In 2005 former Federal Reserve Chairman Ben Bernanke argued that the large US current account deficit was caused by a so-called savings glut in Emerging Markets (EM).\(^1\) A savings glut, Bernanke argued, arises when savings grow faster than investment. Excess savings flow out of EM countries and are invested in US financial assets. The resulting wealth effects stimulate imports, while capital inflows strengthen the Dollar and impede exports. The US current account deficit is therefore not due to profligate fiscal spending; the real culprit is the EM savings glut, which ultimately reflects the less attractive investment environment in EM relative to the US.

Much has changed since 2005. The EM savings glut has disappeared, but the US still runs a sizeable current account deficit. This calls into question Bernanke’s hypothesis that EM savings gluts cause US current account deficits. More importantly, if Bernanke’s argument that savings gluts reflect a dearth of investment opportunities then developed markets (DMs) have a problem, while the investment environment in EM is looking up.

We believe that the emergence of a large savings glut in DMs has three important investment implications: Firstly, risk-willing capital is now in a position to flow back to EM, where investment conditions are demonstrably better. Secondly, if capital does indeed flow back to EM then this will likely usher in stronger economic growth, because EM countries are severely finance constrained. Thirdly, outflows of capital will likely lead to tightening financial conditions in DMs, which suggests poorer returns in coming years.

**A bit of theory**

What are savings gluts and why do they happen? Economic theory says that the difference between savings (S) and investment (I) must equal the current account balance (CA):

1) \[ CA_t = S_t - I_t \]

Since savings in any period \( t \) equal the change in wealth over that period, it follows that savings can be expressed as the sum of changes in the domestic capital stock, \( K_{t+1} - K_t = I_t \), and net foreign assets, \( F_{t+1} - F_t \), over the period. Substituting these into \( 1) \):

2) \[ CA_t = (K_{t+1} - K_t) + (F_{t+1} - F_t) - I_t \]

and simplifying

3) \[ CA_t = (F_{t+1} - F_t) \]

[3] says that the current account balance over the period in question equals the change in the value of net foreign assets, that is, a net inflow must happen in order to finance a current account deficit if domestic savings are inadequate relative to the level of investment. Alternatively, if a domestic savings exceed domestic investment then a savings glut exists, which the country will export to other countries.

One final important clarification is required: The identities \( 1)-\)\( 3) \) must hold all times. As such, they do not say anything about cross-border flows of capital. They only become interesting when examined dynamically, i.e. how they change over time. As we show below savings and investment rates change constantly in response to shocks of all kinds in the global economic environment. Each shock creates a wedge between desired and actual savings and investment rates. It is these disequilibria, which ultimately change current account balances and global capital flows.

**Bernanke’s global savings glut**

Bernanke proposed his savings glut hypothesis primarily in order to explain the existence of persistent large US current account deficits, but his hypothesis also implicitly called into question the wisdom of investing in EM countries. Indeed, the very existence of a savings glut suggest that investing at home is somehow less desirable than investing overseas. Bernanke argued that EM countries were accumulating savings gluts due to inadequate macro-economic stability, poor respect for property rights, barriers to free trade and capital flows and insufficient attention to corruption and rule of law. Additionally, he said that EM countries were forcing private sector agents to save too much by issuing too many local currency bonds and investing the proceeds in US Treasury bonds.

In these circumstances, he argued, EM investors would prefer to invest in US assets. Their inflow to the US pushed up stock and property prices in the US, which in turn created wealth effects, which increased imports and strengthened the Dollar resulting in a growing US current account deficit.\(^2\) Bernanke argued that investment propensities were rising relative to available savings in the US, because of America’s benign investment environment as well as declining real interest rates.

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2. This follows from the national income identity \( Y-C-I=CA \), which can be re-arranged \( Y-C=I+CA \), so since \( Y-C=\bar{G} \) it follows that the difference between savings and investment is the current account balance.
3. Other more fanciful explanations for the US current deficit were also put forward at the time. Some economists went so far as to argue that there is no current account deficit in the first place. For example, Ricardo Hausmann, a Harvard professor, and Federico Sturzenegger, current central bank governor in Argentina, argued that the US current account deficit would simply not exist if the deficit was measured properly to take account of ‘dark matter’. (“Global imbalances or bad accounting? The missing dark matter in the wealth of nations”, CID Working Paper No. 124, Harvard, January 2006).
EM savings glut...

Bernanke’s savings glut hypothesis challenged conventional wisdom that the US current account deficit was due to the fiscal deficit. Nevertheless, the savings glut hypothesis was well-received, because in addition to reinforcing deeply held prejudices about investing in EM it was clearly supported by the data at the time, which showed EM savings rising faster than investment (the blue line in Figure 1). Bernanke’s explanation was also popular, because it conveniently exonerated US fiscal policy from blame for the current account deficit, thus obviating the need for painful fiscal adjustment.

Fig 1: Global savings glut (1981-2008)

Source: Ashmore, IMF.

...becomes a DM savings glut

Everything that Bernanke talked about in 2005 has now been turned on its head. To demonstrate this we have updated Bernanke’s data to year-end 2016 using recent information from IMF’s World Economic Outlook (Figure 2). The most important change is that the EM savings glut – calculated as the difference between investment and savings rates multiplied by GDP – has entirely disappeared (blue line), while a savings glut of even greater magnitude has emerged in DMs instead (red line). This shift in the global savings glut has been enormous: excess savings in EM have declined by 3% of EM GDP, while excess savings in DM now measure more than 2% of DM GDP. The global savings-investment imbalance now measures more than USD 925bn, or 1.2% of global GDP (green columns).

Fig 2: The changing global savings glut (1981-2016)

Source: Ashmore, IMF, as at October 2017.

...and the US current account deficit is still there

While the EM savings glut has completely vanished, the US current account deficit has patently not (red line in Figure 3). One thing therefore seems clear: the US current account deficit cannot be attributed to an EM savings glut. The US has been running large fiscal deficits for the past 15 years (green bars). Perhaps the fiscal deficit contributes to the current account deficit after all?

Fig 3: US current account, fiscal deficit and debt versus EM savings glut

Source: Ashmore, IMF, as at October 2017.

Shifting savings gluts: an investment or savings story?

Current account balances are a convenient way to summarise the complex economic dynamics, which take place in countries as they are constantly hit by domestic and external shocks. However, current account balances are less insightful when it comes to understanding economic behaviour. After all, current account balances are merely the sum of literally billions of individual savings and investment decisions taken simultaneously by countless economic agents all over the world, including central banks. A better way to understand what drives current account balances and associated global capital flows is to look at savings and investment rates. Figure 4 does this by disaggregating savings gluts into their respective savings and investment components for both EM and DM countries. The chart also shows global aggregate savings and investment rates.

Fig 4: S-I imbalances

Source: Ashmore, IMF, as at October 2017.

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1 Based on GDP in current Dollars not adjusted for PPP.
2 The fiscal deficit has been so large that US gross federal government debt has risen at an alarming rate (black line in Figure 3).
Rising investment in EM

Figure 4 is extremely insightful. First, the chart shows that saving and investment rates in global aggregate terms (purple and dark blue bold lines) have not actually changed very much from 1980 to 2016. Secondly, the chart shows that individual EM and DM savings and investment rates have changed enormously. Hence, global aggregates are fairly uninformative, but regional aggregates are far more informative.

EM countries have seen steady and meaningful increases in both savings and investment rates since the turn of the century. Much of the increases can be attributed to better economic policies following the end of the Cold War. Since the crisis of 2008/2009 however, EM countries have additionally closed the gap, which used to exist between savings rates (orange line) and investment rates (green line). This has mainly been achieved through a steady increase in investment rates against a backdrop of stable savings rates. Bernanke’s alleged disincentives to investing in EM appear to have dissipated.

Today the EM savings glut is now gone, US still runs a current account and the savings glut is now in developed economies

Lower investment in DM

In sharp contrast with EM, savings and investment rates have both declined in DMs (respectively the light blue and red lines in Figure 4). This decline also pre-dates the crisis of 2008/2009. It began as far back as the 1980s, but more recently saving rates have increased sharply relative to investment rates. The emergence of this savings glut appears to coincide with the onset of QE and implies a dearth of investment opportunities relative to the amount of money available.

The shift in the savings glut in recent years is therefore closely associated with changes in investment rates. The scale of the relative changes in investment propensities is illustrated in Figure 5, which shows that EM countries now invest nearly 12% of GDP more than DMs every year. This does not even take into account depreciation, which is far greater in DMs, which have far larger capital stocks. EM’s higher investment rates bode well for growth, while DM’s declining investment rates bode poorly for growth, all else even.

Regional differences and the shifting global savings glut

OE and other shocks have impacted different regions in EM and DM very differently depending on their particular characteristics. To illustrate some of the differences we calculated changes in savings-investment balances for the most common regional aggregates in EM and DM for the period from 2008 to 2016 (Figure 6). A few important nuances stand out: First, within EM the Middle East really stands out as the region with the largest drop in savings-investment balances (USD 489bn). The Middle East was especially heavily impacted, because the Middle East also had to deal with sharp declines in commodity prices in addition to the broader QE headwinds. Since the Middle East currencies are pegged many countries embarked on debt financed fiscal stimulus rather than belt tightening. Net savings dropped sharply as a result. Debt dynamics now bear close scrutiny in the Middle East.

The EM savings glut has closed because of a large increase in investment rates, especially relative to developed economies

The impact on Latin America was similar in size to that of Asia in GDP terms despite much lower domestic savings and much greater commodity dependence. This is testimony to the serious adjustment undertaken by many Latin American countries through a combination of domestic demand adjustment, large currency adjustments and structural reforms.
The only EM region which saw its savings-investment balance rise during the QE era was Eastern Europe. These countries were to a considerable extent able to piggy-back on the QE flows into the Eurozone on account of their close economic integration with the EU.

Among the DMs, EU saw the largest rise in net savings followed by the US, although Japan also partook. All three regions were major perpetrators of QE and all became destinations for global capital flows – currency hedged or currency unhedged – as investors discovered the true scale of the capital gains on offer in their domestic markets.

What does a savings glut mean in practice?

The existence of a DM savings glut should be viewed as good news for EM investors in much the same way that the EM savings glut at the time of Bernanke’s speech in 2005 turned out to be good for DMs. The reality of a savings glut is that they signal poor investment returns. The outlook for DMs for the next five years is by the reckoning of most objective observers distinctly worse than the realised returns of the past five years. This is because the main engine of capital gains, QE, is being unwound. Rates are going up. The best capital gains are behind us, there is no yield and there may be capital losses ahead.

Figure 7 illustrates the point. Holders of 5-year US Treasury bonds would have to hold them for 1.2 years before the interest on the bond has made up for the capital losses associated with just a 50bps move in the curve. In the UK the corresponding holding period is 3 years and in Japan and Germany, where yields are negative even an infinite holding period would not yield enough interest to compensate for the capital loss.

<table>
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<th>Maturity</th>
<th>50bps yield shock</th>
<th>Yields return to pre-2008/2009 levels</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5yr</td>
<td>10yr</td>
</tr>
<tr>
<td>US</td>
<td>1.2</td>
<td>1.8</td>
</tr>
<tr>
<td>UK</td>
<td>3.0</td>
<td>3.1</td>
</tr>
<tr>
<td>Germany</td>
<td>Infinite</td>
<td>10.8</td>
</tr>
<tr>
<td>Japan</td>
<td>Infinite</td>
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</tr>
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</tr>
<tr>
<td>EM USD corporate</td>
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<td>3.9</td>
</tr>
<tr>
<td>EM USD sovereign</td>
<td>0.7</td>
<td>2.1</td>
</tr>
</tbody>
</table>

Source: Ashmore, Bloomberg, JP Morgan, as at October 2017.

EM no longer has excess savings. Attractive investment opportunities are abundant relative to the amount of money available. Yields are high so EM bonds will recover quicker through interest payments that which is lost due to yield curve shocks. For these reasons we see at least three fairly obvious investment implications:

- DMs will increasingly struggle to find attractive investment destinations barring a major improvement in productivity
- DMs are therefore vulnerable to outflows
- EMs are the most likely destination for outflows, because they offer good value.

Two important risks

Big shifts in global savings gluts have historically been associated with financial and economic instability. Investors should therefore not be complacent about the risks associated with the unwinding of the flows of the QE era. Two questions are particularly relevant: Is there a realistic chance that productivity growth can pick up sufficiently to prevent major outflows from DMs? And, if not, can DMs cope with outflows?

The answer to the first question is probably ‘no’. A sustained recovery in productivity growth requires that DMs embark on major fiscal retrenchment, because declining productivity is closely related to the increase in government debt. This is clear from Figure 8, where the green line is the ratio of US government to private sector debt and the red line is US productivity growth. Government spending is financed by debt, which usurps funds, which could otherwise have been used for investment in the private sector. Since public sector spending is far less productive than private investment aggregate productivity declines with the rise in US government debt. There is no sign of imminent fiscal retrenchment in the US or elsewhere in DMs. In fact, the US government is moving rapidly towards an unfunded tax cut and hoping also to increase infrastructure spending.

Fig 8: Ratio of private to public sector debt and productivity

If they cannot hold on to the money can DMs cope with outflows? Probably. After all, investment rates are declining, so each year more money is freed up to flow back to EM. Still, capital flight changes asset prices and currencies even if the real economy is not immediately impacted. Second-round effects via wealth effects and loss of confidence can be damaging. The distended state of markets and business cycles in DMs also has to be taken into consideration. It may prove difficult to re-emerge from downturns due to large amounts of debt and declining productivity and politics, which makes reform impossible. Still, they should eventually recover if currencies are allowed to weaken sufficiently albeit only after a meaningful lag, which could last several years.

The existence of a DM savings glut bodes poorly for investment returns in rich countries and well for potential flows to EM

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4 For the latest update on our outlook for EM see ‘Outlook for EM and global backdrop,’ The Emerging View, 11 May 2017

4 There are many potential reasons for the relationship between the ratio of government to private debt and productivity. Ricardian Equivalence is an obvious candidate. Ricardian Equivalence says that the private sector will scale back spending in line with the rise in government debt knowing that the latter must be repaid through future taxes. Moreover, if the marginal productivity of government spending is less than the marginal productivity of private spending then bigger government means lower productivity.
Conclusion
QE and other shocks since 2008/2009 contributed to enormous shifts in global asset allocation. Capital gains in DM countries were very significant, but they also eroded yields. As QE is scaled back and interest rates slowly rise there are real prospects of capital losses against which there is no offsetting yield. A savings glut has emerged in DMs due to a gradually emerging dearth of investment opportunities.

For those who wish to remain invested in the overvalued DM markets during the unwinding of QE we recommend that they reverse the original QE trades, i.e. go long EUR versus USD, long European equities versus US equities and long US bonds versus German bonds.

But there is a far bigger and better trade available. EM markets were the only part of global financial markets to be sold outright during the QE period. EM markets offer both carry and capital gains. EM countries passed important robustness tests in recent years and the investment environment is now improving. EM local markets – bonds and equities – have strongly outperformed DMs in the past two years. Flows will follow. The year 2018 therefore looks set to become a particularly strong year for EM flows and that means that the next phase in EM's recovery can begin: welcome to domestic demand!