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DOI: 10.15290/oes.2018.02.92.13

## THE BALANCE OF PAYMENTS ACCOUNTING AS A FACTOR FOR THE MACROECONOMIC EQUILIBRIUM ACHIEVEMENT IN AN OPEN ECONOMY

### Summary

*Purpose* – To study the concept of the balance of payments (BOP) as the main international financial statement of a nation, to identify the causes and effects of its imbalances and the factors of achieving external equilibrium for a national economy, as well.

*Methods* – The theoretical and methodological research is based on systematic, structural and functional analysis, logical abstraction, induction, deduction, as well as comparative and statistical analysis.

*Approach* – The theoretical justification of the relationship between key figures of the balance of payments and the main macroeconomic identities, the research of the balance of payments regulation tools aimed at achieving its steady state as a precondition for open economy equilibrium.

*Findings* – The rationale for choosing the balance of payments regulation policy based on using some theories aimed at searching for an optimal balance or so-called equilibrium between the development of external and internal factors of the economy. Thus, the study has shown that the practical implementation of these theoretical concepts finds its application in various ways of equalizing the balance of payments. The constituent elements of these concepts are the forms of equalization, the level of regulation, the methods and tools of state regulation.

**Key words:** balance of payments, macroeconomic equilibrium, open economy, the balance of payments and external equilibrium regulating tools

**JEL:** B17, F32, F41

### 1. Introduction

Nowadays the problem of macroeconomic balance has not only an internal, but also an external aspect. The solution of a given problem requires one to select the tools for restoring the balance between national output and aggregate expenditures.

External and internal imbalances in the open economy clearly reflect the basic macroeconomic identities linking national income and the total amount of resources that the country has for consumption and investment:

$$GDP = C + I + (X - M) \quad \text{formula (1)}$$

where

- $GDP$  – gross domestic product;
- $C$  – total volume of consumption by residents (both in private and public sectors);
- $I$  – total gross investments of residents (both in private and public sectors);
- $X$  – export of goods and non-factor services;
- $M$  – import of goods and non-factor services.

Adding net factor income from abroad ( $Y_f$ ) – net interest payments, remittances, etc. – to both sides of the equation converts  $GDP$  to  $GNI$  (gross domestic income):

$$GNI = C + I + (X - M) + Y_f \quad \text{formula (2)}$$

Having added net transfers from abroad ( $TR_f$ ) – private (immigrant remittances and unilateral transfers (gifts) and public (official grants) – to both parts of the equation,  $GNI$  is converted into  $GNDI$  (gross national disposable income):

$$GNDI = C + I + (X - M) + Y_f + TR_f \quad \text{formula (3)}$$

From equation 3, you can subtract the consumption and investments the amount of which is equal to the expenditures in the economy or the absorption ( $A$ ) of resources:

$$GNDI - A = (X - M) + Y_f + TR_f = CAB \quad \text{formula (4)}$$

where  $CAB$  – current account of the balance of payments.

Thus, the imbalance between  $GNDI$ , which reflects a country's resources available for expenditure and  $A$ , its expenditures, is automatically reflected in its current account balance of its balance of payments. In cases where the absorption ( $A$ ) exceeds  $GNDI$ , a negative net balance is formed. Since consumption and investment are included in  $A$ , the surplus of both can cause macroeconomic disequilibrium.

Therefore, an excessive negative net balance of foreign economic operations may occur not only in classical cases of excessive consumption, but also in cases of excessive expenditures under the influence of investments.

The above income identities can be transformed by subtracting only consumption ( $C$ ) from both parts of equation 3 to demonstrate the relationship between national savings and investments and, on the other hand, the current account net balance of foreign economic transactions:

$$\begin{aligned} GNDI - C &= I + (X - M) + Y_f + TR_f \text{ or} \\ S &= I + (X - M) + Y_f + TR_f \text{ or} \\ S - I &= (X - M) + Y_f + TR_f = CAB \end{aligned} \quad \text{formula (5)}$$

Thus, the difference between national savings and the economy's investments equals its current account balance of foreign economic operations. The negative net balance of the current accounts of foreign economic transactions takes place when the investment costs of the economy exceed its savings, which makes the economy borrow from external sources to finance the deficit.

As follows from equations 1–5, the disequilibria of the balance of payments of states serve as an indicator of their solvency and liquidity, and the need for financing their deficits is one of the most important factors of the formation of macroeconomic disequilibrium. Therefore, the balance of payments regulation aimed at achieving its steady state is a prerequisite for maintaining equilibrium in an open economy.

## 2. Methods of the balance of payments regulation

The choice of specific methods and instruments for regulating the balance of payments should be implemented taking into account the key provisions of the theory of balance of payments regulation, the specifics of the country's development, the prevailing conditions for the functioning of monetary and financial systems, selected priorities in its economic policy, and also current trends in the development of international payment systems.

According to the research, the balance of payments concept should be attributed to the three main trends in economic theory.

Firstly, the classic-neoclassical approach which provides the equalization of the balance of payments through price changes and currency exchange rate modifications [Marshall, 2007; Hume, 1996].

Secondly, Keynesian and Neo-Keynesian concepts, according to which the process of restoring external equilibrium includes equalization in shares, employment, and production, regardless of any changes in prices [Keynes, 2008; Petty, Smith, Ricardo, Keynes and Friedman, 2000; Keynes, 1936; Meade, 1951].

And thirdly, the monetarist theory within which the balance of payments is viewed as a monetary phenomenon [Friedman, 1953; Johnson, 1972; Johnson, 1977; Johnson, 1972, pp. 1555–1572; Sohmen, 1961].

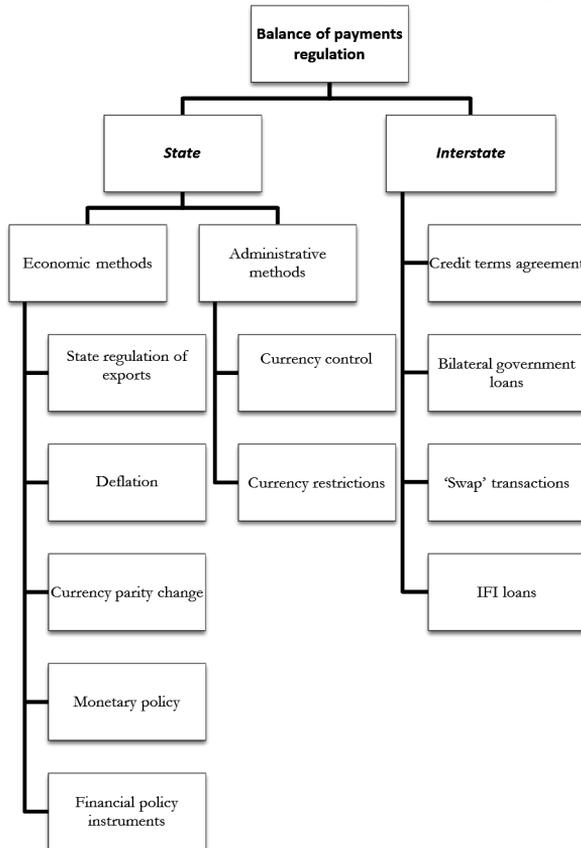
Practical implementation of theoretical concepts finds its application in the variety of ways to leverage the balance of payments. Herewith arises a complex dilemma whether to 'balance (*finance*) or to *regulate*', that is, to choose between the two alternatives, either to cover the existing negative net balance or to apply a policy aimed at preventing this negative net balance and reducing its size.

The study and generalization of the theoretical basis allows to look at the *state regulation of the balance of payments* both as a set of economic, monetary, financial, and credit measures of the state aimed at the formation of its key balance-sheet items.

Depending on the currency and economic situation and the state of a country's international settlements, various *methods of the state regulation of the balance of payments* are used aimed at stimulating or restricting foreign economic operations.

The generalization of the international practice of the balance of payments regulation proved [Zhuk, 2010, p. 120] that in fact the choice of measures of **state influence** is reduced to two main groups (figure 1).

**FIGURE 1**  
**Methods of a country's balance of payments regulation**



Source: proprietary solution.

The first group is **the economic methods** of the balance of payments regulation which have an indirect nature. Applying them the state creates not the balance itself but only the conditions that, in turn, will influence the processes leveling the balance of payments. Their specific feature is to regulate the level of the state of the balance of payments by influencing various economic

variables such as supply-and-demand balance, domestic prices, incomes, borrowing interest rates.

International practice proves that countries with a *balance of payments deficit* usually use *tools* that stimulate exports, check imports, attract foreign capital and restrict capital outflows. Thus, at the stage of the sale of goods we usually perform export stimulation by the impact on prices (providing the exporters with tax and credit benefits, changes in the exchange rate). In long-term conditions we create exporter concernment in performing export of goods and the development of foreign markets, by: firstly, state target export credits, insured against economic and political risks; secondly, introducing a preferential capital depreciation regime; thirdly, providing the exporters with other financial and credit benefits in exchange for an obligation to fulfill a certain state export program.

Since the negative net balance of payments is considered an indicator of inflationary expansion of the money supply, the excess of which does not correspond to a real increase in public value but increases prices in the country and indirectly (through the reduction of national competitiveness) or directly (through capital outflow) creates or exacerbates the external disequilibrium, a deflation policy is widely applied to fight it. This policy aimed at reducing domestic demand includes budget restraint primarily on public purposes, freezing prices and wages.

A policy of deflation leads to a deeper production drop and unemployment in the conditions of economic recession and persistence of a high unemployment rate and unused production capacities. A situation like this with no compensatory measures taken implies a decline in living standards and threatens to exacerbate social conflicts.

One of its most important tools are financial and monetary measures, that is, a decreased budget deficit, changes in the discount rate of the central bank (discount policy), an increase or decrease in standards of emergency funds for the banks, which are in fact changes in their liquidity level and sales and purchases by central financial authorities of government securities in the so-called open market.

With an *active balance of payments* economic regulation instruments are used to expand imports and deter exports of goods, increase in export of capital (credits and assistance to developing countries), and restrictions on the import of capital.

For instance, such countries as Austria, Canada, China, Germany, France and Japan actively engaged in the export of both direct and portfolio capital; in order to reduce the surplus of the balance of payments. These countries have become the largest investors in other countries.

With the active balance of payments, economic regulation instruments are used to expand imports and deter exports of goods, increase the export of capital (including credits and assistance to developing countries), and restrict the import of capital.

It should be noted that an active balance is easier to adjust than a passive one.

Finally, an extreme instrument for equalizing the balance of payments is a change in the parity of the currency (under a fixed exchange rates system). A country experiencing a chronic deficit in external settlements can find itself forced to devalue its currency, and a country with an active balance can protect its economy from an adverse effect of the external market by means of revaluating its currency.

It is obligatory to outline the fact that a change in the parity of the currency entails a number of adverse consequences, the effectiveness of which is determined by the specific conditions of the conduct and the accompanying economic and financial policies. In current conditions, the combination of state influence on external settlements and flexible exchange rates is an attempt to resolve the contradictions of state regulation measures and to make state regulation more efficient.

The second group – **administrative methods** for regulating the balance of payments – is a non-market intervention in the sphere of international economic relations. Foreign currency control and currency restrictions act as a tool for administrative methods of regulation.

Foreign currency control provides the observance of currency legislation by means of checking currency transactions of both residents and non-residents. Within this process the availability of licenses and permits, residents' compliance with requirements on selling a foreign currency in the national forex market, the validity of payments in a foreign currency, the quality of accounting and reporting on foreign currency transactions are checked.

Foreign currency restrictions are a legal or administrative ban, limiting and regulating transactions of both residents and non-residents with foreign currency and other currency values.

They include:

- regulation of international payments and transfers of capital, repatriation of export earnings, profits, movement of gold, bank notes and securities;
- prohibition of foreign currency exchange operations;
- governmental concentrated system of regulation in exchange operations and other currency values: payment documents (checks, bills of exchange, letters of credit), securities, precious metals.

The forms of foreign currency restrictions reflect their essence and structure and differ in the areas of application. **Current balance-of-payments transactions** practice their following **forms**:

- blocking foreign exporters' proceeds from the sale of goods in a given country, limiting their ability to dispose of these funds;
- mandatory selling of foreign currency proceeds by exporters wholly or partly to central and authorized (motto) banks possessing a foreign exchange license of the central bank;
- a limited selling of foreign currency to importers (only if there is the per-

mission of the currency control body). This practice in the world is known as “import deposit system”;

- restricted purchasing of forwards by importers of foreign currency;
- banning the sales of goods abroad in national currency;
- banning payments for some imported goods in foreign currency;
- regulating the terms of payments on exports and imports with the development of ‘leads and legs’ transactions in a volatile environment of foreign exchange rates;
- multiple foreign exchange rates.

**Forms of currency restrictions on financial transactions** depend on the direction of capital movement regulation.

*With the passive balance of payments* various measures are applied to limit capital outflows and stimulate capital inflows in order to maintain the exchange rate.

*With the active balance of payments* some measures are taken to constrain both capital inflows into the country and the appreciation of its national currency exchange rate.

An analysis of the practice of regulating the balance of payments shows that under current conditions in the development of the world economy there is a tendency to reduce the application of currency restrictions. But the state always keeps currency control for regulation and supervision of current accounts and capital transactions of the balance of payments.

The globalization of the world economy and insufficient efficiency of the national regulation of international payment relations have led to the need for developing common interstate standards of conduct in the area of balance of payments equalization. To this end the leading countries are developing methods for its collective regulation through the harmonization of terms and conditions for export government loans, the use of bilateral government loans, short-term mutual loans of central banks in national currencies under ‘swap’ agreements, and loans from international financial institutions primarily from the International Monetary Fund.

These facts indicate that since the mid-1970’s of the 20th century the development of **interstate regulation of the balance of payments** has started.

As the study showed, the coverage of the current net balance is not the same in different countries.

In search of the sources of balance of payments deficit reimbursement the *developed countries*, as a rule, mobilize funds in the world capital market in the form of loans from bank consortia and bond loans for attracting direct and portfolio investments, and also use short-term loans under ‘swap’ agreements mutually provided by central banks in their national currency.

As a result of attracting foreign investment a positive balance of income is formed, which allows this group of countries to repay a considerable part of the trade balance deficit.

For financing the negative balance of payments *states with emerging markets and developing countries* traditionally use IMF reserve (unconditional) loans, bank

loans, mainly short-term, concessional loans through foreign assistance, which increase the external debt of this group of states.

The active net balance of payments is used by countries for repaying the country's external debt (including long-term), for granting loans to foreign countries, for exporting capital to create a second economy abroad.

The final rebalancing is carried out by the state if its own reserves of international means of payment – gold, foreign currency reserves, special drawing rights (SDR) – are spent or replenished. Obtaining or granting external loans and using them as a means of exchange policy to bridge a negative or positive gap in external payments means a temporary balance of payments equilibrium, which necessitates a final settlement in the future.

Thus, equalizing the balance of payments has now become much more complicated, its instruments have expanded and its application has become systematic together with other forms of economic policy. The considered balance of payments measures of equalization seem to be the basis for working out possible directions to achieve macroeconomic equilibrium in an open economy.

### 3. Conclusions

As a result of the conducted research the following conclusions can be drawn.

The practical implementation of theoretical concepts finds its application in various ways of equalizing the balance of payments which is advisable to present in the form of a system.

Its constituent elements are forms of equalization (regulation and equilibrium); regulation level (national and interstate); methods of state regulation (market and administrative); regulation instruments (monetary and financial policy measures, currency parity change; export promotion; currency control and currency restrictions; coordination of lending terms; bilateral government loans; 'swap' transactions; loans from international financial institutions).

The considered and combined ways of equalizing the balance of payments (figure 1) seem to allow an open economy to achieve both internal and external equilibrium.

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