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SAVINGS GLUTS AND INTEREST RATES:
THE MISSING LINK TO EUROPE

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ABSTRACT

Data for world savings rates do not suggest that an aggregate glut of world savings has depressed US and international interest rates in recent years. Unusual but offsetting changes in savings rates have been limited to three regions: sharp declines in the US have been matched by sharp increases for developing Asia and the Middle East. The world saving rate has increased very little. There are two important features of this change in regional savings behavior. First, three-quarters of the increase in Asian and Middle Eastern savings has been placed in international reserves. Second, all these additional savings have been absorbed by the United States. Even if reserves are mostly placed initially in the US, we would not expect all the savings exported from these high savings regions to remain in the United States. A collapse of expected profits outside the US seems to us a compelling explanation for the US current account deficit and depressed international interest rates.

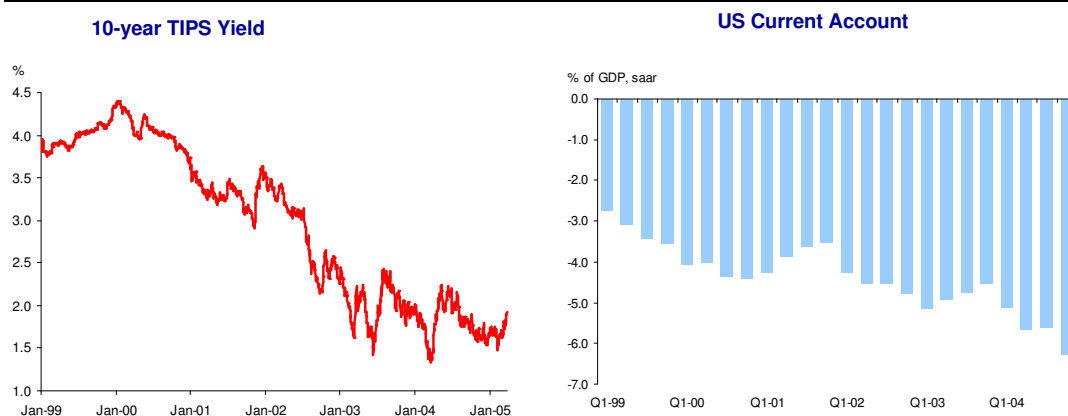
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Real Interest Rates

Why is the real interest rate so low and falling in the growth phase of the US and global business cycles, even as the current account deficit reaches record levels? At end-June 2002, about when the euro appreciation began, 10-year Treasury real rates were at a realized 3.7% on nominal notes and 3.07 on TIPS. As we write they are 1.80% and 1.69%, respectively. US rates have fallen in a period when the media swirled daily with stories about foreigners losing confidence, foreign exchange reserve managers diversifying portfolios, and imminent collapse as everyone was seeking to be the first out the door. If all this is true, the bond and credit markets have not noticed.¹

Chart 1. US Real Interest Rate and Current Account Imbalances



Source: Bloomberg, Haver.

Underpinning our view of this global reality are two basic phenomena that we expect to continue into the foreseeable future. First, about fifteen years ago, hundreds of millions of underemployed workers joined the world's market economies. They had no capital to speak of. But they had a desire to work in industry and to get rich. We might expect that an increase in the supply of labor would drive real interest rates up, but this labor came with an enormous savings rate and a dead financial system that had served them in the past as a capital destroyer, as it does to this day.

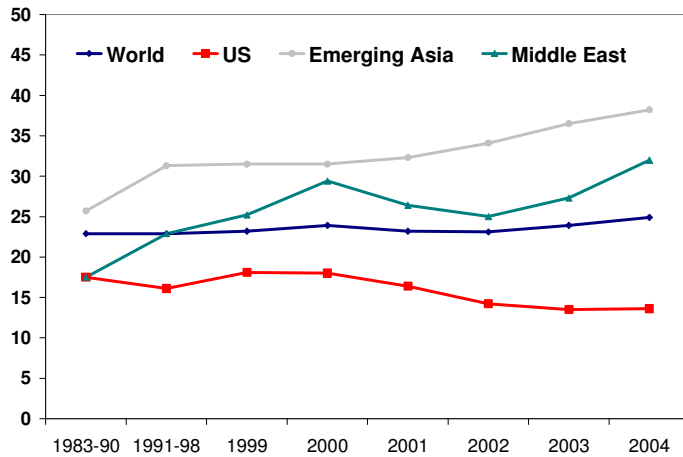
This created a profound global disequilibrium for the industrial world, equal in magnitude to the global unemployment problem of the Great Depression although quite geographically concentrated. The industrial world's economic system has to resolve this economic fundamental over the course of time by absorbing these workers. To focus today on trade imbalances when there is an enormous labor market imbalance is the same mistake that economists and policymakers made in the 1930s.

Second, the successful development strategy in developing Asia designed to absorb this stock of labor has generated rapid growth in GDP and savings in that region. As shown in Chart 2, the aggregate savings rate for the world is nearly unchanged; but regional savings rates have changed dramatically in recent years. The combination of rapid growth of countries with high savings rates, particularly China, has increased the savings rates in what

¹ Savings Gluts, Deficits and Interest Rates: The Missing Link to Europe," Deutsche Bank Global Research July 5, 2005.

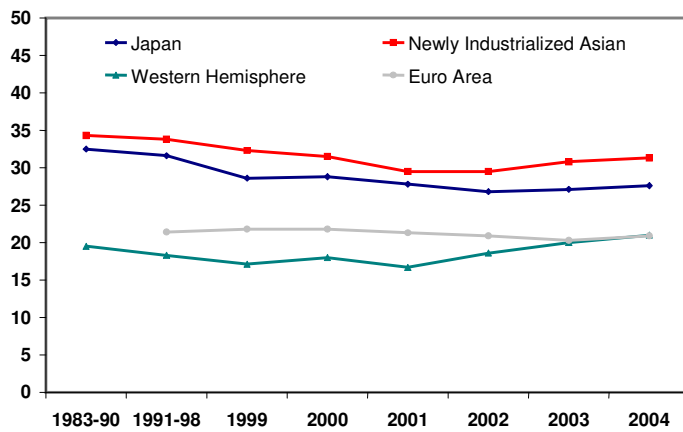
the IMF calls developing Asia. Rapid growth in Asia has contributed to high oil prices and savings rates in oil producing developing countries have also increased dramatically.

Chart 2. Saving Rate as Percentage of GDP



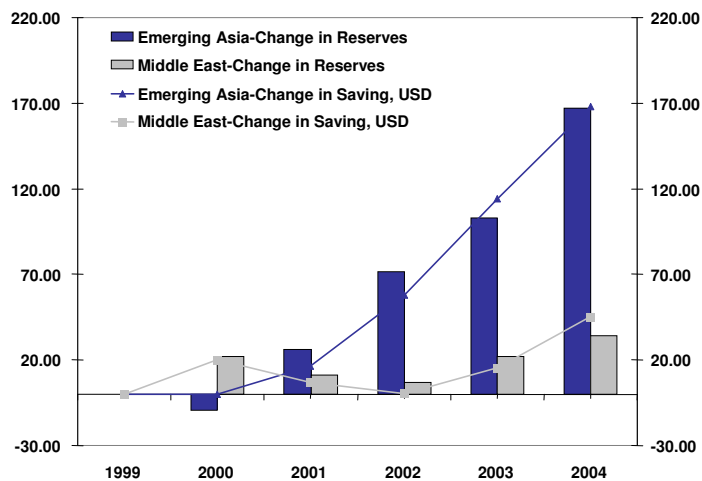
Source: IMF

Chart 3. Saving Rate as Percentage of GDP



Source: IMF

Chart 4. Changes in Savings and Reserves (Billions of U.S. dollars)



Source: IMF

There are two remarkable aspects of this increase in regional savings rates. First, almost all the increase in savings in these regions has been matched by a fall in savings rates in one country, the United States (Chart 2). Other regions including newly industrialized Asian countries, Japan, the Euro area and emerging Western Hemisphere shown in Chart 3 show no trend in savings behavior. Second, as shown in Chart 4 most of the **increase** in the dollar value of savings (relative to the *level* of savings in 1999) for the past five years in emerging Asia and the Middle-East has been placed in international reserves. There is no generalized glut of world savings. But there is a very unusual distribution of world savings across regions, and an unusual share of increased savings has been placed by governments in international markets.

International Savings and US Interest Rates

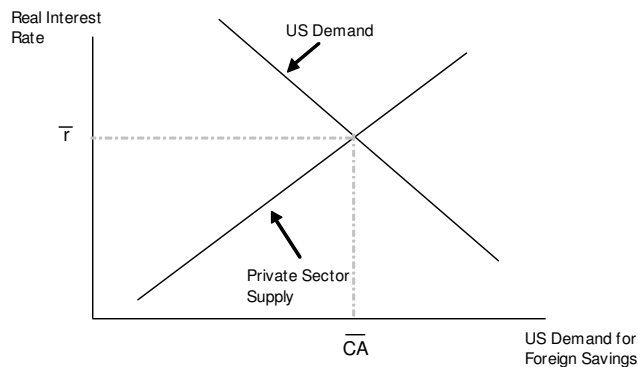
We would not normally expect all of an increase in savings in one region to end up in the US even if incremental savings were all invested in international reserves and all the reserves were initially invested in the United States. As we point out below, this would tend to depress US interest rates; and these added capital inflows should then be reallocated via the global financial system across other higher return industrial and emerging markets.

For now, to explain what has happened to US interest rates, we assume this does not happen. In the next section, we try to understand why it has not happened.

We like to think about this US-centric problem in a simple loanable funds flow framework. After netting US public and private investment demand from US savings, the US has a demand for savings from the rest of the world that is downward sloping vs. the real interest rate, as in Chart 5. The lower the real interest rate that it faces, the less the US wants to save and the more it wants to invest. If there are many profitable investment projects at the margin a change in the interest rate generates a large change in the demand for international savings. Given a real interest rate, we can read off the US current account deficit. Absent a

provision of savings from the foreign official sector, there is an upward sloping supply of foreign savings coming from the private sector, perhaps from asset managers looking only at Sharp ratios and benchmarks or perhaps from foreign corporates interested in return on capital. The higher the real interest rate available in the US, the more foreign savings flow in.

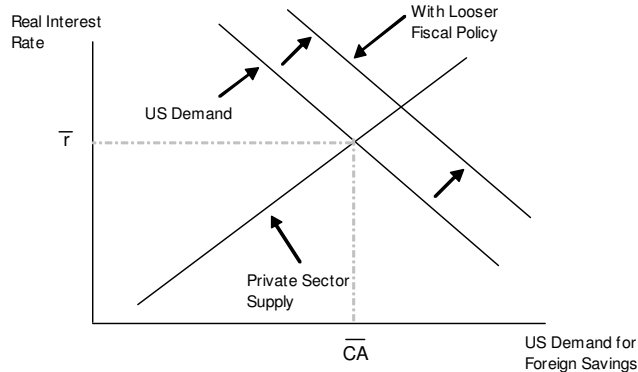
Chart 5. Equilibrium current account and real rate, private supply only



The cross of these two curves determines the US real interest rate, the US current account deficit, and the rest of the world's surplus.

A looser fiscal policy might shift the demand for foreign savings upward as in Chart 6. This would bring in more foreign savings or, equivalently, increase the current account deficit. And it would cause the real interest rate to rise, as in the Reagan era deficits of the early 1980s.

Chart 6. Looser fiscal policy raises real rate and CA deficit



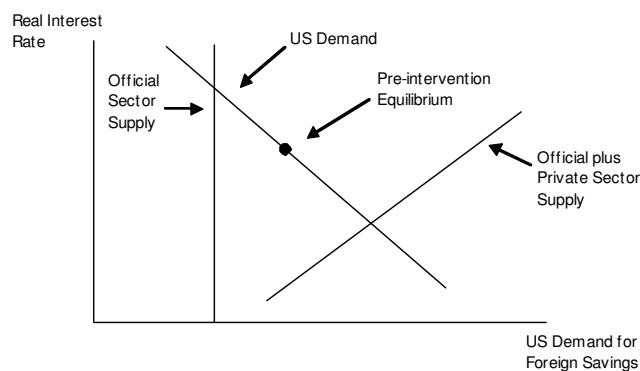
Maybe some of this is going on, but it is clearly not dominant. Since 2002, marketable Treasury debt has increased by about one third while nominal and real interest rates have declined. Moreover, relative to other industrial countries the US budget deficit is not unusually large; and it is hard to see that this factor alone would increase the US current

account deficit relative to other industrial countries, especially given the much more rapid real and nominal GDP growth rate in the US.

Performance Comparisons: Euroland, US, Japan, 2004

Instead, consider Chart 7 where we add a vertical foreign official sector supply curve positioned by statesmen who have objectives different from a narrow risk-return calculus localized to this small portion of their national savings. Their development goals require the export of home country savings, and they will accept whatever interest rate the market determines. Adding this new public sector supply of foreign savings to the private sector supply horizontally shifts overall supply rightward and brings down the interest rate that clears this global market for savings.

Chart 7. Push in from official sector lowers real rate, raises CA deficit



So, if we see that the real interest rate falls with a rising current account deficit, it can only mean official capital is being pushed into the US and private capital is being pushed out, but by smaller amounts than the official capital coming in. Overall, capital is not being pulled in by US demand shifts. This is the combination of facts that shows us that the US is passive, and the foreign official sector is the active player in global imbalances.

The typical denunciation of US "profligacy" is rhetoric that is worse than useless: it is misleading. Usually, this rhetoric includes a reference to the role of the US fiscal deficit in reducing net US savings, but that should increase the interest rate. Whatever the size of this effect, it has clearly been more than overcome by the effects of official capital pushing in.

We often hear that private saving flows to the US are falling because of increased risks, stemming perhaps from the worsening international investment position. This would show up as a shifting upward and to the left of the private supply curve in Charts 5, 6, and 7, and put further upward pressure on real interest rates, exactly the opposite of what we observe. Rather, the evidence is far more consistent with a downward slide along a given private supply curve after it is added to the public sector supply. For sure, private savings are financing far less of the US current account deficit than, say, five years ago. But this is because they are being driven out by official sector flows willing to replace them at much lower rates.

One should beware of making too much of rising or falling fractions of official sector finance in any given quarter or year. A steadily growing official sector inflow year-in and year-out to the US is not necessary to maintain the system. Official inflows are necessary only when interventions are required to keep the exchange rate undervalued. As in a target zone exchange rate regime, when the private sector is confident that the regime is durable and will be sustained by future interventions as the need arises, private inflows can alone provide the deficit financing.

So far so good. But a low real rate is a momentary flow effect that will evaporate with official sector lending to the US. If official lending were suddenly to dry up, then the picture would snap back from Chart 7 to Chart 5, and interest rates would jump. If this is what is expected, we should see low short term real interest rates and much higher long term rates. But we do not see this. Long term real rates are low, the conundrum that we are studying now. Implicit in the real yield curve is that the equilibrium of Chart 7 should last a long time.

It follows that even a hint that Asian governments might reduce their flow demand for dollar assets will generate an immediate jump in the ten-year rate in the US. Indeed, many observers doubt that foreign official interests in funding the US current account deficit are sustainable.

Why Does the US Get It All?

Why doesn't the fall in US rates described above drive Asian and oil producers savings initially placed in the US right back out of the US via the global financial system to most of the rest of the world where domestic savings rates have not changed? Put another way, we cannot explain depressed real interest rates in Europe, for example, by inflows of international savings because there have been no net savings flows to Europe. The failure of international credit markets to recycle international savings from the US is even more puzzling because falling US real interest rates are associated with large current account deficits and an increase in the US net international debt position. This is generally believed to generate a **decline in risk adjusted return on dollar assets that is even larger than the decline in real US interest rates.**

An expected appreciation of the dollar can make this add up because it increases the expected rate of return on dollar assets relative to assets denominated in euros and other floating currencies. We predicted a sharp decline of the dollar against the euro for this reason (the dollar has to fall now so that it is expected to rise over time) and this does provide a consistent story about why investors are now willing to stay in US dollar investments.

But there is an important piece that has not yet been fit into the puzzle: to explain these flows the expected rate of return on investment in Europe and the rest of the world must be very low. The intuition is straight forward. Capital formation in Europe and the rest of the world could be financed at low real interest rates and in currencies that relative to the dollar command a risk premium and are expected to depreciate. This is a rare triple play for firms wanting to finance any reasonable investment opportunity, yet there is no effective demand for international savings outside the United States even on these very attractive terms. The only explanation that fits the facts is that expectations for profitability of new investment outside the United States must be remarkably poor.

In terms of our simple demand and supply for loanable funds framework some of the increase in Asian and oil producers' savings must have been offered to Europe, Latin America and other regions. So far there has been no demand for these savings and asset prices have adjusted accordingly.

Can This Last?

Investment

We will turn to the outlook for Asian savings in the next section. Here we focus on the effects of an improvement in the investment climate outside the United States. Our framework suggests that this would tend to reduce the US current account deficit and raise US and international interest rates. An increase in global demand reduces the US current account deficit relative to Europe and other regions with floating exchange rates and the need for dollar depreciation against their currencies in the long term. Moreover, expectations of smaller current account deficits in the future for the US and larger deficits for Europe and elsewhere would reduce the risk premium investors would demand for dollar assets and generate an immediate appreciation of the dollar. In a sense this would reestablish a normal response to elevated savings in Asia and the Middle East. That is, excess savings in one region would be spread around the world and relative current account imbalances and exchange rates in the rest of the world would be little changed.

If the improved investment climate was associated with a relaxation of monetary policy outside the US this would also tend to support dollar exchange rates as favorable changes in expected current account positions are reinforced by initial declines in interest rates outside the US.

Savings

Will Asian developing countries and oil producers continue to experience high savings rates and to make these savings internationally mobile through reserve accumulation? For oil producers it seems very likely that reserve accumulations will be reversed if oil prices stabilize or fall. In the past these countries have increased investment and decreased domestic savings reasonable quickly following episodes of high oil prices and reserve accumulation. But for developing Asia, particularly China, we have to better understand the strategy chosen to solve development and unemployment problems.

The problem for China is to mobilize its existing enormous domestic savings to create a growing, internationally competitive capital stock that can rapidly employ hundreds of millions of workers in productive activity. A serious constraint is the lack of a domestic financial system capable of channeling these savings into productive capital, of proper technology, and management skills.

The solution, perhaps stumbled upon inadvertently, has been to engage in export led growth, thereby providing an immediate global quality check on goods produced. This avoids falling off the cliff of another "Great Leap Forward." To get export markets open, a part of the policy has been to offer a large incentive to potential foreign and domestic industrial exporters in the form of low dollar wages and the expectation that wages will rise only slowly toward world levels. Slowly rising dollar wages could be associated with gradual revaluation of the nominal exchange rate or a slightly higher rate of inflation as compared to trading partners. For example, a 3-5 percent revaluation of the renminbi later this year and the adoption of a carefully controlled float would not signal the end or even a material change in the

development strategy we have described.² Nominal price and wage levels would then rise less rapidly, leaving the path of real wages essentially unchanged.

An initially low but rising currency also helps control the rate of migration from the countryside to urban areas by keeping the relative price of domestic agricultural output high. The typical problem in emerging markets is to avoid offering too an high industrial wage while still inducing resource transfers to industry and restraining migration out of the countryside to a rate consistent with capital formation in the industrial sector.

But why does the need for international financial intermediation (two way trade in financial assets) create savings-investment imbalances and the flood of net capital exports? An export-based development policy need not imply a net export of capital. All that is needed is export growth, and this can just as well be balanced by import growth.

In general, the successful emerging market economies have not needed net foreign savings inflows; such inflows are generally small and unreliable relative to domestic savings. In fact, recent academic research suggests that developing countries that do not borrow net from abroad have grown more rapidly than those that do borrow.³ Nevertheless, we would have to agree that other things equal even a small addition of net foreign savings should contribute to investment and growth in poor countries. A positive argument in favor of net exports of savings requires that some other important ingredient to growth is not equal.

Our view is that net exports of domestic savings are necessary for efficient international intermediation of domestic savings. Asian emerging markets do not need net foreign savings but they do need efficient financial intermediation. We have emphasized foreign direct investment and other types of international financial intermediation because we are not optimistic about rapid development of domestic credit markets. That is, residents of these countries can avoid domestic markets by placing some of their assets off shore. These savings will return if international investors are protected from political risk, especially when private capital is flowing to and from a geopolitically problematic country in large amounts. The government can effect a relaxation of this constraint by keeping its balance sheet very strong versus the rest of the world, that is, by building net reserves.

The government's net reserves then provide protection to private international financial intermediation against various geopolitical risks. In effect, the emerging country's government promises to stay on the sidelines by becoming a net creditor to the rest of the world. Note that a government cannot borrow this credibility; it has to earn it by placing goods and services in the rest of the world on net. Placing goods on net in the rest of the world means a current account surplus.

It seems to us unlikely that China will abandon the strategy that has worked so well in recent years. Moreover, other emerging markets have noticed that export led growth and reserve accumulation has worked while borrowing to grow has not. The recent accumulation of reserves in Latin America in resisting exchange rate appreciation can be understood as an attempt to imitate Asia's success. The very open capital markets in Latin America will make it difficult to control the real exchange rate but there is nothing to stop governments in emerging markets from strengthening their own balance sheets.

² In "A Map to the Revived Bretton Woods End Game," Deutsche Bank Global Research, June 2004. we treat the initial stock of labor as an exhaustible resource. In that context it is optimal for the government to absorb labor more rapidly at the beginning of the regime. It follows that dollar wages are initially set at a low level but rise over time to the world wage when the last worker is absorbed.

³ Joshua Aizenman, Brian Pinto, and Artur Radziwill, "Sources for Financing Domestic Capital - is Foreign Saving a Viable Option for Developing Countries?" NBER Working Paper 10624, July 2004.

Other Asia and Japan

A reasonable objection to the argument set out above is that it does not fit the more developed countries in Asia, especially Japan, that have been among the most eager buyers of US assets. In fact, it is useful to consider China and Japan as spanning the problems facing Asia. Both Japan and China have an employment problem, in Japan it is the result of a very long cyclical downturn. In China it is a long term development problem. Both governments look to export growth as a solution to this problem and both have a long history of managing the exchange rate.

For quite different reasons both have been able to sterilize very large reserve accumulations. In deflationary Asian countries, notably Japan, it is difficult to understand why there is some limit on the ability or motivation of the authorities to create yen in stemming an attack on the currency. With interest rates at zero, it is costless to create as much yen cash as is demanded, while dollar reserves produce a positive yield. Normally, a limit on foreign exchange acquisition is reached when the resulting monetary expansion causes excessive overheating and inflation. But this is still not in sight for Japan, and would not, in any case, be the appropriate monetary policy.

The lessons of attacks on fixed exchange, weak currency countries seem to be the ones being applied by the global private financial sector here. For such countries, there is a limit on reserves or credit or the amount of pain they are willing to put the economy through, so more attacks against such currencies are simultaneously a ratcheting up of the probability that the currency will indeed collapse. Some observers seem to be holding a case study of a typical speculative attack against a mirror and thinking that private capital inflows ratchet up the pain in Japan. Yet quite the opposite is true in deflationary Japan. Japan has ceased its massive intervention since Q1 2004, and the yen has depreciated somewhat against the dollar. Our expectation is that the authorities will return to the market if private flows to the US again decline and the yen again appreciates, all the more so if it is tested in another attack.

In China, financial repression has allowed authorities to place domestic assets generated by sterilization without much increasing domestic interest rates and has been very successful in containing inflation. The PBOC currently places domestic currency 3-year debt in the banks at a rate of about 3% and is experiencing positive carry on its foreign exchange. Other emerging markets in Asia with relatively open capital markets have followed a middle course of trying to stay competitive with China but allowing some appreciation of their currencies against the dollar, although still with heavy currency management and accumulation of reserves.

The success and durability of these efforts are a matter of intense debate, but we doubt there is much to be gained from continuing the debate at the theoretical level. We have looked at the experiences of countries that have had persistent current account deficits and reserve accumulation since 1970 and our preliminary assessment is that such countries have not lost control of their domestic price level or been forced to revalue by speculative attacks.

Conclusions

We see today's structure of current account balances and real interest rates as an equilibrium generated by unusual supply of international mobile savings from Asia and some

oil exporters, strong investment opportunities in the United States and very weak investment opportunities elsewhere. The supply of mobile savings will probably shrink over time as oil producers adjust to their new wealth. But Asian and other emerging markets are very likely to continue to save and to place their savings in international markets. Substantial increases in international interest rates and a more even distribution of current account deficits across industrial countries will require a strong recovery of investment demand outside the US. At the moment we see little evidence that this is in the cards.