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THE STRUCTURE OF FOREING FUNDING AND CRITICAL DEFICIT IN THE ECONOMY OF EMERGING COUNTRIES

1. Introductory note

In an analysis of the structure of funding a current account deficit, what becomes remarkably important is the distinction between the effect of capital flights and the influence of factors being merely a reaction of national economic sectors in a response to the regulatory operations of economic administration of a country. Therefore, strengthening and increase of payments deficit of rising economies should be interpreted as a reaction of national subjects to impetuous directions of foreign capital expansion in connection with an awaited improvement of economic situation in the market, or to the rise in prices of goods and national assets or growth of interest rates and national inflation.

On the other hand, an excessive growth of payments deficit may also signify a low efficiency of regulatory operations conducted in the field of international capital and financial turnover in the rising economies. Neglecting the role of regulatory institutions causes slackening of financial discipline and it gives impetus to a spiral of foreign debt in the range of maximum payments deficit.

The aim of the herein paper is an attempted model analysis of maximum payments deficit in the conditions of liberalized financial markets and limited range of institutional regulation in the economy of rising countries. In order to do that we shall consider the hardly perceptible borderline between the size of a safe payments deficit (possible to keep in a long period) and the maximum deficit risking unanticipated, shock correction of the current account in a short period.

Rising economies permanently maintaining high payments deficits are usually perceived as less reliable from the perspective of their solvency. They are assumed to be structural deficits since international competitiveness of those

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economies has been remarkably weakened, or that due to financial liquidity they require additional subsidies and a strong support from international institutions or governments of highly-developed countries. Between the situation of rising economies that are already deep in payments crisis and those which still keep a safe level of deficits, there still exists some margin of tolerance of growing payments deficits. It can be defined as a critical sphere determined by the size of maximum payments deficit. The critical sphere is defined as a size of critical deficit which does not yet constitute a hazard for the continuity of international funding, but the exceeding of which prevents the realization of the former level of current account of the country.

2. Critical payments deficit

The concept of critical payments deficit is broadly discussed in the world literature (Doisy N., K. Herve, 2000; Milesi-Ferretti G.M., A.Razin, 1998; Reisen H., 1998), but rarely used in the practice of formulating aims of economic policy of developing countries. Meanwhile ignoring of critical meaning of the level of payments deficit as an essential determinant of stable financing of economies of developing countries and the social-economic structure undergoing fast transformation may evoke dramatic consequences for the macroeconomic balance. Even keeping the balance in the short period becomes impossible without providing the national economy with permanent inflow of foreign capital. The example of pitiful results of economic perturbations in the Central-Eastern Europe is the situation of some Baltic countries (Latvia, Lithuania), and also Bulgaria, Romania and Hungary (not to mention Ukraine or Belarus) in the present phase of the world financial crisis (Najlepszy E., Sobański K., 2010). Those countries, as a result of conducting a large-scale liberalization of capital turnover, having accepted a policy of high current deficits, have been deprived of illusion of deregulation in a dramatic way, contending with the worst effects of shock correction of balance of payments calculations. The delayed move away from that policy was undoubtedly caused by the lack of intensive attention paid to trends of critical amount of payment deficits, which were no longer financed by foreign investors in the conditions of rising disruptions in the financial markets. Critical deficits, therefore, exceeded limit amounts that could not be afforded by the economies of those countries, due to dramatically rising credit risk and the worsening international net investment position[1].

[1] For example the relation of deficit of current turnover to GDP worsened in 2003–2008 in Bulgaria by nearly 30% to the level –20,5%, Lithuania by 41,6% to the level –12,1%, Latvia over 56% to the level –14,9%, Hungary by 14% to the level –9,5%. In consequence there appeared difficulties with refinancing of their foreign debt, which made those countries use part of the

There are two key items of the balance of current account that influence the critical amount of payment deficits. The first one, of special importance, is the level of trade deficits which is a result of too slow development of export of goods and services in relation to the size of import of essential production means, technology and services, the purchase of which is an essential condition of improvement of international competitiveness of the country's economy in the world market. The quick rise in competitiveness of export sector in rising economies may be however realized due to the possibility of financing of the growth of current account deficit in the longer period.

The second position of the balance of that calculation is defined by deficiency of capital income in relation to the current expenditure on account of the engaged in that country foreign liabilities. The maximum amount of that deficiency is a derivative of the state of international net investment position and a possible change of rate of national currency (appreciation/depreciation of currency elements of assets and liabilities of the balance of payment). An important factor correcting the level of critical deficit may appear to be unilateral net international transfers both official and private ones (in the countries of Economic and Monetary Union, the subsidies and other transfers from the European Union budget are of larger and larger importance).

Those volumes of balance of payment calculations will be referred to subsequently as to operating (trade) and financial (capital) critical deficit as the one directly connected with payments of current net trade liabilities and the costs of the service of foreign capital engaged in the economic development of the country.

The payments deficit is therefore caused by the surplus of current foreign expenditure over foreign income and it is dependent on the outcome of flows of financial streams in both directions displayed in the capital part of the balance of payment i.e. on the account of financial and capital turnover. The capital flow surplus financing critical current account deficits may be however presented in two separate positions. The first one is the inflow of net capital funds, which finance investment expenditure of the country, improving the competitiveness of the international economy in the long run (in particular export sector). The volume of foreign investment capital flowing into the country is correlated with its expected rate of return and regulatory operations of government administra-

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reserves of the central bank. In order not to allow for the total depletion of currency reserves, the governments of Latvia, Estonia and Hungary turned to international financial institutions for exceptional help in the form of middle-term loans. In view of the worsening payment situation, also Polish government preventively put forward a motion to move so called flexible credit line for the sum of 20,5 mld USD. In a particularly difficult debt situation were Belarus and Ukraine whose deficits reached 53% and 61% GDP respectively at the turn of 2007 and 2008. They are seeking 'reparatory' programmes of the International Monetary Fund, credits from the World Bank, EBOR and other international financial institutions.

tion. The other position is the increasing inflow of portfolio capital connected with the volume of potential bonus for the risk, diversification of international portfolios of investors and the extent of deregulation of national financial market, in the conditions of awaited economic situation in the rising markets. Although that part of the flows surplus is the least stable element of positions financing payments deficit and it mostly constitutes an element of speculative 'game', it contributes remarkably to the improvement of the short-term financial liquidity of the country. It is of crucial importance in the case of sinking of some short-term liabilities (e.g. derivative instruments) not predicted earlier by speculative investors or financial markets sensitive to the changes of sentiment.

In the case of lack of capital flows surplus, financing of the balance of payments deficit must be performed at the expense of a fall of the volume of net reserve assets, which usually takes place in an exceptional case (e.g. currency crisis). Historical experience of developing countries shows that the minimum, safe volume of net official reserves should be high in those economies which permanently maintain high current account deficits (K. Rybiński, M. Sowa, 2007). In those cases, however, high accumulation of reserve liabilities shall constitute additional protection for the liquid service of the rising foreign debt of the country.

All in all, the limits of financing payments deficits are defined by the sum of subsequent parts of surpluses of foreign capital flows and the change of state of reserve assets in a given period.

$$\Delta CA_{\max} = \Delta CF_{\min} + \Delta FF_{\min} + \Delta RES_{\max} = CFB_{\min} + \Delta RES_{\max} \tag{1}$$

where:

$\Delta CA_{\max}$ – critical (marginal) payments deficit,

$\Delta CF_{\min}$ – minimum increase of positive balance of capital flows (direct and portfolio investments and other investments),

$\Delta FF_{\min}$ – minimum growth of positive balance of financial flows (short-term settlements, short-term investments, derivative instruments)

$CFB_{\min}$ – Total marginal surplus in the balance of financial and capital flows,

$\Delta RES_{\max}$ – maximum fall of reserves assets.

Within the range of critical payments deficit, national economy is able to keep external balance (finance rising foreign expenditure) in the conditions of rising pace of GDP growth. Once the payments deficit starts to fall below the critical volume, economy becomes more competitive and gains trust of international financial markets. It is thus able to export more attractive goods and services and achieve further benefits resulting from the improvement of international investment position. Since international credit reliability of the economy is rising, direct and portfolio investments appear more quickly and foreign banks simplify current funding. However having exceeded some limit point (threshold), marginal increases of flowing foreign capital start to fall. On the one hand the intensive flow of capital from international financial markets is held back by the fall in earnings performance of foreign investments, and on the other hand – it is hindered by the growth of costs of service of the foreign debt of the country, as a result of growing greatness, complexity and shrinkage of access to new capital sources in global markets.

On that basis, one may risk a hypothesis that efficiency of international funding of a given national economy stops growing after exceeding a certain threshold which is defined by the upper (maximum) level of balance of payments deficit. Formally it occurs once the increases of surpluses of capital flowing from financial markets (net capital flows) fall to zero level. Having under consideration the former equation of critical payments deficit (1), we can define effectiveness of international funding of national economy in a given period (E_t) as a function of relation of total accessible surplus of foreign capital (with consideration of maximum fall of reserves of foreign assets) to the maximum payments deficit in that period.

$$E_t = f\left(\frac{CFB_{\min} + \Delta RES_{\max}}{CA_{\max}}\right)$$

where:

E_t – effectiveness of financing of payments deficit of national economy in period t

f – function of effectiveness of financing of payments deficit is growing with the assumption that $CA_{\max} \leq CFB_{\min} + \Delta RES_{\max}$

Effectiveness of foreign funding is changing in the bracket $CA_{max} \leq CFB_{min} + \Delta RES_{max} < GDF_{t-1}$ where GDF_{t-1} – total, accumulated foreign debt in period t-1. It means that there are accessible sufficient surpluses of foreign capital which the country may allot for financing of the rising payments deficit to the amount of accumulated foreign debt in the examined period.

If, however, the payments deficit was bigger than the entire surplus of capital flowing from international markets (after consideration of maximum fall of reserves assets), then its amount would be immediately reduced to the relatively lower accrual of net capital flows. Once the accrual of positive balance of financial and capital turnover starts to exceed critical amounts of payments deficit, the country regains the ability to level the balance of payments and the chance to maintain or raise the critical payments deficit.

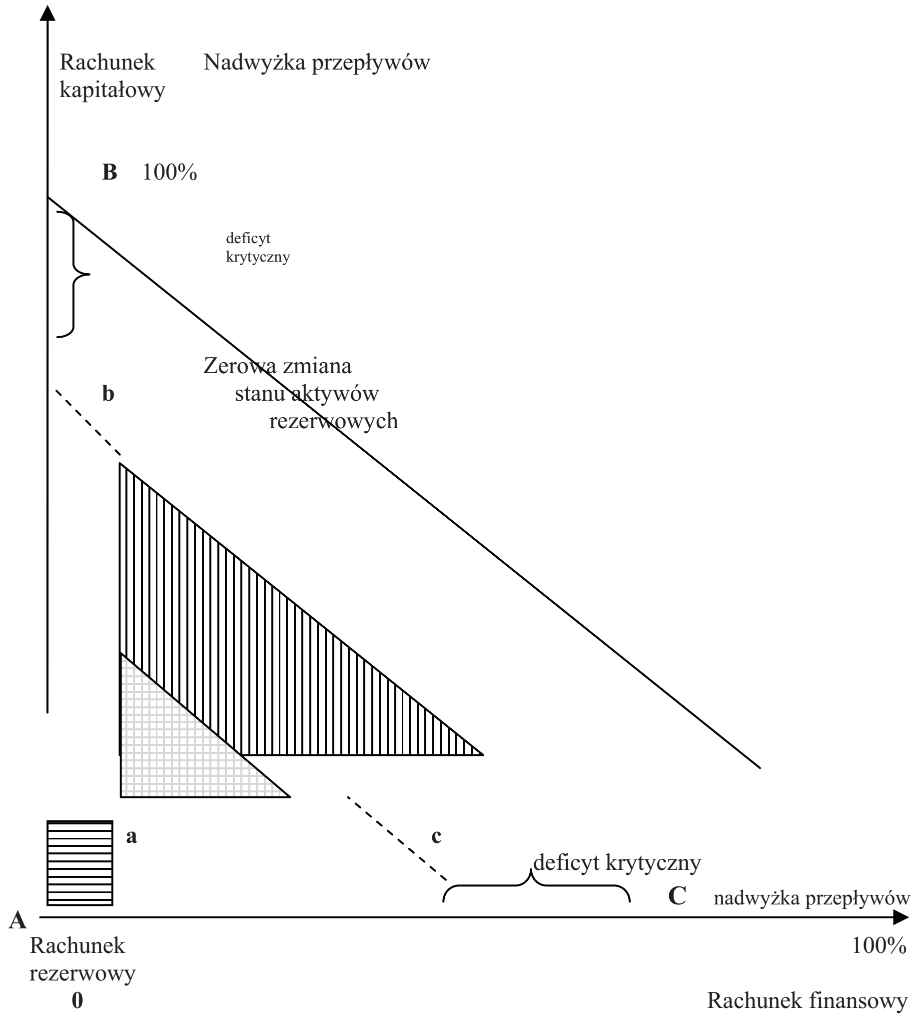
From the above presented analysis, undoubtedly simplified one, there arises a general conclusion that for every national economy there exists a certain minimum combined amount of surplus in financial and capital flows, which allows for financing of critical payments deficit in connection with the expansion of international economic activity (volume of foreign turnover realized by national subjects). If accruals of that deficit start to exceed the total available surplus of foreign capital flows (which cannot be increased by maximum transfer of reserve assets), then there occurs a compulsory and sudden correction of current account of the country. It usually leads to the disruption of the process of economic growth and lowering of the former level of economic prosperity of the country (growth of employment, fall of investments, rise in fiscal charges).

3. Structure of payments deficit funding

An improper structure of capital flows may have serious consequences for the financing of payments deficit. In order to keep an essential level of general foreign funding, every element of the position financing deficits on the current account must guarantee a certain minimum amount – limit of net transfer of foreign capital. If any of the formerly analysed outermost volumes of international capital flows, financing current deficit falls below the minimum level, critical payments deficit must be reduced. As a result, it will cause a sudden correction of the formerly realized volume of current account. National economy must therefore be aiming at reaching a surplus in the trade balance corresponding to shortage of financial means on the capital account, or increasing an inflow of foreign investments (direct and portfolio ones), which shall respectively lead to the growth of foreign liabilities or fall in currency reserves.

For the understanding of the consequence of the structure of allocation of flows financing payments deficits of a country (composition of capital flow) one may consider the critical deficit with the use of graphic method presented in picture 1. The graph illustrates various possible structures of financing of payments deficit, corresponding to the change of percentage participation of surpluses of capital flows and the change of participation of reserve assets in the global growth of payments deficit funding.

Picture. 1. Composition of foreign funding and critical payment deficit.



If we join with a straight line, two outermost points on the opposite axes of the system of coordinates whose values amount at 100% (representing outermost positive accruals of a balance on the financial account and capital account), we shall receive an area of a triangle ABC indicating the limits of the maximum deficit. The area contains all the possible compositions (structures) of foreign funding of payments deficit of the country in a given period. Financing structures which will appear exactly on that line define only mutual proportions of surpluses of capital account and financial account. Irrespective of their changes, they together provide the entire covering of the rising payment deficiencies in current turnover. They therefore eliminate the necessity to use any part of accumulated currency reserves, which causes that the state of account of reserve assets remains unchanged. In many cases, however, such a situation may appear hardly realistic due to the limited inflow of foreign capital, not sufficient for the balancing of current turnover. What becomes inevitable then is financing of some part of payments deficit from the possessed reserve capital by the country, and that at the expense of reducing the state of foreign reserve assets.

Compositions of foreign funding enabling permanent and safe balancing of current payments in economic turnover with abroad are defined by the internal surface of the triangle abc, whose limits mark out the critical payment deficit of the country. Those limits are established as a result of a defined shaping of proportion of accrual (surplus) of positive balances of financial and capital accounts. In special cases they may be corrected by the changes of the state of reserve assets (maximum fall of currency reserves), in relation to the entire critical payments deficit of the country. Payments deficit may be thus finally financed if the sum of both accruals of positive balances of financial and capital accounts(with a possible need of transfer of reserve assets) is not smaller than the total critical deficit of current turnover. If the surpluses of flows on capital accounts do not reach however certain minimum value (in such a way that $ACF_{min}+\Delta FF_{min}+\Delta RES_{max}<CA_{max}$), such a composition of financing shall collapse, which means that payment deficit is too high for the country to be able to maintain it at the present level in the following period.

Within the range of minimum positive balances of capital accounts financing critical payment deficits, there is a field which marks out safe structures of international funding. Its location is dependent on one hand on the volume of inflow of foreign direct and portfolio investments as well as on loans and foreign credits, and on the other hand – on the necessity of transfer of parts of maintained currency reserves (reserve assets). Changes of the condition of foreign reserves constitute a special barometer of credit reliability of the country since they either encourage the international investors to finance high payment deficit of the country, or make them withdraw their capital. For example, in the initial phase of political transformation of the Central-Eastern Europe countries, there dominated an inflow of direct investments which played a crucial role in the restructuring of the production and trade and accelerating of the pace of economic growth. From the model of composition of financing presented in picture 1, it results that financing structures were to be found in the upper left area of the triangle abc, where the participation of the surplus of capital flows due to direct foreign investments is the highest. As the liberalization of capital turnover and deregulation of financial markets were progressing, allocation of international capital flows evidently moved towards the right bottom area of the triangle. It is an effect of international financial markets favouring investments in financial assets or short-term instruments. The increasing changeability and perturbations in monetary markets at the same time made the governments of those countries accelerate the accumulation of surpluses of foreign assets on the reserve assets account. In such a situation, there grows an interest in all the three sources of financing of the payment deficit, which altogether give better guarantees of keeping financial stability and international liquidity especially in crisis periods.

The above described compositions of external financing of payment deficit of a country, concern first of all the subjects of private sector and its demand for financial means which are impossible to be obtained in the internal financial market. The operations of central bank and financial institutions are located in the area of the marked rectangle and embrace the changes of financial assets mainly in connection with realized balancing turnovers (purchase and selling of foreign exchange values), and also fluctuations of reserves valuation (whose final outcome is captured in the account of official reserve assets). The final measure of payment deficit is therefore a net sum of the following changes of capital turnover on the account of official reserves (compensation turnover).

a) reduction of gold reserves and the remaining unsettled foreign net liabilities of the central bank

b) reduction of the state of liquid net foreign assets of the central bank,

c) reducing of reserve position in the International Monetary Fund.

In the present phase of transformation of the majority of rising economies, the occurring surpluses of flows of foreign capital focus on two key financing positions: rising direct investments and portfolio funds as well as on foreign loans and short-term liabilities. The surpluses constitute over ¾ of all foreign liabilities involved by economic subjects in those countries. The remaining part of capital flows is dispersed between several smaller positions financing turnover within the capital and financial account. Whereas depending on the kind of national subjects (national economy sector) what prevails is either financing of transactions connected with the transfer of ownership rights (property assets) in the area of national economic infrastructure (and in particular industrial one), or the one with undertaken direct and portfolio investments.

In the period of rising economic prosperity in the global financial market and increasing sentiment for rising markets, the economies are trying to adapt the financing compositions of their payment deficits to the new directions of international credit expansion, fulfilling expectations of the important participants of the international market. There also appear many risky transactions resulting in international investors involving substantial financial means in national financial structurised instruments – counting among the group of new portfolio investments. What also becomes an important source of financing of current turnover is an inflow of short-term funds supporting the foreign trade turnover (trade credits, loans and foreign deposits, trade papers).

The changes of the values of international capital surpluses in financial and capital turnover are influenced mainly by the shaping of the return rate from international investments and the costs of service of foreign liabilities. The scale of inflow of capital financing the critical payment deficits is ultimately a function of marginal return rate of foreign assets and fluctuation of exchange rate on one hand – and on the other hand – a function of the costs of servicing of foreign liabilities and the amount of those liabilities in the national balance of international capital. Effective structures of international funding are therefore dependent on the value of obtained surpluses of capital flows which constitute a positive difference of financial income from foreign assets and the expenditure connected with the service of foreign liabilities (total foreign debt of the country). In the case of high capital income there exist also chances for the service of general foreign debt at the smaller size of liabilities, which facilitates the stability of the former net international investment position, and even may allow for its improvement, which shall lead to the reduction of the foreign debt (P. Śliwiński, 2008).

Foreign financing of the budget sector, as is presented in picture 1, is located in the area of the smallest triangle, where the majority of the sources of foreign funds comes from official capital transactions (government securities sold to foreign investors, international transfers, loans and foreign credits or international debts amortizations). The subjects of that sector usually acting non-profit, do not have the conditions for obtaining international capital coming from the sales of production and non-financial assets (with an exception of privatization transactions and State Treasury shares issue, amortization of internal debts and economic loans by the governments of other countries or by international organizations).

Regardless of the development of economic situation and global markets' orientation, few emerging economies may rationalize allocation of capital surpluses financing payment deficits. Compositions of foreign funding adapt more to the interest of international investors, trying only to maximize the volume of foreign capital inflow from every possible source financing current turnover deficit. Only in few cases do economies of those countries manage to achieve a more beneficial structure of international funding and an improvement of allocation of capital inflow, from the point of view of safe balancing of current turnover in a situation of high payment deficit. In conditions of worsening liquidity in international financial markets, the governments in those countries in general are not able to control the intensification and structure of foreign capital inflow, or have any visible effect on the outcome of balances of current turnover. In consequence, they accept the structures of financing of economic turnover, ones that may, in a not long perspective, lead to a quick growth of the foreign debt and the lack of financial liquidity (payment crisis).

An essential reason why developing countries cannot effectively oppose the "drifting" of balance of payment in the direction of non-effective structures of financing of economic turnover with foreign states is weakness of institutional regulations. Its specialized instruments do not appropriately control vivid flows of international capital due to realized by internal subjects trade transactions, financial and compensatory (reserve) transactions within particular economic sectors.

4.Conclusion

In the further study it should be demonstrated to what extent the structure of capital flows financing payment deficits of emerging economies is connected with effectiveness of regulatory instruments in the area of international capital turnover. It is generally assumed that the potential influence of regulatory institutions on attitudes and activity of national subjects in financial and capital turnover is not sufficient and may hardly correspond to real conditions of external environment (international financial markets). In consequence the scale of international financing of national subjects does not succumb to regulatory effects of control institutions and the state financial supervision. Therefore what has a decisive influence on the shaping of structures of flows financing payment deficits are then the behaviours of participants of international financial markets. An access to relatively cheap sources of financing is defined by the range of international credit expansion, and the dynamics of global markets indicates the ways of using the resources of international capital.

Instability of structures of international financing may be also partly a result of serious mistakes made while choosing the tools of regulatory strategies. In particular, administrative pressure, not formalized rules of the game, or too restrictive legal regulations appear totally ineffective. In view of commonly noticed weakness of operations of regulatory institutions in the field of international capital turnover, the governments of emerging economies should no longer hope for the favourable turning away of the direction of capital flows. The condition for the improvement of the structure of financing of payment deficits, allocation of balances of financial and capital turnover, through regulatory operations of the governments must be however recognition of strength and nature of the relation between the behaviour of national subjects from private and budget sectors and the undertakings of institutions of regulatory environment.

So far there has been a lack of deep analysis and explanation how big influence on the trends in shaping the balance of financial and capital turnover there is on the part of government institutions creating different models of regulations depending on a selected regulatory instrumentarium and perception of payment deficit of the country. For the choice of means of regulation influencing the direction of allocation of financial flows surpluses, critical payment deficits, the key problem lies in the awareness of possibilities of active regulatory operations of economic authorities. Those, in turn, are connected with more or less formalized process of defining goals of the balance of payment, which could mark out regulatory strategies exerting the expected by the authorities influence on the choice of a way of financing economic turnover with foreign countries, by national subjects. As it results from even superficial observations, the process of shaping regulatory strategy may be clearly formalized and transparent or strictly discretionary and concealed, but it usually combines both those features. And that is strictly one of the main reasons for difficulties in empirical research and in explaining mechanisms, range and effects of influence of regulatory institutions in the field of international capital flows and a structure of financing of deficit of current turnover of the balance of payment.

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(Summary)

The are some minimal surpluses of international financial flows (on the capital and reserve account) that are needed to support critical payment deficit at the previous level in the next period. If the amount of critical deficits is in excess over the total accessible surplus of international capital flows, it inevitably leads to a violent and forced correction of the current account and serious disturbances of the growth process.

The breakdown of financing of payment deficit in emerging economies, partly may result from weaknesses of operations of regulating institutions that do not have sufficient influence on behaviours and attitudes of subjects participating in foreign capital turnovers. It requires however an appropriate recognition of the strength and nature of the reaction and behaviours of national subjects interacting with a strategy of domestic regulatory institutions.