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Training in the Use of Balance of Payments Statistics—Staff Notes

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BALANCE OF PAYMENTS

Macroeconomic Statistics for Analysis and Policy Formulation

The notion of different balances

In an overall balance of payments statement, the net sum of debit and credit entries (including the balancing items) is necessarily zero. This is because, with double entry recording system discussed, every transaction appears as both a credit entry and a debit entry. The current account balance is necessarily equal (with the sign reversed) to the net capital and financial account balance plus reserve assets transactions. This relationship shows that the net provision, as measured by the current account balance, of resources to, or from, the rest of the world must be matched by a change in net claims on, or to, the rest of the world.

However, the presentation of balance of payments statement and the analytic balances in use in national and international balance of payments presentations can vary according to the perspectives of the analyst.

Trade balance

Balance of payments cannot be seen as a separate sector but must be integrated into the dynamics of the whole economic system: from this point of view, the theory of BOP adjustment process is synonymous with open economy macroeconomics. Unfortunately, open economy macroeconomics is too broad a subject to be covered during such a short course such as this one. That's why we will limit the presentation to the various partial approaches to the balance of payments, which provides one of the main building blocks for more general models for the balance of payments adjustment. Its significance varies from country to country depending upon the importance of international trade in each economy, but a change in pattern of this balance is the indicator of changes either in domestic conditions or in the international economic environment. These may call for adjustment actions by the authorities.

Current account balance. This balance includes the net sum of transactions in goods, services, income and current transfers. It shows the extent to which the country is living within its income. From the point of view of saving it shows to what extent an economy draws on foreign saving or invests domestic saving abroad.

The current account is closely linked to a number of broad domestic variables. That is the reason why the balance of payments targets are often expressed in terms of the performance expected of the balance of current account. The presence of a surplus or deficit on the current account provides an indication of the strength, sustainability of the balance of payments. All other flows may be considered as accommodating (financing the current account).

In analyzing the sustainability of any specific current account situation it is important to consider the determinants of financial flows. Some financial account items can be sensitive to short term influences and expectations and are the subject to reversal. Other (e.g. direct investment) do not respond or respond slowly to the changes in economic conditions. To address this issue, transactions recorded above the line are distinguished from those recorded below the line in the overall balance presentation. Drawing the line involves making certain analytical emphasizes. In some presentations below-the-line transactions are considered to be accommodating or financing the net result of above-the-line transactions, which are considered autonomous. In other balance of payments presentations, the overall balance is equal to the sum of current and capital and financial account transactions, with the exclusion of transactions of the domestic banking sector that are shown below-the-line.

The various measures of overall balance broadly comprise:

Official settlements balance. This balance presents changes in reserve assets and related transactions, undertaken by the authorities to influence the exchange rate or purely for balance of payments financing purposes, as below-the-line financing; i.e. the official financing required to meet the economy's residual needs for foreign exchange, as represented by above-the-line transactions. The transactions, undertaken by the authorities to finance balance of payments are known as *exceptional financing*.

Exceptional transactions in addition to borrowing for balance of payments support (included in portfolio and other investment) includes debt cancellation (included in capital transfers), debt-for-equity swaps (included in direct or portfolio investment), rescheduling of debt (included in portfolio or other investment), or occurrence of arrears (included in other investment).

Liquidity balance. This balance presents short-term and/or potentially reversible flows as below-the line financing. By implication the above-the-line items comprise the current account balance and long-term sustainable financing. Liquidity balances may be used as a measure of vulnerability to potential shocks. The globalization of capital markets, in which an increasing share of balance of payments financing is provided by market financial instrument, has affected the conceptual validity of a liquidity balance (which tends to rely on the classification of financial instruments by maturity). There is an active interest in finding alternative ways of measuring vulnerability in the balance of payments statement.

Balance of payments cannot be seen as a separate sector but must be integrated into the dynamics of the whole economic system: from this point of view, the theory of BOP adjustment process is synonymous with open economy macroeconomics. Unfortunately, open economy macroeconomics is too broad a subject to be covered during such a short course such as this one. That is why we will limit the presentation to the various partial approaches to the balance of payments, which provides one the main building blocks for more general models for the balance of payments adjustment.

1. ELASTICITY APPROACH

The BOP problems are due to the disequilibrium in the physical trade flows, namely exports and imports of goods and services. Thus it could be analyzed on the basis of partial elasticities of the exports and imports and the role of exchange rate in the adjustment of BOP to a devaluation.

The role of relative prices and the terms of trade

BOP adjustment through exchange rate changes relies upon the effect of the relative prices of domestic and foreign goods on the trade flows with the rest of the world. This relative price, or terms of trade, is defined by the ratio of export and import prices in domestic currency.

From the point of view of the country as a whole, the terms of trade represents the amount of imports that can be obtained in exchange for a unit of exports (or the amount of exports required to obtain one unit of imports). Therefore an improvement in the terms of trade means that a greater amount of imports can be obtained per unit of exports (or, equivalently, that a smaller amount of exports is required per unit of imports).The terms of trade may vary both because of a change in the prices expressed in the respective national currencies and because of the exchange rate changes.

A depreciation in the exchange rate at unchanged domestic and foreign prices in the respective currencies, in fact, makes domestic goods cheaper in foreign markets and foreign goods more expensive in the domestic market. The opposite is true for an appreciation.

According to the elasticity approach there are two direct effects of exchange rate changes on the balance on goods and services:

<u>The volume effect</u>

The increase in the volume of exports due to the increase in the price competitiveness of the exports and the decrease in the volume of imports due to the decrease in the price competitiveness of imports due to the devaluation.
The volume effect clearly contributes to improving the goods and services account.

<u>The price effect</u>

Due to the devaluation exports become cheaper measured in foreign currency and imports become more expensive measured in home currency.

The price effect clearly contributes to the worsening of the goods and services account.

The net effect of an exchange rate change on the goods and services account depends upon whether the price or volume effect dominates, especially in developing countries.

which are heavily dependent on imports so that the price elasticity of demand for imports is likely to be very low.

Quantity - adjustment period is defined as a period in which both quantities and prices can change. If the suitable conditions on the elasticities are fulfilled, the balance of payments ought to improve.

However, it may happen that quantities do not adjust as quickly as prices, owing to frictions and reaction lags of both consumers and investors: it takes time for consumers in both the devaluing country and the rest of the world to respond to the changed competitive situation.
Due to these facts the balance of payments may again deteriorate before improving towards the new equilibrium point.

Imperfect competition

Foreign exporters (competitors) may be very reluctant to lose their market share and might respond to the loss in their price competitiveness by reducing their export prices. There is a time lag in producer responses: building up a share in foreign market can be time consuming and costly.

As a result, the volume of exports may not increase in the short run despite the improved price competitiveness and the current account may not improve.
One of the major defects of the elasticity approach is that it is based upon the assumption that all other things are equal. However, changes in export and import volumes will by definition have implications for other components of national income. Consequently, income effects need to be incorporated in a more comprehensive analysis of possible BOP adjustments.

2. ABSORPTION APPROACH

The BOP problems arise due to the disequilibrium between domestic income and expenditures and has to be analyzed in a broader context than the elasticity approach.

The absorption approach focuses on the fact that current account imbalances can be viewed as the difference between domestic output and domestic spending (absorption):

$CA=X-M=Y-A$

Understanding how devaluation affects both income and absorption is therefore central to the absorption approach to the balance of payments.

If devaluation raises domestic income relative to domestic spending the current account will improve.

If, however devaluation raises domestic absorption relative to domestic income the current account will deteriorate.
There are two important effects of devaluation on income that need to be examined: the employment effect and the terms of trade effect.

Employment effect

If the economy is below the full employment level, then there will be an increase in net exports following a devaluation. It is not clear whether the employment effect will raise or lower national income.

Terms of trade effect

A devaluation tends to make imports more expensive in domestic currency terms, which is not matched by a corresponding rise in export prices. This means that the terms of trade deteriorates.

A deterioration in the terms of trade represents a loss of real national income because more units of exports have to be given to obtain one unit of imports. Hence, the terms of trade effect, caused by a devaluation, lowers income.
The overall effect of devaluation on income is ambiguous

Thus the overall effect of devaluation through employment and terms of trade on income is ambiguous.

Of course, if the economy is in full employment, an increase in income is not possible. In this case for a devaluation to improve the current account deficit would require a reduction in direct absorption.
Income changes are only one of the factors influencing the current account. The other effects we need to consider are the impacts of a devaluation on direct absorption:
Cash balance (real balance) effect

A devaluation causes an increase in the import prices and hence in the general price level. This brings decrease in the real value of wealth held in monetary form (i.e. the real value of cash balances):

The public will try to build up their cash balances in order to restore the real value of these balances, both by reducing absorption and by selling bonds.
The sale of bonds causes a decrease in their prices, i.e., an increase in the interest rates, which further reduces absorption.

Thus the cash balance effect decreases absorption and improves the current account.

Money illusion effect

Assuming that money income and prices increase in the same proportion due to the devaluation, real income does not change.
But if people do not realize this because they are subject to money illusion, they will change their absorption. The direction of the change depends on the type of money illusion.
Thus the effect of money illusion on absorption is ambiguous. Whatever way the money illusion effect works it is unlikely to be significant and is most probably only a temporary rather than a permanent factor.
Expectation effects
It is possible that economic agents regard the increase in prices induced by a devaluation as likely to spark further price rises.
This would lead to an increase in direct absorption which would worsen the balance of payments.

Summing up the effects of devaluation on direct absorption
The overall effects of a devaluation on direct absorption are ambiguous:

While the cash balance effect works to lower direct absorption all the other effects may raise or lower direct absorption.

Overall, the approach suggests that a devaluation will have many diverse and often conflicting effects on the current account.

However, the absorption approach has some important lessons for policy makers:
Its central message is that rising domestic income relative to domestic absorption will improve the current balance.

In this respect a devaluation is more likely to succeed if it is accompanied by economic policy measures that concentrate on raising income while constraining absorption.

3. SYNTHESIS OF THE ELASTICITY AND ABSORPTION APPROACHES

The two approaches are complementary rather than competitive. Interactions between exchange rates and income in the adjustment of BOP to a devaluation.
Neither the elasticity approach nor the absorption approach does provide an unambiguous answer to the question whether a devaluation leads to an improvement in the current account:
The two approaches have remained influential because they contain clear and useful messages for policy makers:

1. A devaluation is more likely to succeed when price elasticities of demand for imports and exports are high and when it is accompanied by measures such as fiscal and monetary restraint that boost income relative to domestic demand.
2.One should not expect devaluation to work in the same manner for all countries:

It will in part be determined by whether or not the economy is at or below full employment level and on the structural parameters of the economy under consideration.

4. MONETARY APPROACH

The problems in the BOP are solely due to the disequilibrium between the supply and demand for money. The approach emphasizes the importance of monetary factors in the adjustment of BOP to different disturbances.

The main message of the monetary approach is that disequilibrium in the BOP reflects disequilibrium in the money market, excess demand or supply of money. The final cause of the BOP-disequilibria is the divergence between the quantity of money in existence and the optimum or desired quantity. Consequently, BOP analysis needs to focus on both the supply and demand for money.

The fact that balance of payments is essentially a monetary phenomenon is obvious because the BOP has, by its very nature, to do with monetary magnitudes and the accounting relationships between real and financial flows in the economy:

The variation in the official international reserves is nothing but the overall balance of payments. The variation of international reserves is the difference between the variation in the stock of money and the variation in other financial assets. Thus it is obvious that the BOP is a monetary phenomenon.

The basic idea of monetary approach is that any monetary disequilibria produces an effect on the aggregate expenditure for goods and services (absorption) in the sense that:

1. An excess supply of money causes absorption to be greater than income and a BOP deficit. The only way of absorbing more than one produces is to receive from foreign countries more than one supplies to them.

2. An excess demand for money causes absorption to be smaller than income and a BOP surplus.

If the public has an excess supply of money it gets rid of it by increasing absorption and, ultimately, by passing its excess cash balances to foreign countries in exchange for goods and services which generates a BOP deficit.

If the public desires to keep more money than it has in stock, it produces it by reducing absorption and, ultimately, it passes goods and services on to foreign countries in exchange for money, which generates a BOP surplus.

BOP disequilibrium is merely a refection of a disequilibrium in the money market:
In this sense monetary flows are independent items in the balance of payments while the purchases and sales of goods, services and investments are viewed as accommodating items.

Other issues related to the impact of exchange rate policy

In an inflationary world a distinction needs to be drawn between nominal and real exchange rates (that is. the nominal exchange rate adjusted for a country's rate of inflation relative to the foreign rate.) Where nominal depreciation is accompanied by an offsetting acceleration in the domestic rate of inflation the real exchange rate will remain unchanged and the nominal depreciation is therefore unlikely to succeed in strengthening the current account.

Several conclusions can be drawn from the experience of countries undertaking exchange rate actions in order to adjust their current account:

- There appears to be evidence of a significant response of exports to exchange rate changes. Export diversification, on the other hand, is only evident after a longer time period and seems to take place only if the exchange rate action is supported by other policies, such as trade liberalization and adequate external financial support.

- Import substitution has been limited in the short run, particularly for imported raw materials and investment goods, but substitution has been more promising for food and energy products. In part, reflecting an often large share of imports tied to aid, the effectiveness of exchange rate action on import demand has been limited.

- Exchange rate changes affect the domestic price level in the short term through increases in prices of imported goods. The concern for the potential inflationary impact of exchange rate changes has been a major reason behind the reluctance of countries to adjust the exchange rate. A key factor behind the inflationary impact of an exchange rate change has been the strength of monetary management. In cases where monetary expansion was kept under effective control after a depreciation, inflation decelerated and vice versa.

- The significance of the different elasticities varies between countries. For developing countries which concentrate on producing a product, the price of which is quoted in foreign currency, depreciation fails to reduce this price, and the export elasticity of demand is therefore largely irrelevant; instead depreciation raises the domestic currency price and the profitability of exporting, thereby emphasizing the importance of the elasticity of supply. In developing countries, then, depreciation is an important instrument for supply management and structural adaptation. Indeed in the context of developing countries it is the supply aspect of depreciation that is in many ways critical given the central importance of export growth. Of course if a country, although small in other ways, is a major world producer of a particular commodity so that the world price may not be taken as given, depreciation, through its impact on world supply, may eventually reduce the world price even if this is expressed in foreign currency.

With regard to imports, it is highly improbable that any developing country will be able to influence the foreign price of its imports, since its demand for any particular import will represent only a small fraction of the total world demand for the product. Even so, the domestic price of imports may not rise to the full extent of the exchange rate depreciation, or may even fall, if depreciation is accompanied by the removal of import controls that had previously maintained import prices at artificially high levels. Indeed, the overall impact of depreciation has been found to depend significantly on the precise characteristics of exchange controls.

The key questions on which empirical evidence may shed some light are

(a) does currency depreciation induce relative price changes, raising the domestic currency price of exports and imports, and encouraging resources to move into the traded goods sector and does nominal depreciation result in equivalent real depreciation? and

(b) if relative price changes do occur are volume responses thereby induced?

An important element in the debate over currency depreciation is its impact on inflation. How much depends on a range of factors, namely:

What is the import intensity of domestic production?

How likely is it that domestic producers will decide and be able to pass on the increase in their costs?

How money illusioned and powerful are wage earners?

How likely is it that the government will endorse wage increases by creating domestic credit?

The answers to these questions are likely to vary from case to case.

Although attention normally focuses on the effects of currency depreciation on the current account the effects on the capital account should not be ignored.

Vulnerability to external shocks:

In a world of increasingly mobile capital countries cannot fix their exchange rate and at the same time maintain an independent monetary policy. They must choose between the confidence and stability provided by a fixed exchange rate and the control over policy offered by a floating rate. Traditionally, the deciding factor in a country's choice has been its vulnerability to external shocks, such as sudden shifts in commodity prices. A floating currency allows a country to adjust to external shocks through the exchange rate. In countries with a fixed currency, domestic wages and prices will come under pressure instead.

But floating exchange rates have a big drawback: they can overshoot and become highly unstable, especially if large amounts of capital flow in and out of a country. That instability carries real economic costs. Moreover, floating rates can reduce investors' faith in a currency, thus making it harder to fight inflation. To get the best of both worlds, many emerging economies have tried a hybrid approach, loosely tying their exchange rate either to a single foreign currency, such as the dollar, or to a basket of currencies.

As recent events have shown, a country's choice of exchange-rate regime clearly affects its vulnerability to crises. Asian countries got into trouble because of their exchange-rate pegs, and were then thrown into chaos by the volatility of floating rates.

On the face of it, in a world of capital mobility a more flexible exchange rate seems the best bet. A floating currency will force firms and investors to hedge against fluctuations, not lull them into a false sense of stability (as they were in most of Asia). It will also make foreign banks more circumspect about lending. At the same time it will give policymakers the option of devising their own monetary policy. However, monetary independence may be more apparent than real, at least for developing countries with small-scale financial systems. Confronted by sudden market panic, emerging economies dependent on foreign capital have to raise interest rates sky-high to prevent their currency from collapsing. The biggest problem with a floating currency remains the risk of volatility.

For many emerging economies, small financial markets mean that exchange-rate volatility will be a structural, not a temporary problem. If a couple of mutual funds suddenly decided to make a serious investment, the country's exchange rate could rocket, starting an unsustainable boom in the property and banking sector, and causing havoc for exporters.
The more pragmatic proponents of floating rates recognize the risks of volatility, having mentioned that that-at least for economies with small financial sectors-floating exchange rates are feasible in the long run only if capital-market integration is slowed down.

Debt servicing issues

A potential and increasingly significant source of demand deflation which might be induced by currency depreciation in developing countries arises from its effects on debt-servicing. Depreciation will raise the domestic-currency costs of servicing any given external obligation expressed in foreign currency. Clearly in some countries where the volume of debt is large and interest payments high, depreciation may have a very significant adverse effect on the services account of the balance of payments (expressed in domestic currency). The implication is that, in these circumstances, the domestic expenditure-reducing effect will be considerably enhanced.

Inflationary effects

Currency depreciation might be expected to have an expenditure-reducing impact, real expenditure reduction will occur only if the appropriate monetary policy is simultaneous-

ly pursued. The monetary approach to the balance of payments sees the monetary implications of exchange rate depreciation as being absolutely crucial, though it also sees depreciation as unnecessary provided enough time (that is, financing) is available for automatic correction to occur. According to this approach the mechanism by which depreciation affects the balance of payments is by raising the domestic price level and thereby increasing the demand for nominal money balances. The real supply of domestic credit is reduced and monetary sector equilibrium is maintained by an inflow of reserves.

Governments clearly worry a great deal about the cost inflationary effects of currency depreciation, and their concern has some foundation. How much depends on a range of factors:

What is the import intensity of domestic production?

How likely is it that domestic producers will decide and be able to pass on the increase in their costs?

How money illusioned and powerful are wage earners?

How likely is it that the government will endorse wage increases by creating domestic credit?

The answers to these questions are likely to vary from case to case.

Fiscal Policy

Current account adjustments:

In principle fiscal policy remain a useful balance of payments instrument since it may be directed towards dealing with the basic problem of switching resources into traded goods. As such, and where practicable, it is valuable, especially in cases where currency depreciation is, for some reason, unlikely to be politically acceptable, or where a significant number of elasticities are very low.

Capital and financial account adjustments

Withholding tax may offer an effective means to discourage volatile short-term speculative capital flows without harming longer-term investment. The principal risk a country faces from liberalizing its capital transactions is a sudden and significant reversal in capital inflows that has little to do with the country's own policies. The policymakers have increasingly acknowledged the potentially useful role that price-based measures (of which well-designed taxes are a prime example) – rather then quantitative controls on capital movement – can play in addressing volatile capital movements unrelated to economic fundamentals. Most of the burden of the tax should fall on the short-term foreign borrowings of residents: export receipts and income from foreign sources would largely escape the tax.

Monetary policy

Depreciation aims to encourage economic growth led by the foreign trade sector. A reduction in the nominal supply of money, on the other hand, is likely to leave relative prices unchanged and is therefore less likely to bring about structural changes.

The choice between currency depreciation and monetary contraction will be influenced by the current rates of unemployment and inflation and governments' priorities with respect to policy objectives. A macroeconomic strategy which emphasizes employment and growth, as one might expect to find in most developing countries is, on this basis, better served by depreciation than by credit controls, especially since to some extent the cost-inflationary effects of depreciation may be neutralized by opting for crawling or by accompanying it with an incomes policy.

Exchange Controls

Controls are, of course, very common in developing countries .The exchange authorities may, for instance, allow export producers a less beneficial exchange rate, thus effectively taxing the increase in profits that would otherwise be associated with depreciation, or they may directly impose an export tax.

Exchange controls have a number of advantages over policies such as depreciation or demand deflation. First, controls exert a prompt, direct and predictable effect on imports; they do not rely on the intermediation of a price change and therefore on the size of price elasticities to improve the balance of payments. Second, they may, in principle, be imposed selectively, allowing the authorities to discriminate between imports. Normally discrimination will be exercised against the importation of inessential consumer goods which are regarded as making a minimum contribution to economic development. From the viewpoint of development, therefore, controls appear as a means of making the most effective use of scarce foreign exchange. Third, as compared with demand deflation, controls do not rely on a fall in national income to induce a fall in imports and to bring about an improvement in the payments position. Furthermore, the allocation of import licenses may be used to ensure that a given improvement in the balance of payments has the minimum adverse effect on the poor.

However, against this apparently strong case a number of counter-arguments may be presented. First, in many developing countries there is little scope for cutting down on inessentials even if it were possible to identify what imports are inessential. Second, controls imply a complex administrative system which, even if it works as intended, will have high resource costs. Further, there is the danger that it will not work as intended and that in practice 'national objectives' will not be served. Part of the problem here is that the system encourages corruption and the provision of inaccurate information. Furthermore, it will tend to lengthen the lag between the need for particular imports and that need actually being met. Such delays will cause shortages and the under-utilization of capital. The latter may also result if controls indirectly encourage firms to build larger than

optimum scale plants in order to obtain extra allocations of foreign exchange; evidence again suggests that some firms in developing countries have behaved in such a way.

The most fundamental criticism of controls is that they suppress rather than cure payments problems. An implication of this is that, should the controls be removed, the problem will again become apparent; as a result, once introduced controls are rarely abandoned. Even if there is an underlying improvement in the balance of payments due, say, to an improvement in the commodity terms of trade, other factors encourage their retention, such as the protection of local industry or the continuation of the benefits which controls may generate for powerful interest groups. The chief purpose of controls is to reduce imports below what they would otherwise have been at a given exchange rate and thereby reduce the demand for foreign exchange. This effect is achieved not by reducing the incentive to import but by frustrating it. Neither do controls do anything to raise the incentive to export. Indeed, because controls serve to defend an overvalued exchange rate they discriminate against exports by keeping the profitability of exporting, expressed in domestic currency, below what it would be with a lower exchange rate. Although, in principle, the adverse effect on export performance might be neutralized through a system of export subsidies, evidence suggests that, in practice, these are themselves problematical, not least because they often tend to discriminate in favor of high cost and relatively inefficient exports, and against more efficient traditional exports Even the apparent advantage of controls in discriminating against inessential imports may turn out to be a mixed blessing since, although such discrimination may help to keep down the prices of 'essentials' and therefore be of at least short-term benefit to consumers, by effectively raising the relative price of inessentials through reducing their supply their domestic production will be encouraged. As a result controls have a bias towards inefficient import substitution rather than export expansion.

Bearing in mind both the allocational and practical problems associated with exchange controls it seems reasonable to conclude that, while they may, in some cases, provide a useful short run tourniquet in the event of a balance of payments crisis, they do not generally offer a cost effective means of correcting deficits. Indeed their principal effect is the negative one of suppressing imports rather than the positive one of encouraging exports.

Structural policy

BOP adjustment structural policies attempt to raise productive potential and the efficiency with which resources are used. By their very nature such policies tend to be microeconomic rather than macroeconomic, and relate generally to relative prices and individual sectors of the economy that are seen as a major cause of disequilibrium. Structural policies may involve changing the ownership of the factors of production, factor mobility, wage bargaining, the degree of competition and monopoly, the activities of multinationals, and the distribution of output between consumption and investment.

A structurally oriented supply side approach may easily be frustrated by over-expansionary demand management; and in some cases unsound monetary and fiscal

policies undoubtedly lie at the heart of payments problems. Failure to correct these is highly likely to result in failure to correct the related payments deficit. A further key problem is that many of the structural policies mentioned above might be expected to exert their main impact on the balance of payments only in the long run, indeed their short-run effects may be adverse; and the implication of this is that a payments 'crisis' arises before the long-term benefits are achieved, with the structural policies being abandoned.

External Trade Policy

Where nominal devaluation is accompanied by changes in tariffs and subsidies, the 'effective' change will again differ from the nominal one; this is particularly important in developing countries where depreciation and trade liberalization are frequently undertaken in tandem.

The economic takeoff in China (average annual rate of GDP growth is almost 10 percent) has coincided with large inflows of foreign direct investment, which have averaged over $40 billion (5,5 percent of GDP) annually in recent years. It is clear that the government is very concerned to spread foreign direct investment and to spread growth inland.
Domestic demand cannot be relied on alone to produce growth in China, despite the fact that the economy in nominal terms is not that open. Keeping growth above 7% really depends on maintaining export demand at a reasonably healthy level. So reform and an access to the external world are the coincide process in China. This imposes the issue of exchange rate regime and renminbi convertibility that was seriously affected by Asian financial crisis. From the point of view of comparative protection in the mid 1997/1998, it seems to be justified that the renminbi was not convertible. But it is very hard to maintain the situation in which there is a certain convertibility of the financial account as condition for foreign investment inflow and an effectively fixed exchange rate. The question of whether or not there might be pressure downwards on the currency has been an issue at various times but, with large external surpluses at the moment and low inflation rate, there probably is not much pressure on the renminbi from the economic fundamentals.

BALANCE OF PAYMENTS STATISTICS: CONCEPTUAL FRAMEWORK

1. Introduction

Balance of payments statistics are an important source of information for economic policy formulation, decision making and analysis. The balance of payments provides detailed information on the dynamics in the external sector of an economy, data which are vital for any economy in an environment of increasing interdependence. The balance of payments is an account of transactions between residents and nonresidents. Examples of transactions that would be reflected in the Chinese balance of payments are exports of Chinese goods or a foreign investment in a Chinese enterprise. The balance of payments statistics are complemented by a second set of international accounts, the international investment position (IIP). Whereas a balance of payments statement records flows (transactions) and thus shows the developments in the external economic relations of an economy during a specific period, the international investment position provides information on the stock of external financial assets and liabilities of the economy at a specific point in time. The international investment position would include, for example, information on total foreign direct investment in Chinese enterprises at a specific date. The compilation of both sets of data are governed by internationally accepted methodologies that are set out in detail in the Balance of Payments Manual, fifth edition, of the IMF (BPM5). These methodologies will be presented in this lecture.

Thus, the purpose of this lecture is to outline the basic definitions, concepts and principles used for the compilation of balance of payments and international investment position statistics. Although this seminar is addressing data users who are interested in how to analyze the data, rather than in issues related to the collection and recording of those data, an understanding of the underlying concepts is indispensable in order to gain knowledge of the relevance, and also the limits, of the data for policy formulation and analysis.

As mentioned before, the topic of this lecture will not only cover the flow-oriented framework of balance of payments statistics but it will also address issues of the measurement of positions, in particular the IIP which is closely related to the balance of payments framework.

The remainder of this lecture is organized in five parts. First, I will introduce a more developed definition of the balance of payments and the international investment position. Without going in too much technical details, a presentation of the basic conventions according to internationally accepted methodology will follow. Then I will provide an overview of the main components of the balance of payments and the classification of transactions. The fourth part will raise some specific issues in the compilation of the IIP. Some general remarks on the problems that may be encountered in applying these conceptual approaches in statistical reporting procedures will conclude the lecture.

2. Definitions

The balance of payments is a statistical statement that systematically summarizes, for a specific time period, the economic transactions of an economy with the rest of the world.

This definition contains several important elements that should be emphasized. First, and as already mentioned before, the balance of payments is a flow-oriented statement as it records transactions within a specific period of time. Second, it is a statement of transactions between the compiling economy and the rest of the world. And third, balance of payments transactions are recorded and presented in a systematic way. These general observations lead immediately to some specific questions that will need further elaboration:

- What *system* is used to compile balance of payments statistics?
- Where is the boundary between the compiling *economy* and the *rest of the world*? Closely related to this question is a second one on the concept of residence: Who is considered as resident in an economy?

- What exactly has to be understood under *economic transactions*?

I will come back to these questions in the following section of my lecture when presenting the basic principles and conventions for the compilation of balance of payments statistics.
At this point, however, I would like to introduce the definition of the international investment position.

The international investment position is a statistical statement of the value and composition of the stock of an economy's financial assets, or the economy's claims on the rest of the world, and the value and composition of the stock of an economy's liabilities to the rest of the world.

This definition reveals the close relationship with the balance of payments statistics. The underlying concepts for both statistics are broadly the same. The presentation of the composition of the stocks in foreign financial assets and liabilities mirrors the transactions in the financial account of the balance of payments. Specific issues related to the compilation of the IIP will be addressed in section four of my lecture.

3. The Conceptual Framework of Balance of Payments Statistics
The internationally agreed conceptual framework for balance of payments statistics – as set out in the recommendations of BPM5 – ensures a systematized and coherent recording of a country's external transactions.

Double entry accounting system
A set of specific accounting rules governs the recording of international transactions in the balance of payments. The basic convention is the double entry accounting system, analogous to the system regularly used for financial statements in business accounting.

This means that for every transaction two entries are made in the balance of payments statement, a debit and a credit entry, reflecting the providing and the receiving sides of a transaction. The convention is to record a debit for increases in (real or financial) assets or decreases in financial liabilities, and conversely, to record a credit for decreases in assets or increases in liabilities. For example as imports of goods correspond to an increase in an economy's real assets, this results in a debit entry in the balance of payments. The payment for the goods corresponds to a decrease in the financial assets and thus results in a credit entry in the balance of payments. To give another example, the sale of a domestic bond to a nonresident corresponds to an increase in the economy's external financial liabilities and would be recorded as a credit. The payment received for the bond sale reflects an increase in external financial assets and is shown as a debit.

In theory, because of the double-entry system of recording credits and debits, the sum of credit entries thus equals the sum of debit entries in the balance of payments. The double entry accounting system of the balance of payments enables the analysis of linkages between the different accounts of the balance of payments. Besides the analysis of single items in the balance of payments—such as travel receipts or direct investment from abroad—the interrelationship of the different accounts of the balance of payments may be studied. For that purpose a line can be drawn between any groups of accounts, the net balance of the items above the line will always be the reverse to the net balance of the items below that line. A most common approach in the analysis of balance of payments data is to look at the current account balance. The current account balance is necessarily equal (with a reversed sign) to the net capital and financial account balance including reserves. A change in the current account balance, let us say a deterioration (that is a reduction in the current account surplus or an increase in an already existing deficit) would be reflected in an increase in foreign liabilities (or a decrease of foreign assets). The acquisition of resources from the rest of the world that is shown in the current account balance must be financed by the economy by liquidating foreign assets or increasing liabilities to the rest of the world. This is of course only an example of analyzing balance of payments data, more information will be given in the following lecture.

Time of recording and valuation

The accounting framework for the balance of payments moreover comprises conventions for the time of recording and the valuation of transactions. The establishment of such principles takes into account that within a double-entry accounting system uniformity between the credit and debit entries has to be ensured. Beyond consistency within the balance of payments statement of a country, uniform accounting rules also allow symmetric recording by both parties to a transaction and thus enable comparisons of balance of payments statements with partner countries. Finally, uniform principles for the time of recording and valuation should apply to all recorded transactions to permit meaningful aggregation of transactions and comparisons between different items of the balance of payments.

As a rule, transactions are recorded when economic value is created, transformed, exchanged, transferred, or extinguished. The preferred approach for the time of recording

of a transaction is the accrual accounting rather than a recording at the time of an actual payment. Claims and liabilities arise when there is a legal or physical change in ownership of assets. When the change in ownership is not directly observable, the change is considered to occur at the time the parties to the transaction record it in their books. In practice, however, this principle may not always be fully applied as the type of source records for example may not allow the determination of the date of change in ownership. Difficulties may also arise in practice with regard to the simultaneous recording of credits and debits by both parties to a transaction due to different source records or to different business accounting practices in different countries.

The uniform basis for transaction valuations in the balance of payments is actual market prices agreed upon by transactors. A market price is the amount that a willing buyer pays to acquire something from a willing seller when both are independent and that is based on solely commercial considerations. A market price according to this definition is a price that actually applies to a specific exchange rather than a reference price for a class of supposedly identical exchanges. The market price as defined in this context also need not necessarily be a price in a competitive market (i.e. the market price does not have to be a free market price). In the event that one or more of the essential elements is lacking for establishing a market price (e.g. transactions between affiliated enterprises or noncommercial transactions like gifts) proxies, or substitute measures, may prove to be necessary for purposes of balance of payments recording. Often these are market values of similar transactions under comparable circumstances.

Another element I would like to mention in the context of valuation rules is the conversion of transaction values into the unit of account for which most countries choose their domestic currency. In accordance with the principles of valuation and time of recording just explained, for conversions into the unit of account the market exchange rate prevailing at the time of the change of ownership should be used.

These elaborations of the accounting framework of the balance of payments may seem rather technical, but they are of utmost importance in order to ensure a consistent recording of transactions. In particular, the usefulness of the balance of payments as an analytical tool for policy makers and economists may be seriously hampered if credits and debits are not recorded consistently and a large difference remains on balance which is commonly recorded under a special item “net errors and omissions”.

Residence

I now turn to the second question that followed from the definition of the balance of payments; and this is the delimitation between the compiling economy and the rest of the world and the concept of residence. These aspects are closely related as an economy is defined in terms of the economic entities associated with its territory.

The economic territory of a country is the geographic territory administered by a government including the airspace, territorial waters, territorial enclaves such as embassies and consulates, military bases etc., as well as free zones and bonded warehouses. Residents of an economy are economic entities having a center of economic

interest within that economic territory. It is important to bear in mind that the residency concept is thus an economic concept that does not refer to legal criteria such as nationality or citizenship.

A center of economic interest can usually be presumed when the entity is engaged in economic activities and transactions on a significant scale in the country for a long period of time. As a guideline a one-year period is suggested as criterion for that purpose. The residents of an economy comprise four types of economic units: households and private individuals, enterprises, nonprofit organizations, and the government.

I will refrain from enumerating all criteria for each of the four groups to qualify as residents according to the principle of center of economic interest. This would be too lengthy given the scope of this lecture. Instead I will only pick out some examples which might give an impression of the considerations underlying the residence concept.

Among households and individuals some exceptions to the one-year rule exist: this is the case for example for students, diplomats, members of armed forces and other government personnel. They all remain residents of their home country, irrespective of the length of their stay abroad. As they either work in enclaves that are part of the economic territory of their home country (e.g. embassies) or remain members of households in their home countries (e.g. students) it is assumed that their center of economic interest remains in their home country. This means that all transactions of these entities with the residents of the economy in which they actually live would have to be reflected in the balance of payments. Changes in the residence status may of course occur and will have implications for the recording of transactions in the balance of payments.

For the sector of enterprises the residence concept means that an enterprise is regarded as resident in an economy when it is engaged in a significant amount of production of goods and/or services in that economy or in transactions in land located there. The enterprise must have at least one production establishment in the country and must be engaged in a longer-term activity. Hence, even if an enterprise is fully controlled by foreign investors it is considered as resident in the economy where the production takes place and the production of this enterprise is attributed to that economy.

The last example I would like to give for the application of the residence principle is that of international organizations that are established by political agreement among organization members. As they are not subject to the laws and regulations of the economies where they are located, they are not considered to be residents of any national economy. The employees of these organizations however underlie the same criteria as other individuals and households; namely, they are residents of the economy where they have a center of economic interest.

Economic transactions

The last conceptual underpinning for the framework of balance of payments statistics that has to be outlined is that of economic transactions. International transactions that are registered by the balance of payments generally reflect changes in economic relationships

between a resident and a nonresident party. These changes need not necessarily involve the payment of money. The connotation balance of *payments* may therefore be somewhat deceptive. In fact the balance of payments is not concerned with payments but with transactions. This includes also transactions where no immediate payment of money is involved and those that are not paid for in any sense (gifts). This is an important difference to a record of foreign payments that should be kept in mind.

The transactions recorded in the balance of payments may vary in nature. Depending on the type the entries in the balance of payments will be made in different accounts of the balance of payments. One frequent type of transaction is the exchange of equal economic values between two economic entities. This might be a purchase of goods by a resident from a nonresident against a payment in the bank account of the supplier. Real assets, the goods, are exchanged against a financial asset - money. The goods may also be purchased on account. This means that the nonresident supplier of the goods grants a trade credit; the goods would have to be paid for only after an agreed period of time. In this example, one side of the transaction involves a change of ownership of existing real assets – the goods that are imported – whereas the other side of the transaction represents the creation of a liability that was not existing prior to the transaction. Generally speaking, the provision of real resources (goods, services or income) always implies a change of ownership of that asset. For financial items however not only changes in ownership of existing claims or liabilities may occur but also the creation of new claims and liabilities or the extinction of existing ones.

If no value is given in exchange for the provision of an asset, e.g. when goods are provided as a gift, the balancing entry that is made in compliance with the double entry accounting system of the balance of payments is referred to as a transfer. Transfers are recorded in the balance of payments under distinct categories, namely under current or capital transfers, as will be explained later.

Balance of payments transactions need not in any case involve changes in real assets such as goods or services. Many transactions may only concern financial items. One financial asset could be replaced by another financial asset or the creation of a financial asset might be accompanied with the creation of a financial liability. As an example, a claim on a nonresident bank in the form of a deposit could be transformed into a claim on a nonresident enterprise by buying shares of that enterprise. Likewise also transactions only involving the exchange of real assets are conceivable, though barter trade of course is not a common form of trade anymore.

These are the main types of transactions that should be identified. Specific circumstances involve other types of transactions, like the case of migration when the residence status of an individual or household changes. But these kinds of transactions in general are not numerous and are of minor importance.

To sum up, the balance of payments reflects changes in the claims and liabilities of an economy vis-à-vis the rest of the world that are ascribed to transactions. It is important to note that other changes in a country's foreign assets and liabilities, such as

reclassification of claims and liabilities and valuation changes (price changes or exchange rate changes), are not registered in the balance of payments. I will come back to this issue in the context of the international investment position.

4. The classification of balance of payments transactions

When recording the various kinds of transactions in the balance of payments a system of classification has to be used that enables a structured presentation of the developments in the external sector of an economy. Grouping similar transactions in specific categories and structuring the transactions by building relevant accounts and sub-accounts facilitates the analysis of the data. The classification system should be conceived as to address the needs for policy formulation and decision making. The structured presentation should provide for an overview on the overall developments in the external sector and at the same time a sufficiently detailed breakdown should allow monitoring of specific areas of international transactions.

The recommended classification system and minimum breakdown for international transactions is given by the standard components of the Balance of Payments Manual. This system conforms with that of the national accounts and is also largely compatible with the central product classification in the area of services. Harmonized classification systems are of utmost importance in order to ensure consistency with other macroeconomic accounting frameworks and to enhance international comparability. The broad categories of the balance of payments are the current account and the capital and financial account.

Current account

The net balance of the current account is part of an economy's savings. In the case of a current account surplus the economy's shows a net provision of resources to the rest of the world. A deficit in the current account implies a net acquisition of resources from the rest of the world. The current account balance is thus a meaningful indicator of an economy's saving and spending behavior. Within the current account goods, services, income and current transfers are the major classifications.

Goods

The tradition of recording statistics on imports and exports of goods is very old and dates back to the early years of the establishment of stable international trade relations. Although similar, the concept for recording goods transactions in the balance of payments differs somewhat from that in external trade statistics. With some exceptions, the balance of payments accounts for goods exported and imported when a change in ownership occurs. The trade statistics record the physical movement of goods across the frontiers. This means that goods not crossing frontiers but where a change in ownership occurs have to be included in the goods item of the balance of payments, and in reverse, goods that cross the frontiers but not changing ownership would be excluded.

A major exception to the change in ownership rule is the case of processing where goods are imported, processed and then re-exported or symmetrically, exported for processing abroad and re-imported. These transactions are included under goods, although no change

in ownership occurs, in order to achieve consistency with national accounts where a linkage is required between the produced good (before processing) and the consumed good (after processing) in the "sources an uses of resources" approach.

For balance of payments purposes the goods are valued at the customs frontier of the exporting economy (f.o.b.). The value of the goods thus includes some distributive services – such as transportation and insurance - that are provided in the exporting economy up to the frontier. The objective is to include in goods only a standard partial list of related distributive services irrespective of differing practices for delivery of goods by exporters to importers.

Services
Under the item services a large variety of transactions is summarized in the balance of payments. Services are generally provided upon arrangement between a particular producer and a particular consumer. Unlike in the case of goods the production and trade of services usually takes place simultaneously. The increasing importance of trade in services in general and of specific types of transactions in services have substantially changed the users' needs with regard to the breakdown of transactions in services. In particular the requirements for multilateral negotiations of the WTO on trade in services had to be addressed. Also, specific types of services have assumed greater importance in the past years, e.g. computer and information services or transactions in proprietary rights. The BPM5 thus recommends a detailed classification of the services account.

The categories of services are transportation services, travel, communication services, construction services, insurance services, financial services, computer and information services, royalties and license fees, other business services, personal, cultural, and recreation services, and government services. For some of these categories further breakdowns are recommended.

Income
Income in the balance of payments refers to the remuneration of the factors of production, namely labor and capital, provided by or to another economy. Income covers therefore two types of transactions between residents and nonresidents: income from labor called "compensation of employees" and income earned from capital called "investment income".

Compensation of employees comprises wages, salaries, and other benefits earned by individuals for work performed for nonresidents in the nonresidents' economy. Employees in this context are seasonal or other short-term workers and border workers who have centers of economic interest in their own countries. In some instances it may be difficult to distinguish between nonresidents working in the compiling economy for which their receipt of income would be classified in the balance of payments as employee compensation and nonresidents providing services for which their receipts would be classified in the balance of payments as services.

Investment income covers receipts derived from a resident entity's ownership of foreign financial assets and payments derived from residents' liabilities to nonresidents. The detailed breakdown of the investment income account follows the breakdown of the financial account and of the international investment position in order to build a link between the transactions in and stocks of financial assets and liabilities and the corresponding earnings. Changes in the value of financial assets and liabilities are not considered as income on investments. As long as these holding gains or losses are not realized they are not reflected in the balance of payments at all. All realized holding gains and losses arising form transactions however are included in the financial account according to the valuation principle outlined earlier (market values). As outlined before, transactions should be recorded in the balance of payments when economic values are created, exchanged etc. In the case of investment income the accrual accounting rule implies a continuous recording of interest that matches the cost of capital with the provision of capital. Interest payable on a bond for instance is not recorded when the interest is due for payment but it is recorded continuously over the life of the bond.

Current transfers

Transfers were already referred to earlier. They constitute an offsetting entry in the balance of payments when the provision of real or financial resources from a resident to a nonresident takes place without a quid pro quo. Current transfers are distinguished from capital transfers and only the first category is included in the current account. This distinction was introduced for the first time in BPM5 in order to eliminate a major discordance with the national accounts. Current transfers directly affect the level of disposable income and should influence the consumption of goods or services. Current transfers reduce the income and consumption possibilities of the donor and increase the income and consumption possibilities of the recipient. Capital transfers should result in a corresponding change in the stocks of assets of one or both parties to the transaction. This is the case when ownership of a fixed asset is transferred or when forgiveness of liabilities is granted by a creditor. Capital transfers in cash must be linked to the acquisition or disposal of a fixed asset by one or both parties to the transaction.

Current transfers are classified to distinguish transfers of the general government and transfers of other sectors. Transactions recorded in these items include gifts in the form of cash or in kind intended for consumption in the recipient economy, taxes, social security contributions, fines etc., and workers remittances by migrants who are employed in new economies and considered residents there.

Capital account

The capital account consists of two categories: capital transfers, that were already explained, together with current transfers and the acquisition and disposal of nonproduced, nonfinancial assets. The latter category mainly captures transactions associated with nonproduced, intangible assets, such as patents, copyrights etc. and transferable contracts (e.g. leases).

Financial account
The financial account covers all transactions associated with changes of ownership in the foreign financial assets and liabilities of an economy. In contrast to the current account where gross recording of credits and debits prevails, in the financial account transactions are usually recorded on a net basis. That is credits and debits reflecting purchases and sales within each category of financial instruments are not recorded separately; instead only the net sales or net purchases are shown in the items of the financial account. The classification of the financial account includes several levels. The primary basis for classification is functional category: direct investment, portfolio investment, financial derivatives, other investment and reserve assets. Criteria for further classification are the distinction between assets and liabilities, types of instruments, domestic sector and maturity. The application of these distinctive criteria varies for the different functional categories.

The primary purpose of the classification of items in the financial account is to facilitate analysis by distinguishing categories that exhibit different patterns of behavior. Changes in financial items recorded in the balance of payments occur for a variety of reasons. With the liberalization of capital flows, the financial account of the balance of payments is no longer mainly driven by real transactions in the current account. The motivations of changes in the financial assets and liabilities are multifaceted and can generally not be determined when collecting the data. But the motivation can often be derived from information on the type of instrument, the sector of the creditor or debtor etc. The classification of the financial account therefore tries to capture these kinds of characteristics. The classification is also compatible with that of the investment income accounts, the international investment position, the SNA and thus facilitates links between them.

Direct investment
The category of direct investment reflects the lasting interest of a resident entity in one economy – the direct investor - in an entity resident in another economy – the direct investment enterprise. By convention, a criterion for identifying lasting interest, a direct investor should have a minimum of 10 percent of the ordinary shares or voting power or the equivalent in the direct investment enterprise. Direct investment covers all transactions between direct investors and direct investment enterprises. That is the initial transaction creating this relationship and all subsequent transactions between the two and among affiliated enterprises.

Portfolio investment
The classification of the portfolio investment account follows the types of instruments. It covers transactions in equity securities, that are not included in direct investment, and debt securities. Debt securities are subdivided into bonds and notes and money market instruments. The ongoing trend of liberalization of capital movements, the development of new financial instruments and the new market participants have increased the quantitative and analytical significance of international transactions in these instruments. The marketability of these instruments enables investors to change their investment behavior within a very short time frame. Foreign capital inflows in the form of portfolio

investment, unlike the longer term engagements in direct investment for example, can be reversed almost immediately. The category of portfolio investment therefore deserves special attention in the analysis of the balance of payments.

Financial derivatives
Financial derivatives are financial instruments that are linked to another financial instrument, indicator, or commodity through which specific risks can be traded in financial markets in their own right.

In BPM5 financial derivatives were subsumed in the category of portfolio investment. In response to large-scale changes in the derivatives markets clarification and amplification of the existing standards was asked. After discussions with experts, users and within the international statistical community it was agreed that a separate functional category for financial derivatives should be introduced into the financial account. Further, it was decided to include derivatives in the functional categories of direct investment and reserves assets, but this is subject to further review.

Derivatives comprise two main types of instruments, forward contracts and option contracts. In the balance of payments however no further classification is asked except for a breakdown by resident sector.

Other investment
The category of other investment is a residual which comprises all financial transactions that are not covered in the other accounts of the financial account. These are broken down by instruments into trade credits, loans, currency and deposits, and other assets and liabilities. Further levels of breakdown are the resident sector and the maturity distinction.

Reserve assets
The last major category of the financial account is an important component of balance of payments statistics an essential element in the analysis of an economy's external position. Reserve assets are defined in BPM5 as "external assets that are readily available to and controlled by monetary authorities for direct financing of payments imbalances, for indirectly regulating the magnitude of such imbalances through intervention in exchange markets to affect the currency exchange rate, and/or for other purposes". Reserve assets encompass monetary gold, SDRs, reserve position in the Fund, foreign exchange assets and other claims.

In a fixed exchange rate regime, the change in reserve assets is determined by the net demand or supply of foreign exchange at that exchange rate. Reserve assets decrease when there is a gap in financing the acquisition of external resources by other sectors. In a floating rate regime, the demand and supply of foreign currency is balanced by changes in the exchange rate; thus, changes in reserve assets are not driven by the dispositions of external resources of the other economic entities.

In the recent financial crisis the data available on international transactions, stocks, and specifically on reserves proved to be insufficient in order to assess an economy's exposure to external shocks. In order to address these shortcomings a new statistical framework – the template on international reserves and foreign currency liquidity - has been developed that provides for extensive information on the external liquidity of the monetary authorities and the central government of an economy. Besides the information on official reserve assets this framework requires detailed breakdowns of these foreign currency assets together with information on their availability; it includes information on pre-determined and potential short term drains on foreign currency assets; and it includes supplementary information for example on derivatives transactions, on pledged assets, etc. and on the currency decomposition of the reserves. With this new framework, which is now a prescribed standard for the SDDS subscribers, monitoring of the vulnerability of an economy to external shocks is facilitated, though substantial efforts may still be needed in order to involve also the private sector in enhanced disclosure of such data.

Supplementary information on the financial account

To conclude the presentation on the classification of the balance of payments I would like to discuss some important transactions that are not separately identified in the standard components of the balance of payments of the financial account but that are important for the analysis of the balance of payments financing and therefore recommended to produce as supplementary information. The purpose of this supplementary information is to determine whether there is a financing need and whether policy adjustment are required to correct an imbalance. A distinction has therefore to be made between transactions that are autonomous and which result in an overall payments deficit or surplus and those transactions that are accommodating or financing the deficit or surplus.

For this kind of analytical presentation of the balance of payments specific items, namely liabilities constituting foreign authorities' reserves and exceptional financing transactions, are shown together with reserve assets below the line; that is as providing financing for, or absorbing the surplus of, the sum of transactions above the line in the current account and the financial account. Although often difficult to obtain the information it is useful to identify certain liabilities that are considered to have a similar function to that of reserve assets. The information should be provided even though the compiling (debtor) economy may not regard such liabilities as a means of financing its payments imbalance.

The second category of transactions in this context is that of exceptional financing transactions. These are arrangements made by the authorities of an economy to finance balance of payments imbalances. Exceptional financing transactions may take various forms such as debt forgiveness, external borrowing, debt or equity swaps involved with debt reduction, or transactions related to debt rescheduling and accumulation and repayment of arrears.

5. Specific issues of the international investment position

In this section I will not repeat all concepts that underlie the compilation of an international investment position statement as they conform with those for the balance of

payments statistics as noted above. However, the relationship between these two statistical frameworks should be emphasized again. The international investment position at the end of a specific period shows the financial asset and liability positions of an economy that reflects the financial transactions as recorded in the balance of payments, price changes, exchange rate changes and other adjustments that occurred during the period. Because of consistent classifications throughout the investment income component of the current account, the financial account and the positions of the international investment position reconciliations between stocks and flows and the rates of return on inward and outward external investment may be done.

The international investment position is a useful complementary framework for the analysis of the performance of an economy vis-à-vis the rest of the world. The net position shows what the economy owns in relation to what it owes as of a specific date. The balance of payments on the other hand shows the dynamics in these accounts during a specific period.
The net international investment position combined with an economy's stock of nonfinancial assets comprises the net worth of an economy. It has to be underlined that the net international investment position – the stock of external financial assets minus the stock of external liabilities – does not equal the external indebtedness of a country. The definition of external debt excludes all equity components of the international investment position.

6. Problems with statistical reporting
Numerous examples could be given to underline the difficulty of implementing the theoretical concepts into the practice of statistical reporting. For instance, it may be difficult to find reliable and adequate data sources; estimations may be necessary in order to approximate the theoretical concepts; underreporting might occur which is not always easy to reveal. Some other possible problems have been mentioned earlier such as problems with valuation of transactions or consistent time of recording. I would like to pick out one very specific problem, namely the coverage of reporting. How difficult it may be to obtain a complete coverage of transactions becomes especially evident in the case of transactions where no actual payment is involved, and where as a primary data source reports on cross-border payments are used for the compilation of the balance of payments. Such transactions may include transfers in kind, direct investment in the form of real assets like machinery equipment, imputed transactions that have to be recorded to ensure overall consistency (e.g. reinvested earnings) etc. In this case alternative procedures to collect the data have to be developed in order to maintain the overall usefulness of the data.

Large errors and omissions in the balance of payments may indicate such problems in the statistical reporting and compilation process. Small errors and omissions on the other hand do not guarantee that such problems do not exist as errors in both directions may cancel out. Data users should therefore be aware of weaknesses in the statistical reporting system so that the risk of misinterpretations of data and possibly wrong decision taking will remain small.

Substantial efforts have already been made by the Chinese authorities responsible for the compilation of the balance of payments statistics. Since the introduction of the new balance of payments reporting system in China the quality of Chinese balance of payments statistics has considerably improved and transparency of the behavior of the external sector in China has increased. However, it should be kept in mind that with increased liberalization of international payments the task of statisticians to produce good balance of payments statistics may become even more difficult.