



C A M B R I D G E A S S O C I A T E S L L C

## EMERGING MARKETS COMMENTARY

### EM: WHAT TO DO, WHAT TO DO...

November 2007

Aaron Costello

David Meek

Copyright © 2007 by Cambridge Associates LLC. All rights reserved.

This report may not be displayed, reproduced, distributed, transmitted, or used to create derivative works in any form, in whole or in part, by any means, without written permission from Cambridge Associates LLC ("CA"). Copying of this publication is a violation of federal copyright laws (17 U.S.C. 101 et seq.). Violators of this copyright may be subject to liability for substantial monetary damages. The information and material published in this report are confidential and non-transferable. This means that authorized members may not disclose any information or material derived from this report to third parties, or use information or material from this report, without prior written authorization. An authorized member may disclose information or material from this report to its staff, trustees, or Investment Committee with the understanding that these individuals will treat it confidentially. Additionally, information from this report may be disclosed if disclosure is required by law or court order, but members are required to provide notice to CA reasonably in advance of such disclosure. This report is provided for informational purposes only. It is not intended to constitute an offer of securities of any of the issuers that are described in the report. This report is provided only to persons that CA believes to be "Accredited Investors" as that term is defined in Regulation D under the Securities Act of 1933. When applicable, investors should completely review all Fund offering materials before considering an investment. No part of this report is intended as a recommendation of any firm or any security. Factual information contained herein about investment firms and their returns which has not been independently verified has generally been collected from the firms themselves through the mail. CA can neither assure nor accept responsibility for accuracy, but substantial legal liability may apply to misrepresentations of results delivered through the mail. The CA manager universe statistics, including medians, are derived from CA's proprietary database covering investment managers. These universe statistics and rankings exclude managers that exclude cash from their reported total returns, and for calculations including any years from 1998 to the present, those managers with less than \$50 million in product assets. Returns for inactive (discontinued) managers are included if performance is available for the entire period measured. Performance results are generally gross of investment management fees. CA does not necessarily endorse or recommend the managers in this universe.

Cambridge Associates LLC is a Massachusetts limited liability company headquartered in Boston, MA with branch offices in Arlington, VA, Dallas, TX and Menlo Park, CA. Cambridge Associates Limited is a Massachusetts limited liability company headquartered in Boston, MA and registered in England and Wales (No. FC022523, Branch No. BR005540). Cambridge Associates Limited also is registered to conduct business in Sydney, Australia (ARBD 109 366 654). Cambridge Associates Asia Pte Ltd is a Singapore corporation (Registration No. 200101063G).

## Emerging Markets: What To Do, What To Do...

While we remain bullish on emerging markets (EM) equities from a long-term *secular* standpoint, we have become increasingly concerned about the price risks facing EM equities given their rising level of overvaluation and a complacent (if not zealous) belief in “decoupling” among investors precisely when the United States and other developed economies are showing clear signs of economic weakness. While we agree that EM (especially Asian) economies are much better placed than in the past to weather any upcoming storm, the key issue for investors is whether EM *equities* have already priced in (if not overdiscounted) the resilience of EM *economies* in the face of recession-like conditions in the United States and slowing growth in Europe and Japan, thus leaving share prices vulnerable to substantial declines should EM growth or earnings begin to disappoint investors’ lofty expectations.

Indeed, gravity seems to have reasserted itself on EM equities, aided by the re-emergence of stress in the global credit markets; after surging 23% over September and October to new record highs (the fastest two-month appreciation since the heady spring days of 1999), the MSCI EM Index at one point had fallen by more than 10% during November. The current bout of market jitters notwithstanding (as events in the capital markets continue to unfold rapidly), there remains a growing consensus among commentators and investors that EM equities (and especially Chinese shares) are in the early stages of an investment mania that will increasingly gather steam as EM “decouple” from a slowing U.S. economy and as investors seek shelter from a tumbling US\$ via exposure to rising EM currencies.

EM equities, therefore, pose a difficult question for investors: do you embrace the EM growth story and ride the momentum all the way to the top, or do you heed the warnings signs from valuations and sentiment and reduce exposure at the risk of not fully participating in the speculative run-up? In our opinion, now is not the time to be aggressively overweight in EM equities. We recommend investors remain defensive in the current environment, as markets have not yet fully priced in a period of slower economic and earnings growth. Assiduous rebalancing will be the key to navigating any prospective mania in EM equities, and perhaps using market strength to take some money off the table is prudent at this juncture. Furthermore, while we clearly see the potential for the seeds of an EM mania to germinate; history has shown us that such “mania phases” have typically occurred only *after a substantial* pull back in equity prices (e.g., more than the recent 10% decline), implying a more opportune time to increase exposure may soon present itself. (See Table A.)

## Uncharted Territory

Since the early spring<sup>1</sup> we have been increasingly nervous regarding EM valuations, with the surge in share prices since August only escalating our concerns (nor has the recent slide in the markets done much to improve the valuation picture). At the end of October, the trailing 12-month price-earnings

---

<sup>1</sup> Please see our April 2007 Market Commentary *Emerging Markets Equities Have Become Overvalued*.

(P/E) ratio on the MSCI EM Index stood at 18.5, its highest level since 2000, and now above its post-1995 average, while based on the S&P IFC Investible Index (for which we have a longer valuation history dating back to 1988), EM have *never* been more expensive on a normalized cyclically adjusted basis, no matter what method of normalization is used (Table B).<sup>2</sup> Our preferred metric for EM equities (the normalized P/E ratio based on five-year average return on equity [ROE]) shows they are currently valued 2.6 standard deviations above their long-term mean—and that is assuming ROE *only reverts to the average level of the past five years*. The surge in valuations is even more astounding, given that this metric was “only” 1.1 standard deviations above the norm back in March. Other normalized metrics look even more stretched.

Perhaps even more importantly, the MSCI EM Index is now at post-1995 highs relative to developed markets based on 12-month trailing P/E, price-to-book, dividend yield, and price-to-cash earnings ratios (Table C), and now commands sizable *premia* on these metrics rather than their historical discount to developed markets. While this has certainly been a red flag in the past (and may well be in the short term), we do not disagree with the view that EM equities deserve such a premium given the shaky outlook for growth and corporate earnings in most developed economies and to some degree the relatively strong position of some EM currencies relative to the US\$. Moreover, such a valuation premium is not unprecedented as EM equities underwent such a re-rating during the 1988–94 bull market.<sup>3</sup>

This gets to the heart of the decoupling/EM mania story; investors seem to have bought hook, line, and sinker the view that growth in the emerging world will hold up no matter what happens to the U.S. economy, and that future Fed rate cuts will only add fuel to the global boom and accelerate the US\$’s slide. After the Federal Reserve cut rates in September a flood of money poured into EM equities. EM-dedicated funds saw a record \$34 billion of inflows in the ten weeks to October 31, more than all of the inflows seen in 2006, a record year in itself, bringing cumulative year-to-date 2007 inflows to a record \$43.2 billion (Table D).

Yet parabolic performance, record inflows, and uncharted valuations cannot help but force us to think that EM equities are running too hard, too fast. Indeed, the EM rally has become increasingly narrow, as only four out of 26 countries (China, Peru, Indonesia, and Brazil) have outperformed the MSCI EM Index over the past 12 months to October (a record low), compared to an average of 19 countries over 2003 and 13 countries over 2006 (Table E). Merrill Lynch calculates that only 33%, or one out of three stocks, outperformed over October, one of the lowest readings since the EM rally began. Such narrowing of market breadth is common at market peaks (whether cyclical or secular), and adds to our concern over the health of the current EM rally in the near term.

---

<sup>2</sup> The use of cyclically adjusted P/E ratios is especially important for EM equities, given that corporate earnings are even more volatile and heavily tied to the business cycle in emerging economies than they are in developed markets.

<sup>3</sup> EM equities (as measured by the S&P IFC Investible Index) traded at a P/E premium to developed markets (as measured by the MSCI World Index) over late 1989 to mid-1991, and again over 1994, peaking at a 32% premium to developed equities in October 1994.

While the first phase of the EM rally from March 2003 was driven primarily by rapid earnings growth and characterized by broad strength across countries and sectors, the structure of the bull market has changed significantly. In short, since late 2005 and especially over the past year, the EM rally has been driven largely by multiple expansion and a re-rating of emerging Asia, as Chinese equities have roared to life. Asian equities lagged during the first half of the EM rally, contributing only 44% of the EM Index return over the March 2003–December 2005 period, despite accounting for over half of the index’s market capitalization, resulting in the region trading at a 20% P/E discount to non-Asian markets as a whole at one point. Since 2005 this discount has reversed, with Asia now commanding a 30% premium, and accounting for 62% of EM returns, despite still composing roughly half of the market capitalization. China has been the top-performing market over this period, returning 268% and contributing 25% of the cumulative 82% return in EM equities, and now constitutes the single largest market in the EM Index, growing from 8% to 17% of market capitalization (Tables F and G).

This is not to say that other EM regions have not re-rated as of late, as the flood of money into the asset class has lifted all boats, but rather that after suffering a P/E *de-rating* over most of 2006 as the markets feared rising interest rates would crush U.S. growth, valuations outside of Asia are now just returning to their level of nearly two years ago, with the P/E ratio for the EM Index *excluding* Asia still below its December 2005 level. Furthermore, most of the recent P/E expansion in Asia can be attributed to China and India and not to Korea and Taiwan, while other heavyweight markets such as Russia, South Africa, and Mexico remain below their December 2005 levels (Table H). Again, this is not to say that valuations outside of Asia are “cheap” (as regional normalized P/E measures are elevated as well), but to highlight that there is growing dispersion among valuations and returns for individual countries, sectors, and stocks as the rally has become narrow.

In theory, this allows opportunities for managers to take tactical bets against a seemingly lopsided benchmark. Indeed, according to the Merrill Lynch Fund Manager report, EM managers now seem to be net underweight in both China and India in favor of Brazil and Russia. Fund flows reported by Emerging Portfolio Fund Research, Inc. confirm this and show the average global EM fund to be underweight China and Asia in general, while Brazil has become a clear overweight.

Looking at sector returns, it is clear that market “leadership” remains with cyclical plays, as energy, industrials, and materials have been the best-performing sectors throughout the whole rally since 2003, and especially year-to-date. While only constituting roughly a third of market capitalization, since December 2005 these three sectors have contributed nearly 50% of the MSCI EM Index’s cumulative return. This performance has come at the expense of domestic-demand sectors (consumer staples, consumer discretionary, and health care), which have accounted for only 7% of the index’s return, less than half their market-cap weight. Financials, meanwhile, have simply performed in line with their market weight, accounting for 20% of returns (Table I). The implication here is that EM remain geared to the rally in commodities, with EM performance closely tracking that of the CRB Commodity Index (Table J), leaving EM heavily exposed (for the time being) to any downturn in commodity prices, as it would both hit key sectors and imply global growth is stalling. However, given the relative underperformance of

domestic demand–related stocks, and the sense that such stocks should hold up well during a phase of weaker growth in developed markets, there is considerable scope for leadership to shift to these sectors. Indeed, according to the Merrill Lynch Fund Manager survey, 100% of EM managers surveyed responded they are seeking exposure to domestic demand–related stocks in the current environment.

### **What Is Going on in China?**

Despite all the hype over the Chinese economy, over the March 2003–December 2005 period the domestic Chinese A-share market (which is essentially closed to foreign investors) fell 18.7%, highlighting that strong economic growth itself is not a sufficient condition for a stock market rally. While the Hong Kong–listed H shares that compose the MSCI China Index<sup>4</sup> fared much better, doubling over the 2003–05 period, MSCI China only managed to rank 21st out of 26 EM. The albatross hanging around the domestic market’s neck was the large number of government-held shares (estimated at nearly two-thirds of shares outstanding), which investors feared would flood the market, while many of the “best” companies in China were choosing to list overseas. Following a host of stock market reforms designed to allow the transparent selling of so-called “non-tradable” shares in the future, the overhang issue was *perceived* to be resolved, while the moratorium on domestic IPOs was lifted, allowing speculative fervor to return to the A-share market. At the same time, a rash of hugely successful initial public offerings (IPOs) by Chinese banks on the Hong Kong H-share market attracted widespread attention, signaling Chinese equities were back in vogue.

Since then the A-share market has gone parabolic (rising more than fourfold, Table K), as both households and companies have poured money into the stock market given that their ample savings are languishing amid negative real interest rates with nowhere else to go; the government has tried to rein in the equally bubbly property markets (which have priced out most households anyway); and China’s closed capital account has until just recently not allowed mainland investors to tap foreign markets. Compounding this cauldron of “trapped” money is the fact that companies themselves have been active participants (some argue the main participants) in the markets, which has in turn inflated their earnings. Hong Kong–based broker CLSA estimates that 20% of nonfinancial A-share company profits are derived from nonoperating investment income, while for financial companies the figure is a massive 57%. This has clearly created a self-fulfilling bubble mechanism: further stock market gains result in stronger corporate earnings, which in theory supports higher stock prices, which in turn encourages further participation in the markets, not to mention a red-hot IPO market that has seen most issues more than double on debut. Another feature of the A-share bubble that is often overlooked is that the number of free-floating shares available on the market remains small compared to total shares outstanding (as the government share holding has not actually been unwound yet), creating a huge supply constraint and

---

<sup>4</sup> The MSCI China Index tracks primarily Hong Kong–listed H shares, which are freely available to foreign investors, unlike the domestic mainland A-share market, which is closed to all but a limited number of so-called “Qualified Foreign Institutional Investors.”

allowing small moves in demand to have outsized impacts on prices. All of this is highly reminiscent of the Japanese and Taiwanese stock market bubbles of the late 1980s, which suffered from the same ills.

The bubble in domestic Chinese equities has fed into the H-share market available to foreigners not only via the inflated earnings, but by investors increasingly playing an “A-share/H-share” arbitrage, given the large valuation discrepancy between those stocks with dual listings in both markets (despite the two share classes being nonfungible). Investors are piling into H shares (and Hong Kong stocks in general) in anticipation of Chinese officials following through on announced plans to allow mainland investors to purchase stocks in the Hong Kong markets.<sup>5</sup> This perceived flood of money will help erase the roughly 40% average discount H shares hold versus their A-share counterparts (of course few investors are considering the possibility that valuations could “converge” by a massive fall in A shares). This piling on has in some ways driven the re-rating of all Asian markets. While H shares rally toward A-share valuations (MSCI China trades on a trailing P/E of 30, compared to a P/E of 47 for the A-share market, according to Thomson Datastream), the rest of Asia looks increasingly cheap (Taiwan and Korea trade at P/Es of 19 and 15, respectively).

### **The Pause That Refreshes**

Aside from the clear “bubble logic” being employed by some investors in Chinese shares, the broader rally in EM stocks is based on the belief that EM economies can “decouple” from any growth slowdown in the U.S. economy as the EM economies themselves have reached such a critical mass as to offset any weakening in U.S. growth. The argument has credence, as according to Morgan Stanley, EM economies accounted for almost half of global GDP growth over the past year (more than four times the contribution of the U.S. economy), while China’s contribution to global growth has exceeded that of the United States for the first time ever.

However, investors must keep in mind the difference between *economies* and *markets*. The key determinant of returns for investors is not the rate of economic growth, but the price paid relative to the potential for future corporate profit growth. Indeed, studies have shown that equity market returns have a *negative correlation with GDP growth*, partly as expectations of strong economic growth become reflected in stocks prices well in advance of the turn in the business cycle.<sup>6</sup> This certainly seems to have happened in EM shares. Prices have clearly been bid-up beyond fundamentals, with investors extrapolating the current strength in EM economies and earnings going forward precisely when such growth may come under pressure. Furthermore, while EM may be able to decouple in an *economic* sense,

---

<sup>5</sup> There has been a series of developments on this front, including some backtracking by different Chinese agencies as to the actual scope and implementation of the Qualified Domestic Institutional Investor program.

<sup>6</sup> A recent study by Goldman Sachs finds a -24% correlation between EM equity returns and real output growth for a set of 25 EM economies since 1994.

that by itself does not mean that EM equities will be able to decouple *financially* in the short term, should risky assets take a tumble globally.<sup>7</sup>

While we agree that EM economies (especially in Asia) are well-positioned to handle any slowdown in global growth,<sup>8</sup> we feel that the markets (until recently) continue to seriously underprice the extent to which dislocations and tighter conditions in the credit markets will eventually weigh on growth in the United States, United Kingdom, and Europe, if not elsewhere. Whether or not the U.S. economy slides into recession (which is never known until well after the fact anyway), investors' new-found faith in decoupling may be shaken in the months ahead as uncertainty over the economic outlook grows.

Ironically, the realization that the U.S. economy is indeed drifting toward recession (and that U.S. earnings are poised for a tumble) may just be the “shake-out” needed to set the stage for the next leg of the EM rally. Such shake-outs have spurred the “mania phases” of assets bubbles in the past, as loose monetary policy combined with the loss of faith in one asset class leads to the re-rating of another. For example, the mania phase of the Japanese bubble really did not begin until after the 1987 crash (and Alan Greenspan enacted his first cut as Fed Chairman), at which point Japanese money left the U.S. equity market in droves, while the Asia crisis in 1997–98 (and subsequent monetary easing following the blow-up of Long-Term Capital Management) helped drive capital out of Asia and into the Nasdaq, as global investors became enamored with U.S. tech stocks.

Money flows to where it is treated best, and the macro-positions of EM (mostly Asia) remain better than those of the United States and Europe.<sup>9</sup> EM consumers are *underleveraged* with ample savings and most governments are running fiscal surpluses (or small deficits) and sitting on huge foreign exchange reserves. Should external demand turn down there is plenty of room for fiscal and monetary policy to support domestic growth. While there is concern over inflationary pressures in EM economies, this can easily be combated by simply letting repressed currencies rise, rather than raising interest rates (an option the U.S. economy does not enjoy at this point). Although current valuations are disconcerting, based on fundamentals, EM equities to some extent remain the best house on a bad block.

This is not to say that EM economies will walk away unscathed from a U.S. recession, as there certainly will be some sort of collateral damage—how China chooses to cope with a flagging U.S. consumer remains a *big* question mark. However, EM growth should recover sooner and be stronger than

---

<sup>7</sup> Please see our October 2006 Market Commentary *Decoupling?*

<sup>8</sup> As we have stressed, the economic fundamentals, especially for Asia, have arguably never been better; EM in aggregate are running both current account and fiscal surpluses, with large stores of foreign currency reserves, while external debt (a key ingredient in past EM crises) has been largely paid down and replaced by local currency issuance. Importantly, EM (primarily Asia and oil-producing countries) are now net exporters of *capital*, as well as goods, a somewhat unprecedented occurrence.

<sup>9</sup> This is not to treat EM economies as a homogenous group. India, for example, runs fiscal and current account deficits, while the Brazilian economy is arguably much healthier than its Latin peers. As we noted in early 2007, economies in emerging Europe (notably the Baltic states, Hungary, and Turkey) are suffering from the sort of poor macro health that has triggered past EM crises. Please see our February 2007 Market Commentary *All Quiet on the Eastern Front?*

that of a stagnant United States, Europe, and Japan. Indeed, we are somewhat ambivalent about “decoupling”; while possible, decoupling will probably not occur with the vigor everyone expects, given that in a truly globalized economy, the economic linkages are *stronger*, not weaker. Rather, our support for EM equities comes from our view that EM economies are more *resilient* than the developed world at this time; quite the reversal from 1997–98.

The current environment, in fact, resembles 1988–92, when junk bonds, overvalued real estate, and the S&L crisis pushed the U.S. economy into a sharp recession, although at the time few economists predicted that outcome (the dollar was falling, oil was rising, and we had a war in Iraq as well). In the resulting downturn, EM equities suffered a 32% sell-off from August 1990 to January 1991 (Table A). However, far from signaling the end, the gut-wrenching move proved to be the “pause that refreshes,” and was the launching point for the “mania phase” of the EM bull market that culminated in 1994 (when the Mexican peso crisis shook investors’ faith). As Table L shows, EM outperformance relative to developed equities only *accelerated* after 1991, before peaking in 1994.

### **What Should Investors Do?**

As we have been emphasizing since last spring, investors need to “tread carefully” in EM. First and foremost, take a long, hard look at your EM exposure and re-evaluate your ability to tolerate the sort of decline that historically has followed sharp run-ups in EM equities (e.g., a fall of 30% or so), realizing that such a pull-back could likely occur amid a widespread downturn in risky assets.

Although the past three-and-a-half years have shown in hindsight that “corrections” such as the current pull-back of roughly 10% (as of this writing) have represented profitable buying opportunities (with an average subsequent run-up of 33%), we do not advocate using the current weakness to build an overweight position in EM (unless it turns into a sizeable rout). We simply cannot ignore the valuation picture, which exposes the undue price risk of this asset class. Mania fears/hopes aside, EM equities certainly do not have the valuation *support* they had earlier this decade, when they were cheap in both absolute and relative terms; at one point in 2001 EM traded at a 50% discount to developed equities.

Rebalancing is key in the current environment. Given our view that a large shake-out seems increasingly likely, we would use any market rally (central bank–induced or otherwise) to sell into strength, rebalancing allocations at least back to policy targets. While we have been recommending that investors have strategic overweights to EM relative to their typical weightings in global market equity indices, now is not the time to build up positions. In fact, the recent rally has driven EM equities up from a roughly 8% weight at the beginning of the year in global market indices (as represented by the MSCI All Country World Index) to nearly 11% today. The degree to which investors decide to pare back allocations should be informed by their ability to tolerate the opportunity cost should EM equities continue to rally, as well as by the degree to which their managers are exposed to a relatively high level of price risk through investments in red-hot markets, such as the H-share (MSCI China) and other



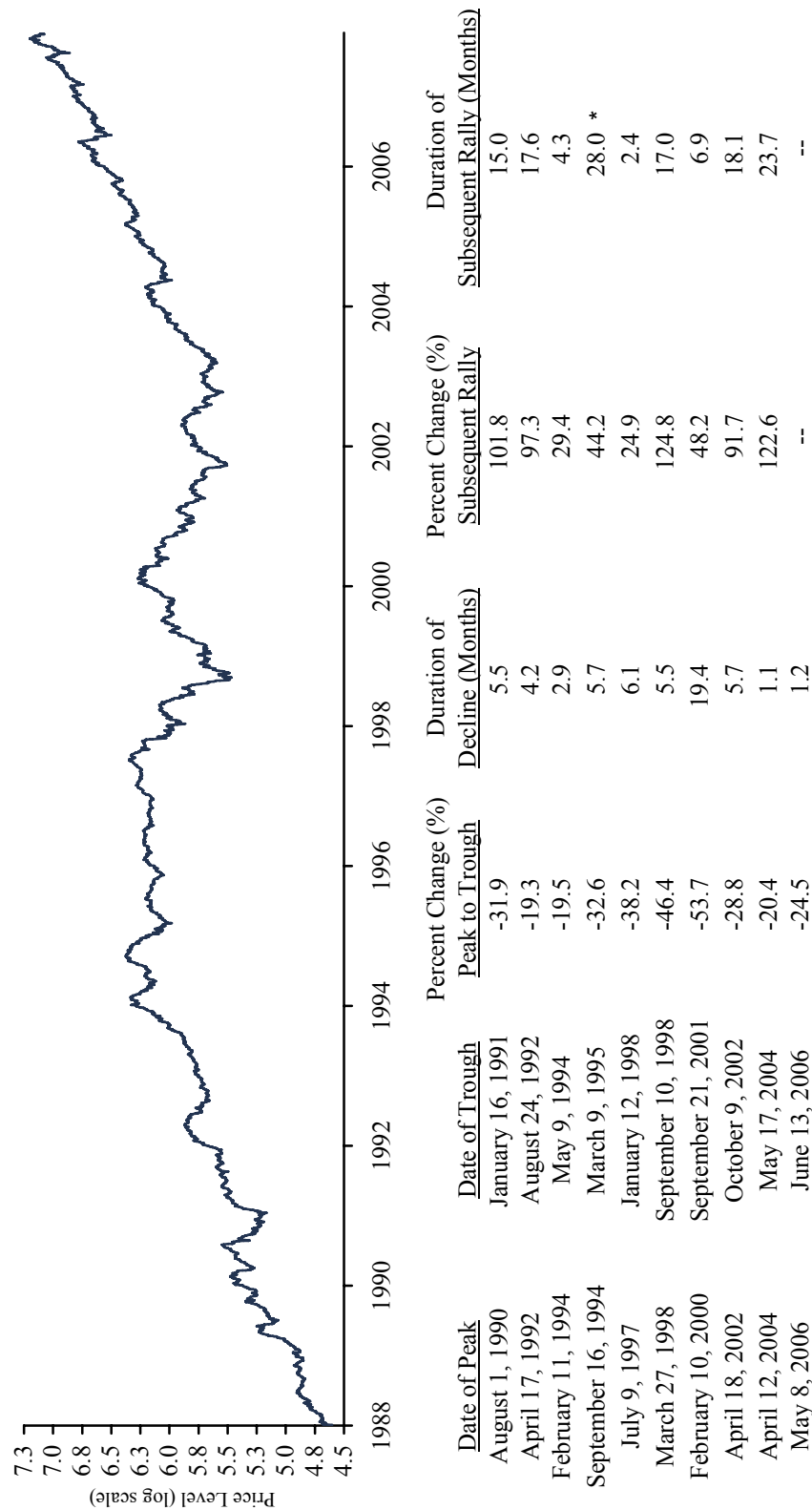
momentum-driven markets. Many active managers, particularly those with a value orientation, have already reduced their allocations to emerging Asia in general, deciding not to play the “greater fool” game, but also underperforming in recent months.

Should investors begin to believe that the U.S. economy is indeed heading for a recession (or recession-like conditions), the scope for continued EM gains is large, provided the global economy does not plummet into a drawn-out depression, with resulting protectionism and other beggar-thy-neighbor policies. A slowdown and the resulting market dislocations would be coupled with massive policy-easing, sparking the mania phase of the EM secular bull, as such events have done in the past. As with any bull market, we cannot predict with certainty when the EM equity bull market will end. But all bull markets eventually end amid growing macroeconomic imbalances and deteriorating economic fundamentals, the likes of which we do not broadly see today in EM economies.

Table A

## MSCI EMERGING MARKETS EQUITIES PEAK TO TROUGH DECLINES AND TIME TO RECOVER

January 1, 1988 – November 30, 2007



Sources: MSCI Inc. and Thomson Datastream. MSCI data provided "as is" without any express or implied warranties.

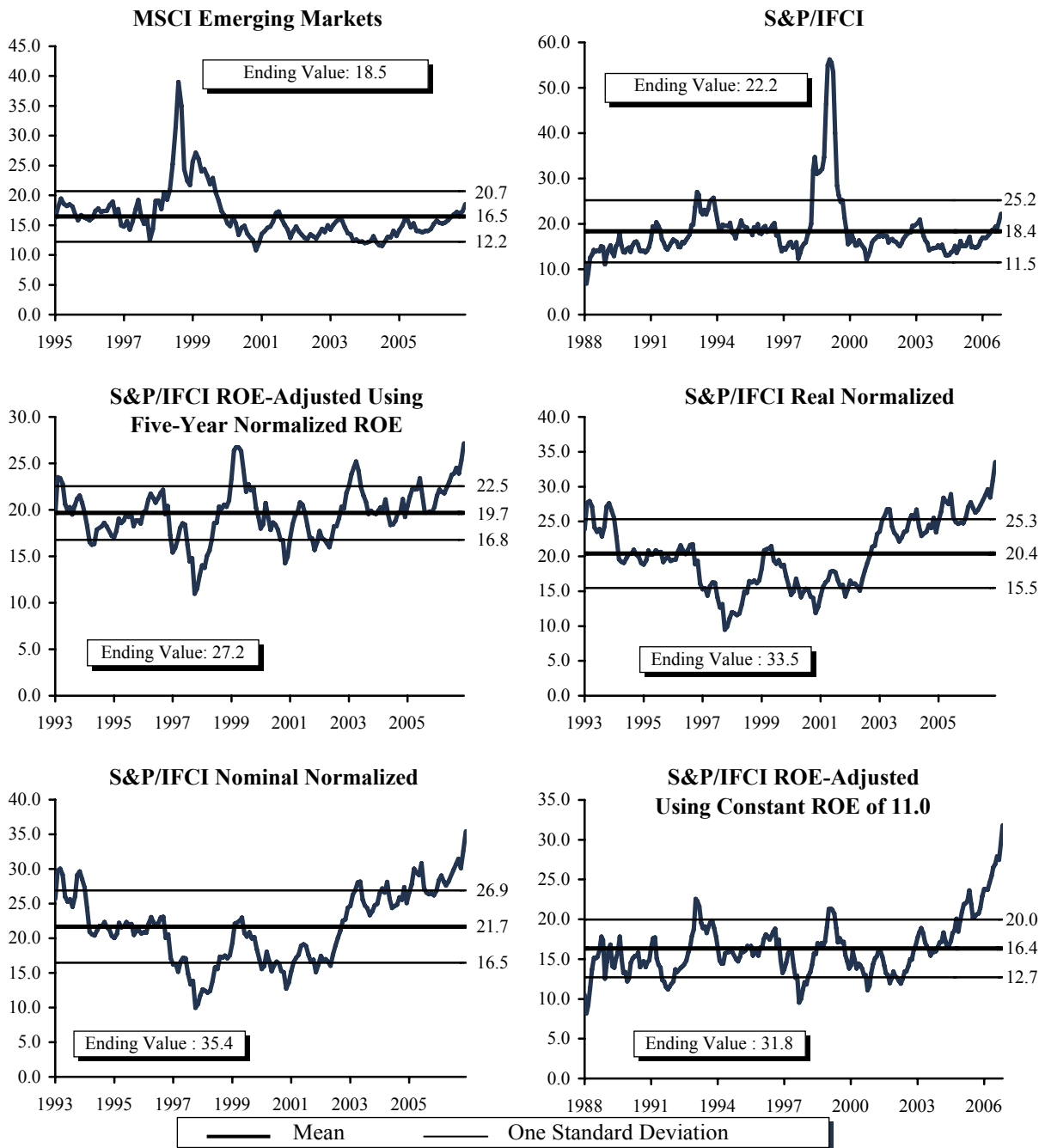
Notes: Bear markets are defined as a price decline of at least 19%. Analysis based on daily data from January 1, 1988 through November 28, 2007. The graph is displayed in logarithmic scale.

\* The EM Index did not fully recover from its peak of 587.11 on September 16, 1994 until it reached 588.68 on February 28, 2005, a span of 125.4 months.

**Table B**

**VARIOUS EMERGING MARKETS PRICE-TO-EARNINGS RATIOS**

**December 31, 1988 – October 31, 2007**



Sources: Calculated from data provided by Standard & Poor's, MSCI Inc., and Thomson Datastream. MSCI data provided "as is" without any express or implied warranties.

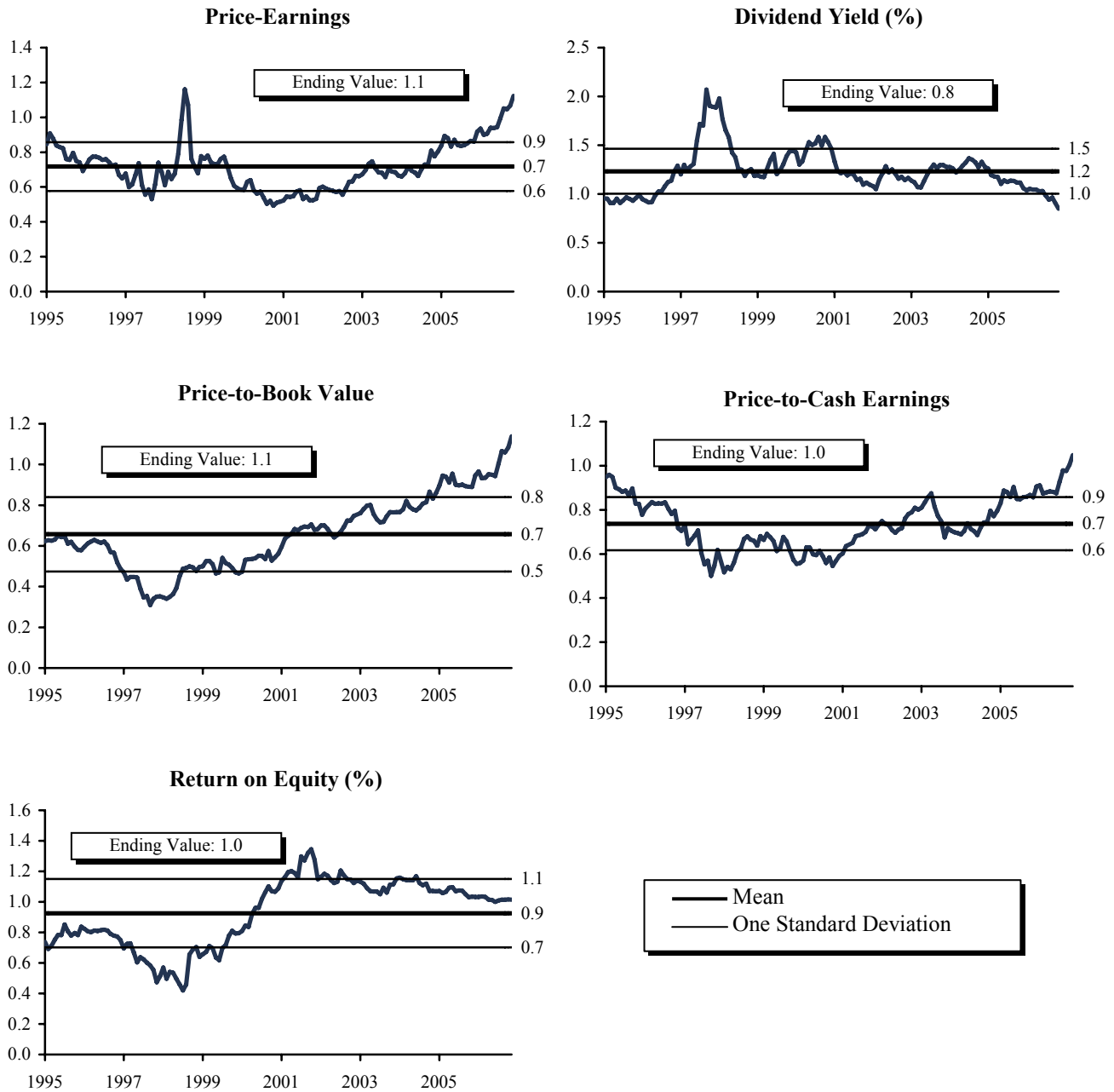
Notes: The five-year normalized ROE-adjusted P/E ratio is the current P/E based on trailing 12-month earnings multiplied by the ratio of the current ROE to the average ROE of the previous five-year period. Normalized real P/E ratios are calculated by dividing the current real price index value, in U.S. dollars, by the annualized average real earnings for the trailing five years. The index is deflated using the CPI-U. Nominal normalized P/E ratios are calculated by dividing the current nominal price index value, in U.S. dollars, by the annualized average nominal earnings for the trailing five years. The constant ROE-adjusted P/E ratio is the current P/E based on trailing 12-month earnings multiplied by the ratio of the current ROE to a constant level of 11.0. ROE is calculated by dividing the index's P/B ratio by its P/E ratio.

**Table C**

**GLOBAL EQUITY MARKET VALUATIONS**

**MSCI Emerging Markets Relative to MSCI World**

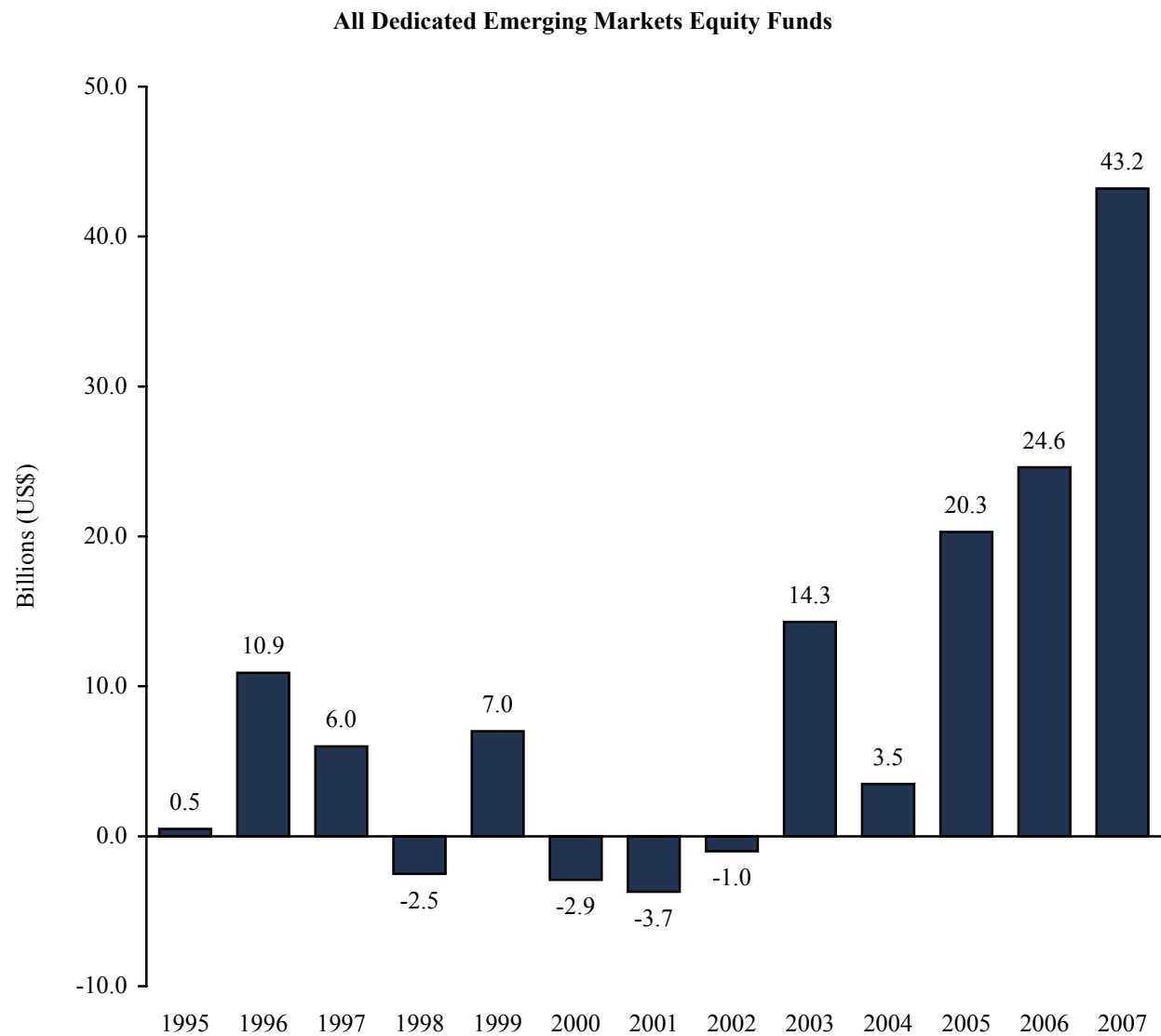
**December 31, 1995 – October 31, 2007**



Sources: MSCI Inc. and Thomson Datastream. MSCI data provided "as is" without any express or implied warranties.

Note: Return on equity is calculated by dividing the index's price-to-book ratio by its price-earnings ratio.

**Table D**  
**NET INFLOWS INTO EMERGING MARKETS FUNDS**  
**1995–2007**

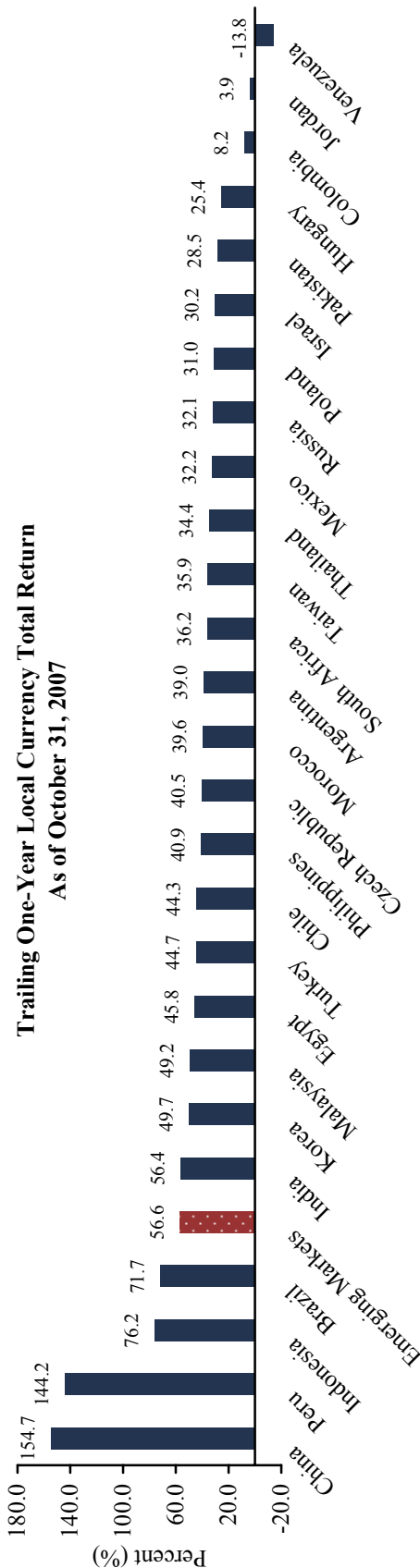
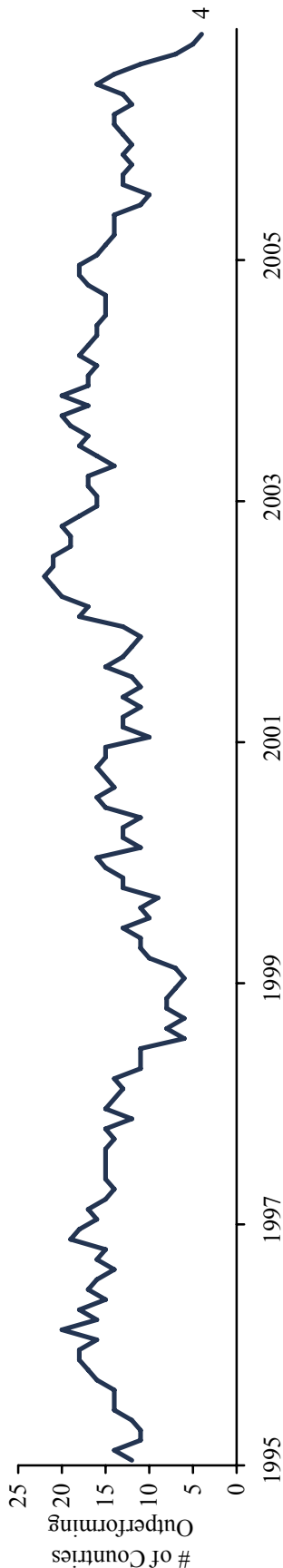


Sources: EPFR Global and Morgan Stanley Research.

Note: Data for 2007 are through November 29, 2007.

**Table E**  
**MSCI EMERGING MARKETS INDEX COUNTRY BREADTH**

December 31, 1994 – October 31, 2007

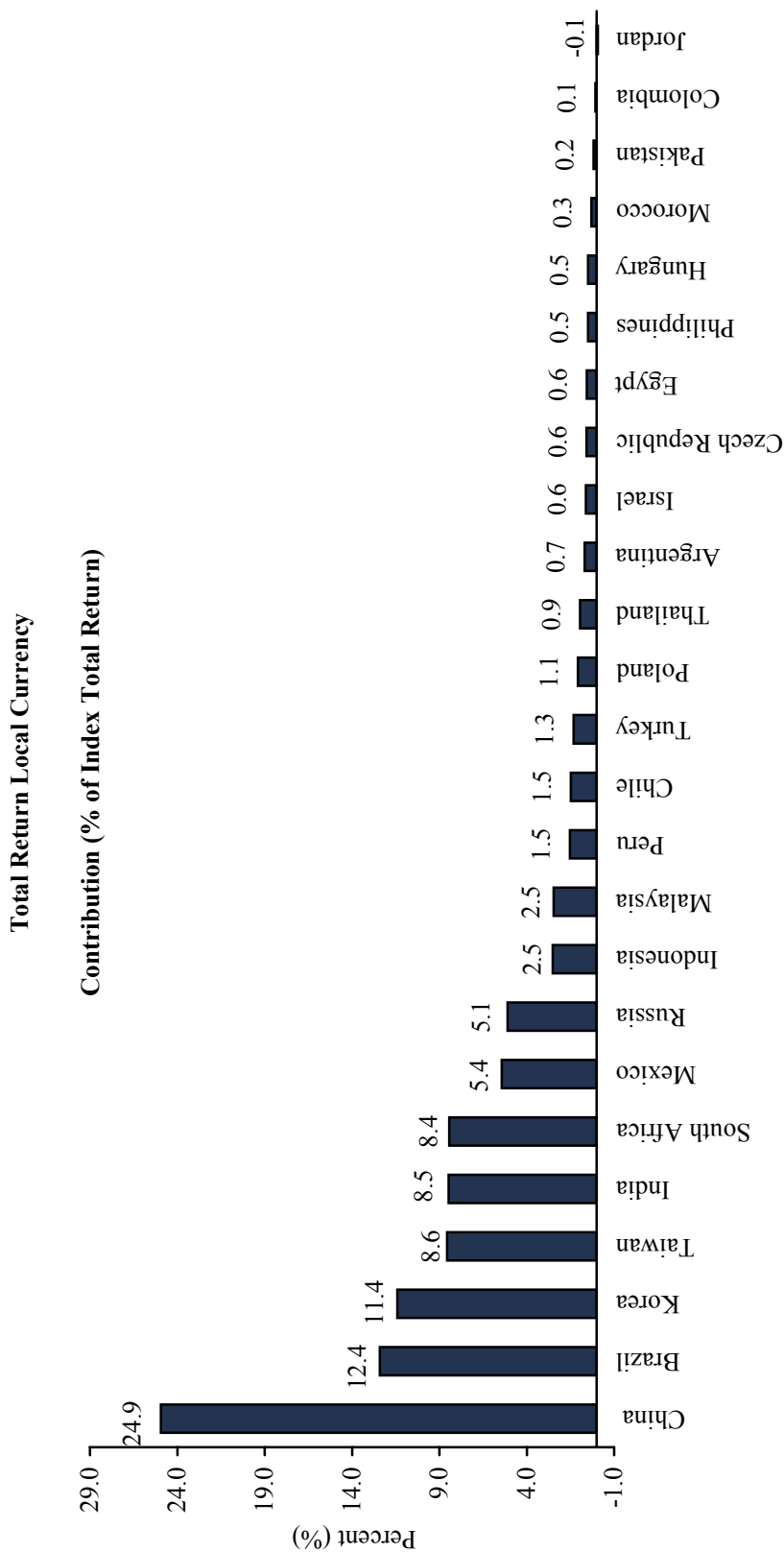


Sources: MSCI Inc. and Thomson Datastream. MSCI data provided "as is" without any express or implied warranties.

Note: Country breadth is defined as the number of constituent countries within the MSCI Emerging Markets Index that outperform the composite index on a trailing one-year return basis, based on monthly local currency total returns.

**Table F**  
**PERFORMANCE ATTRIBUTION FOR MSCI EMERGING MARKETS INDEX**

**December 31, 2005 – October 31, 2007**

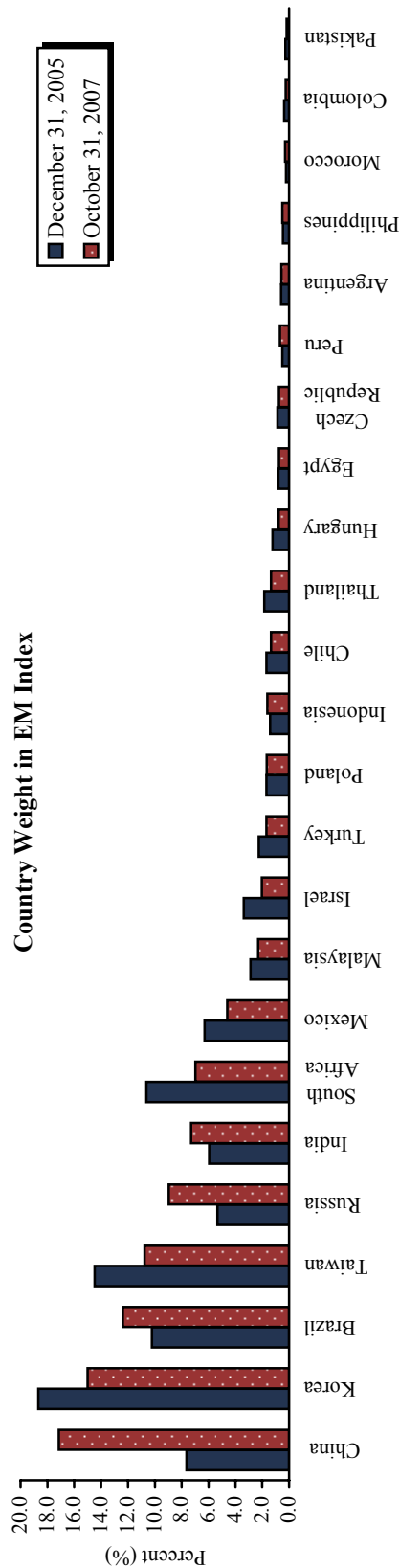
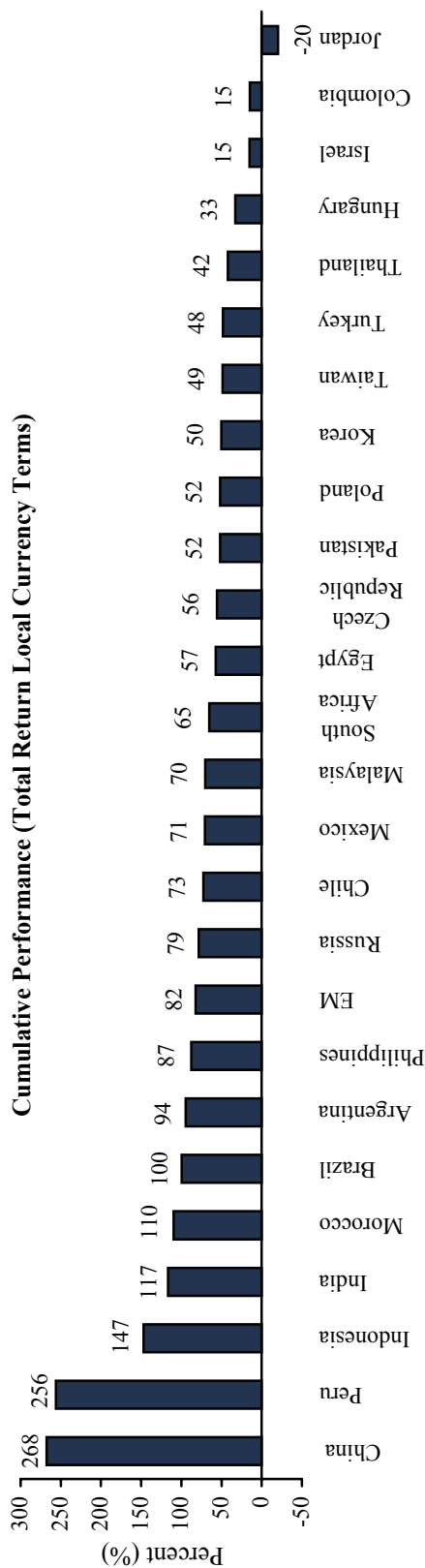


Sources: FactSet Research Systems, MSCI Inc., and Thomson Datastream. MSCI data provided "as is" without any express or implied warranties.

Notes: Contribution represents the sector's % share of the MSCI EM Index's total return of 82.3%. Sector contributions are calculated by multiplying the sector's December 31, 2005 weight by its cumulative return from December 2005 to October 2007. Total returns for MSCI Emerging Markets indices are gross of dividend taxes.

**Table G**  
**MSCI EMERGING MARKETS COUNTRY INDICES**

**December 31, 2005 – October 31, 2007**



Sources: FactSet Research Systems, MSCI Inc., and Thomson Datastream. MSCI data provided "as is" without any express or implied warranties.

Note: Country weight based on market capitalization.

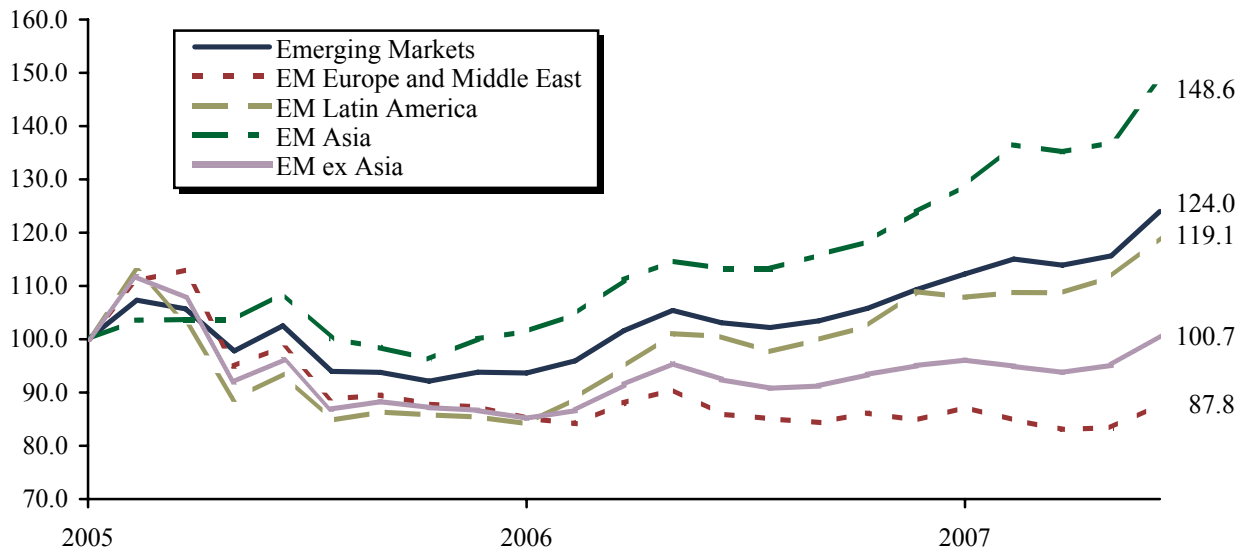


Table H

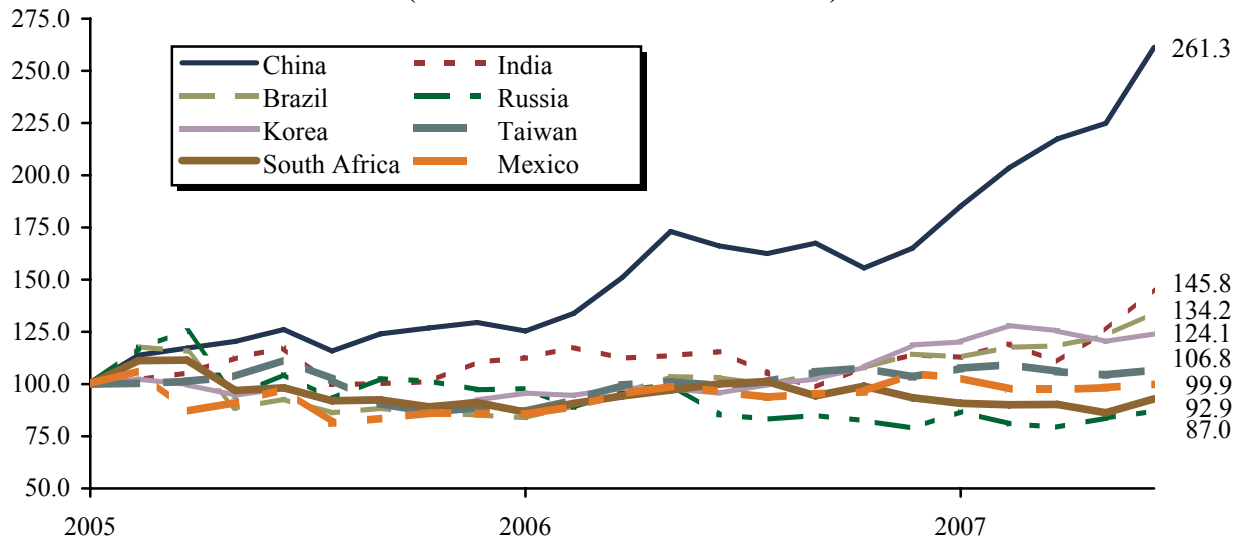
MSCI EMERGING MARKETS PRICE-EARNINGS RATIO EXPANSION

December 31, 2005 – October 31, 2007

Regional Price-Earnings Ratio Expansion  
(Rebased to 100 as of December 2005)



Select Country Price-Earnings Ratio Expansion  
(Rebased to 100 as of December 2005)

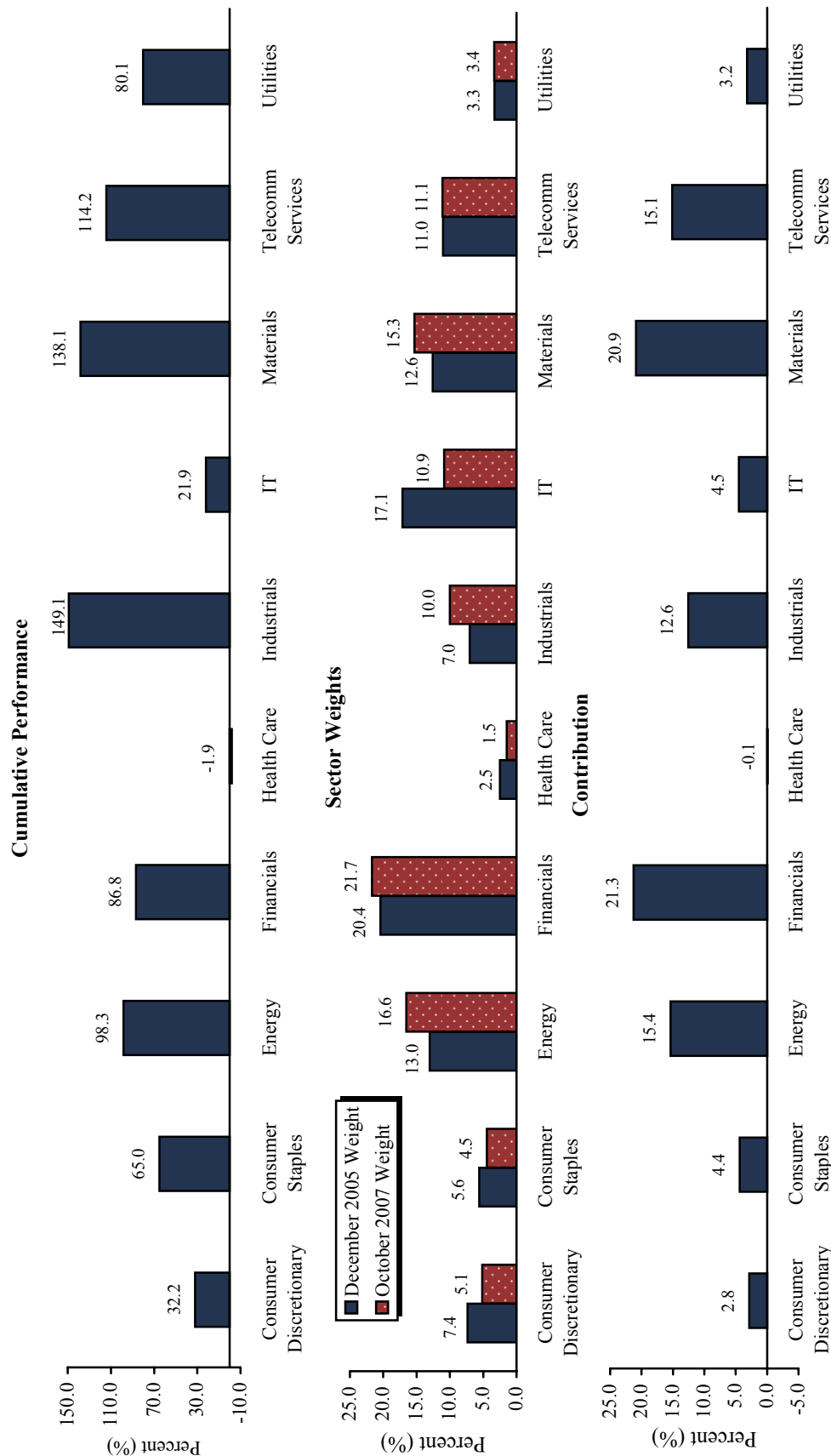


Sources: MSCI Inc. and Thomson Datastream. MSCI data provided "as is" without any express or implied warranties.

Note: Graphs show cumulative change in price-earnings ratios relative to December 2005, not the absolute level or growth rate.

**Table I**  
**PERFORMANCE ATTRIBUTION FOR MSCI EMERGING MARKETS INDEX SECTORS**

**December 2005 – October 2007**  
**Total Return Local Currency Terms**

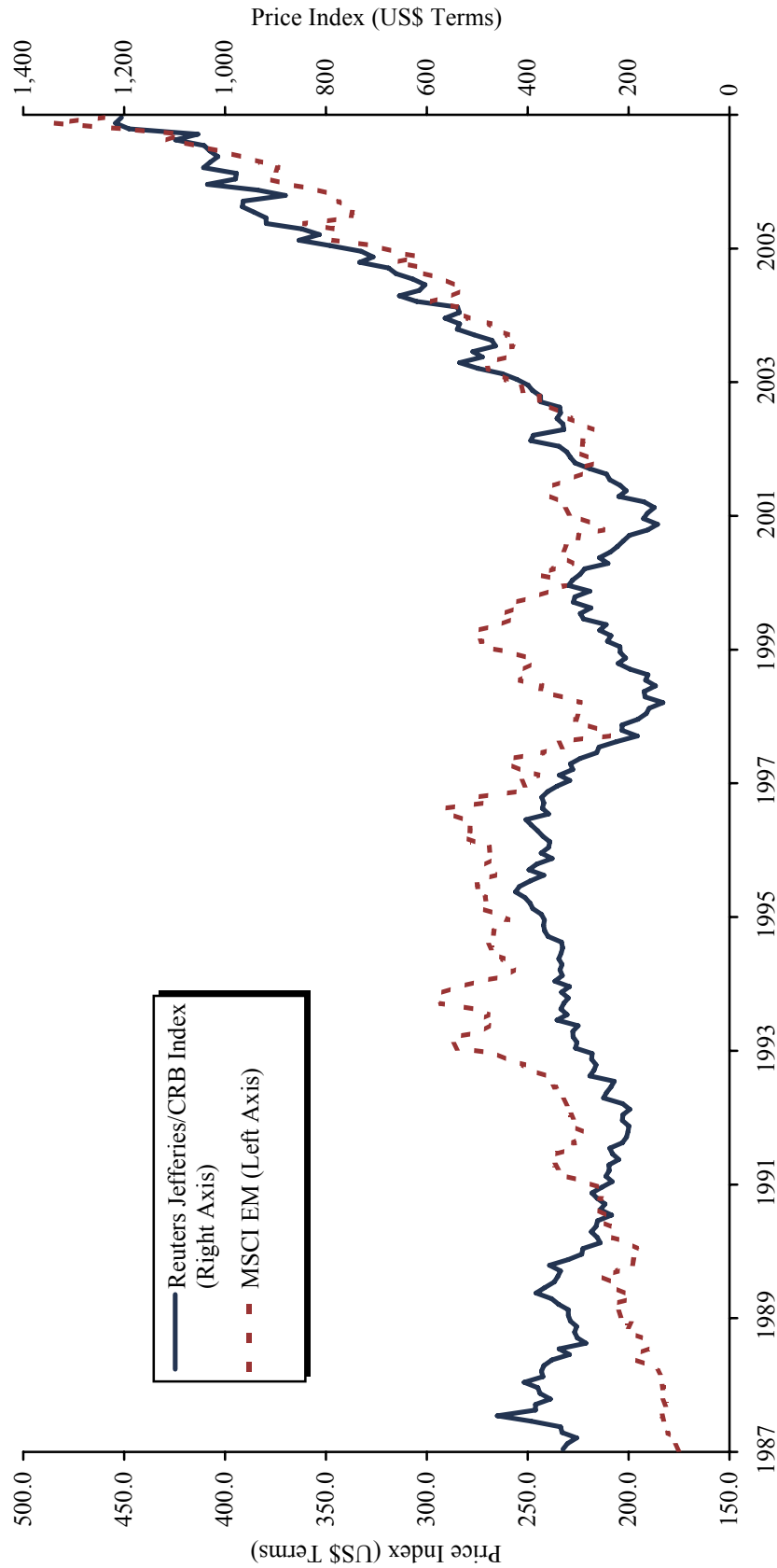


Sources: FactSet Research Systems, MSCI Inc., and Thomson Datastream. MSCI data provided "as is" without any express or implied warranties.

Notes: Contribution represents the sector's % share of the MSCI EM Index's total return of 82.3%. Sector contributions are calculated by multiplying the sector's December 31, 2005 weight by its cumulative return from December 2005 to October 2007. Total returns for MSCI Emerging Markets indices are gross of dividend taxes.

**Table J**  
**EMERGING MARKETS AND COMMODITIES**

**December 31, 1987 – November 30, 2007**



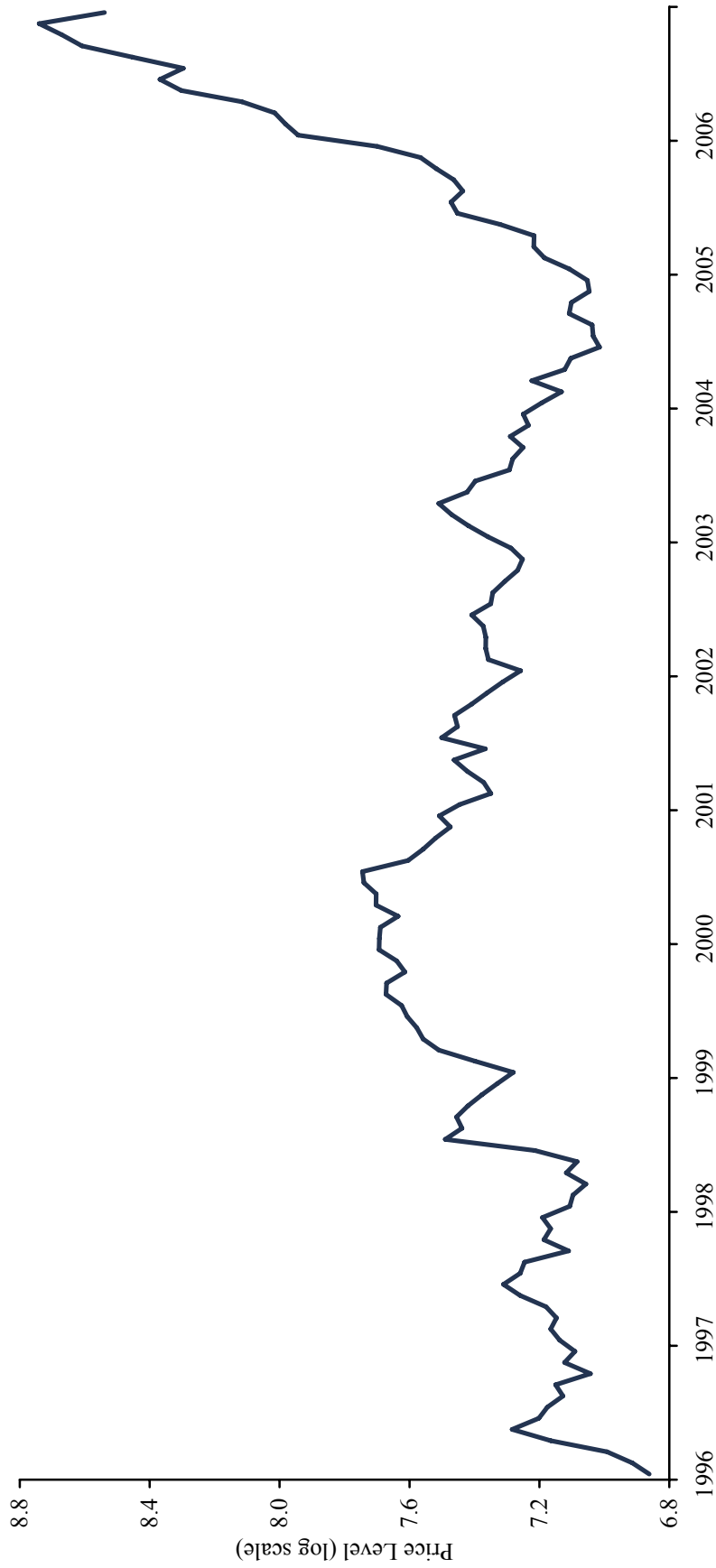
Sources: MSCI Inc., Reuters Jefferies, and Thomson Datastream. MSCI data provided "as is" without any express or implied warranties.

Note: Graph based on price index levels using monthly data.

**Table K**

**SHANGHAI A-SHARE INDEX**

**December 31, 1996 – November 30, 2007**

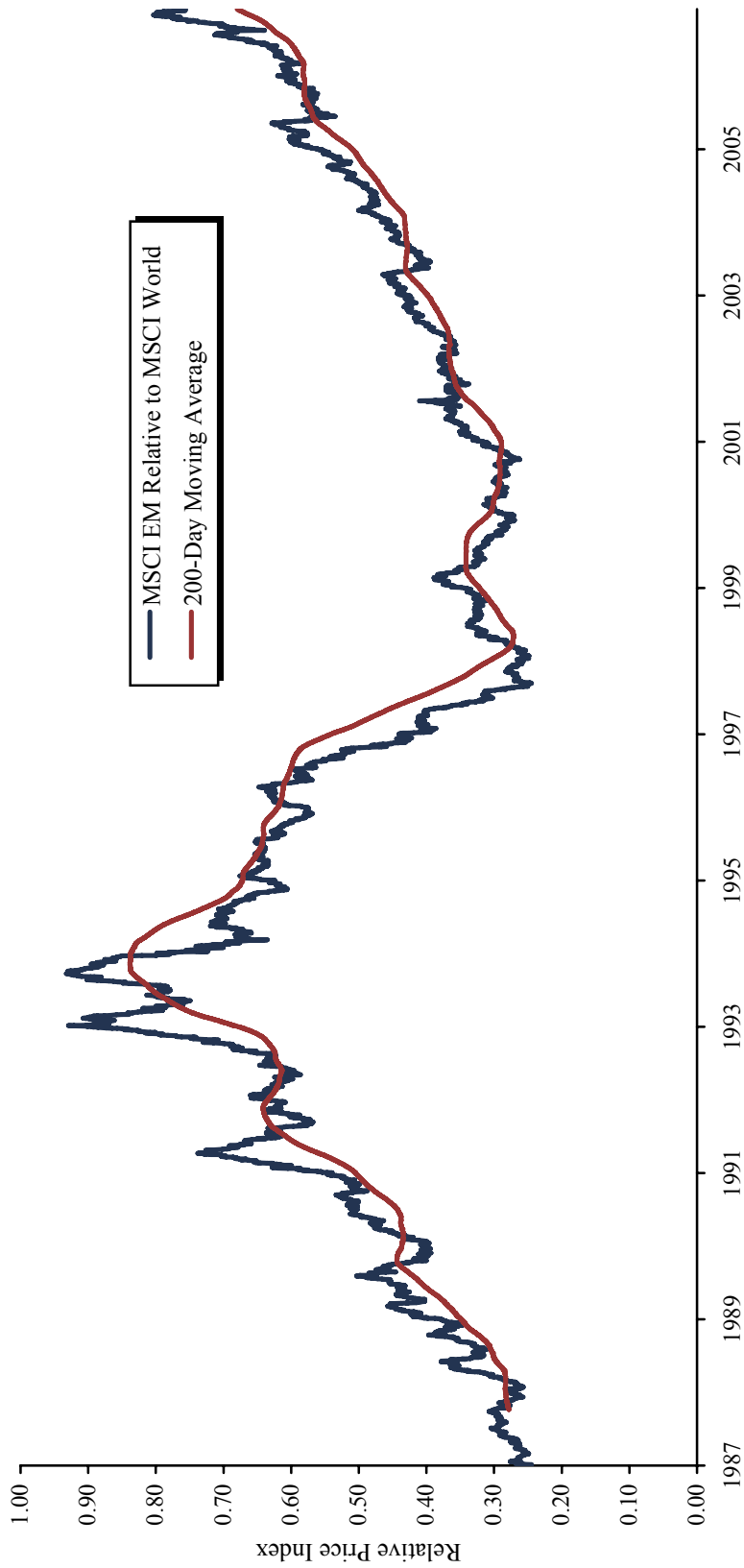


Source: Thomson Datastream.

Note: Graph is in logarithmic scale, based on monthly price levels in Chinese RMB terms.

**Table L**  
**MSCI EMERGING MARKETS INDEX RELATIVE TO MSCI WORLD INDEX**

December 31, 1987 – November 30, 2007



Sources: MSCI Inc. and Thomson Datastream. MSCI data provided "as is" without any express or implied warranties.

Note: Graph is based on price index levels in US\$ terms using daily data.