The analysis of the interconnections between the indicators of the external payment balance and the macroeconomic aggregates of results

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ABSTRACT

The payment balance (BP) may be defined, generally, as a statistic image of the international economic transactions between resident and non-resident agents of a country. These transactions are considered during one period of time (year, trimester, month). In spite of its denomination, BP concerns not only the usual payments, but all transactions, even if a part of them does not comprise the cash payments.

Key words: *Payment balance, analysis, components, capital, reserve*

The payment balance – in a specific form, more restraint – represents, in fact, an integrant part of the National Accountability (the account 8 „The rest of the World"). That is why among the indicators of the payment balance and the main macroeconomic aggregates are to be emphasized a series of essential relations for the study of the domestic and external economic imbalances, their financing, as well as their incidence on the economic situation of the respective country.

As consequence, BP represents an element of the National Accountability that allows a complete and detailed framework for the collecting and displaying the international economic statistics of the country.

The standard components of BP are grouped in the following main sections:

- The current transactions comprise:
- exported and imported merchandise (goods) (including afferent distribution services supplied on the territory of the country up to the customs of the respective country); as consequence, evaluation of merchandise imports and exports should be reflected by the FOB prices. This component represents the main aspect of the BP current account (trade balance);
- exported and imported services (traveller and merchandise shipping, tourism, insurance, communication, advertisement etc);
- producer incomes received in foreign countries and those paid to foreign partners as work income (salaries), from investments (dividends) and from ownership (interest);
- transfers in non-countertrade received from outland and given up to foreign partners as: emigrant patrimonial transfer, sendings of the emigrants' funds, donations, inheritances, pensions, free technical assistance, scholarships, taxes, fees etc.;
- Capital and financial transfers reflecting the changes with external financial assets and liabilities comprise:
- capital transfers;
- direct and portfolio investments (bonds, shares);
- granted and received credits on long, medium and short term;
- reserve assets (detained by NBR), representing a distinct category of capital of financial (?), DST, convertible currency etc. These are debts managed by the monetary authorities in a certain economy with the aim to directly finance the imbalances of BP and in order to intervene on the financial currency market to influence the current exchange rate of the national currency;
- other posts (transit accounts, clearing/barter accounts).

There is a third section, „errors and omissions" (net) representing a residual post owed to different causes (sources of uncertain data, currency flee the country etc).

The result of the current transactions represents the current account balance, where the main component is the trade balance. The balance of the capital and financial account is indicating the types of external financing of the current account deficit, with credits, investments and un-blocking of the official reserve funds as the most important.

For the entries on debit, the significances are inverse.

The balance equation of BP is:

$$SCC + SF + E = 0 \quad (1)$$

or

$$SCC = -SF - E, \quad (2)$$

where:

SCC – current account balance of the payment balance measures the net transfers of real resources (goods, services, incomes) and the current transfers without countertrade between one economy and the rest of the world;

SF – financial account balance of the payment balance represents the net foreign saving or the entries of non-residents' savings flows, not mentioning the outputs of the nopn-residents' saving flows;

E – errors and omissions (net).

Between the macroeconomic aggregates and the indicators of the external payment balance (BP) there are some connections regarding which there is necessary to mention certain relations.

As a start, it should be mentioned the identity between offer and goods and services final demand. The total offer of goods and services during a year is made of the domestic output (PIB) and the imports (Imp), while their distribution is made of the domestic aggregated demand, final consumption – CF and gross supply of capital _ FBC, adding also the external demand (Exp).

$$PIB + \mathrm{Im}\, p = \underbrace{Cpv + Cpb}_{CF} + \underbrace{FBCF + \Delta S}_{FBC} + Exp \quad (3)$$

$$PIB = CF + FBC + (Exp - \mathrm{Im}\, p) = CF + FBC + Exp.n \quad (4)$$

where:

Exp.n = Exp – Imp – the clearance sale of the goods and services trade balance (net export).

As it is known, GDP (PIB, here) is defined as gross final production accomplished by the production factors in the internal units (residents and non-residents). The GDP (PIB) structure following the final use offers the most important rates (consumption rate, investment rate, export and import rate). The dynamics of these rates whose evolution emphasize the supporting and supplying factors for the economic development (domestic demand, including the expansion of the branches reliant to the supplies on the external market, as well as external demand).

After 1989, the net export was permanently negative, while the import of goods and services was always in advance. This evolution shows that an increasing significant quota of the domestic consumption was supplied from external resources. This is a tendency which is evidently harder to sustain.

The gross national product (PNB) measures the value of the national final production of the economic agents (residents), in the country and outside, so that to GDP (PIB) adds the balance of the production agents incomes with regard to foreign environment (SVFS).

$$PNB = PIB + SVFS = PIB + (VFIS - VFPS), \quad (5)$$

where:

VFIS – production agents' incomes from outside the country;

CFPS – production agents' incomes paid in other countries.

Based on the sign of the balance, PNB might be bigger or less than PIB. The available national income is obtained id the net national product (PNN) is added to the foreign current transfers balance(STCS).

$$VND = PNB - A + STCS = PNN + (TCIS - TCPS), \quad (6)$$

where:

TCIS – foreign current transfers;

TCPS – current transfers paid to foreign economic environment;

VND – the available income of the economy expressing the economic possibilities for final consumption (CF) and saving activities. It follows that:

$$VND = CF + EN = PNB - A + (TCIS - TCPS) =$$
$$= PIB - A + (VFIS - VFPS) + (TCIS - TCPS) =$$
$$= CF + FBC + (Exp - Imp) - A + (VFIS - VFPS) + (TCIS - TCPS) =$$
$$= CF + FNC + (Exp - Imp) + (VFIS - VFPS) + (TCIS - TCPS)$$

Finally, we obtain:

$$CF + EN = CF + FNC + (Exp - Imp) + + (VFIS - VFPS) + (TCIS - TCPS) \quad (7)$$

or

$$EN - FNC = (Exp - Imp) + (VFIS - VFPS) + (TCIS - TCPS) = SCC = -SF, \quad (8)$$

where:

SCC – the clearance sale of the current account of payment balance represents the difference between the net saving activities and the net investment;

SF – the clearance sale of the financial account of the payment balance representing the external financing manners.

The last equation might be written:

$$EN + SF = FNC, \tag{9}$$

meaning the net investments are financed either fromdomestic savings, or from external financing (credits, foreign investments, un-blockings from the national bank reserves). The disparity of savings – investments of the national accounts indicates the relation between national income and the external payment balance. The previous relation may be supplementary parted into sectors, identifying the specific indicators for the private sector („Companies" and „Population households") and the public sector. To this aim, the final consumption and the gross making of the capital will be decomposed in two component each (Cpv and Cpb, respectively FBCpv and FBCpd), including the calculation and the net governmental incomes TX (Governmental incomes as taxes, less the governmental transfers to the private sector).

$$\begin{aligned} VND - (CF + FBC) &= \overbrace{(VND - TX - Cpv}^{Epv} - FBCpv + \overbrace{(TX - Cpb)}^{Epb} - FBCpb = \\ &= (Epv - FBCpv) + (Epb - FBCpb) = SCC = -SF \end{aligned} \tag{10}$$

Obviously, there is a deficit of the external current account which implies either insufficient private savings relative to the private investments, or insufficient public savings relative to government investments, or both of these two. The importance of this identity should be emphasized. It represents the major constraint for the accounts of an economy, and suggests the relation between the accounts of the accounts of the domestic private sector, the government budget and the current account of of BP. In other words, the amount of domestic imbalances is equal to the current account imbalance. In case the economy absorbs more resources (ABS = Cpv +Cpb + FBCpv + FBCpb) than it absorbs, then, inevitably, it will exist a current account deficit of that country.

The national and international publications frequently emphasize the balance relation between saving activities, investments and BP current account sold (implicitly the external financial sold)BP current account sold (implicitly the external financial sold) is frequently emphasized in rates by relating each indices of GDP (PIB) and GNP (PNB).

$$\frac{EB}{PIB} - \frac{FBC}{PIB} = \frac{SCC}{PIB} \tag{11}$$

or

$$R_{EB} - R_{FBC} = R_{SCC} \tag{12}$$

Evidently, a saving rate less than investment rate will result in an increase the pressure on payment balance.

Conclusions

The distinction between PIB and PNB is important when a great part of the domestic production is realized based on external factors, and when the Romanian economic agents obtain incomes from foreign activities. The magnitude of the external disparity is given by the disparity between the domestic savings which covers only partially the internal investment.

There is underlined the contribution of each sector to the current account deficit generation, thus allowing the analysis of causes and necessary decision making. The deficit/excedent of the payments balance can be influenced through adequate policies that stimulate savings.

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