THEORETICAL ASPECTS CONCERNING THE INFLUENCE OF MACROECONOMIC SHOCKS ON THE EXTERNAL EQUILIBRIUM

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Abstract
Given the increasingly stronger international interdependences between countries in the current period, the external equilibrium of a national economy depends not only on the domestic macroeconomic conditions, but also on the propagation of macroeconomic shocks that change more or less its relationships with the countries in the region and, in particular, with its partners. Based on the identification of potential macroeconomic shocks, this paper[167] aims to highlight by analysis and comparison how these shocks affect the external equilibrium of an economy, starting from the assumption that the causes of the change in the influence factors of the balance of payments may represent shocks which have impact on the external equilibrium of that economy. The analysis shows that each account of the balance of payments is affected by several elements, and therefore the effects of macroeconomic shocks on the external equilibrium can be often mixed, hardly identifiable as favorable or unfavorable.

Keywords: *balance of payments, economic openness, macroeconomic shocks, financial and capital flows, external equilibrium*

JEL classification: *F15, F21, F31, F36*

INTRODUCTION

In a highly globalized world, the interdependences of an economy with the others countries of the world have effects on its external balance. Often, these connections create channels for the distribution of macroeconomic shocks in the economy, with complex effects.

The draft of this paper started from several premises. First, according to the authors, the macroeconomic shock represents an impulse generated by an event (decision or conflict of political, economic, social, etc. nature) having a major impact on the economic system by producing in time and space disturbances of the economic activity (Milea et al, 2012). Second, adapting the concept of macroeconomic shock to the balance of payments, the changes of factors that influence the balance of payments can represent macroeconomic shocks for the external equilibrium of an economy, to the extent that they have a significant impact.

On this basis, the paper aims to identify a few potential events that may occur at macroeconomic level and that generate important disequilibria in the balance of payments, and to this end, the analysis starts from several factors considered relevant, which may influence the balance of payments. Among the factors related to the structure of the real economy, we have considered: the openness of the economy, the terms of trade, and the trend of world trade, the consumption pattern, the endowment

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with production factors, the labor productivity, the foreign investments, the imports and exports structure, the migration of the work force, the scientific research. Among the factors related to the structure of the nominal economy (the characteristics of the financial sector and the financial flows) we have considered to be relevant for our analysis: the financial market development and the access of export industries to financing, the relative level of foreign prices against domestic prices, the level and the accessibility of loans, the differential between domestic and international interest rates. Among the factors related to the economic performance of the economic environment we have chosen: the financial relationship of the government with the international environment (the government indebtedness, the government's access to international funding), the general government balance, the exchange rate stability, the nature and rhythm of economic development, the level of external debt, and the level of domestic saving. Other relevant factors are those related to the infrastructure of the economic policy environment: the domestic macroeconomic environment and the characteristics of the internal political environment.

FACTORS OF INFLUENCE OF THE BALANCE OF PAYMENTS AND POTENTIAL MACROECONOMIC SHOCKS

A high level of economic openness makes the domestic environment more vulnerable to external shocks' propagation. The adoption of treaties, the joining the monetary, trade and commercial unions, the change of the domestic political regime represent possible shocks that affect the openness of an economy, and thus the external balance. These shocks have as result changes in domestic and foreign demand, with influence on the volume and structure of exports and imports of goods and services.

The terms of trade, as a factor influencing the balance of payments, may be affected by the outburst of a financial and economic crisis and by the political instability existing either domestically or internationally. These shocks involve changes of the exchange rates (appreciation or depreciation of the national currency), which modify the prices and structure of exports and imports, and thus, generating variations in exports and imports of goods and services.

The evolution of world trade may be influenced by shocks such as natural disasters, armed or political conflicts, through affecting the distribution system; by a change of political regime (e.g. a closed country gets a certain degree of openness or vice versa); by the effects generated by a financial crisis (the economic recession) that cause changes in the structure and level of demand; by the discovery of deposits of raw materials and the decision to exploit them. All these events represent shocks for the external equilibrium to the extent that they result in changes in world demand and/or supply, and hence in the structure and volume of exports and imports of goods and services. The net effect on the current account balance depends on the percentage of imports, respectively exports variation.

The consumption pattern is usually a factor, which represents the consumers' habits that change over time. A situation rarely encountered in reality, which we present here for better understanding, is that of a country closed in terms of trade, capital flows etc., which after joining a union, changing its political regime, signing a treaty of cooperation opens up its economy. As a result that country records a significant change in the consumption structure, in the preferences of the domestic consumers (following the "invasion" of the partner countries' culture), having as consequence the increase of imports, but also the change of their structure. Changing the consumption pattern may be also the consequence of the occurrence of technological shocks due to innovations with impact on the consumption habits. Thus, a good replaces another for several reasons: it is more useful, it performs more functions, it is easier to use, to be manufactured or to be transported, it responds to unsatisfied needs, and it is obtained at lower costs. Under these conditions, the changes in consumption pattern are reflected in the trade balance and balance of services.

Among the shocks affecting the external equilibrium from the perspective of the endowment of an economy with production factors there are natural cataclysms (which destroy the infrastructure and the distribution system with negative effects on trade flows); the collapse of a major bank or a financial institution with many links in the economy. The emergence of such shocks has negative consequences on trade and on the investors' risk appetite, which may increase the interest rate of foreign loans, and hence the public and private debt service, which may induce also the reduction of foreign investment inflows or even the withdrawal of capital from the country. This will adversely affect the external equilibrium through the deterioration of the trade balance, the balance of "income from other capital investments (interest)" account and the balance of "direct investment" and "Portfolio investment" accounts. Also, the discovery of deposits of raw materials and even the decision to exploit a deposit change the structure and the quality of endowment with production factors that may influence the external equilibrium of an economy. Thus, the increase of the resources available to a country will have as consequences the reduction of its imports with positive impact on the trade balance. If the price of an important resource increases (e.g. oil), the current account balance of oil-importing countries will deteriorate and the current account balance of oil exporting countries will improve.

A technological innovation may represent a shock with impact on the productive activity, which induces the increase of labor productivity and hence of exports, causing an improvement in the trade balance and the balance of services account. Also, an increase in labor productivity can attract investors (foreign and domestic) due to the perspective of obtaining higher profits, resulting in both increased domestic economic activity (and hence, increased exports and diminished imports) and increase of foreign investments inflows, with negative impact on the balance of "investment income" account and positive effects on trade and services account balance. In the capital and financial account, the increase of capital inflows will be recorded in the "direct investment" and "portfolio investment" accounts.

The bankruptcy of a major financial institution or of an institution with many financial relations produces "freezing" of the financial market, influencing negatively the real economy, the productive and commercial activity, and also the financial flows. This shock on the financial market affects negatively the current account, namely the balance of trade and the services account balance, the balance of "investment income" account (as it increases the risk aversion of investors, and they tend to withdraw capital and profits from the economy with financial market problems). If the investors perceive the situation as extremely risky, they withdraw completely their investments from the country, being recorded capital outflows through the "direct investment" and "portfolio investment" accounts of the capital and financial account, which will record negative balances.

Among the shocks affecting the evolution and the stability of the exchange rate there are the exchange rate regime change. In the new Member States of the European Union with flexible exchange rate regime, the exchange rate regime change may occur as a result of their entry into ERM II, which represents a fixed exchange rate mechanism. The major economic problems (e.g. entry into recession), the social riots that cause political instability represents also shocks that influence the exchange rate trend. Sudden and long time currency fluctuations in case of a flexible exchange rate regime affect trade and capital flows, the level of the external debt and the terms for obtaining external loans. Thus, foreign direct investments are affected due to investors' risk appetite. Thus, the capital leaves the country, which has major exchange rates fluctuations. The interest rate of foreign loans is directly proportional with the stability of the national currency. In case of currency fluctuations, the international funding conditions worsen not only in the sense of interest rates rise. If the exchange rate fluctuations are moderate, their effects depend on the direction of the exchange rate movements. Thus, the exchange rate depreciation causes outflows of capital from the country, the increase of the national value of credits to be returned, the increase of the debt burden and thus the increase of the capital and financial account deficit or the reduction of the capital and financial account surplus. Domestic currency appreciation causes increased capital inflows and/or lower capital outflows and the improvement of capital and financial account balance.

Trade exchanges are affected in terms of income levels. Thus, in case of exchange rate depreciation, profits of importers decrease. They can even record losses, while exporters enjoy improved sale terms. National currency depreciation increases the domestic prices of imported goods, resulting in inflation. Domestic currency appreciation has opposite effects.

Therefore, only a strong and lasting volatility of the exchange rate may have only negative effects, resulting in increased uncertainty of the economic environment, which leads to reduced investment inflows, and the fluctuation of the foreign trade income.

Shocks on the level of foreign investments may be: the change of domestic investment policy (through macroeconomic policy decisions); the political instability (investors' risk aversion increases and inflows of foreign investment decrease); the economic and financial crisis (investors' risk aversion increases, liquidity reduces and FDI inflows decrease); capital account liberalization (leading to an increase of capital flows); political regime change (closing or opening a country to the world); the exchange rate regime change; foreign creditors mistrust demonstrated by massive withdrawal of liquidity.

Foreign direct investments contribute to the financing of the current account deficit, representing foreign capital inflows recorded in the capital and financial account.

In addition, foreign direct investments can have a significant and immediate positive impact on the external financial position of the recipient economy (measured by the current account balance) and its development prospects due to their potential impact in terms of management, technological and restructuring process, resulting in the improvement of the structure and quality of exports.

Also, foreign direct investments can induce an improved perception of foreigners on the host economy, thus contributing to the emergence of other positive consequences, such as reduction of external borrowing costs, access to a wider range of financial instruments and more stable capital flows.

The existence of internal political tensions is a shock of the domestic political environment. These tensions affect negatively trade, the confidence of foreign investors (by stopping capital inflows into the country and eventually generating massive withdrawals of capital), the conditions for obtaining foreign loans (the interest rate rises and getting the necessary funds becomes more difficult).

The existence of vulnerable elements in the macroeconomic environment can lead to a shock of distrust regarding the "safety" of investments, affecting foreign investors' confidence (capital inflows can stop and massive withdrawals of capital may occur), and also trade relations of exporters and importers (in a negative direction) and the conditions for obtaining foreign loans (also in a negative direction). These developments affect in the current account, the trade balance, the services account balance, the "direct investment income", "portfolio investment income" and "income from other capital investments (interest)" accounts and in the capital and financial accounts, the balances of "long term loans and credits", "credits and loans from the IMF", "direct investment" and "investment portfolio" accounts.

The following shocks may affect the financial relationship of the governmental authority with the world: the uncertainty shock propagated in the financial market; the domestic economic problems; the domestic political instability. They generate the same effects on the external equilibrium. Thus, the existence of any of the above-mentioned shocks generates sudden increase in interest rates on government bonds. They are no longer attractive, so their price decreases, due to the high risk that they hold, generating risk aversion. As a result, the interest paid for public foreign loans will increase. This is recorded in the debit of "income from other capital investments (interest)" account of the current account, adversely affecting the external equilibrium. Additionally, obtaining foreign loans will become more difficult in terms of the conditions requested by lenders. External constraints (another shock) affects domestic economic policy measures, and thus the pace and level of economic development.

The general government budget balance can be influenced by turbulences in the financial markets which affect the cost of external borrowing upwards, with negative impact on the balances of "portfolio investment income" and "income from other capital investment (interest)" of the current account, in the direction of outflows increase, and thus of growing current account deficit. The periods of crisis and the economic vulnerabilities lead to lower budget revenues and expense accruals, generating the risk that the budget deficit increases over the sustainable level and implicitly the risk of inability to repay the debt. The effects on the capital and financial accounts would be the increase of foreign loans and portfolio investment inflows, namely the increase of the capital and financial accounts surplus at the time of obtaining the foreign funds, and the reduction of the capital and financial accounts surplus at the time when foreign capital is returned. Also, the change of the exchange rate regime may be a shock for the general government budget balance. The effects will be felt in the level of the external debt and its costs according to the change produced. The influence of the transition from a flexible to a fixed exchange rate regime depends on the level of the chosen fixed exchange rate. If it is lower than the exchange rate having existed during the flexible exchange regime, the external debt and its costs will decrease. The shift from a fixed to a flexible exchange rate regime will lead to fluctuations in the level of external debt and its costs. In case of currency depreciation, the external debt and its cost will increase. The currency appreciation will have the opposite effects.

The nature and pace of economic development may be disrupted both by external demand shocks affecting export-oriented economy in the sense that exports shrink and trade balance and services account balance worsen, and by the external supply shocks, manifested through increased prices of import products, affecting consume-oriented economy, in the direction of consumer spending increase, of inflation rise, of imports boost and of trade balance and services account balance deterioration.

The structure of imports and exports may be affected by a supply shock (e.g. political instability, natural disaster) manifested through increased prices of productive resources, affecting the economies dependent on imported resources. Thus, either they reduce imports of those resources with downwards effects on production and exports, or they will continue to import the resources necessary for the production and higher prices of raw materials will be found in the price of the products that include them, leading to reduced demand for these products and hence of exports. These effects will be felt through the deterioration of the trade balance, and thus of the external equilibrium.

The relative level of foreign prices against domestic prices can be influenced by technological shocks, such as innovations or exploitation of newly discovered resources. These shocks are positive because they contribute to the reduction of prices and of the imports of those resources, with positive impact on the trade balance through exports increase and possibly through imports reduction, but also due to increased economic independence of that country. A negative shock can be the increase of foreign prices (e.g. oil prices), which is reflected in higher prices of imported products and thus in the worsening of the trade balance. Increased domestic prices may encourage outflows and possibly discourage inflows of foreign capital, as investments, if interest rates remain unchanged. So, the rise of domestic prices will turn external equilibrium into deficit, for the given level of interest rate and national income. External prices increase may encourage inflows of foreign capital and possibly discourage outflows of domestic capital if interest rates remain unchanged. So, the rise of external prices will turn external equilibrium into surplus for the given level of interest rate and national income. The relative level of prices affects also inflows and outflows of compensation of employees and direct and portfolio investment income. Thus, if in an economy domestic prices are higher than those abroad, the labor force working abroad will not want to repatriate its earnings in the national economy to buy goods at higher prices than those from other countries. Similarly, non-resident investors who obtain profits in that country do not want to keep their profits in a country where they buy goods and services more expensive than abroad.

A shock on labor force migration is activity shrinkage in the destination economy of migrant workers, leading to a reduction in remittances from abroad, recorded in the current account, in the "compensation of employees incomes" and "current transfers" accounts, with negative effects on the current account balance.

The level of external debt can be influenced by shocks such as: the external debt defaults, the international financial crisis, the change of the political regime or ruling party and the change of the exchange rate regime. The first three shocks cause the deterioration of the international financing conditions, the rise of the interest rates on foreign loans obtained by private and public sectors, with impact in the direction of worsening on the "incomes from other capital investment (interest)" account. The financial crisis, through its effects of reduction the international liquidity, affects also the level of external loans that may be contracted, reflected in the capital and financial accounts balance, on the accounts of "long-term loans and credits" (liabilities). The change of the exchange rate regime may lead to variations of the levels of the external debt and its costs according to the change having taken place. Thus, switching from a fixed exchange rate regime to a flexible exchange rate regime will lead to fluctuations in the level of external debt and its cost. If the domestic currency depreciates, the foreign debt and its cost will increase, while the domestic currency appreciation will have opposite effects. The influence of the transition from a flexible exchange rate regime to a fixed exchange rate regime depends on the level of the chosen fixed exchange rate. If it is higher than the prevailing exchange rate during the flexible exchange rate regime, the external debt and its costs increase. The higher is the external debt, the higher is the economy's vulnerability to external shocks.

The level of domestic saving may be affected by a major financial crisis, with complex impact on the real economy. If the level of savings is low, there is the risk of increasing foreign capital inflows in the form of loans, in order to support the domestic economy and therefore the capital and financial accounts surplus rises. At the same time, the current account deficit rises. Also, low national savings have the effect (through the increase of foreign capital inflows) of outflows growth of "direct investment income", "portfolio investment income" and "income from other capital investment (interest)" which will bring the widening of the current account deficit when the foreign capital will reach maturity and/or it will generate profits. The decline in the national saving will prevent the growth of domestic production, which can generate export reduction, and implicitly the worsening of the trade balance and external equilibrium.

The level and availability of credits may also be affected by the financial crisis, by the collapse of a major bank, by the financial market turmoil. The shrinkage of loans granted generates lower investments and consumption, with opposite effects. Thus, lower investment increases current account deficit, and lower consumption generates the reduction of the current account deficit, if domestic demand is met by foreign products.

The financial shock, the collapse of a financial institution or generally an uncertainty shock on the financial market that cause an increase in risk aversion is reflected directly in the level of interest rates on various financial market segments, increasing the differential between them, which has effects on capital flows, either in the direction of inflows increase if domestic real interest rate is higher than the international real interest rate or in the direction of capital outflows, in the opposite situation.

These phenomena are recorded in the current account in the balance, credit and debit of "income from direct and portfolio investment" and in the balance, credit and debit of "income from other capital investment (interest)", and in the capital and financial accounts in the balance, credit and debit of "direct investment", "portfolio investment", and "long-term credits and loans". Also capital flows affect productive activity, so the external equilibrium is influenced also through the effects on trade balance and services account.

CONCLUSIONS

Given that we live in a highly globalized world, where there exists a comprehensive system of economic, social, political, cultural interdependences, the analysis shows that there are a lot of economic, monetary, financial, technological, commercial, psychological, political environmental, etc. factors that influence the evolution of the various subcomponents of the balance of payments. Thus, each account of the balance of payments is affected by the action of several elements.

In addition, the experience of the recent years has shown also the complex effects developed on the financial markets, as a result of the global financial and economic crisis. In these circumstances it is difficult to determine the causes of a certain evolution of the balance of payments. Thus, we can notice that, in general, the effects of macroeconomic shocks on the external equilibrium can be often mixed, hardly identifiable as favorable or unfavorable. The visible result in the balance of payments, even only on a subdivision, is reflected through the net effect. But the balance of that subdivision of the balance of payments, in addition to the identified macroeconomic shock, is affected by other significant influences caused by the simultaneous emergence and influence of other factors, so that any identified shock can have an ambiguous effect on the external equilibrium. For example, a shock that generates the decrease in external demand does not necessarily cause the deterioration of the balance of goods and services of a country. If imports also decrease significantly, the reduction of exports may be ignorable as final effect. However, our scientific approach can prove extremely valuable if it is understood that the impact strength of every shock determines an adverse effect over the external equilibrium, no matter whether it occurs on the short or long term, immediately or gradually.

The analysis of the external equilibrium, of the way it changes due to domestic or external influences and/or shocks may represent an important benchmark in determining the "health" of an economy. The external equilibrium is the "membrane", the "access path" of possible serious imbalances over an economy and its study, the study of its influence factors, of the shocks, of the mechanism and the transmission channels of macroeconomic shocks over the external equilibrium should not be neglected. Moreover, some apparently insignificant or transient disequilibria of the balance of payments may signal future major problems of an economy, so that a large or a rising current account deficit, while the private sector net saving is negative, indicates a significant or an increasing budgetary deficit.

In this respect, clarifying the way an economy operates and the modalities to achieve external equilibrium should be at the heart of the policies implemented at national, regional or global level.

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