The UK international investment position

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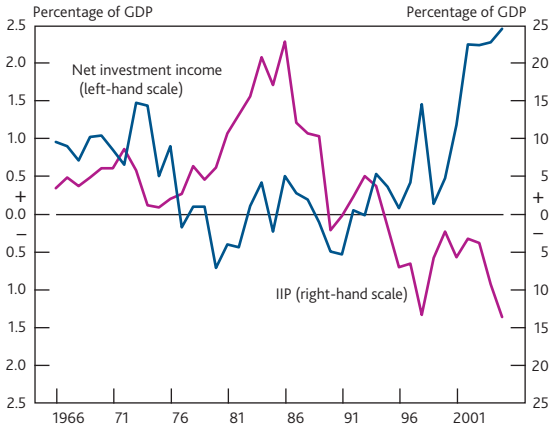
This article looks at how the United Kingdom can, surprisingly, generate net investment income from net debt. The article explores the possible linkages between the improvement in net investment income and the stability of the sterling effective exchange rate index in the face of persistent trade deficits. It identifies some risks to net investment income from shifts in relative yields and a rise in global interest rates. With the rapid increase in cross-border asset trade, particularly in financial centres such as the United Kingdom, fluctuations in asset prices have become more powerful influences on our net debt position than in the past. Capital gains can stabilise a net external debt position even in the face of ongoing trade deficits, potentially reducing the extent of any adjustment to the exchange rate.

Official data suggest that the United Kingdom's financial liabilities exceed the value of its financial assets — net foreign liabilities were equal to around 14% of GDP at the end of 2005. Yet the data also suggest the United Kingdom has been earning net income on those net liabilities. In other words, the income generated by UK-owned assets abroad is greater than the payments made on the larger stock of UK liabilities owed to foreigners. Moreover, net investment income has improved at the same time that the United Kingdom has become more indebted (**Chart 1**). This apparent ability to generate net investment income from a net debt position is also currently shared with the United States. This article looks at the recent dynamics of the United Kingdom's net foreign asset position, officially termed the international investment position (IIP), and the source of its investment income surplus.

The first section illustrates how fluctuations in asset prices, and yields, have been important factors offsetting the impact of cumulative trade deficits on the evolution of the IIP. The article then explores how the United Kingdom is apparently able to obtain a higher yield on its assets than it pays on its liabilities, and sets out some difficult measurement issues. For example, does the excess yield tell us that in fact the United Kingdom has more assets abroad than currently measured in the official data — which has been termed 'dark matter' in the US context by Hausmann and Sturzenegger (2006)? The article then explains how the strength of investment income may help explain the stability of the sterling effective exchange rate index in the face of persistent trade deficits, and discusses some of the risks to investment income going forward. The final section then looks at how increases in the holdings of financial assets and liabilities have affected the sensitivity of the economy to exchange rate movements.

Chart 1 International investment position (IIP) and net investment income



Dynamics of the international investment position

The balance of payments describes the value of transactions between households, companies and institutions in the United Kingdom and those in the rest of the world. Those transactions are recorded on either the current or the financial account, depending on the nature of the transaction.(1) If UK

(1) There is also a third account — the capital account — which records transfers of ownership of non-produced, non-financial assets (such as copyrights) and transactions by extra-territorial institutions (like embassies). The values of credits and debits on this account are dwarfed by the transactions on the current and financial accounts.

residents are spending more on imports than the amount of income they receive from overseas purchases of UK exports and any net inflow of investment income (and transfers) from abroad, then the United Kingdom will be running a current account deficit. To finance this gap between income and spending, UK residents need to borrow from, or sell assets to, overseas residents. Those transactions are represented by a surplus on the financial account that offsets the current account deficit. A current account deficit will therefore be associated with a declining balance of financial assets to liabilities, and hence a deterioration in the United Kingdom's IIP. The IIP will also be affected by changes in the prices of UK assets and liabilities, or revaluations. So the evolution of the IIP can be simply described as follows:(1)

$$IIP_t = IIP_{t-1} + Revaluations_t + Current\ account\ balance_t$$

The current account comprises the balance of trade, investment income, and transfers. Since the United Kingdom last ran a trade surplus in 1997, the balance of trade has been in deficit each year and this deficit has increased over time. **Chart 2** shows the actual level of the IIP and how it would have evolved since 1997 if we simply cumulated the borrowing associated with the trade deficits. It shows that trade deficits over this period would have increased net foreign liabilities to around 22% of annual GDP by 2005 (from around 8% in 1997), compared to the official estimate of around 14%. This implies that investment income and capital gains or losses have also had an important impact on the evolution of the IIP.

Chart 2 The IIP and the evolution implied by trade deficits

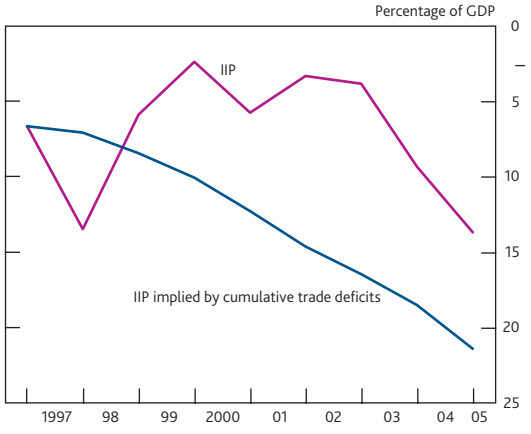
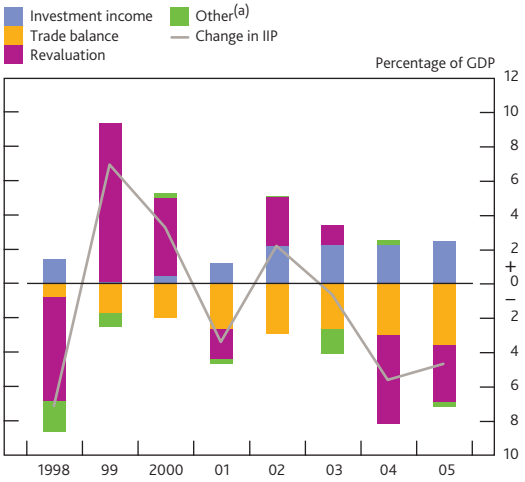


Chart 3 shows a decomposition of changes in the IIP each year since 1997. It shows that a significant offset to the trade deficits has indeed been a positive contribution from net investment income. So, despite UK indebtedness rising over this period, earnings on UK assets outweighed payments on the United Kingdom's larger liabilities, generating a net surplus of investment income. It is not unusual for the United Kingdom to earn a net surplus of investment income — indeed in the later part of the 19th century the estimated surplus as a percentage of GDP was around three times its current level. But at that time the United Kingdom was a large net creditor to the rest of the world: its foreign assets exceeded its liabilities to overseas residents. The recent combination of investment income surpluses and increasing net debt is unprecedented. This ability to generate net investment income from an apparent net debtor position is currently shared with the United States (see Higgins *et al* (2005)).

Chart 3 Contributions to the change in the IIP



(a) The 'other' category comprises the transfers component of the current account balance and errors and omissions.

Chart 3 also shows that revaluations — the capital gains or losses in any year due to movements in either asset prices or exchange rates — can be much larger than the impact of the trade deficit. The next section of the article looks in more detail at how the United Kingdom has generated its net investment income and, following that, the growing importance of revaluations.

How do we obtain net investment income from net debt?

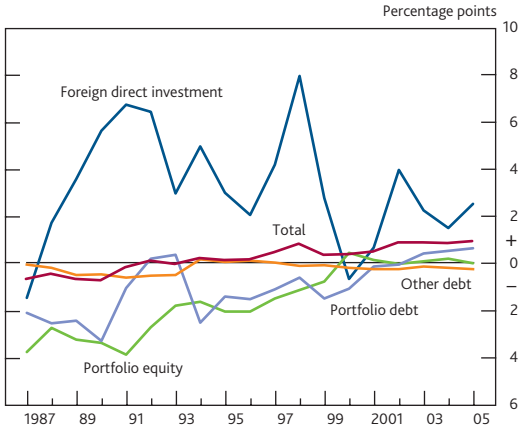
Two factors are behind the United Kingdom's ability to obtain net investment income despite increasing net indebtedness. First, the yield that the United Kingdom pays on the bonds and equities issued to overseas investors — termed portfolio debt and equity — appears to have declined relative to the yield that the United Kingdom earns on the bonds and equities issued by the rest of the world that it owns. Second, there has been a shift in the composition of UK external assets towards foreign direct investment (FDI). FDI assets generate a higher yield than the United Kingdom's predominantly debt-like liabilities.

(1) In practice there is also an 'errors and omissions' term reflecting the fact that measurement error means that the current balance does not equal measured net capital flows.

In aggregate over the past decade, the estimated yield that the United Kingdom received on its overseas assets has increased relative to the estimated yield that it pays on its liabilities (**Chart 4**). The estimated yield differentials on portfolio equity and debt have moved from being substantially negative to slightly positive. The improvement in the debt yield differential is broadly consistent with the decline in UK interest rates relative to world interest rates since the early 1990s. In addition to the changes in relative yields, there has been a big shift in the composition of assets and liabilities: over the past decade the United Kingdom has shifted sharply towards having a substantial net asset position in FDI (**Chart 5**). The difference between the yields on the United Kingdom's FDI assets and liabilities has typically been positive, so this shift has increased net investment income. At the same time, the United Kingdom has been accumulating mainly low risk, and hence low yield, net banking liabilities; **Chart 5** shows all interest-paying assets and liabilities (including bonds and bank deposits) in one broad category, called net interest-sensitive assets. While the UK net liability position in this category is larger than its net positive FDI position, the net payments that the United Kingdom makes on interest-sensitive liabilities are smaller than the net income it receives from FDI assets (**Chart 6**). So the United Kingdom could broadly be characterised as being like a bank or venture capitalist that earns net income by borrowing to invest in projects that earn a higher return than the cost of funding.

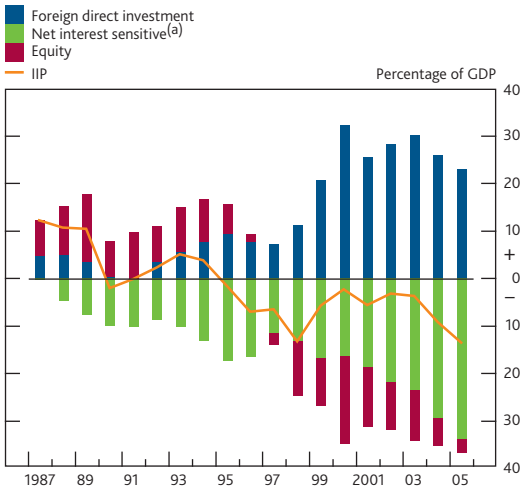
One region with high savings, potentially looking for low-risk investments (such as UK bonds and bank deposits) is Asia. The region has also historically offered UK investors high FDI returns. How important has Asia been to the United Kingdom's net investment income generation? **Chart 7** shows that, in gross terms, Asia's importance to UK assets and liabilities is dwarfed by Europe and the Americas, consistent with the United Kingdom's trading relationships. However, the United Kingdom does have a relatively large net debt position with the non-Japan Asia region (**Chart 8**). Despite this, the United Kingdom manages to generate a positive net investment income surplus with this region. That is because

Chart 4 Difference between yields on UK assets and liabilities[a]



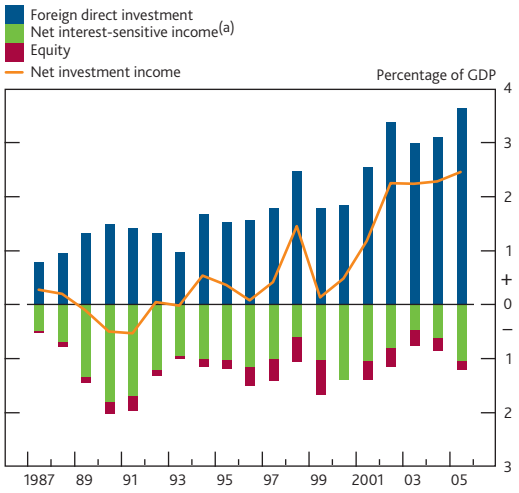
(a) Yields are defined as income from the asset (or liability) in time t as a percentage of its value at the end of time $t-1$.

Chart 5 Decomposition of the IIP



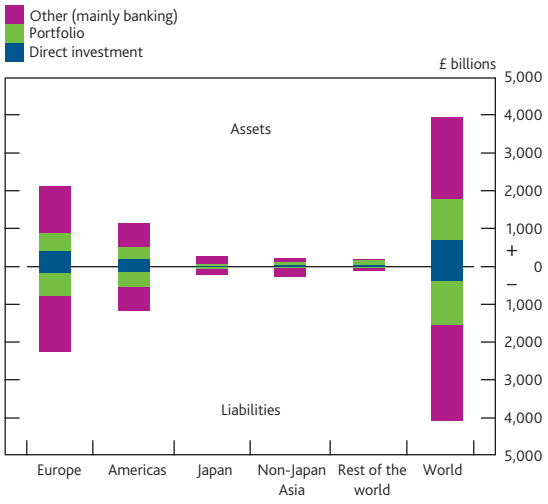
(a) Interest-paying assets and liabilities (bonds and bank deposits).

Chart 6 Decomposition of net investment income



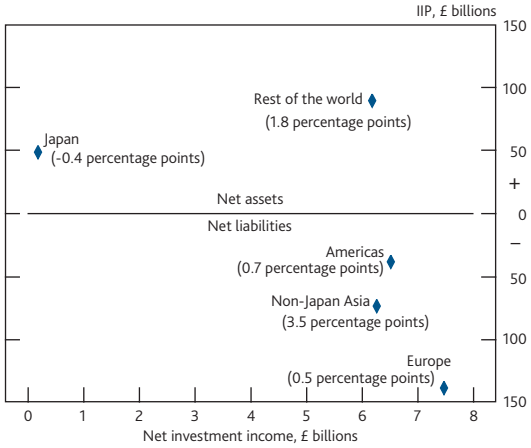
(a) Income from interest-paying assets and liabilities (bonds and bank deposits).

Chart 7 Gross UK assets and liabilities by region (2004)



our liabilities to them are mainly in the form of low-cost bank deposits whereas our assets in non-Japan Asia are higher return FDI. So the yield on UK assets in non-Japan Asia exceeds the yield the United Kingdom pays on liabilities to non-Japan Asia by around $3^{1}/_{2}$ percentage points, compared with an overall difference for assets and liabilities of around $^{3}/_{4}$ of a percentage point. The margin between yields on UK assets held in the rest of Europe and UK liabilities to the rest of Europe is relatively small but, because the gross positions are so much larger, that region generates most of our investment income. In particular, around two thirds of the United Kingdom's FDI assets are located in Europe — over 80% of which is within the euro area.

Chart 8 Distribution of the United Kingdom's IIP and investment income across regions (2004)(a)



(a) Figures in brackets are yields on assets minus yields on liabilities.

Measurement issues — dark matter?

There are big measurement problems with both stocks and flows of assets and liabilities. Lane and Milesi-Ferretti (2006), for example, suggest that official estimates of world liabilities exceed official estimates of world assets by around 5% of world GDP. Hausmann and Sturzenegger (2006) have argued that the income generated by the United States' financial position is a good measure of the true value of its assets. They suggest that if US assets generate more income than US liabilities then they must be worth more. In other words because the United States earns net investment income it must be a net creditor, rather than a substantial net debtor as measured by official statistics. The authors term the apparently missing assets 'dark matter'.

Based on US net investment income of around $30 billion, and the assumption of a 5% rate of return, Hausmann and Sturzenegger (2006) calculate an implied net asset position of $600 billion. That compares with the official net debt position of $2.5 trillion. There are obvious parallels with the United Kingdom. Applying their same simple arithmetic, UK net investment income of approximately £27 billion in 2005 implied net assets of £540 billion. That compared with the official measured net liability position of £169 billion.

This is obviously a very simple story. In particular, it rests crucially on the assumption that yields on assets are identical to those on liabilities. But there are good reasons why the overall yields on UK or US assets may exceed those on their liabilities. The composition of assets and liabilities is different, with risky investments like foreign direct investment accounting for a larger share of assets than liabilities. And yields are only one aspect of total returns: capital gains matter as well. For example, overseas investors may have been investing in UK or US companies paying no or low dividends (eg information communication and technology firms) but whose share prices are expected to rise quickly and generate large capital gains, increasing the value of the United Kingdom's stock of liabilities.

However, it is puzzling that for both the United States and the United Kingdom, the yields on overseas FDI assets appear to have been consistently higher than those on FDI liabilities in recent years. This is particularly notable for the United States (see Higgins *et al* (2005)). That could reflect problems with measuring the FDI stock positions. International statistical guidelines recommend that FDI assets and liabilities are measured at current market prices. But direct investment positions often involve illiquid ownership interests in companies that are not listed on stock markets and may possess unique attributes that are hard to value. So, in practice, book values are often used — this practice is followed in the United Kingdom (see Elliott and Wong Min (2004)). Previous work by Westwood and Young (2002) has suggested that the United Kingdom's net stock of FDI is much higher than currently measured. Recent updates by Nickell (2006) suggest that when FDI is approximately revalued according to relative movements in stock markets, the United Kingdom has actually remained an overall net creditor, despite persistent current account deficits in recent years: the capital gains from equity revaluations have more than offset the run of trade deficits.

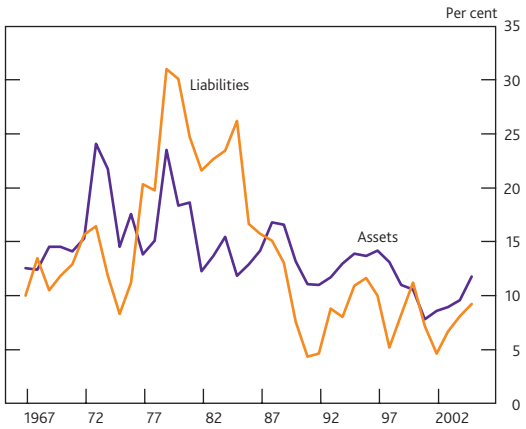
The relationship between net investment income and sterling

Persistent trade deficits lead to a build-up of net debt, as agents borrow to fund spending in excess of income. That rise in debt should, everything else held constant, result in the United Kingdom making increasing net interest payments overseas. And in the absence of revaluations (discussed in the next section), trade surpluses are needed in the future to repay that debt, or at least stabilise net debt relative to GDP. Those future trade surpluses could be achieved by a depreciation in the real exchange rate, which would boost domestic production relative to imports. However, because the United Kingdom has been able to generate net investment income, it

has been able to finance part of the trade deficit using that income. This has moderated the accumulation of debt and hence there has been less pressure for an adjustment in the real exchange rate. Positive net investment income may therefore have contributed to the relative stability of the sterling real effective exchange rate since its appreciation in 1996–97, in the face of rising trade deficits.

In judging the potential risks to the level of the exchange rate, an important question is therefore how persistent the improvement in net investment income will prove to be. The bulk of the improvement in net investment income has come from the increase in net income from FDI (**Chart 6**) which reflects the increase in FDI assets (**Chart 5**). Official data suggest that FDI assets are around 60% larger than FDI liabilities. However, **Chart 9** indicates that the difference between the yields on FDI assets and liabilities can be volatile — there was a period in the late 1970s and early 1980s when the nominal yield on the United Kingdom's FDI assets overseas was well below that earned by overseas investors on FDI assets in the United Kingdom. Though part of the higher yield on liabilities may have been compensation for the high level of inflation in the United Kingdom at that time. As a compensation for risk the return from FDI should on average be higher than the cost of the United Kingdom's predominantly debt-like liabilities, but there may be periods of relatively low returns.

Chart 9 Nominal yields on FDI assets and liabilities(a)

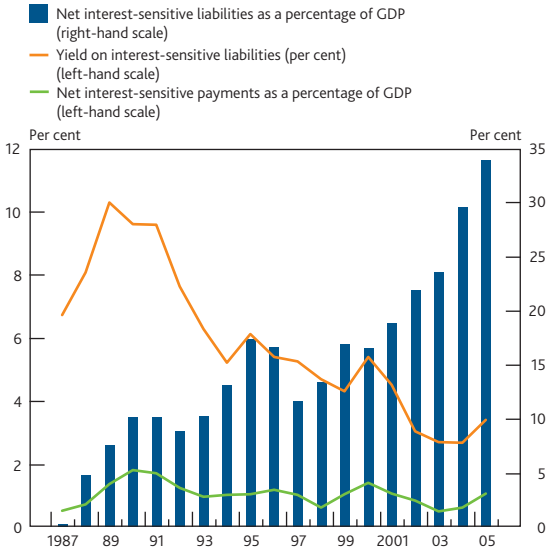


(a) Yields are defined as income from the asset (or liability) in time t as a percentage of its value at the end of time $t-1$.

As the United Kingdom has net interest-sensitive liabilities, net investment income would also be adversely affected by a global rise in interest rates. **Chart 10** shows that the United Kingdom's net interest payments have remained stable since 1987, despite the accumulation of net debts, because of the sharp fall in interest rates during the period. Mechanically, holding everything else constant, a rise of 1 percentage point in interest rates both in the United Kingdom and abroad would subtract around £4 billion from total annual net investment income — a little more than 15% of the surplus in 2005.

Moreover, the potential drag from higher interest rates is likely to grow over time, as most of the ongoing build-up in UK net liabilities is in interest-paying instruments.

Chart 10 Net interest payments and liabilities

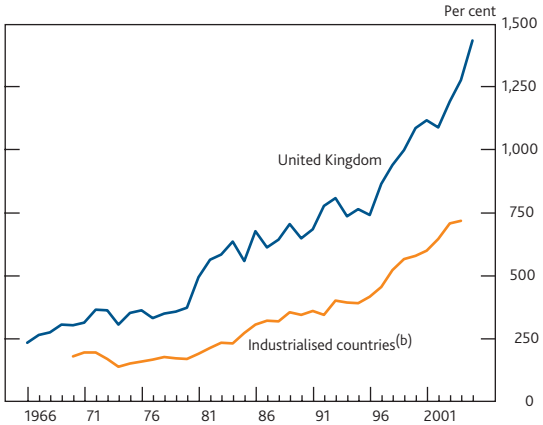


Of course, changes in interest rates could also be associated with changes in exchange rates, which will affect the sterling value of investment income from overseas.(1) In a similar vein, financial flows should react to changes in asset prices. So these sorts of mechanical calculations are very simplistic.

The implications of greater financial leverage

With the greater financial integration of different economies over time, there has been an increase in gross global financial assets and liabilities. This leverage is particularly marked for financial centres like the United Kingdom. **Chart 11** shows how gross overseas financial assets and liabilities have

Chart 11 Financial integration(a)



(a) Assets plus liabilities as per cent of exports plus imports.
(b) Industrialised country data: Lane and Milesi-Ferretti (2006).

(1) See, for example, Brigden *et al* (1997).

increased markedly relative to trade in goods and services, especially since the mid-1990s, and that the relative size of gross financial assets and liabilities is greater for the United Kingdom than for industrialised countries as a whole.

There are two important implications of this. First, with larger gross financial positions, differences between yields on assets and liabilities have a much greater role to play in affecting the evolution of net investment income, the current account deficit, and hence the IIP. Second, revaluations, in response to changes in asset prices, become a potentially more important driver of changes in the IIP than the borrowing associated with current account deficits. **Table A** shows the correlation between the current account deficit and the change in the IIP. In the absence of measurement error and revaluations, this should be positive and equal to one. In common with industrialised countries, the correlation for the United Kingdom has fallen since the late 1970s. But since the early 1990s, the UK correlation has fallen more markedly than for industrialised countries as a whole, as the United Kingdom's gross asset and liability positions have expanded particularly rapidly, and has actually been negative.

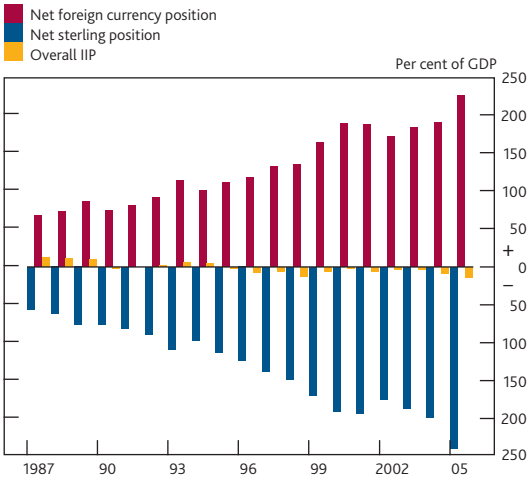
Table A Correlation between the current account and the change in the IIP

	Industrialised countries[a]	United Kingdom
1971–81	0.71	0.78
1982–92	0.63	0.42
1993–2004	0.32	-0.54

(a) Industrialised country data: Lane and Milesi-Ferretti (2006). Correlations calculated on annual data expressed as a percentage of GDP.

Some UK liabilities are denominated in foreign currency. Reliable information on the currency split is only available for the banking sector. Data collected by the statistics division of the Bank of England (see, for example, Elliott and Wong Min (2004)) suggest that around 85% of the banking sector's liabilities are denominated in foreign currency, with the dollar more important than the euro. If we assume, given the lack of accurate information, that all other liabilities are sterling denominated, that implies around 40% of the United Kingdom's total liabilities are sterling denominated.(1) Information on the banking sector suggests that around 90% of their assets are denominated in foreign currency. Assuming that all other assets are denominated in foreign currency would imply that around 95% of total UK assets are denominated in foreign currency. Overall, this suggests that the United Kingdom has net foreign currency assets and net sterling liabilities (**Chart 12**). In turn, this means that a depreciation of the exchange rate, which raises the sterling value of net foreign currency assets, generates a net capital gain for the United Kingdom. With net foreign currency assets equal to around 225% of UK GDP, small changes in the exchange rate can have a large impact on the IIP, relative to trade deficits. For example, if the sterling effective exchange rate is the right one to use for revaluations, then the IIP would improve by around 2.25% of GDP for a 1% depreciation.(2) By comparison, the current account deficit in 2005, the financing of which acted to increase net external liabilities, was around 2.5% of GDP. So currency-related revaluations to the stock of assets and liabilities are very important in determining the evolution of the IIP.

Chart 12 Estimated currency split of the IIP[a]



(a) Assumes around 15% of banking sector liabilities and all non-banking sector liabilities are denominated in sterling, and around 90% of banking sector overseas assets and all non-banking sector overseas assets are denominated in foreign currency. Information on the currency split of banking sector assets and liabilities is provided by the statistics division of the Bank of England.

Tille (2005) and Gourinchas and Rey (2005) have recently emphasised the importance of the financial revaluation channel to the adjustment of imbalances. The valuation effect can help to smooth corrections to the trade deficit. Capital gains from a depreciation can allow a net external debt position to stabilise, even in the face of ongoing trade deficits. And because the trade deficit does not need to adjust as abruptly to stabilise the net debt position, the exchange rate can depreciate more smoothly and ultimately by less than in the absence of positive revaluation effects (see Cavallo and Tille (2006)).

Summary

The United Kingdom, like the United States, is apparently able to generate net investment income from an apparent net external debt position. This has significantly helped to cushion the impact of cumulative trade deficits on the build-up of net external liabilities. This net investment income helps us to sustain a higher real exchange rate than would otherwise be the case, as the trade deficit can be larger for a given overall

(1) Foreign direct investment in the United Kingdom and UK equities held by foreigners would be expected to be sterling denominated.
(2) Because the sterling effective exchange rate is trade weighted rather than weighted by the currency composition of financial assets and liabilities, this is only an approximation.

current account, or net borrowing, position. If the differential between yields on UK assets and liabilities is maintained we might expect the United Kingdom to benefit further from the trend to greater gross cross-border assets flows — the scaling up of its international balance sheet increases the gain from the transformation of low-cost liabilities into higher yielding assets. However, that net investment income is vulnerable to a significant global increase in interest rates.

In principle, the accumulation of net debt needs eventually to be corrected either by future net export growth (the trade adjustment channel) or an increase in the market value of assets relative to liabilities (the revaluation channel). Both imply a depreciation of the real exchange rate. But the positive impact that such a depreciation has on the value of external assets can smooth and mitigate the amount of adjustment required via net trade (and hence the exchange rate) to stabilise or reduce net external liabilities. However there are significant measurement problems with these data — it is possible that the United Kingdom's current net external debt position is overstated, and hence the need for any adjustment is too.

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