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Use of Balance of Payments Statistics in the United Kingdom

Prepared by the Office for National Statistics

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Introductory Note

This is an early version of a document we are developing describing the uses of balance of payments statistics in UK. It is primarily a training document for users and compilers of the figures. The notes in the document will be part of a BoP training package, and so they are designed to build on a basic understanding of the BoP framework and BPM5 concepts and definitions. We intend to keep the document under review and to update and expand it as appropriate in line with training needs and current UK macro-economic concerns. It uses UK published figures, but not the most recent in all cases

The document has been prepared by Geoff Tily, an economist in ONS working on the compilation, analysis and presentation of UK national accounts and balance of payments.

Analyses and Uses of Balance of Payments Statistics in UK

The Balance of Payments is a technical and umbrella term for an invaluable and detailed set of economic data. The balance of payments demonstrate not only the interaction of an individual economy with the rest of the world, but also contains a substantial volume of information relevant to the nature of that individual economy as well as of global developments more generally.

1. Terminology and introduction

A balance of payments statement is an internationally recognised presentation of all the transactions between an individual economy and the rest of the world. According to the methodology underlying this presentation the net sum of debit and credit entries is necessarily zero. The double-entry system and sign convention used in the UK is explained in the Introduction chapter of the latest UK Balance of Payments publication (the Pink Book). Some simple examples are also shown.

Such a presentation is largely an abstract framework: it is the various components of the balance of payments that provide economists with their tools for interpretation of economic behaviour.

The most common and easily understood approach to interpreting the balance of payments is through the *current account*: a typical textbook definition would be that it records international transactions in goods and services, other net income from abroad and current transfers to and from abroad. The current account data provides the main material for economic analysis.

The *capital account*, in the balance of payments framework, covers transactions associated with capital transfers (for example debt forgiveness) and non-produced, nonfinancial assets.

Purchases on the current account require financing. If a country is running a current account deficit with the rest of the world then there is a requirement for foreign currency in excess of the rest of the world's requirement for domestic currency. The transactions underpinning these dealings as well as other international capital market activity are in turn recorded on the *financial account*, simply described as international transactions in financial assets. The financial account therefore offers detail on the international flows of financial assets and liabilities and the increased globalisation of the international financial system means that there is great interest in it as a separate set of financial statistics.

The *international investment position* (IIP) is underpinned by the balance of payments data. The balance of payments statistics represent flows of goods services and money into and from an economy in a single period of time. The IIP or balance sheet is a measure through time of the stock of financial assets and liabilities as a consequence of the cumulative flows and any revaluation of existing stocks. It gives a measure of a country's overall financial relations with the rest of the world.

A comprehensive interpretation of balance of payments statistics therefore requires an examination from the current, financial and IIP perspectives. In addition economists interest in the balance of payments data may be further sub-divided according to the types of analyses carries out. These analyses fall into four main categories, (i) short term macroeconomic interpretation; (ii) analysis of medium- and longer-term trends; (ii) analyses of overall macroeconomic and financial sustainability; and (iv) analysis of theoretical and policy issues. Each of these types of analysis is taken in turn and are illustrated throughout by reference to UK figures.

2.Short-term policymaking issues

2.1 The current account deficit

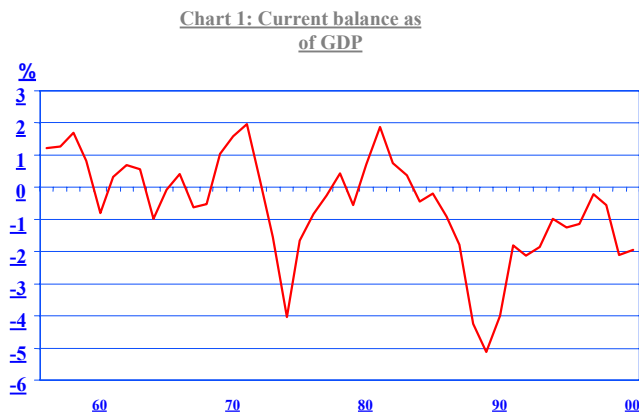
The current account deficit shows the extent to which a country has been spending relative to its earnings. Interpretation of trends in this aggregate is therefore important to understanding trends in domestic economic behaviour. At the most general level if expenditure is greater than revenues economists will want to be able to recognise this so they can firstly examine why and secondly look to possible policy remedies if it is regarded as a concern.

By way of an introduction some possible causes for a balance of payments deficit are examined below:

- Domestic demand has become 'excessive' and has outstripped productive capacity;
- Domestic manufacturers and industries are not producing the goods that neither domestic nor overseas individuals and companies want to buy;
- Prices of domestically produced goods have become less attractive than overseas goods (this may be related to exchange rate effects);
- Overseas demand has fallen away while domestic demand has remained robust.

Each of these interpretations may suggest a policy action.

In the UK expenditure has outweighed receipts to the extent that a balance of payments deficit has become the norm since the middle of the 1980s. Chart 1 presents the figures as a share of GDP, which is a fairly common technique for putting such nominal figures into a longer-term perspective.



2.2 Picture of aggregate supply and demand

Perhaps the most important use of official economic statistics is advising policymakers over recent short-term trends in economic activity. A broad consensus over policymaking suggests that monetary policy aimed at low and stable inflation acting largely through Bank rate or its equivalent provides the climate most conducive to economic growth. Policymakers therefore use official figures to build up a picture of instantaneous supply and demand pressures to advise on likely inflationary pressures into the future, and take monetary policy action according to this picture. Gross domestic product, employment and prices data may be most important in this discussion, but dis-aggregated information such as consumer demand, investment expenditure and trends in trade are becoming increasingly important for understanding present trends in economic activity.

Therefore as well as the broader assessment noted in 2.1 above, the current account figures for exports and imports of goods and services will be important in advising such an assessment. Strong export growth might be seen as indicative of the domestic economy performing well in the context of a satisfactory international environment. Strong import growth provides additional information as to the strength of domestic demand, supplementing stories in household and business demand data. Dis-aggregations of the imports and exports data by commodity provide further information as to where the strength of demand is (of particular use might be the household / business demand dis-aggregation).

Chart 2 : UK import growth

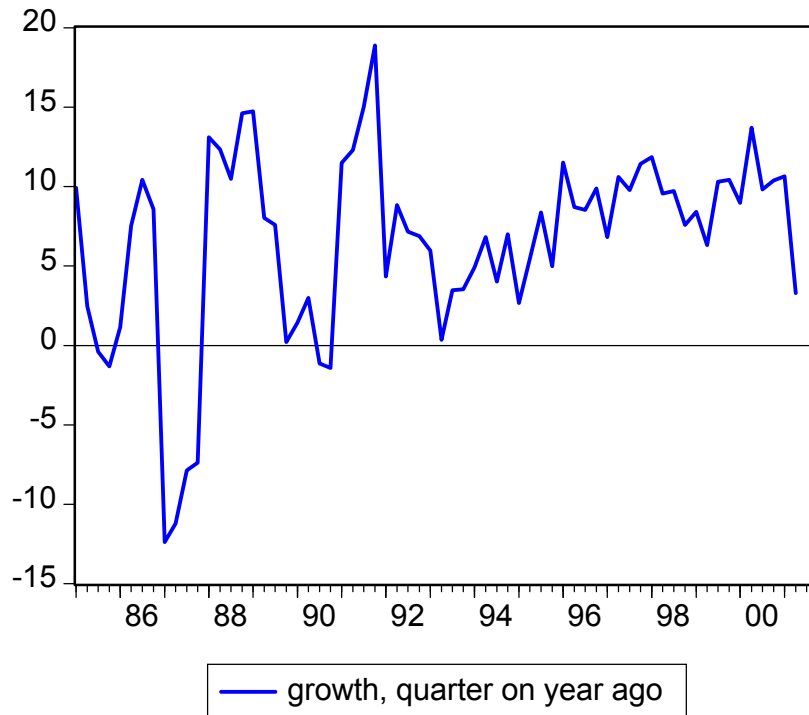
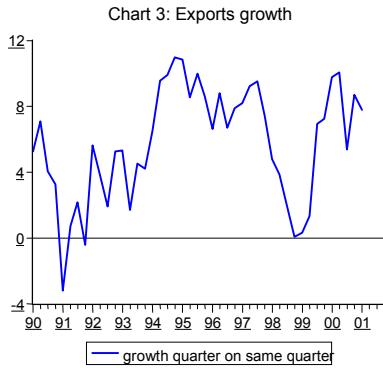


Chart 2 shows UK import growth has been between around 5 and 10 per cent over the past eight years.

2.3 Impact of shocks

Related to 2.1 and 2.2 is the ability to make an assessment of the impact of a so-called 'shock' on an economy through the balance of payments data. The most obvious impacts may again be seen in aggregate import and export data, but the net effect on the balance will also be important. The measured impact of shocks on trade can then be judged within the framework of national income and expenditure as a whole, and conclusions on domestic monetary policy drawn.

Recent examples of such effects are the crises that began in South East Asia. These led to a global slowdown in trade, affecting UK exports in particular (Chart 3).

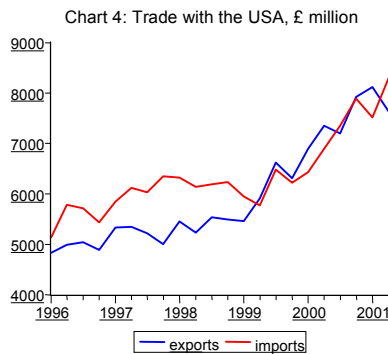


A further example of an external shock is the repercussions due to an increase in the price of oil. Similarly in some circumstances economists might expect a balance of payments impact from an 'internal shock', such as extreme weather conditions or, to give a recent UK example, the foot and mouth outbreak. In the latter case exports might be curtailed following production difficulties and imports increased to offset the domestic shortfall. More generally in these sorts of cases the impact may be more difficult to discern at the aggregate level, but may be made clear in more detailed figures - in particular oil transactions can be traced in some detail.

2.4 Trading partners' circumstance

The trade figures underpinning the balance of payments are available at detailed individual country level. Analyses can therefore be carried out looking at the situation of all trading partners which may inform on the economic situation in these economies. If trading partners constitute large 'customers' for domestic products then change in their economic circumstance may be relevant to domestic policy.

At present the most obvious example is the United States, where individual export and import data can be analysed to help judge the impact on the UK of their deteriorating situation (Chart 4).



3. Medium and longer-term policy issues and trends

3.1 Globalisation - trading links

The extent to which the world economy is becoming increasingly integrated through trading links is of importance to policymakers and individuals alike. Several balance of payments statistics could be used to illustrate this linkage. The most easily understood analysis looks at current account figures for trade (exports or imports) in goods and services as a share of overall GDP.

Essentially such a measure gives an idea of the degree of globalisation in terms of trade volumes.

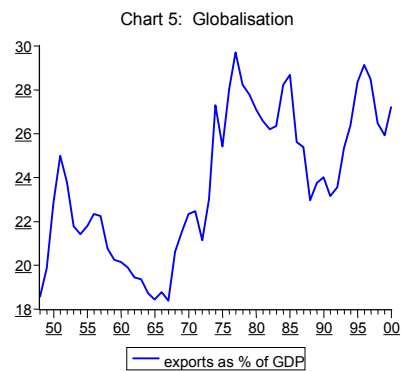


Chart 5 constructs such a statistic for the UK. It shows the most substantial increase in trade relative to GDP came between the mid-1960s and mid-1970s. It fell back a little to 1980, and has seen some volatility since then. In 2000, the measure at 27.2 per cent is at a level that is close to the average rate of the previous twenty years (26.1%).

3.2 Globalisation - financial links

The other aspect of globalisation, of perhaps more current interest, is the increasing financial links and flows between individual countries. While there is no single international standard of the degree of financial inter-dependence, measures can be constructed using both the gross flows of financial transactions and the stocks of financial assets between countries and the rest of the world. Such measures use, for the first time in this note, financial account information.

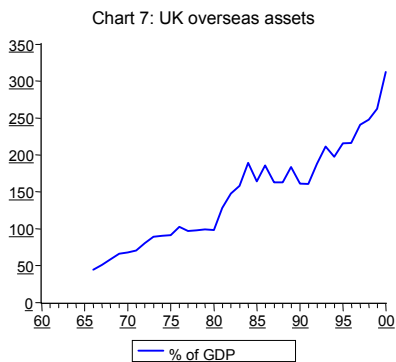
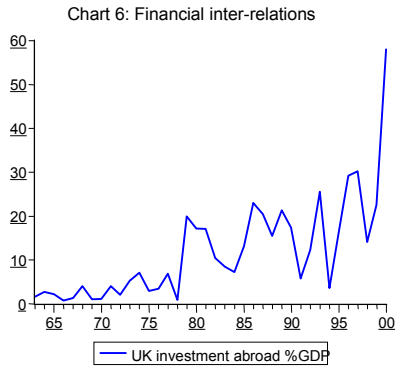


Chart 6 above shows the UK's flows of acquisitions of financial assets relative to GDP since 1963. The data clearly accelerates in 1979 and has remained at a significantly higher level ever since. The figures have been more volatile in the 1990s, but with also a suggestion of some upwards trend. The figure for 2000 was particularly high due to the unprecedented levels of cross-border acquisitions and mergers.

The average level of these flows of new acquisitions of financial assets and liabilities has been 20 per cent over the past five years (excluding 2000). The magnitude of these flows is therefore broadly similar to the relative flows of goods and services. Particularly important is that the gross flows of cross border international financial transactions dwarfs the flow required for financing of the current account deficit: at 1.9 per cent of GDP in 2000.

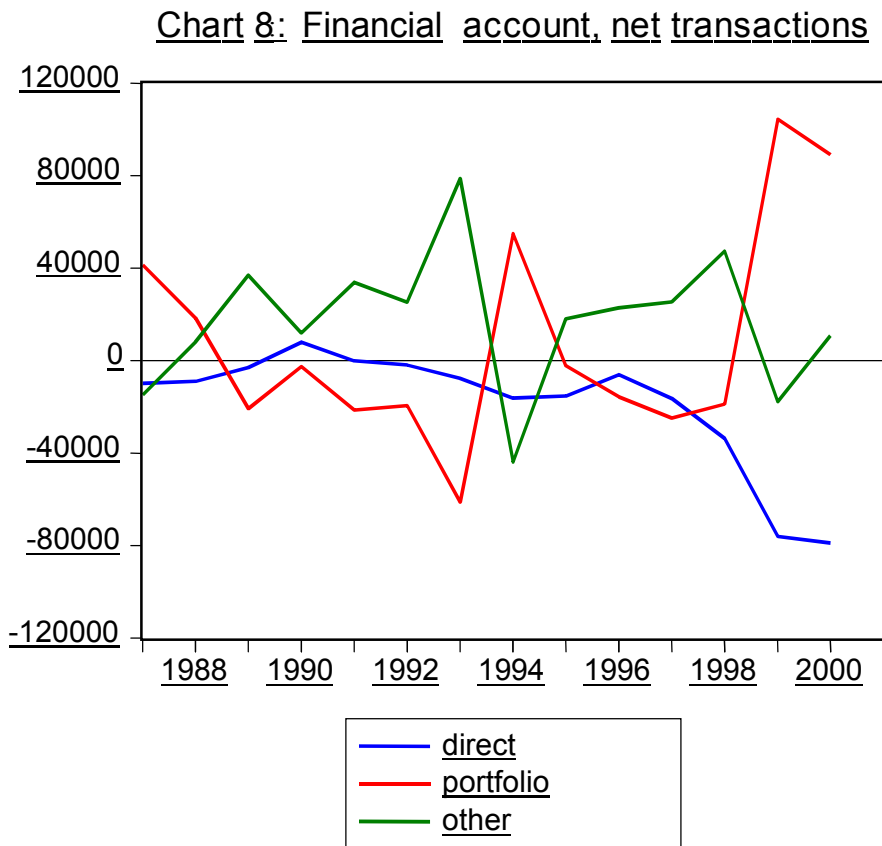
At the same time the UK's stock of external financial assets as a share of GDP (including direct investment - see section 2.6) has increased steadily since 1965 (Chart 7). Periods of strong acceleration have been in the first half of the 1980s and the 1990s taken as a whole. The increasing international financial relations are perhaps most vividly illustrated by the overall change; in the 35 year period shown the UK's stock of overseas assets has increased from 50 per cent of GDP to over 300 per cent.

Both of these measures therefore show for the UK an increasing and presently unprecedented degree of cross border financial activity and international financial inter-relations.

3.4 Funding of the current account deficit

As discussed in Section 1 the financial account ought to reveal the method by which countries finance their current account deficits and surpluses from year to year. When a country runs a balance of payments deficit it earns less than it pays each quarter, and has to go to international markets to make up the shortfall. The details of which instruments and methods are used (e.g. borrowing from banks, portfolio investment - equity and debt - and direct investment) are revealed quarter by quarter on the financial account.

However because the gross flows are so large in relation to the current account deficit, it is not a simple matter to identify from the statistics themselves which ones are earmarked for such purposes. Chart 8 below shows the medium term trends in net flows (with a negative sign indicating that the UK acquisition of overseas assets outweighs overseas acquisition of that asset). In general, it is on the 'other' category where UK net transactions are such that borrowing from overseas outweighs the opposite flow. These trends are seen more clearly on the balance sheet positions.



The Bank of England (2000) have discussed how in the UK the 'other' category is dominated by bank lending and borrowing. They make a direct link between this building net liability and the current account deficit:

This is because UK residents can finance current account deficits either through direct borrowing overseas or indirectly through the domestic banking system. Many smaller firms and households are likely to have limited access to overseas financial markets, so, to the extent that these residents rely primarily on the banking system, the UK banking sector's net borrowing from overseas will rise with the UK current account deficit. Thus the stock of external bank debt will tend to increase with cumulative current account deficits/surpluses. (BoE Quarterly Bulletin: November 2000, p. 362)

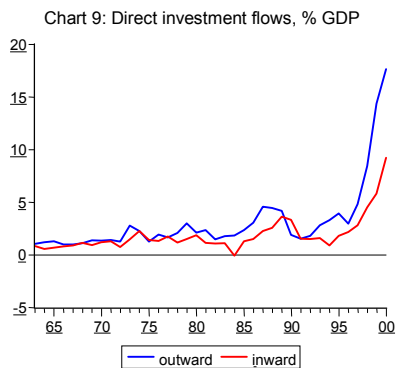
Such analyses clarify where an economy is relying on the financing for an overall deficit in a way that the statistics cannot do alone.

3.5 Foreign direct investment

Within the net flows discussed in 3.4, a flow of particular current interest is that for direct investment, i.e. due to companies purchasing other companies in different countries. Three aspects of foreign direct investment can be examined on various tables of the balance of payments:

i. Volume of activity quarter by quarter

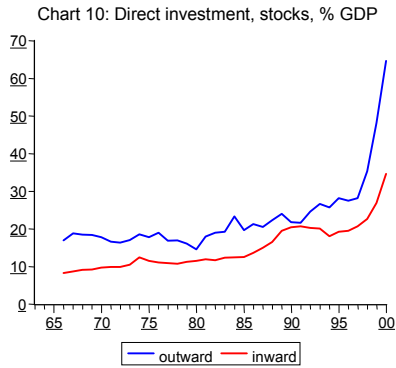
Each quarter UK resources flow overseas to purchase direct stakes in overseas companies (outward) and foreign resources flow into the UK to purchase direct stakes in UK companies (inward). The financial account measures these flows:



The figures show a relatively stable and subdued level of activity, but figures for recent years are very high, in turn strongly influenced by the high volumes and costs of take-over activity.

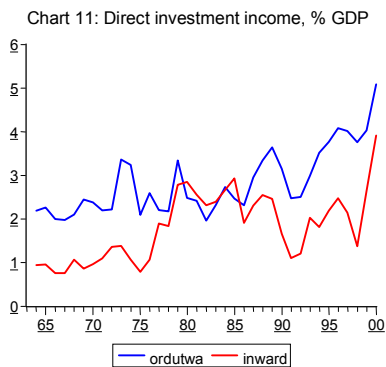
ii. Stock of activity

Each flow of purchase adds to the UK's stock of foreign direct investment and vice-versa, these are measured as an element of the international investment position. Chart 10 shows a gently increasing trend until the late 1990s, when, in particular, the aforementioned take-over activity saw sharp additions to stocks.



iii. Profits from activity

Lastly on this theme, the direct investment brings to the investor a flow of profit earnings each quarter, these appear as part of investment income on the income account.



Such analyses can be carried for all the financial instruments recorded in the financial account and balance sheet.

3.6 Current account longer term trends by sector

The current account dataset can be dis-aggregated to show longer-term trade trends between the goods, services and investment sectors of the economy. In the UK such analyses may be of more interest than in other countries because of the perceived shift from manufacturing to the service sector.

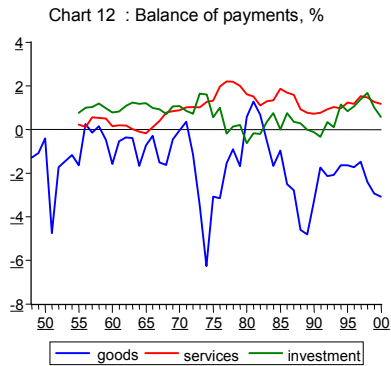


Chart 12 shows how the long term tendency of the UK deficit on goods and services has been offset to varying degrees by surpluses on services and investment income. However while there is an increased tendency to deficit on goods, this has not been sufficiently offset by the increased surpluses on investment and services income. The services surplus is lower as a share of GDP than it was between 1975 and 1985, while the investment income surplus is no higher than its value from 1955 to 1975, with evidence of diminution in recent years.

4. Sustainability

Outside the detailed analysis examined in the previous two sections, historically the main use of balance of payments statistics has been as an indicator of building imbalances in an economy, and in turn as an indicator of the unsustainability of economic expansion. Recognition of a balance of payments deficit as unsustainable is in turn likely to cause a severe weakening of currency, which may be regarded as undesirable from both domestic and international perspectives.

4.1 International financial architecture

The terms of reference underpinning an analysis of sustainability depends critically on the international financial architecture underpinning flows of currency between economies.

From 1945 to 1971 economies operated under the Bretton Woods agreement which set fixed exchange rates (although they were adjustable - a so-called 'adjustable peg') and allowed countries to adopt capital controls. In these conditions, very broadly, the emergence of a balance of payments deficit for a country would lead fairly quickly to the running down of exchange reserves of foreign currency and the need to cut-back demand in order to restore balance to a country's relations with the rest of the world. Similarly a country that ran a persistent surplus might be cause for international concern more generally, as such a situation would lead to demands on the domestic currency being higher than the supply of that currency to international markets.

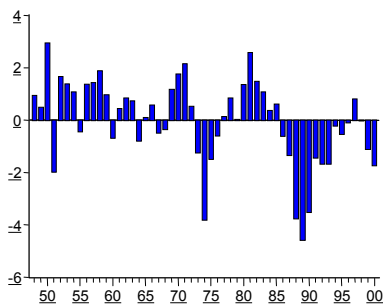
Balance of payments data was therefore closely watched for prior warning of such situations. The consequence of this arrangement was that any balance of payments deficits that emerged tended to be short lived given the necessity for corrective action.

With the suspension of the Bretton Woods agreement in August 1971 and the move to floating rates and the gradual removal of capital controls, the perspective over the balance of payments deficit has changed. For many countries it is left to international markets to decide whether the appearance of a balance of payments deficit for a country is problematic. So long as countries are able to borrow from other countries to make up any shortfall in balance of payments, international obligations can be met. Consequently from the 1980s, those countries that have had balance of payments deficits have tended to see them persist for much longer.

Interpretation of whether a balance of payments deficit is sustainable, is a question for international markets who judge what economic factors govern the future path of the balance of payments.

However today, while the world economy's financial system continues to be primarily based on floating rates, a number of subsets of countries have re-adopted fixed type arrangements. There are two main examples, firstly the exchange rate mechanism of the EU which has now become a complete currency union, and secondly the countries that have adopted a dollar peg. Under these conditions balance of payments statistics may again be of increasing importance.

Chart 13: UK balance of payments (% of GDP)



The UK data illustrates both aspects of the international environment. Deficits before the mid-1970s were very short-lived, for example the balance of payments deficit that followed the excessive expansion set into motion by the Korean War in 1950-1 led to a large balance of payments deficit. The UK government was then obliged to put into place measures that restrained aggregate demand and restored a balance of payments surplus.

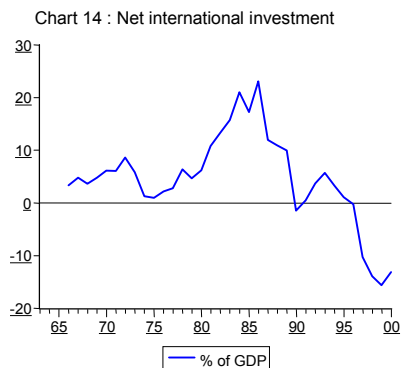
Following the suspension of Bretton Woods, balance of payments deficits in the UK persisted for longer. The first was in the mid-70s following the so-called 'Barber-boom' of reflationary policies. A surplus was restored in the late 70s, but a deficit again emerged in the mid-1980s and has persisted until the present day.

4.2 The international investment position

The size of the balance of payments deficit itself does not show what is sustainable and what is not. Under floating exchange rates a deficit of say 4 per cent of GDP may appear to be sustainable for many years, yet still lead to a currency crisis without increasing as a share of

GDP. Similarly international markets will judge a deficit according to more general judgements about the country which is running in debt. An alternative measure that accounts for both the size of the deficit and the cumulative deficit is the measure of net financial assets/liabilities known as the international investment position. Though again however there is no specific level of the international investment position that triggers a crisis and a number of countries continue to see large and increasing net liability positions with the rest of the world. However the data offers an alternative way to assess an economy's relations with the rest of the world.

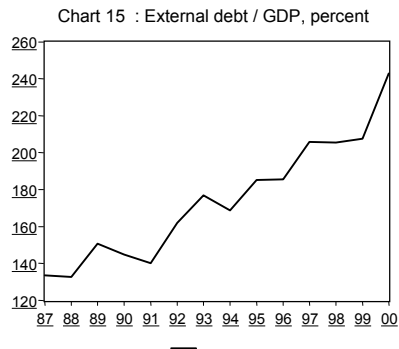
Note that it might be necessary to exercise some caution when interpreting the IIP, in particular due to measurement issues arising from scoring FDI at book rather than market prices.



Recent analyses by the Bank of England have used international data to compare international investment positions over recent years in a number of major economies:

4.3 Measures of sustainability

The IMF and other organisations are developing methods to identify unsustainable situations using various balance of payments statistics and other measures. There are two main types of measures, those based on reserves and those based on debt, with the former regarded as less useful for industrialised economies. The reserve measures proposed in IMF (2000a) compare ratios with respect to imports, broad money and short-term debt. Debt based indicators compare gross debt (rather than net figures as used above) with GDP and exports. In some cases the IMF propose critical ranges, with suitable health warnings, offering debt to GDP of 50 per cent and debt to exports of 200 per cent. Chart 15 below shows the UK economy appears to be failing the standard on GDP by a high degree.



Balance of payments data that underpin the calculation of these figures are required as part of the IMF Article IV processes with individual economies.

4.4 Sensitivity analysis

An important point related to the sustainability issues is the ability of policymakers to carry out analysis of changes in interest rates and exchange rates.

Aggregate balance sheet figures for financial assets and liabilities by instrument enable policymakers to project the impact of changes to such key international macroeconomics variables. Such analyses will enable the impact on net income flows as well as the revised position of the balance sheet to be calculated.

It is regarded as being in a country's interest to ensure that the external balance is not over-susceptible to sharp changes in either interest or exchange rates.

5. Brief notes on policy and theoretical issues

On a global level the interest of international organisations, in particular the International Monetary Fund will be in the appropriate techniques for resolving a balance of payments crisis. Such techniques will arise through a theoretical perspective on the balance of payments and through previous experience.

Part of such an analysis will be assisted by theoretical judgements over why balance of payments situations build-up.

5.1 Theoretical issues

Section 2.1 examined briefly a number of reasons that would lead to a balance of payments predicament. These reasons explain why the balance of payments falls into deficit, but the more complex issue is what causes the 'reasons' in the first place. Why, for example, should an economy operate under an inappropriate exchange rate, or why should an economy

produce undesirable goods given all economies are understood to operate under the theory of comparative advantage?

Some explanations could simply be to refer to policy error, for example joining a currency union at an inappropriate rate, but others are less clear.

The leading theoretical depiction is the monetary explanation. The IMF has given some prominence to this in recent papers. Under this framework a balance of payments deficit builds up as an individual economy operates too relaxed a credit policy, enabling its consumers and businesses to import in excess of its ability to produce. So long as there are other countries for whom the opposite is true then this will be possible, and means that an excess money supply is first choked off as a balance of payments deficit, before giving way to inflation.

According to this depiction, a balance of payments deficit problem is therefore solely due to monetary policy error. It is unclear whether this approach is regarded as useful in explaining recent deficits in the United States and United Kingdom.

5.2 Policy issues

The most common and perhaps obvious solution to a balance of payments situation is through a devaluation of the domestic currency under pressure. Such an action on one hand makes imports more expensive and therefore encourages residents to purchase domestic products, and on the other hand stimulates exports by making them cheaper to overseas customers. The strongest argument against such an action is the possibility of setting into train a series of competitive devaluations which benefit nobody. Furthermore some theoretical reasoning suggests that the impact of a devaluation is not so straightforward and a number of other initiatives may need to be taken to accompany the devaluation itself.

Historic analysis of balance of payments data at times of previous crisis can be used to advise the recommendations over the specific policies to be pursued and the desirability of devaluation itself. Through balance of payments and other data policymakers are able to see the impact of past policies on both reversing BoP deficits and on other variables such as output, employment and inflation. Economic Journals contain many such detailed analyses of specific devaluations.

A component of such analyses might involve the J-curve. This occurs because the volume effects of a devaluation are regarded as lagging the price effects, so in the short term the balance of payments will deteriorate before it improves.