and Pacific regions currently lead the EMs in average stock market capitalization as a share of their GDPs, as Figure 5 shows.[6] Within Asia, Malaysia, Thailand and the Philippines all have market capitalizations that exceed the size of their economies (China's is 40%). Bangladesh, Mongolia, Nepal and Pakistan, meanwhile, have low capitalization ratios.

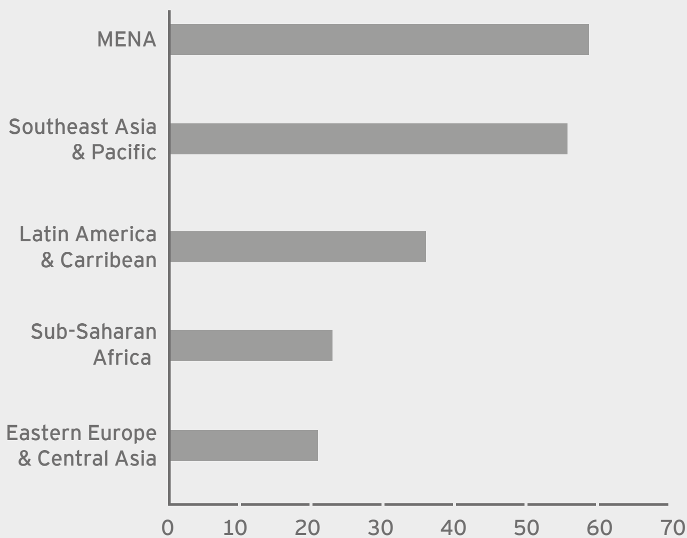
Sub-Saharan Africa slightly exceeds Eastern Europe and Central Asia in average capitalization, but this is largely omission bias given that, of 48 countries, the region has only 12 active stock markets. South Africa, with capitalization of 200% of GDP, is the only standout in the region.

Chile's 138% capitalization ratio is the highest in Latin America and the Caribbean, the only region to regain its 2007 peak after the financial crisis.

Eastern Europe and Central Asia's average capitalization ratio has only doubled since the turn of the century. This is a result of having a banking sector that dominates the allocation of capital and the fact that the region was hit particularly hard by the financial crisis.

Figure 5

Average stock market capitalization by region as a share of GDP, 2011 year-end values



Source: *World Development Indicators*, World Bank (IEMS calculation), 2012.
Note: Simple average of market capitalization for each region.

6. The MENA region data set only consists of six countries and may not be a good representation of market capitalization for the entire region. These were the only six countries with data available from 1990 through 2011.

Market capitalization and sector composition of BRIC stock markets

In compiling these profiles we examined the world's largest companies by equity market capitalization across eight major business sectors: basic materials, consumer staples, energy, finance, industry, technology, telecommunications and utilities.

China: an economic leader with even more potential

China now has the second-largest economy in the world. Its current total equity market capitalization of US$3.1 trillion is the second-highest in Asia, trailing only Japan. However, of the 400 companies ranked in the top 50 of each of our eight major sectors by market capitalization, only 27 are Chinese. Our analysis finds that China has much more potential in this area. Moreover, its stock market, which opened just two decades ago, is largely dominated by state-owned companies.

Shares in the financial sector have by far the largest weight in the Shanghai Composite, which tracks both A and B shares, comprising almost 35% of the index's total market capitalization.[7] This is followed by energy with a 20% share and industrials with 16%.

China is now the world's largest consumer of raw resources, but in the basic materials sector, it has just three companies ranked in the top 50 by equity market capitalization. Coal giant Shenhua Energy is ranked sixth but China Coal (32nd) and Inner Mongolia Baotou Steel (42nd) are much smaller.

7. A shares, priced in the local renminbi currency, are restricted to domestic investors, while B shares, which are quoted in US dollars, are available to both domestic and foreign investors. Since December 2002, foreign investors have been allowed (with limitations) to trade in A shares under the Qualified Foreign Institutional Investor (QFII) program.

China appears only low in both the health care and consumer staples and industrial sectors; for instance, China State Construction is ranked 43rd in industrial and Tingyi is 50th in consumer staples.

Despite the fact that China surpassed the US in 2009 as the largest consumer of energy, even in the utilities sector China only has one mainland company in the top 50, China Yangtze Power at no. 22.

Over the past five years, China has been very aggressive in acquiring energy resources abroad. Petrochina, China's largest company by equity capitalization overall, comprising 10% of the Shanghai Composite, is now almost the same size as top-ranked Exxon Mobil. Meanwhile, China Shenhua, China Petroleum and CNOOC (listed in Hong Kong) are all ranked in the top 20 within the energy market.

In the financial sector, significant state support via low borrowing costs and state-directed lending and some recent large IPOs have given Chinese banks and security firms a huge footprint. China accounts for eight of the top 50 global financial concerns (four are in the top 10), with ICBC and China Construction Bank currently ranked 1st and 3rd. Insurer, China Life, is ranked 13th.

China now has a significant presence in the telecom sector, with China Mobile having the largest market capitalization in the industry and two more, China Telecom and China Unicom, placed in the top 15.

Only in media and technology are China's private companies showing some relative size and influence. Baidu (listed on the NASDAQ) and Tencent (listed in Hong Kong) are ranked 12th and 14th within their respective sectors.[8]

Russia: standing on the shoulders of the energy giants

Among the BRICs, Russia has the smallest number of public companies in the eight sectors' top 50s, with only 10 listed firms. Not surprisingly, the energy sector accounts for half of these 10 giants. The gas export monopoly Gazprom has the largest equity market capitalization in Russia followed by oil giant Rosneft.

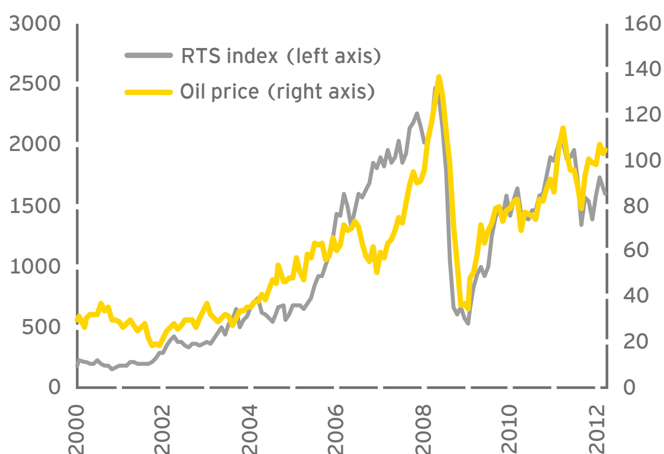
More than half of Russia's stock market (RTS index) capitalization comes from the energy sector. As a consequence, there is an almost perfect correlation between energy prices and movements in the Russian stock exchange.

Surprisingly, Russia only has one listed company, Norilsk Nickel at 38th, ranked in the basic minerals top 50, but has four under the minerals sector because it includes aluminum firm Rusal and steel makers Severstal and Novolipetsk. Despite being a country endowed with a good deal of human capital and a reasonably tech-savvy workforce, Russia has no listed companies in the top 50 in the technology sector.

8. Note that China's large state-run media companies are not listed.

Figure 6

Russian stocks and energy prices: moving in lockstep



Source: Bloomberg, 2012

Brazil: offshore oil discovery promises a strong future in energy

Brazil has a total of 16 listed companies in the top 50s of the eight sectors. It has four banks among the world's 50 largest, up from only one five years ago, although none are in the top 10.

In basic materials it has two steel and iron makers in the top 50 and mining giant Vale, Brazil's third-largest company by market capitalization, is approximately equal in size to number-one ranked Australian miner BHP Billiton.

Government-owned oil company Petrobras is Brazil's largest by market capitalization. While Brazil has three firms in the top 50 for energy, the discovery of massive oil deposits off Brazil's coast promises that this sector will only get bigger and more dominant in the future.[9]

Brazil has three companies within the top 50 in the telecom sector, although none of these are in the top 30. Brazil has no top 50 companies in the industrial and technology sectors.

At approximately 25%, financials comprises the largest share of stock market capitalization, followed by consumer staples at 18% and energy at 14%.

9. The new field is estimated to contain 50 billion barrels of oil, which would make it the world's largest known offshore deposit.

Market capitalization and sector composition of BRIC stock markets

India: technological expertise sets the subcontinent apart

India's benchmark stock index is the Sensex of the Bombay Stock Exchange (BSE), but the largest exchange in terms of turnover is the National Stock Exchange (NSE). It currently has 1,500 listed companies with a market capitalization of US$1.1 trillion.

Of the BRIC countries, India has the most equal distribution between the eight major sectors. It has 13 companies ranked in the top 50s of their respective sectors, with basic materials, industry and technology accounting for most of these. All companies are relatively small, however, with only two appearing in the top 25 for their respective sectors. Energy, materials and industrials currently account for 17%, 14% and 13% of total market capitalization respectively.

Unlike China, India's energy sector is not capitalizing at the rate it should be. This relatively small sector has placed only two companies in energy's top 50: ONGC India is 22nd and Reliance is 23rd.

The subcontinent has only one utility firm in the top 50, Gail India at 47th. Despite the growth in financial intermediation over the last decade, India has no top 50 financial institutions.

Where India expectedly shines is in the technology sector, with relative newcomers Wipro (28th) and Infosys (22nd). Tata Consultancy is India's largest IT company and is roughly the same size in terms of market capitalization as China's Baidu.

On the plus side, of India's 15 top companies, only four are state owned.

Impressive performances, but plenty of room for further growth

All in all, the BRIC countries currently account for 66 listed companies ranked within the 400 top companies of our eight business sectors. While this is a doubling of their numbers since 2005, 36 of these companies are state owned and comprise two-thirds of total market capitalization. It's telling that the BRICs only have three firms ranked in the top 50 for the consumer staples industry, but given the growth in their middle classes, this number is likely to increase rapidly.

Several important things come to light when we consider the world's top 100 companies by market capitalization (listed in Appendix 2). The first is the continued domination of American companies, which comprise 43 of the top 100 and 23 of the top 50. Second, despite its relatively small size, the UK has nine firms in the top 100, a disproportionately high number compared with other larger developed nations — for example, Japan has only two, France and Germany four.

The EM nations, with a total of 17, are somewhat underweight given their relative economic size — although they account for proportionately more in the top 500 companies. China accounts for nine (two of these are listed in Hong Kong) and also has three in the top 10.

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Trends in equity returns

The last decade: RGMs experience impressive growth and offer outstanding equity returns

Usually, economists expect corporate earnings to account for a roughly constant share of national income in the long run — i.e., a full business cycle. This implies that dividends should grow at a similar pace to the overall economy. As a consequence, fast-growing economies are expected to experience faster growth in real dividends and, in turn, higher stock returns.

It's no secret that the EM economies, and in particular the RGMs, had a breakout period both in terms of growth and equity returns last decade. Figure 7 lists the average annualized stock returns for the 25 RGMs from January 2000 to May 2012. Colombia came out on top with 29%, while the Ukraine, Kazakhstan, Indonesia and Russia all provided impressive equity returns. By comparison, the US Standard & Poor's 500 rose by 1.5%, while developed European and Japanese stocks fell by an average annualized rate of 4.6% and 4.3% respectively. Over the past 12 years, the MSCI Emerging Markets Index has beaten the annualized return of the MSCI World Index by 4.6% (6.2% versus 1.6%).[10]

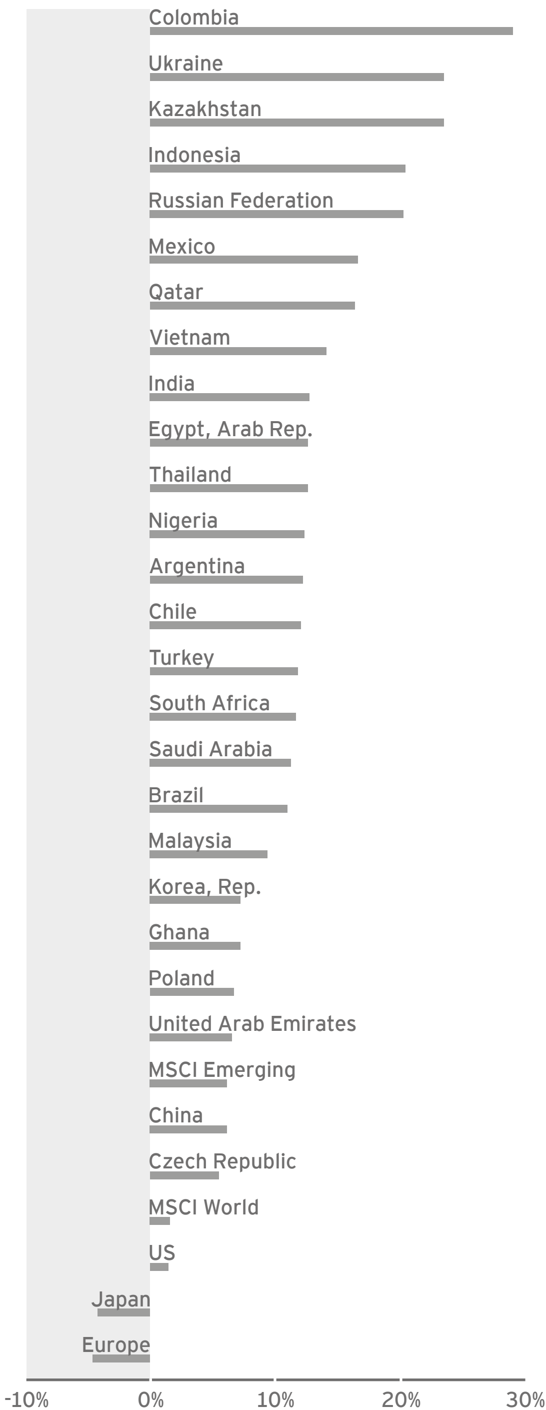
10. The MSCI Emerging Market Index is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global EMs; "free float-adjusted" implies the actual return foreign investors would receive given the numerous restrictions on foreign ownership. The MSCI World Index is a market-weighted index composed of companies representative of the market structure of 22 developed market countries in North America, Europe, and the Asia-Pacific region.

The difference in returns, compounded over this period, would have been considerable. For example, US$100 invested in Colombia's stock market in 2000 would be worth approximately US$2,700 by 2012. For the Chinese, American and Japanese stock markets the corresponding returns would have been US$217, US$121 and US$56 respectively.

This one-sided performance by RGM equities, and EM equities more broadly, reinforced the belief among many that, although these stocks could be volatile, holding them over sufficiently substantial periods would yield superior returns as long as the developing economies were growing faster than their developed counterparts.

Figure 7

RGMs average annualized equity returns 2000–12



Source: Bloomberg, 2012

Little correlation between GDP growth and equity returns

It may seem obvious to conclude that owning equities for many years in rapidly growing economies would yield strong returns, but in fact, a growing amount of academic research has suggested that historically there has been no correlation between economic growth and equity returns over long periods of time.[11]

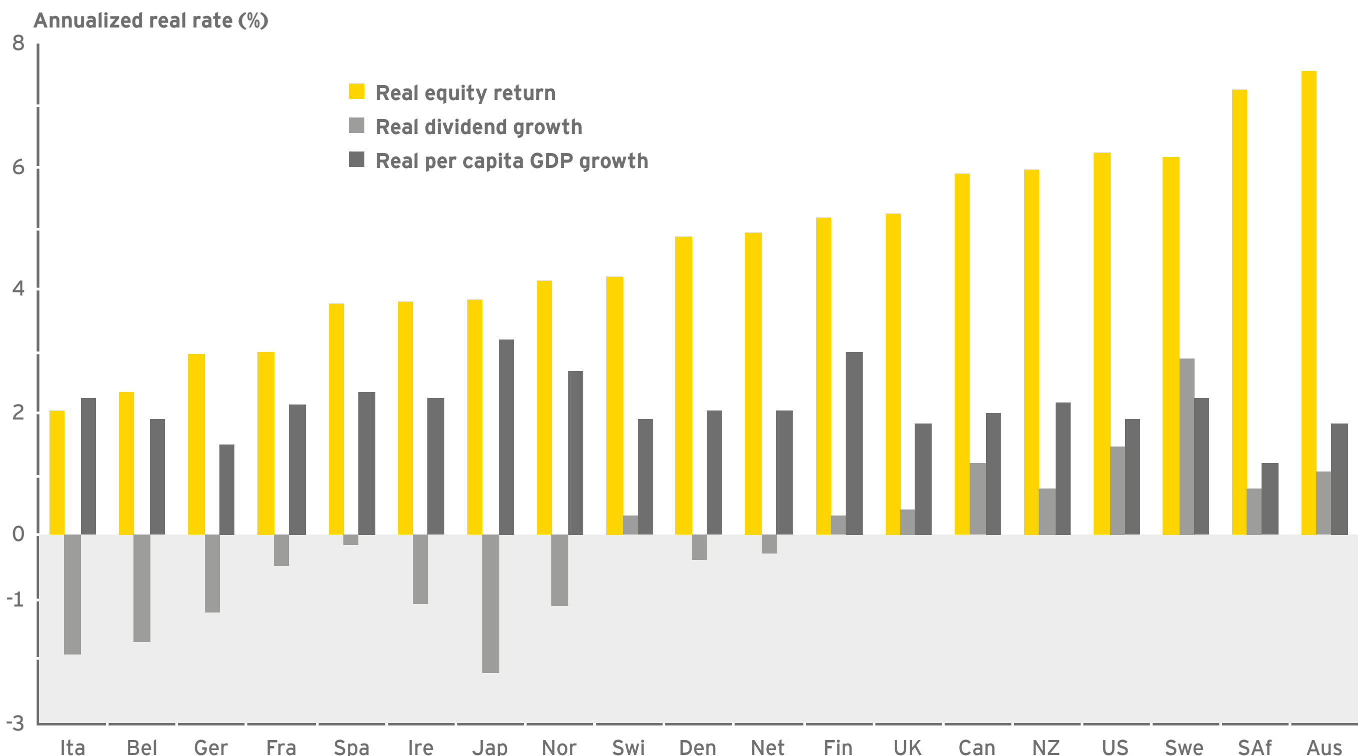
Figure 8 ranks the real equity returns of 19 countries between 1900 and 2010, from lowest to highest, while comparing them with real dividend and real per capita GDP growth.[12] Three interesting patterns emerge:

1. There is a strong correlation of 0.87 between real equity returns and real dividend growth across the 19 countries.
2. The claim that real dividends grow at the same rate as real GDP clearly does not hold — at least for this sample set over this period. In fact, when adjusted for inflation, real dividend growth has lagged behind real per capita GDP growth and the correlation between the two is negative (-0.3).
3. Most importantly, with a correlation of -0.23, the supposedly strong positive correlation between long-run real growth in per capita GDP and real equity returns is completely non-existent.[13]

As Table 1 highlights, among most of the RGMs last decade, there was little correlation between per capita GDP growth and average annualized returns.[14] The Russian stock market returned approximately three times more than China's, but only generated half the per capita GDP growth.[15] In fact, China has experienced faster growth than any other RGM economy, yet its equity returns were the lowest among the BRICs last decade. South Africa and Brazil grew at half the rate of India last decade, but offered approximately equal equity returns. Indonesia also provided vastly disproportionate returns (3.8% versus 21.4%) while Colombia's superior equity returns were met with relative lackluster per capita income growth.

Figure 8

Returns, dividends and GDP growth, 1900–2010



Source: Credit Suisse Global Investment Returns Yearbook 2010, Credit Suisse Research Institute, 2010 (author's calculations).

11. See Jay Ritter, "Economic Growth and Equity Returns", *Pacific-Basin Finance Journal* 13, 2005, pp. 489–503.
12. Growth in real GDP per capita, as opposed to growth in real GDP is used here because it allows for population growth and provides a more direct accurate measure of growth in prosperity.
13. Ritter, p. 15.
14. In fact, for all 25 RGMs, the correlation coefficient was positive but only 15%.
15. Russia's outsized return can largely be explained by both the bounce back from its lost decade of the 1990s and the precipitous rise in energy prices.

Table 1

Economic growth and equity returns

Little correlation between RGMs' real per capita GDP growth and annualized equity returns (2000–11)

Country	GDP growth per capita	Annualized equity return (%)
China	9.6	8.3
India	5.6	15.6
Russia	5.6	24.5
South Korea	4.1	7.2
Indonesia	3.8	21.4
South Africa	2.6	12.5
Colombia	2.5	29.1
Brazil	2.0	13.6
Mexico	0.9	16.7

Source: Bloomberg, 2011

Why rapid economic growth does not always result in excellent stock performance

There are a number of factors that explain why strong economic growth does not necessarily result in better equity returns:

1. Fundamentally, growth in a country's real economy is not the same as growth in its stock market capitalization. GDP growth reflects the level of real activity in an economy and it can grow in the absence of a stock market; for instance, two decades ago Japan was able to record impressive GDP growth primarily through bank financing.[16]
2. Growth in market capitalization may not provide returns to investors. Market capitalization can grow through privatization, deleveraging, acquisitions, IPOs, equity issuance by listed companies and listings by companies that might otherwise be traded elsewhere. None of these factors will necessarily result in added value for stockholders of listed companies.[17]
3. Global investors are often unable to share in EM returns because EM companies may be largely offset to foreign investors. While government, family or domestic investors may enjoy value increases, global investors are unable to share fully in these companies' performances.[18] For example, the weighting of EMs in the global indexes such as Global MSCI is only approximately 10%. In many EMs, there are still significant restrictions on which shares foreigners can own; for instance, in China, foreigner investors are restricted to B shares and excluded from owning A shares. This is why investors cannot invest in global markets in proportion to each country's GDP. Investors, at best, can only hold shares in each market in proportion to its free-float capitalization.
4. There may be no clear correspondence between a company's place of origin and its economic exposure. EM companies that trade internationally may be dependent on growth in the developed world. Similarly, multinationals in developed economies are increasingly reliant upon growth in emerging countries.[19] The largest firms quoted on most national markets are multinationals whose profits depend on worldwide, rather than domestic, economic growth.
5. In line with the efficient market hypothesis, if there is a consensus that EM growth will be higher, then this should already be reflected in stock prices. The developing market story of the past decade is not exactly a new one and it seems highly unlikely that investors' expectations have not already been fully reflected in EM stock prices.
6. The growth of listed companies contributes only a portion of a nation's increase in GDP. In entrepreneurial-oriented countries, new private enterprises contribute to GDP growth but not to the dividends of public companies. As a consequence, there is a gap between long-term economic growth and dividend and earnings growth.[20]

16. *Credit Suisse Global Investment Returns Yearbook 2010*, Credit Suisse Research Institute, 2010, p. 9.
17. *Credit Suisse Global Investment Returns Yearbook 2010*, p. 9.
18. *Credit Suisse Global Investment Returns Yearbook 2010*, p. 9.
19. *Credit Suisse Global Investment Returns Yearbook 2010*, p. 9.
20. *Credit Suisse Global Investment Returns Yearbook 2010*, p. 15.

Emerging market equities outpace developed markets — but only when EM economies are growing faster

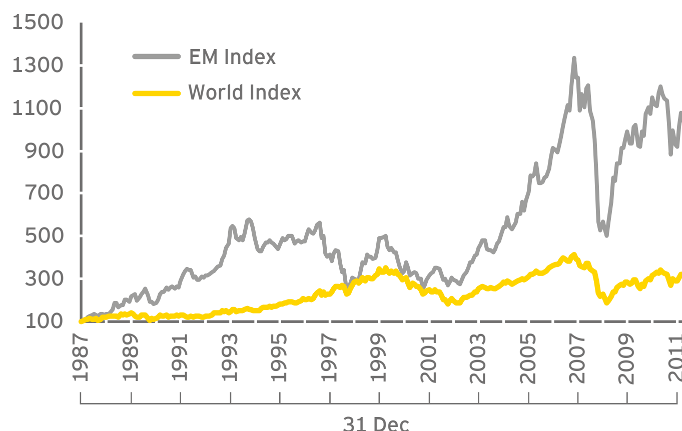
It would seem, then, that the supposed link between economic growth and stock market performance is non-existent. But is this conclusion too simplistic? The performance of EM economies has varied enormously over the past three decades, alternating between stable growth and severe crises, but a more subtle pattern emerges when we look in more detail at the performance of EM economies in this period.

Figure 9 charts the performance of the MSCI Emerging Markets Index versus the MSCI World Index between 1987 and 2012.[21] One hundred US dollars invested in the Emerging Markets Index on December 1987 would have been worth US$1,030 in May 2012, realizing an annualized return of 10%. An equivalent investment over the same period in the developed markets would have been worth US$317, representing an annualized return of 4.8%. Interestingly, over the last 25 years, a diversified portfolio of EM stocks has enjoyed twice the return of a diversified portfolio of developed market stocks. However, while it is ultimately true that long-run returns have been greater for investors in EMs, it is also true that there has been enormous variation in the returns from the developing world over the last 25 years — as Figure 10 illustrates (we address volatility separately below).

Figure 9

Contrasting stock returns 1988-2012

(Based on US$100 invested in December 1987)



Source: Bloomberg, 2012, Note: through May 2012

We know that emerging economies generally performed well in the 1960s and 1970s, with high and stable growth, but struggled throughout the 1980s under the shadow of the Latin American debt crisis.

Then, in the late 1980s, EM equities really began to surge, rising almost sixfold in just six years. This lasted until the mid-1990s. Economic growth for the emerging economies also returned during this period.

Table 2

The peaks and valleys

	Bottom1	Peak1	Gain (%)	Bottom2	Loss (%)	Peak2	Gain (%)
EM	251	1338	432	527	-61	1204.03	128
	28 Sep 01	31 Oct 07		28 Nov 08		29 Apr 11	
World	180.93	412.35	128	184	-55	340.36	85
	30 Sep 02	31 Oct 07		27 Feb 09		29 Apr 11	

Source: Bloomberg, 2012

21. The MSCI Emerging Markets Index data is not available before 1987.

However, this period of strong growth did not last long. The 1994 Mexican crisis, the Asian crisis of 1997, and the crises in Russia and Brazil in 1998 severely dampened growth. The emerging equity markets did not pick up until after Argentina's major sovereign default in 2001.

Following this series of shocks, the emerging equity markets enjoyed a strong but brief recovery in the first years of the 21st century. This was cut short again by the bursting of the dot-com bubble and 9/11 attacks in 2001. However, the story has been very different in the last decade. Economic growth surged in EM economies after 2001 and, until the global recession of 2008, they experienced one of the greatest bull markets in modern history. From late 2001 until late 2007, EM stocks rose 432% — that amounts to average annualized gains of 32%.

Emerging stocks did fall violently during the recession: from peak to trough the MSCI Emerging Markets and MSCI World Indexes fell 61% and 55%, respectively, but since then MSCI Emerging Markets Index has shown a significant recovery of lost ground.

Developed market equities, while also staging a strong recovery since the recession, are no higher today than early 2000, before the dot-com bubble burst. It was very simply a lost decade for investors in the developed stock markets.

The pattern over the last 25 years has been that EM equities have always outperformed mature equities when developing economies were growing faster than developed markets — and they have underperformed when the reverse was true.

Spectacular EM stock returns are tempered by greater market volatility

Any investor enjoying long-run returns from the EM stock markets has also had to put up with a very high level of volatility over the last 25 years — as Figure 10 illustrates.

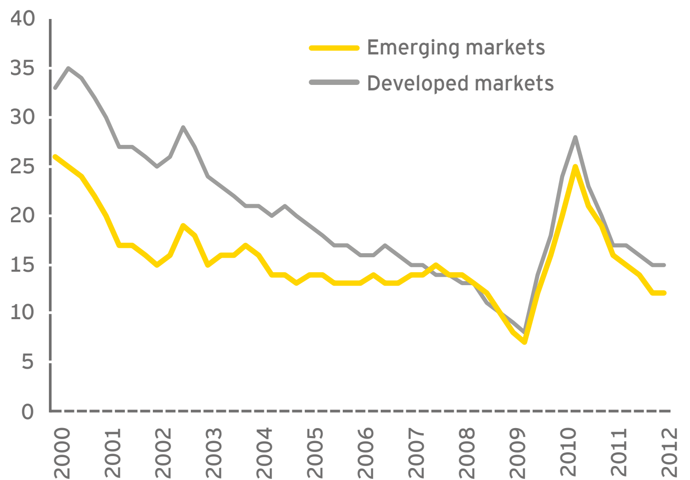
With the origins of the recent financial crisis in the developed world, however, relative risk perceptions have been rapidly changing. Some analysts believe that with many of the developed economies coming out of the crisis with significant private and public debt levels, EMs might now be relatively less risky; for the first time, all BRIC countries currently possess investment-grade sovereign debt ratings.

We know the impressive returns the EM stock markets exhibited last decade were big enough to change average annual returns in favor of EMs going back at least a quarter of a century. But what about risk?

EM equities have always sold at a discount in comparison to developed market equities: global investors have generally demanded a relatively lower price because developing market securities were viewed as more volatile. During the past decade, however, the price-to-earnings ratio gap between emerging and developed markets has largely dissipated, as Figure 11 shows. This implies that the equity risk premium associated with EM economies has declined dramatically (along with the risk-free real discount rate).[22]

Figure 10

Equity market valuations — trailing price-to-earnings (P/E) ratio



Source: Bloomberg, 2012

22. Orthodox financial theory postulates that it is plausible that EM stocks should actually trade at a higher price/earnings multiple than mature market stocks since the former somewhat resemble growth stocks and the latter value stocks, based on relative expected nominal GDP growth.

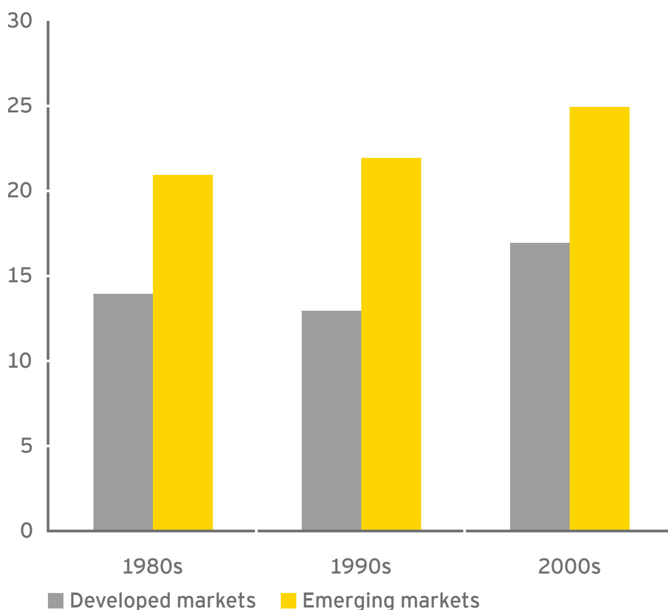
Since the 1980s, EM equity returns have been unambiguously more volatile than equity returns in the developed world, as Figure 11, which shows the annualized standard deviation of returns, makes clear. This is no surprise to economists.

What might come as a surprise, however, is that the standard deviation of returns has increased in recent years, both absolutely and relative to mature stocks. In the past decade, EM returns had an annualized standard deviation of 47% — almost twice the 24% of developed market stocks. This means that holding a diversified portfolio of EM stocks may have paid handsomely last decade, but the investor paid a heavy price in terms of sheer volatility.

Figure 11

Standard deviation of stock returns

(Annualized standard deviation of stock returns, %)



Source: Bloomberg, 2012 (IEMS estimate). Note: standard deviation of the MSCI World and MSCI Emerging Markets Indexes.

EMs remain hypersensitive to global economic conditions

While the EM economies seemed to have partially decoupled from the developed economies in terms of economic growth in the most recent business cycle, the fact remains that they are still hypersensitive to global financial and economic conditions. Their market beta over this period was 1.3 — i.e., EM returns were approximately 30% more volatile than those recorded on the MSCI World Index. This above-average volatility was a consequence of EMs' relatively poor performance during the dot-com crash and the global recession and superior recoveries after the lows of March 2003 and March 2009.

According to Capital Asset Pricing Model (CAPM) theory, a higher market beta implies a higher expected return for stocks; as a consequence, EMs should give modestly higher relative returns.[23] We do not need the superior-growth argument discussed above to explain this, but simply a financial argument as old as time: investors require higher returns for higher risk.[24]

23. CAPM describes the relationship between risk and the expected return of a security. Note, that after adjusting for the "risk-adjusted" returns, the annualized returns in the developed market don't look so bad.

24. *Credit Suisse Global Investment Returns Yearbook 2010*, p. 11.

Conclusions

Emerging markets move toward the mainstream, but investors must still be prudent

In just one decade, equity markets in the emerging world have flourished and become critical sources of finance for EM businesses. It is arguably the most important development in international finance of the past 10 years.

EM stocks have been able to offer significantly higher average annualized returns than developed markets over the last 25 years — especially when emerging nations have enjoyed strong economic growth. In the last decade, the RGMs in particular have experienced very strong growth and given excellent equity returns.

The main challenges for investors in EM stock markets have been variation and volatility. EM markets have proved to be much more sensitive to global economic forces than developed markets and have offered significant variation in returns. Markets in emerging nations are considerably more risky than those in developed nations and volatility is a real problem for the investor. But despite this volatility, EM stock markets do offer diversification benefits through exposure to different economic sectors and different stages of the business cycle.

It is still necessary for investors to be cautious about investing in EMs, whose equities no longer appear to be the bargain they were a decade ago. The developing market story is largely reflected in share prices, which is why price-earnings multiples are close to parity with developed market stocks. Furthermore, investors should bear in mind that they are not buying into growth, but purchasing real companies whose returns may or may not correlate with national economic performance.

Nevertheless, today EM stocks are increasingly becoming mainstream options for global investors. This interest will only increase as developing economies grow and their financial markets become more integrated with those in the developed world. Though in the past EMs rarely soared for very long before faltering, economic growth could remain much stronger in the EM economies relative to the developed world for many years to come. It is possible that emerging economies have finally got it right and that it is reasonable to expect the higher equity returns of the last decade over a protracted period.

Appendix 1

The relationship between economic growth and financial development is well documented:

An overview is offered by J.Z. Shan, A.G. Morris, and F. Sun, in "Financial Development and Economic Growth: an egg and chicken problem," in *Review of International Economics* Vol. 9, Issue 3, August 2001, pp. 443–454 and M.S. Khan and A.S. Senhadji, "Financial Development and Economic Growth," in *Journal of African Economies*, vol.12, suppl.2, 2003, pp. 89–110.

For a comprehensive review see Ross Levine, "Finance and Growth: Theory and Evidence," in Philippe Aghion & Steven Durlauf eds., *Handbook of Economic Growth* (Elsevier, 2005), pp. 865–934.

Ronald McKinnon in *Money and Capital in Economic Development* (Brookings Institution, 1973), E.S. Shaw in *Financial Deepening in Economic Development* (Oxford University Press, 1973) and R. King and Ross Levine in "Finance and growth: Schumpeter might be right," in *Quarterly Journal of Economics* 108, 1993, pp. 717–738, argue the link from financial deepening to growth. J.G. Gurley & E.S. Shaw in "Financial Development and Economic Development," in *Economic Development and Cultural Change* vol. 15, no. 3, April 1967, pp. 257–268 and Raymond Goldsmith, in *Financial Structure and Development*, (Yale University Press, 1969) support the opposite argument.

On the two-way causality between financial development and economic growth see Kul B. Luintel and Mosahid Khan, "A Quantitative Reassessment of the Finance-Growth Nexus: Evidence from a Multivariate VAR," in *Journal of Development Economics*, December 1999, pp. 381–405 and Shan et al., "Financial Development and Economic Growth: an egg and chicken problem."

Appendix 2

Table 3

Capitalization ratios by country — 2010

MENA		Sub-Saharan Africa		Latin America & Caribbean		Southeast Asia & Pacific		Eastern Europe & Central Asia	
Egypt	**47**	Botswana	**36**	Argentina	**14**	Bangladesh	**7**	Armenia	**3**
Iran	**14**	Cote d'Ivoire	**22**	Bolivia	**16**	China	**142**	Bulgaria	**13**
Jordan	**130**	Ghana	**24**	Brazil	**104**	India	**120**	Croatia	**46**
Lebanon	**43**	Kenya	**30**	Chile	**138**	Indonesia	**40**	Estonia	**1**
Morocco	**92**	Malawi	**74**	Colombia	**74**	Malaysia	**135**	Georgia	**0**
Tunisia	**28**	Namibia	**14**	Costa Rica	**6**	Mongolia	**5**	Hungary	**23**
		Nigeria	**7**	Ecuador	**7**	Nepal	**21**	Kazakhstan	**50**
		South Africa	**299**	El Salvador	**24**	Pakistan	**26**	Kyrgyz Republic	**2**
		Tanzania	**6**	Guatemala	**1**	Papua New Guinea	**42**	Latvia	**8**
		Uganda	**0**	Jamaica	**40**	Philippines	**73**	Lithuania	**16**
		Zambia	**7**	Mexico	**55**	Sri Lanka	**29**	Macedonia, FYR	**19**
		Zimbabwe	**37**	Panama	**38**	Thailand	**51**	Poland	**53**
				Paraguay	**1**	Vietnam	**35**	Romania	**27**
				Peru	**61**			Russia	**41**
				Uruguay	**1**			Serbia	**11**
				Venezuela	**2**			Turkey	**44**
								Ukraine	**14**
								Uzbekistan	**1**

Table 4

Capitalization ratios for Ernst & Young's RGMs — 2010

South Africa	**299**	Poland	**53**
China	**142**	Thailand	**51**
Chile	**138**	Kazakhstan	**50**
Malaysia	**135**	Egypt	**47**
India	**120**	Turkey	**44**
Brazil	**104**	Russia	**41**
Mexico	**55**	Indonesia	**40**
		Vietnam	**35**
		Ghana	**24**
		Ukraine	**14**
		Argentina	**14**
		Nigeria	**7**

Table 5

The top 100 global companies by market capitalization 2012

(Emerging market companies listed in yellow)

Global top 100	Territory	Sector	Market cap (US$ billion)
Apple Inc	United States	Information technology	531
Exxon Mobil Corp	United States	Energy	393
PetroChina Co Ltd	China	Energy	282
Microsoft Corp	United States	Information technology	256
Industrial & Commercial Bank	China	Financials	239
International Business Machine	United States	Information technology	232
China Mobile Ltd	China	Telecommunication services	224
Royal Dutch Shell PLC	Netherlands	Energy	217
Berkshire Hathaway Inc	United States	Financials	204
General Electric Co	United States	Industrials	204
Chevron Corp	United States	Energy	203
Wal-Mart Stores Inc	United States	Consumer staples	201
Google Inc	United States	Information technology	200
Nestle SA	Switzerland	Consumer staples	196
AT&T Inc	United States	Telecommunication services	194
China Construction Bank Corp	China	Financials	185
Johnson & Johnson	United States	Health care	178
BHP Billiton PLC	United Kingdom	Materials	176
Wells Fargo & Co	United States	Financials	176
Procter & Gamble Co/The	United States	Consumer staples	176
BHP Billiton Ltd	Australia	Materials	175
Coca-Cola Co/The	United States	Consumer staples	174
Samsung Electronics Co Ltd	South Korea	Information technology	172
Pfizer Inc	United States	Health care	169
HSBC Holdings PLC	United Kingdom	Financials	161
JPMorgan Chase & Co	United States	Financials	158
Philip Morris International Inc	United States	Consumer staples	151
Roche Holding AG	Switzerland	Health care	148
Novartis AG	Switzerland	Health care	146
Agricultural Bank of China Ltd	China	Financials	141
Petroleo Brasileiro SA	Brazil	Energy	139
Oracle Corp	United States	Information technology	139
Intel Corp	United States	Information technology	137
Vodafone Group PLC	United Kingdom	Telecommunication services	137
Toyota Motor Corp	Japan	Consumer discretionary	135
Ecopetrol SA	Colombia	Energy	131
Gazprom OAO	Russia	Energy	129
BP PLC	United Kingdom	Energy	127
Bank of China Ltd	China	Financials	127
Merck & Co Inc	United States	Health care	117

Source: Bloomberg, 2012

Table 5 (continued)

The top 100 global companies by market capitalization 2012

(Emerging market companies listed in yellow)

Global top 100	Territory	Sector	Market cap (US$ billion)
Anheuser-Busch InBev NV	Belgium	Consumer staples	117
Cia de Bebidas das Americas	Brazil	Consumer staples	116
GlaxoSmithKline PLC	United Kingdom	Health care	116
Verizon Communications Inc	United States	Telecommunication services	115
Vale SA	Brazil	Materials	111
QUALCOMM Inc	United States	Information technology	107
Total SA	France	Energy	107
PepsiCo Inc	United States	Consumer staples	104
Unilever PLC	United Kingdom	Consumer staples	101
Amazon.com Inc	United States	Consumer discretionary	101
Cisco Systems Inc	United States	Information technology	101
Unilever NV	Netherlands	Consumer staples	101
Sanofi	France	Health care	100
SPDR S&P 500 ETF Trust	United States		99
America Movil SAB de CV	Mexico	Telecommunication services	99
Abbott Laboratories	United States	Health care	98
British American Tobacco PLC	United Kingdom	Consumer staples	98
Rio Tinto PLC	United Kingdom	Materials	98
Rio Tinto Ltd	Australia	Materials	98
China Petroleum & Chemical	China	Energy	97
McDonald's Corp	United States	Consumer discretionary	95
Schlumberger Ltd	United States	Energy	94
Citigroup Inc	United States	Financials	92
CNOOC Ltd	China	Energy	89
ENI SpA	Italy	Energy	86
Novo Nordisk A/S	Denmark	Health care	85
China Shenhua Energy Co Ltd	China	Energy	85
Bank of America Corp	United States	Financials	84
Commonwealth Bank of Australia	Australia	Financials	83
LVMH Moet Hennessy Louis Vuitton	France	Consumer discretionary	81
Statoil ASA	Norway	Energy	80
Saudi Basic Industries Corp	Saudi Arabia	Materials	80
China Life Insurance Co Ltd	China	Financials	80
Visa Inc	United States	Information technology	80
Walt Disney Co/The	United States	Consumer discretionary	79
Comcast Corp	United States	Consumer discretionary	79
Siemens AG	Germany	Industrials	79
Volkswagen AG	Germany	Consumer discretionary	79
Royal Bank of Canada	Canada	Financials	78
Home Depot Inc/The	United States	Consumer discretionary	77

Source: Bloomberg, 2012

Table 5 (continued)

The top 100 global companies by market capitalization 2012

(Emerging market companies listed in yellow)

Global top 100	Territory	Sector	Market cap (US$ billion)
SAP AG	Germany	Information technology	**76**
United Parcel Service Inc	United States	Industrials	**74**
Taiwan Semiconductor Manufactu	Taiwan	Information technology	**74**
Toronto-Dominion Bank/The	Canada	Financials	**73**
Grupo Bafar SA de CV	**Mexico**	**Consumer staples**	**72**
BG Group PLC	United Kingdom	Energy	**72**
NTT DoCoMo Inc	Japan	Telecommunication services	**72**
United Technologies Corp	United States	Industrials	**72**
L'Oreal SA	France	Consumer staples	**71**
Occidental Petroleum Corp	United States	Energy	**71**
Westpac Banking Corp	Australia	Financials	**70**
Kraft Foods Inc	United States	Consumer staples	**69**
American Express Co	United States	Financials	**69**
ConocoPhillips	United States	Energy	**69**
BASF SE	Germany	Materials	**68**
Rosneft Oil Co	**Russia**	**Energy**	**68**
Telefonica SA	Spain	Telecommunication services	**66**
SPDR Gold Shares	United States		**66**
Altria Group Inc	United States	Consumer staples	**66**
Itau Unibanco Holding SA	**Brazil**	**Financials**	**65**

Source: Bloomberg, 2012

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