When Capital Flows Uphill: Emerging Markets as Creditors

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Ramin Toloui

Finance shares a long history with geology. Literally. The first known financial contracts were written on clay tablets during the Sumerian civilization in the 3rd millennium BC. Finance also has an affinity for geological metaphors – where crises are "earthquakes" and systemic changes are "tectonic shifts."

Unlike the movements of continental plates, however, changes in finance do not happen on geological time. Former IMF chief Michel Camdessus famously called the 1994-95 Mexican peso crisis "the first financial crisis of the 21st century." Indeed the Mexican crisis was followed by a succession of spectacular financial earthquakes in East Asia, Russia, Brazil, and Argentina.

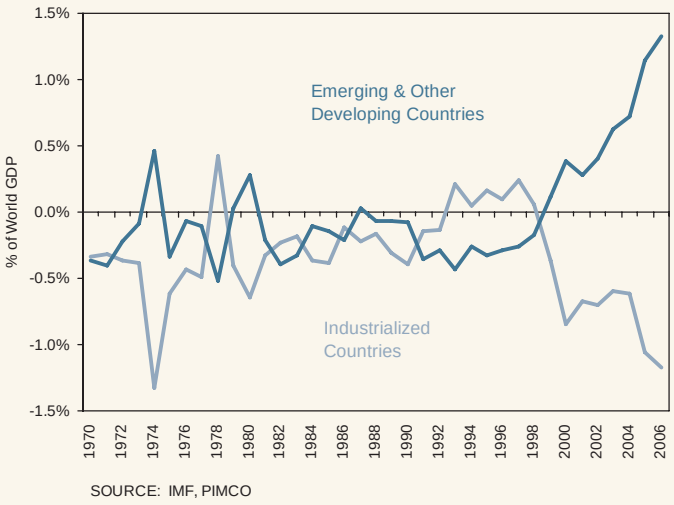
But then Camdessus' century ended barely after it began. Nations that had borrowed from the IMF rushed to pay those loans back ahead of schedule, something that was almost inconceivable just a few years before. And emerging countries that had previously been the world's borrowers became the world's lenders – to the tune of over $600 billion in 2006.

Economists, policymakers, and financial markets are still digesting the full import of this transformation, for everything from the international financial architecture to the shape of the U.S. yield curve. The purpose of this note is two-fold. First, it puts the shift from emerging markets as debtors to emerging markets as creditors in historical context. Second, it enumerates some implications of this transformation, specifically for economic stability in the emerging world and for the prospects for emerging market financial assets. Further implications will no doubt be fertile ground for future consideration on these and other pages.

A Historical Anomaly

The recent rise of emerging markets as massive creditors to industrialized countries is historically unprecedented. Chart 1 shows the pattern of global current account balances (a broad measure of trade balances) as a percentage of world GDP since the early 1970s. Current account balances are the mirror image of capital flows: countries with current account deficits must import capital to finance these deficits, while countries with current account surpluses export capital to finance the deficits of others.

Global Current Account Balances



SOURCE: IMF, PIMCO

Chart 1

For nearly all of the post-World War II period, emerging economies have run current account deficits and imported foreign capital.[1] Conventional economic theory has a good explanation for this. Developing countries, according to the theory, have large underutilized supplies of labor but lack sufficient capital to fully employ them. Industrialized countries, in contrast, tend to have ample supplies of capital and relatively less unemployed labor. In such a world, it is natural that capital should flow from developed countries (where demographically aging populations are also saving for retirement) to developing countries (where the marginal returns on investment are very high as the productive potential of these economies is unleashed).

But the picture changes dramatically in recent years. Starting in 1999, the emerging world as a whole began to run a current account surplus and *export* capital to the rest of the world. That surplus increased rapidly, reaching a staggering 1.3% of world GDP in 2006. The Asian economies are the exemplars of the trend. But it is not just Asia, as oil exporters and developing countries in Latin America have also racked up increasing surpluses. The exceptions are the emerging Eastern European economies, Turkey, South Africa, and India – countries that still have significant current account deficits.

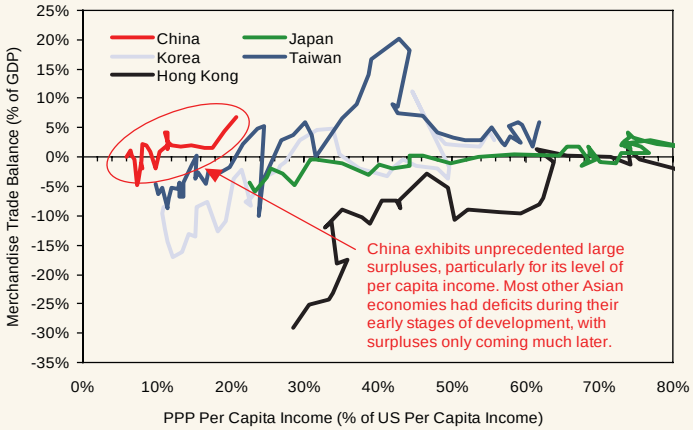
This phenomenon does not have an antecedent. Though it is common to think of Japan and the other Asian tigers of the 1960s and 1970s as mercantilist economies, in fact most of them ran current account deficits – or very small surpluses – until much later in their development cycles. Chart 2 graphs the evolution in trade balances (as a proxy for current account balances for which data is unavailable) of China, Japan, Korea, Taiwan, and Hong Kong alongside their increases in per capita income. Except for Taiwan, the other Asian economies were running trade deficits when they were at China's current level of per capita income, in contrast to China's 6.8% of GDP trade surplus last year. The emergence of the United States and other Anglophone offshoots as industrial powers before World War I shows a similar pattern of deficits during the opening stages of rapid economic development, as does Europe's industrial emergence after World War II.

The dramatic increase in oil and other commodity prices since 2002 has indeed provided a strong impetus for higher savings in emerging economies. But this is not a sufficient explanation for why the emerging world *as a whole* has become a net creditor. After all, as Chart 1 illustrates, after spiking in individual years (1974 and 1980) petrodollar savings were quickly "recycled" back to other developing countries by international banks to finance investment in the emerging world during the previous commodities booms.

So if the current pattern is inconsistent with orthodox theory and lacks analogs in individual country experiences – to say nothing of emerging markets as a whole – what explains it? That is a subject of considerable debate. Because current account balances and capital flows reflect the difference between how much a country saves and how much of those savings it invests domestically, observers have broadly come at the question from these two directions – why savings in these countries has increased, and why investment has decreased.[2]

A common thread on both sides of the savings-investment ledger is the legacy of financial crises during the 1990s. The disruptions caused by the

Trade Balances vs. Per Capita Income for Asian Economies



SOURCE: IMF, Angus Maddison, PIMCO

Chart 2

crises increased the propensity of corporations and households to build up more precautionary savings and reduce debt levels to avoid future duress. On the investment side, the crises laid bare the perils of excessive unproductive investment that generated insufficient returns to service debt, while the generalized economic uncertainty exerted a cooling effect on new long-term investment.

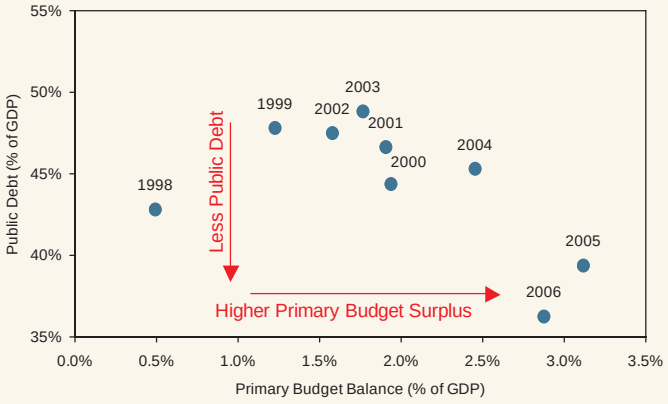
Policymakers also drew important lessons from the crises that have affected broad savings and investment patterns. Policymakers emerged from the 1990s with greater sensitivity to a key shortcoming in the theoretical argument for current account deficits – namely that capital account disruptions (or "sudden stops") and the resulting macroeconomic volatility have the potential to swamp the long-run benefits of borrowing large amounts from abroad. As a result, governments trimmed expenditures and increased revenues to reduce budget deficits, thereby boosting the public savings contribution to national savings. Many countries have also used extensive foreign exchange intervention to prevent the nominal appreciation of their currencies. While this encourages greater investment in the tradeables sector, it discourages investment in nontradeables and helps boost domestic savings to the extent that it reduces the real incomes of domestic agents by making foreign goods more expensive.

The net result of all of these factors has been to produce large and growing current account surpluses in emerging markets. Will these surpluses continue indefinitely? There are good reasons to believe that the re-emergence of modest current account deficits in many emerging countries is both "normal" and desirable, given the larger potential returns to investment. But the improved policy fundamentals – which have both helped produce, *and* been consolidated by current account surpluses – are poised to endure. Moreover, the mechanisms by which emerging surpluses may decline over time (i.e., currency appreciation) are positive for emerging investments. With this backdrop, we move on to discuss the implications for financial instruments in the emerging world.

Implications for External Debt

As discussed above, one lesson emerging market policymakers drew from the 1990s was the need to boost public savings. Chart 3a shows the result of this transition, as emerging markets have strengthened their budget balances and brought down levels of overall public debt. In tandem, these countries' external positions have shown remarkable improvement. Chart 3b shows that total levels of public and private external debt are now lower, while current account surpluses are higher. From the perspective of credit fundamentals, these developments improve the creditworthiness of emerging market borrowers

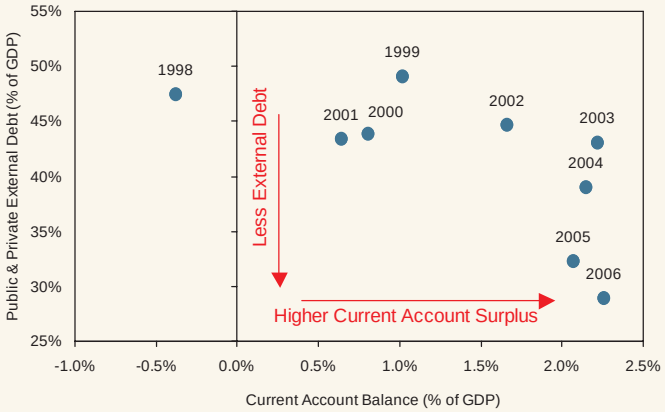
Fiscal: Public Debt & Primary Budget Balances



SOURCE: JP Morgan, PIMCO, GDP-weighted average of major EM countries (excluding China & India)

Chart 3a

External: External Debt & Current Account Balances



SOURCE: JP Morgan, PIMCO, GDP-weighted average of major EM countries (excluding China & India)

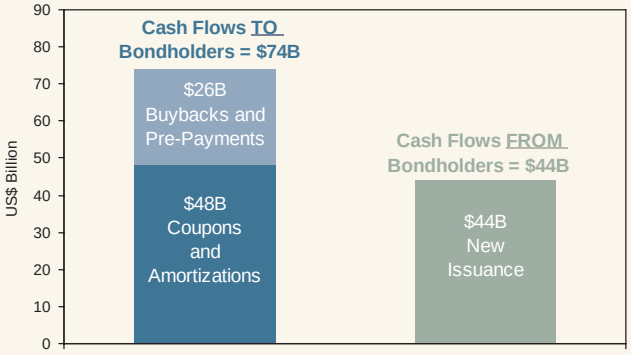
Chart 3b

and support emerging market bond prices, which is reflected in the dramatic narrowing of sovereign risk spreads since 2002.

But the impact on sovereign external debt markets does not end there. As current account surpluses in emerging markets have grown, progressively larger stocks of international reserves have accumulated as central banks intervene to stem appreciation pressures on their currencies. Such intervention is not a free lunch, however. Because central banks purchase foreign reserves with their own local currency, they often sell or issue local currency-denominated debt to sterilize (re-absorb) this liquidity so it does not feed into inflation. When local currency interest rates are higher than interest rates on the foreign reserves, these transactions reduce central bank income.[3]

To reduce the costs of excessive foreign reserves in the central bank, emerging market governments have turned to using foreign exchange to pay down external debt or to accumulate assets offshore in sovereign investment funds. Chart 4 shows the dramatic impact of more than $25 billion in debt buybacks on the external sovereign debt market in 2006, producing large positive cash flows to holders of emerging market debt as "net supply" of debt evaporated. During the first four months of 2007, Brazil bought back over $2 billion in external debt

Cash Flows on Sovereign External Debt in 2006



SOURCE: JP Morgan

Chart 4

through open market purchases. As in all markets, less supply means higher prices.

The impact of sovereign investment funds on the emerging market debt prices is harder to quantify given the lack of public information about asset allocation within these funds. However, inferential, qualitative, and anecdotal evidence suggests that these funds are a source of large new demand for emerging market assets, given the additional yield such assets offer. And this trend is set to continue, with even central banks under greater pressure to boost the returns on their portfolios, as the recent announcements by the People's Bank of China underscore.

Finally, the proliferation of debt buyback programs affects not only the *level* but the *volatility* of prices for emerging market bonds. Many analysts have posited that the dramatic generalized decline in volatility in recent years – in everything from bonds to currencies to stocks – is partially attributable to large-scale asset accumulation by central banks that are less price-sensitive than traditional market participants. Similarly, debt buyback programs offer a hard-wired source of demand for emerging market sovereign debt. During bouts of market turbulence when emerging bond prices fall, emerging market governments themselves are buyers of last resort – or perhaps first resort – providing a natural source of support for the market.

These dynamics work in a positive feedback loop. When investors know that emerging governments will enter the market during periods of stress, that makes the investors themselves less likely to sell and more likely to buy during periods of volatility. We saw this dynamic at work during the recent sell-off in late February/early March, where the bonds of countries with strong fundamentals, high reserves, and debt buyback programs barely moved amid the disruption in other asset classes.

Implications for Currencies

The phenomenon depicted in Chart 1 often goes under the moniker of "global imbalances" in international financial circles. This refers principally to the large current account deficit of the United States and concerns about whether the sources of financing that have allowed that deficit to grow to record proportions will continue to be available in the future.

Most observers agree that some adjustments need to take place in order to keep the U.S. current account deficit within a range that can be financed in upcoming years. Most agree that a depreciation of the U.S. dollar over time will be needed, since growth differentials alone are unlikely to be sufficient to boost demand for U.S. exports abroad and temper U.S. demand for foreign imports at home. The principal disagreement is whether such an adjustment will occur gradually and smoothly, or whether it will occur rapidly with large-scale dislocations in financial markets and economic performance.

The important upshot for the purposes of this discussion is that *emerging markets will play a vital role in any adjustment of global imbalances.* This is true by virtue of the sheer volume of capital that is being provided from these countries to the industrialized world. Structural depreciation pressures on the U.S. dollars mean structural appreciation pressures for emerging market currencies.

Exchange Rate Performance versus US Dollar Since End-2003

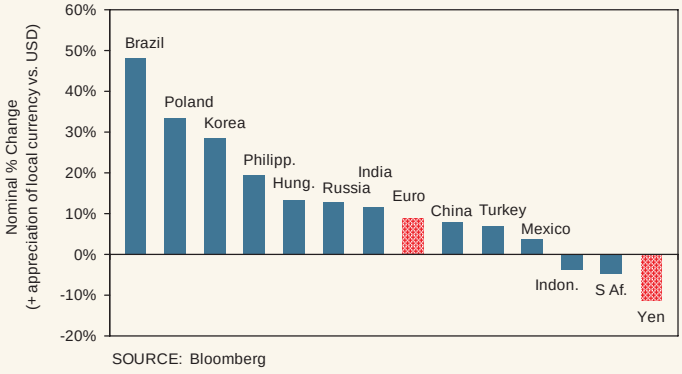


Chart 5

Emerging currencies have already exhibited strong nominal appreciation. Chart 5 compares the performance of the euro and the Japanese yen to several large emerging market currencies since the end of 2003. Most major emerging currencies substantially outperformed the euro and yen during this period in nominal terms. Note that in most instances these figures understate the relative total return differential that an investor would have received through an investment in emerging currencies: because short-term interest rates in many emerging markets exceeded comparable developed country rates, many emerging currencies earned a higher interest rate carry than an investment in the euro or yen.

The continued sharp accumulation of foreign reserves suggests that appreciation pressures are likely to remain. This reserve growth is a signal that the demand for local currency by firms, individuals, and investors is not being satisfied by the private market at the current prices. And like the case of external debt, the feedback loop is positively reinforcing: as investors see currency appreciation potential, they invest progressively larger amounts, further boosting the foreign reserves of the central bank, which in turn gives further confidence that the currency is well-supported and provides an impetus for continued inflows.

Implications for Local Currency Debt

Theology is not particularly prominent in economic theory, with the exception of "original sin." The term was coined by Barry Eichengreen and Ricardo Hausman to describe the historical inability of emerging markets to borrow at long maturities and fixed rates in their own currencies due to histories with macroeconomic instability.[4] As a result, these countries were forced to borrow in foreign currencies (think U.S. dollar-denominated external debt), floating rates, short maturities, or a combination of all three.

But "original sin" appears to have receded in the emerging world in recent years. Governments have

aggressively extended their fixed-rate yield curves in their own currencies. To take two recent examples, Mexico issued its first 30-year fixed-rate peso-denominated bond to its domestic market in 2006, while Brazil issued its first 20-year fixed-rate real-denominated bond to foreign investors earlier this year.

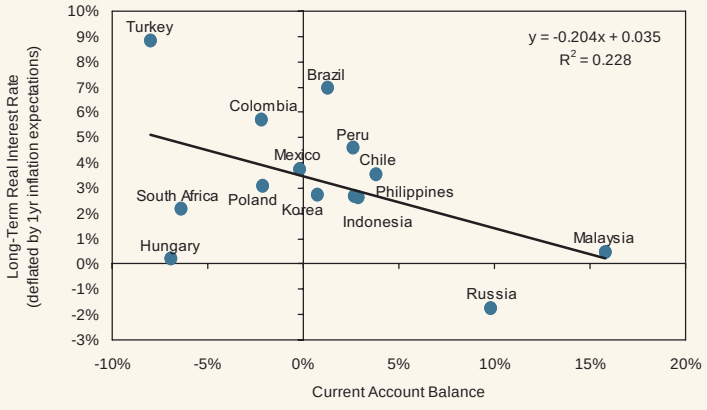
Lower long-term local currency interest rates in emerging markets have facilitated the extension of yield curves in emerging market countries. A wide range of variables affect the level and volatility of a country's interest rates, including inflation, fiscal deficits, debt levels, structure of the economy, institutional credibility, and the nature of the financial system, to name but a few factors.

The balance of payments has also exerted a key influence on recent developments in emerging market countries' domestic interest rates and the shape of yield curves. Chart 6a depicts the relationship between long-term real interest rates and current account balances for a series of emerging market countries. While there is considerable variation due to the multiple factors driving the level of real interest rates in these countries, there is a clear negative correlation. Current account deficits tend to be correlated with higher real interest rates, and current account surpluses tend to be correlated with lower real interest rates. Note that the same pattern is also evident in developed markets, as Chart 6b illustrates. There are strong reasons to believe that this relationship is not incidental. Consider three factors:

- **Debt Supply and Demand.** A country with a current account deficit must attract foreign capital – month in and month out – to finance its deficit. One way in which it attracts larger amounts of capital is by compensating investors with higher domestic interest rates. This happens even when a country primarily issues external debt to finance its current account deficit, since getting the market to digest a larger volume of external debt means higher yields on the country's dollar-denominated debt. This in turn puts upward pressure on domestic bond yields, since domestic investors like banks and pension funds would otherwise substitute external debt for local-currency debt when external debt yields rise.

- **Expected Returns.** In the case of a "pure" real interest rate investment – an inflation-linked government bond held to term – an investor's ultimate return will be a function of real yield on the bond and the change in the country's real exchange rate during the holding period. Countries with large current account deficits tend to face real exchange rate depreciation pressures,

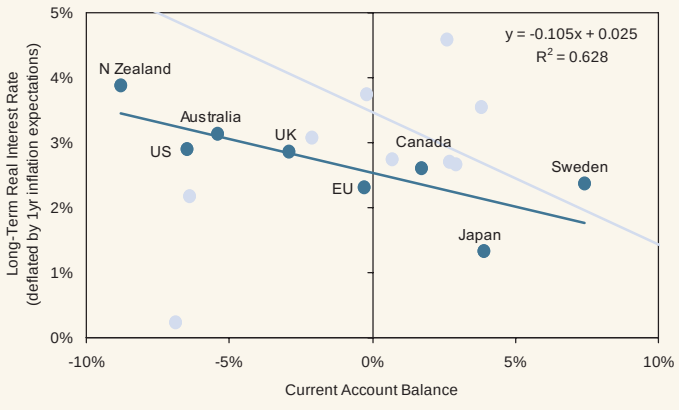
Emerging Markets: Real Interest Rates vs. Current Account Balances



SOURCE: Bloomberg, JP Morgan, PIMCO

Chart 6a

Industrial Countries: Real Interest Rates vs. Current Account Balances



SOURCE: Bloomberg, JP Morgan, PIMCO

Chart 6b

while those with large current account surpluses tend to face real exchange rate appreciation pressures, to bring external accounts into more sustainable long-term balance. From an ex ante perspective then, investors in higher current account deficit countries would tend to demand more compensation in terms of higher real interest rates to offset the potential losses from real exchange rate depreciation.

- **Macroeconomic Volatility and Term Premia.** Emerging markets with current account deficits have historically exhibited a high degree of procyclicality with international capital flows. When capital inflows were robust, liquidity increased and economic growth was strong; when capital inflows receded, liquidity fell and economies contracted. Macroeconomic volatility of this kind tends to increase the term premium and make the yield curve steeper, as investors demand to be compensated for the greater uncertainty. And during periods of crisis, short-term policy interest rates need to be raised to prevent a massive currency depreciation and restore credibility. [5]

Why is this important? First, it highlights how improvements in current account balances in general support lower interest rates in emerging market countries and development of the local currency debt market. Second, it provides a framework for analyzing relative value opportunities in local currency instruments *across* different emerging markets. For example, the graph above suggests that Brazil has exceptionally high real interest rates given its current account surplus, while Hungary has particularly low real interest rates considering the size of its current account deficit.

Current account balances are of course only one influence on domestic interest rates. Another key influence is the strength of fiscal and monetary institutions. We can actually see evidence of this by comparing Charts 6a and 6b. Note that the relationship between current balances and real interest rates differs within emerging markets versus within industrialized countries. Both show downward-sloping correlations, but as Chart 6b shows (the light blue in the background are the emerging market data points from Chart 6a), the regression line for industrialized countries sits at a *lower* interest rate level (smaller intercept) and is *flatter* for industrialized countries. This is principally attributable to industrialized countries' longer histories of macro stability and deeper institutionalization of independent monetary policy. This suggests that emerging markets that are pursuing institutional improvements and racking up longer histories with credible inflation targeting regimes are positioned to continue to benefit from declining levels of interest rates.

With interest rates in many emerging markets still significantly higher than in industrialized countries – and the improvements in institutions and policy credibility continuing – there is strong case to be made that interest rate convergence in emerging markets remains in its early stages. The improved balance of payments dynamics provides fundamental support for further rate convergence in countries with strengthening institutions, as well as the progressive atonement of the "original sin" that has historically hindered the development of robust, long-term local currency debt markets in the emerging world.

Conclusion

It was common in the 1990s for economists to advocate fixed exchange rates for emerging market countries. The theory was that these countries would benefit from a clear anchor around which to orient fiscal and monetary policies, particularly at a time when institutions like central banks and finance ministries were not as well developed. While these regimes were mostly successful in helping countries escape the legacy of hyperinflation, they also proved to be extremely fragile – both because they led to currency overvaluation and current account deficits, and because the market punishment for shortcomings

in fiscal and regulatory policies were amplified during periods of financial stress.

In an example of Minsky turned on his head,[6] this period of instability in emerging markets in the 1990s sowed the seeds for the stability we see today. Forced from the fixed exchange rates of the past, many emerging market countries seized the opportunity to reestablish their economic policies on a broader foundation. Sensitivity to overvalued currencies and external deficits made policymakers focus not only on improving the headline macro targets but also on building the capacities within central banks to conduct autonomous monetary policies and within finance ministries to collect taxes, control expenditures, and manage liabilities. These policy improvements and the strengthening of balance of payments dynamics provide powerful anchors for emerging market assets, underpinning continued narrow external debt risk spreads, the appreciation of emerging currencies, and the secular decline of local currency interest rates. This shift is a potent theme for pursuing excess investment returns in the years ahead.

Ramin Toloui
Senior Vice President
ramin.toloui@pimco.com
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[1] Note that the current account balances of the industrialized and emerging market countries combined should add up to zero (i.e., current account for the world as a whole must be balanced). The fact that they do not reflects a statistical discrepancy attributable to the shortcomings in national balance of payments statistics.

[2] For the key points of departure in this debate, see Ben S. Bernanke (2005), "The Global Savings Glut and the U.S. Current Account Deficit," remarks at the Sandridge Lecture of the Virginia Association of Economics in Richmond, March 10, and Raghuran Rajan (2006), "Investment Restraint, The Liquidity Glut, and Global Imbalances," remarks at the Conference on Global Imbalances organized by Bank Indonesia in Bali, November 16. In addition to the reasons discussed in the main text, shortcomings in the business climate in emerging market countries and the lack of adequate financial instruments for capturing the returns to investment have been offered as explanations for investment rates being lower than they otherwise would be. While no doubt relevant to observed investment patterns, these factors are less useful for explaining the *change* in current account balances since they remained broadly unchanged or improved during this time period.

[3] Modern central banks earn income by purchasing interest-bearing assets (such as government bonds) with zero-interest liabilities (the national currency and non-renumerated reserve deposits). This produces a type of income known as seignorage, which is frequently transferred to the country's national treasury at the end of the fiscal year after paying central bank expenses. In the course of a sterilized foreign currency intervention, the central bank buys an interest-bearing asset (foreign reserves) by issuing the national currency but simultaneously sells/issues another interest-bearing asset (local currrency bond) in order to reabsorb the national currency and keep the monetary base constant. When local currency interest rates are higher than the interest rates on foreign reserves, sterilized foreign currency intervention reduces seignorage income, since the central bank has effectively replaced a higher-yielding asset with a lower-yielding asset on its balance sheet. For an extensive discussion of the costs of reserve accumulation, see Russell Green and Tom Torgerson (2007), "Are High Foreign Exchange Reserves in Emerging Markets a Blessing or a Burden?" U.S. Treasury Office of International Affairs Occasional Paper No. 6, March.

[4] Barry Eichengreen and Ricardo Hausman (1999), "Exchange Rates and Financial Fragility," National Bureau of Economic Research Working Paper 7418.

[5] For an insider's account of the importance of policy interest rates during the Mexican crisis in 1994-95, see Robert E. Rubin (2003), In an Uncertain World: Tough Choices from Wall Street to Washington, New York, Random House.

[6] A frequent PIMCO referent, Hyman Minsky was a 20th century American economist that originated the so-called financial instability hypothesis that stability in financial markets tended to lead to future instability by encouraging the excessive extension of credit.

P I M C O

840 Newport Center Drive
Newport Beach, CA 92660
949.720.6000

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