

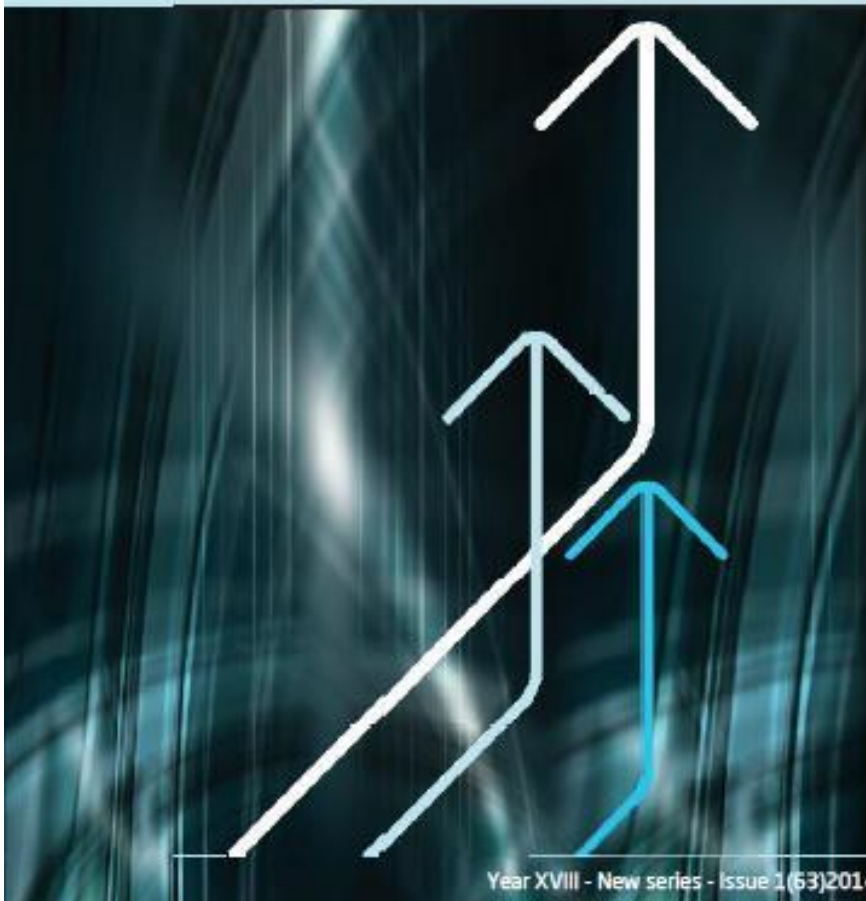


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Financial Studies



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A POINT OF VIEW ON THE LOGIC MODELLING OF THE FINANCIAL NETWORK

Mihail DIMITRIU, PhD*

Abstract

The identification and solving of the different problems that confront us presently, particularly due to the process of globalization, requires a more complex approach of the financial domain. We hereby undertake to bring clarifications and proposals for a more profound approach of the analytical aspects of the network-type models. We thus identify the elements of a financial network which bestow upon it its character if specificity, such as knots, instruments, operations, interconnections, interactions, determinants and flows. We also identify some defining characteristics of the financial network, such as its credibility, representativeness, complexity, efficacy, extensiveness, intensiveness, connectivity, integrability and establishment. Finally, we describe a mechanism of transformation of the financial flows within a network knot, using the concept of interface.

We mention that, to a significant extent, the present paper was expounded at the International Conference *Financial and Monetary Economics – FME 2013*, organised by the “Victor Slăvescu” Centre for Financial and Monetary Research, 25 October 2013.

Keywords: system vs. network, defining characteristics, operational pattern, logic model

JEL Classification: C45, D85, D89

1. Network versus System

The pyramid, hierarchy and the systems are defining traits of the social organisation during the industrial age, characteristics which are favourable to the decisional centralism, productive concentration, etc. The end of the 20th century was marked by a whirlwind of change which questions the validity of the hierarchies within the societal organisation.

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a) The information, knowledge, show that the hierarchy, its rigid structures, alter, distort and slow the material, energy, financial and informational flows.

b) The centralism “on the vertical” proved to be a brake for the social development, the organisational formalism becoming a costly and risky burden; thus, the centralism “on the horizontal” was obviously needed:

- The decisional representativeness is replaced by the democratic, distributed participation, which responsabilises and mobilizes;

- The authoritarian technologies are replaced with interactive technologies, which are compensating and which are disseminated at all levels of the society;

- The economy of dependences, of hindering the development, of the locomotives, is eroded by the wave of globalization, by the globalization of interdependencies and interactions, the classical competition is replaced by the cooperative competition;

- The perspective, strategy, the long-term, force the economy to become part of the friendly nature, discarding the short-term from the perspective of the future focusing on resources, man and values;

- The institutional pattern of functioning of the societies, economies proves unproductive, and is replaced by the community pattern, of mutual assistance, the managerial economy being replaced by the entrepreneurial economy;

- The orientation of the individuals towards „career” only proved inadequate in its confrontation with the change, the optional multiplicity providing flexibility and resistance, adaptability and perennialness.

The combined impact of these trends bringing change materialized in a lower trust in hierarchy, in the system, in bureaucracy, authority and the impotence of the primordial structures to solve the basic problems of the world, brought the people closer, as bearers of these values, organised them into groups of dialogue, singled out their interests and motivations, within a world assaulted by information and depleted of knowledge.

The people get into relations, the unhierarchized groups interact, the authoritarian organisation gradually turns into a network organisation, the network asking every individual to do its duty of individual, to meet its obligations towards the others.

The network puts people into touch, the mutual assistance becoming the symbol of the new organisational paradigm, decreasing frustration and inertia, failure and depersonalization.

The globalization of knowledge imposes the globalization of the informational network, the propagation of networks providing an authentic operative approach if the problems confronting mankind; the networks promote what the hierarchies cut short, i.e. the relations on the horizontal. Metaphorically, the networks represent a fishing net with a multitude of knots or centres of variable size, each having direct or indirect connections with the others; their multidimensionality generates complexity.

Structurally, the specificity of the network is that each knot, cell, individual, is in its middle, each knot being important, equipotential, for the strength and flexibility of the network. Diversity and differences are concentric within the networks, which brings things closer, equalizes them, the network members being equal partners, cooperating and integrating continually, nondiscretionary.

The failure of hierarchies, the overabundant information, the rigidization of bureaucracies etc., impose the network as a human modality of compensatory reaction to what is integrated in the network.

The transition from the vertical power to the horizontal strength, determined by the networks, frees the individuals and communities of the burden of institutional hierarchies, the institutions becoming communitarian, participative.

The hierarchies promote, create careers, push the individuals to succeed, produce stress, tension, anxiety, while the hierarchies fortify the individuals, differentiate them equipotentially, gets them closer and delimit them, produce mutual assistance, acknowledgement, cooperation, trust. Within the networks, the acknowledgement and rewards comes from the strength of all, not from the individual strength, not from the struggle for power, but from the force of the fulfilled duty.

Any hierarchy has an informal network within the structure of authority, network that has to be identified, localised, valorised, because the individual actually lives in a world of networks that integrate him, deforming and delimiting him, personalizing and motivating him; man lives not in a constellation of networks, but within a galaxy of constellations integrated within the network.

2. Specificity of the financial network

If we look at things from the financial perspective there is an obvious specificity of the financial network due to the peculiarities of the flows, knots and channels of transfer.

The elements of the monetary space are:

- The **knots** of the financial network may have a different nature but their essence is almost similar: they are generators, holders and bearers of the forms of banking or non-banking currency.¹ They are the *constituents* of the monetary space: individuals, production companies, banks, the state etc., the examples are from different levels of aggregation and they may be grouped homogeneously according to specific criteria;

- The **instruments** of the financial network represent generically the activating elements of the network, which provide for the interaction between the entities, their mutual influencing by the interactional transfer of the instruments; they actually are material or nonmaterial supports of the forms of currencies, such as paper money, bonds, cheques, deposits, treasury bills, etc. Their role within the network depends on the entities, determining thus the nature of the entities as constitutive elements.

- The **operations** interconnect the entities by the processual transformation of the instruments so that they can accomplish their role of activation of the financial space, the transaction of an active element from one state to another, such operations being both of asset and liability, income and expenditure, functional, regulatory, executive, guaranteeing, etc. The role of the operations reside in the fact that they generate the interconnection of the constituents determining their consistency and coherence within the network.

- The **interconnections** are links between constituents, links of reciprocity, of interdependence, which allow the transfer of information towards the real space, acquiring thus consistency, substance. The interconnections are achieved through transmission, transfer channels, and they include the transfer technologies, the languages and codes, the development of knots and configurations

¹ We must not forget, however, that transformations of substance, energy and information take place within the knot, which presumes that a knot belongs at the same time to a multitude of specialised networks (the financial ones being just a species).

(linear, sequential, central, concerted etc.), the transfer carriers, assembly and feeding with information, etc.

- The **interactions** are characteristic elements of the network which can bestow upon the network characteristics of *identity, autonomy and reproducibility*, which allow the network knots to acknowledge reciprocally as belonging to a network, as accepted suppliers and targeted receivers of the *information of value* carried by the network instruments. The interactions materialize in financial flows which influence both the issuing knot and the receiving knot. The interactive flow is *biunivocally oriented*, any transfer of an instrument, of a monetary support, at the same moment or later, often multiplying the value information.²

- The **determinants** of the financial flows are their *identifiers*, which allow the definition, delimitation differentiation and discrimination of the flows function of the significance of these identifiers; below are the *determinants*:

a). *content, composition* of the flow, which often depends on the nature of the financial instrument, on its characteristics, such as liquidity, due date etc.; the content also shows the nature and character of the flow;

b). *sources and recipient* of the flow; in the case of the interactive flow, specific to the financial network, there are knots which are simultaneously source and recipient, in interdependence. For instance, the banking entity receives a flow of liquidities, debts, for which it is recipient, while it also issues a flow of financial assets of the nature of savings, being thus a source; the scriptural money and the saving money are the two forms of money which are biunivocally transferred through the specific instrument, the deposit;

c). *relevance* of the flow, which is its significance for the partners. This relevance can be conjunctural or strategic, depending on preferences, necessities, instruments etc.; beyond the subjective appearance of this determinant, its consistency depends on its monetary form, on its value, on the instrument transferred through the flow, on its size, so that irrespective of the conjunctural factors, the relevance of the flow of debts differs from that of the flow of claims.

- The **quantifiers** of the financial flow provide the size and determination of the *interactive parameters* of the flow, allowing the

² *Synthesizing, one may say that the financial network consists of instrumentalized biunivocal monetary flows, the flow being the specificity of the network, while the determinants and the characteristics of the flows influence the quality of the network*

proper interconnection within the network function of their determinative relevance. There are several *quantifiers*:

a). *capacity* of the flow, its formative characteristic, which provides the form of materialization of the flow; it depends on the determinants of the flow, but also on the environment where the flow “flows”. The capacity of the flow varies with factors which are often out of control, the capacity of a flow of cash payments being different from that of a flow of saving or of financial investment;

b). *length* of the flow, which depends on the source and recipient as determinants, but also on the transfer circuit, understood as the sequential progress of the flow segments, the way in which the monetary forms are used; a flow with the same source, but with different utilizations, payments or investment, for instance, has different lengths;

c). *speed* of the flow, which is a very important characteristic, particularly within the conditions of the technologies of IT interconnection; an important derived characteristic is the *lag*, the temporal difference;

d). *duration* of the flow, which depends on the length and speed, as well as on the favouring or disfavouring potentialities of the flow;

e). *fiability* of the flow, which is the probability of the flow to achieve the correct, long-term transfer of the financial instruments according to the specificity of the determinants and characteristics.

3. Characteristics of the financial network

As assembly of interactive flows, the *financial network* has a set of ***own characteristics*** determined by the monetary forms, by the elements of the monetary space, by the determinants and characteristics of the flows; it also has ***genetic characteristics***, common to the economic network, of any social network.

The *credibility* of the network is its *defining characteristic* being, in a way, a *contradictory characteristic*: on the one hand, it is characteristic to any social network because the currency, the abstract substance of the network, represents trust. Its credibility generates the acceptability and operationability of the network, favouring its transparency. The fading trust in the currency, in the monetary forms and in the financial instruments determine the erosion of the network, thus degrading the properties of the interactive flows. The currency, in its abstract meaning, the only possible meaning which allows understanding its essence, is an

affirmation about value, the authenticity of the information validating the credibility in the currency, thus making the financial networks information networks.

In terms of information, any financial network will have to have some abstract properties which contribute significantly to the credibility of the network, as follows:

- Existence of a standardized accounting IT which ensures the divisibility of the financial forms and which allows their exchange with corresponding goods;
- Existence of information about the possibility of the unaltered use of the money in the future;
- Existence of information about the space available for the use of money;
- Existence of information about the contractual relations regarding the use of money;
- Existence of information about the existence of data on the behaviour and expectations of the entities and subjects.

The information determine the unitary character of financial network, establishing a climate of trust within the network, climate which is necessary for its reproduction.

Network *representativeness* is its *reflexive characteristic* which shows its adequacy, the correspondence between network interactions which produce outcomes and the actual needs of various environments such as the economic, social and cultural ones; the financial network is not directly engaged in the production of explicit outcomes of the economic activity such as making a profit; representativeness bestows feasibility and reproducibility to the financial network, the latter one being an intrinsic attribute of the interaction. A representative financial network specifies the functions of the currency and the proper achievement of interactivity between the monetary constituents through financial instruments.

Network *complexity* is its *creative characteristic*, being opposed to the complication and/or amorphisation, the authentic complexity presuming simplicity, differentiation, coherence, the oriented assembly of the financial space elements; the complex network has a potential multiplicity and a revolutionary capacity for the flow interactions, a chaotic diversification of the financial instruments with no representativeness and credibility and which doesn't generate complexity. It is preferable to have a less complex, but coherent and properly oriented network, rather than a multiplicity with no interactivity, a capacitive oversizing without increasing the

intensity of the financial flows; the knots and circuits, the connectors and switches, the transducers (elements assisting the transformation of monetary forms) and selectors are some of the elements defining the complexity.

Network *efficacy* reveals the quality of the financial network to achieve its finality, in an operative manner and with minimal costs otherwise said, the capacity of the network to be interactive under reasonable conditions of monetary rationality based on trusts for instance, the efficacious transfer of currency in time, which presumes that the monetary value of the financial instruments is preserved.

Network *extensiveness*, which is the *spatial characteristic* of the network, in the meaning of monetary and financial space of comprehension, delimiting the institutional and instrumental coverage of the monetary and financial requirements by the network; network extensiveness is correlated with network complexity and with its diversity.

Network *speed* is the transfer speed of the financial instruments, assets within the network. It depends both on the speed characteristic to each flow, and on the level of flow interconnection, on their interactivity favoured by the existence of elements which define network complexity. The speed obviously depends on the duration and fiability of the involved flows, on the transfer technologies and on network reliability.

Network *intensiveness* is expressed in a dual manner by network *load* and by the *diversity* of the instruments and forms of money transferred through the interactive network flows. It is a *characteristic of network potential* and it is favoured by the increase of network credibility and complexity. It is in an inverse relation with network extensiveness: the intensive monetary relation achieves a massive transfer of money using a minimum of instruments, or connecting a higher number of financial flows to the same knot which distributes money, such a bank or financial centre.

Network *connectivity* shows the possibility of connecting a financial networks with other networks, of the same kind or different, to connect to economic, cultural or other type of networks, thus contributing to the conjunctural or planned accomplishment of objectives from the other networks. Network connectivity depends on the corresponding networks, on the permeability of the financial network knots interface, on their adequacy to the environment and on the availability of the corresponding networks.

Network *integrability* shows the possibility and capacity of a particular financial network to integrate in more comprehensive networks, usually consisting of networks of different nature, but also the possibility to develop a global financial network, at different configurative levels, which to include concentrically different specialised financial networks within a coherent whole, in which flows interactivities converge towards a common, single potential.

Network *institutionality* is the functional, formative characteristic of the financial network showing its integration within an *institutional assembly of norms, structures and functional relations* which sets the rules of network operation, network protocols and specifications, the network thus becoming architecture, configured and compounded.

4. The „fine-tuned” operational mechanism using the concept of interface

Obviously, the financial network presumes a larger openness, a more complex approach of the financial space. But what happens within a knot of then network when financial flows have to be transferred?³

Ideally, one may presume the following operational pattern.

A knot (economic subject) of the network consists of:

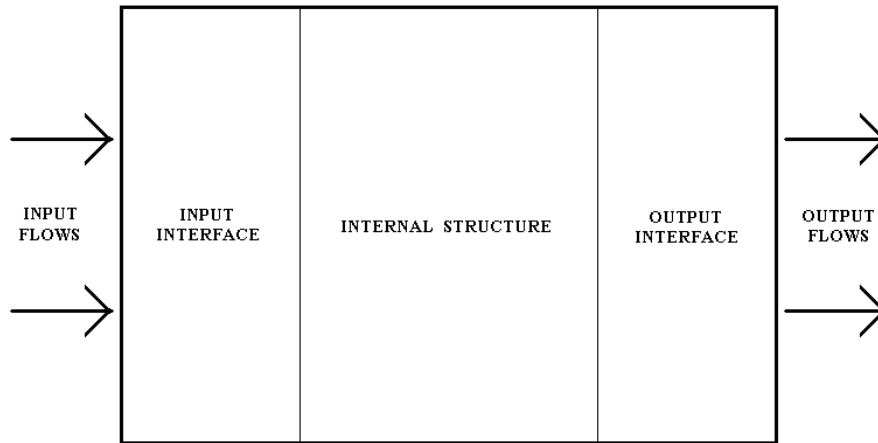
- Input interface;
- Internal structure;
- Output interface.

The input interface „filters” the financial flows which the knot receives through the channels to which it is connected. The output interface „filters” the financial flows received by the internal structure of the knot and sends them further through the channels with which the knot is interconnected.

The input interface can be coupled functionally with the output interface, but the purpose remains the same, both at the input and output gates: provide the compatibility between the internal structure and the channels through which the knot is interconnected to the rest of the network.

A general picture of the model is given below:

³ We refer strictly to financial flows, not to all the other types of material, energy, information etc., flows. Also see Dimitriu Mihail (coord.), *Entropic shocks and sustainable microeconomic development*, Tehnopress, Iași, 2012, pp. 137-140.



The input financial flows have properties that have to be compatible with the receptors of the input interface (intensity and amplitude, nature, etc.), and their “quality” depends on the route from the sender (capacity and losses through the transfer channels).

The input interface has several characteristics which are very important for the stability of knot’s architecture:

- It must be compatible with the inflows;
- It must have the possibility to process the financial inflows so that they can be absorbed by the internal structure of the knot;
- It must be able to reject unwanted inflows;
- The transfer of the financial inflows towards the internal structure must support the accomplishment of all the objectives of this internal structure;
- The architecture of the input interface uses human resources and financial resources (which can be processed as special inflow using the stock existing within the interface or within the internal structure of the knot);
- It is managed using its own decision-making structure;
- It is adaptable, in the meaning that it can change its internal structure so that it can permanently fit the objectives of the knot, in general, and the internal structure of the knot, in particular (especially by changing the level of permeability to the inflows).
- It can ensure the transformation of financial inflows into temporary stocks.

In turn, the output interface shares some characteristics of the input interface, such as:

- Compatibility with the financial outflows;

- Possibility of processing the financial flows so that they can be absorbed by the transfer channel;
- The transfer of the financial inflows towards the exterior must support the accomplishment of all the objectives of this internal structure;
- The architecture of the input interface uses resources (which can be processed as special inflow using the stock existing within the interface or within the internal structure of the knot);
- It is managed using its own decision-making structure;
- It is adaptable, in the meaning that it can change its internal structure so that it can permanently fit the objectives of the knot, in general, and the internal structure of the knot, in particular (usually by changing the intensity and amplitude of the financial outflows).
- It can ensure the transformation of financial inflows into temporary (buffer) stocks.

The input interface and the output interface do some processing of the received financial flows. To do this, the following conditions have to be met, depending on the typology of the financial flows:

- There has to be at least one complex flow detector which to determine the nature, intensity and amplitude of the flow;
- There has to be a law of financial flow transformation which to allow their adaptation for transfer into the internal structure of the knot (in the case of the input interface), or their adaptation for transit through the transfer channel (in the case of the output interface);
- Processing must be unique for a particular type of financial flow;
- The processing losses must be minimal and, possibly, compensated in order to restore the in initial form of the necessary flows.
- There has to be a mechanism for the transformation of the financial flows into other types of flows (material, energy, information) or resources (stocks).

The internal structure of the knot can be specialised in the “financial” field (for bank or non-banking financial institutions-type knots), or in other fields. If the internal structure of the knot is not specialised in the financial field, its interface and/or internal structure should provide for the transformation of the financial flows into other types of flows or resources. To do this, the knot becomes generator of non-financial flows (on the input side) and generator of financial flows (on the output side).

Seen from this perspective, a knot of the network is not a black box, as considered by ADC-type models or by PERT algorithm-type models, which should lead into the future to a new class of models which to configure a network analytically.

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ABOUT THE FISCAL CULTURE CONSOLIDATION IN ROMANIA DURING THE COMMUNIST AND POST-COMMUNIST PERIOD¹

Ionel LEONIDA, PhD*

Abstract

Structural changes of tax systems, frequent changes, intensification of the globalization process, fiscal competition to attract capital and increase of tax revenues, and some conflicting states between different divergent tax systems generate a certain culture of taxation.

Frequency and dynamics of such changes, as well as the change of the Tax Code or Tax Procedure Code, without assessing that they are included in the national fiscal culture can generate low levels of collection and a tendency towards non-compliance from the part of taxpayers, who will not feel morally obliged to fulfil their part of the institutional contract with the state, due to difficulties of understanding, adaptation and rapid application of new changes. Such dynamic elements, as a whole, outline the fiscal culture specific to each state. On that basis, we intend to conduct an assessment of cultural accumulation generated by taxation.

Keywords: tax system, fiscal culture, taxpayers, fiscal conduct, authorities

JEL Classification: A13, H3, Z13

1. Introduction

The importance of the fiscal interaction between tax authorities and taxpayers, as an expression of present taxes in every state, is historically presented and supported by a number of researchers in their studies, as Joseph Schumpeter (1929) who stated that "*the spirit*

¹ The paper was presented at the International Conferences Economic Scientific Research-Theoretical, Empirical and Practical Approaches (ESPERA`13) organized by "Costin C. Kirişescu" National Institute of Economic Research.

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of a people, the culture, the social structure, political facts, all these and more can be found in its fiscal history ... who knows how to listen to this message will better understand human history troubles". Based on this evaluation, we consider that the concept of tax culture covers the complexity, history and contemporaneity of the taxable country and express our intentions just "placed" in this paper, because this concept expresses more than the interaction between authority and taxpayers, going beyond fiscal behaviour itself, managed to bring together the knowledge, belief, art, morals, law, custom and any other capabilities and habits acquired by man as a member of society and as a taxpayer.

To achieve the proposed approach, we perform an analysis of the progressive tax education at national level and the historical evolution of the tax system and cultural values related to honesty, fairness and civic duty manifested in the taxpayers.

Based on the results we will try extracting conclusions about the interactional elements of the tax authorities and taxpayers, by revealing the current state of tax culture in Romania.

The paper is conceptual-theoretical nature, and the study of literature and other related specialty (Sociology, Psychology), observing the phenomenon and its manifestation at the national level, we will make a general evaluation and interpretation of the evolution of tax culture in the communist period and post-communist.

2. Evolution of taxation in the communist period

The positive evolution of the Romanian fiscal system and its strengthening were stopped by the investiture of the communist regime in 1948. The tax system after 1948 was characterized by limiting and gradually eliminating private economic activities and implicitly the accumulation of private capital, eliminating the remnants of the previous system, flattening of living standards through taxes, lack of transparency regarding tax rates and use of budgetary resources.

The positive aspect that characterized the communist-era tax system was the lack of the tax evasion phenomenon, the state being the sole owner of the national wealth, and the profits and benefits of economic activities were entirely paid to the state budget. Fiscal control at that time was intended to protect the state wealth against its own officials, against the manner in which public money was spent in various investment projects carried out by the state.

This stage in the history of the Romanian people wiped out the accumulations recorded in fiscal matters and the traces of the new-born fiscal culture were not preserved, the applied tax system was an obscure one that created the impression of its inexistence.

3. Evolution of taxation in the post-communist period

A new stage in the history of the Romanian tax system began when the Communist regime was overthrown in the late 1989. Romanian economy and taxpayers needed a modern, fair and transparent tax system to stimulate economic and social development.

The reform begun in 1990, and which included the elimination of some tax regulations of the previous period, the introduction of tax regulations to stimulate entrepreneurship and to provide the necessary resources for the functioning of the state, has been unfinished. The transition from a centralized economy to a market economy generated, at least in the first part, a vacuum of fiscal legislation, which remained somehow behind the economic development especially in the private sphere, vacuum speculated by economic operators who, after a prolonged period of fiscal civism, easily adapted to the emerged situation. Governments had a difficult task in combating and preventing tax evasion. Difficulties, at least initially, consisted of the adequacy of national legislation, subsequently of the European one, but also of the absence of genuine specialists to implement and ensure the correct enforcement of the law, the formation of a modern tax system that would induce taxpayers a certain education on tax matters.

Democratization of the Romanian fiscal system has generated an anti-tax reaction, thus developing fiscal behaviours of the most various forms. The black economy, tax evasion and consequently, corruption of officials have increased, stimulated by loose and insufficient legislation to combat and prevent anti-fiscal behaviour.

Liberation from the totalitarian regime also manifested itself by negative effects, manifested particularly in the behaviour of taxpayers and authorities characterized by violation of the law, by the desire of quick enrichment. On this background, in the first years after 1989, the fiscal culture, whose elements crystallized in the interwar period were not perpetuated nor preserved in the communist era, devoid of an historical development, was practically non-existent.

4. Crystallization of the fiscal culture in post-communist Romania

At taxpayers' level, the consciousness on the existence of a coercive tax system leads to certain civic and tax feelings and to a fundamental attitude towards some problems of their status. They are trying to understand what do their contributions towards the community consist of when they due various taxes, trying to assess the fiscal policy, tax rates and use of taxes to the provision of public goods, and the interaction between them and tax authorities. Finally, a motivation to comply with tax obligations or not appears, outlining a certain fiscal behaviour, which subsequently becomes a relevant element of the national fiscal culture.

At authority level, the structural changes of tax systems, frequent changes, intensification of the globalization process, fiscal competition to attract capital and increase of tax revenues, and some conflicting states between different divergent tax systems also generate consistent elements that substantiate the fiscal culture.

This arises through the interaction between tax authority and taxpayers, having its source in traditional taxation and in the interaction with cultural values related to honesty, fairness and civic duty. Incorporating these elements of fiscal culture and other external, but influential factors contributes to create fiscal mentality that leads to fiscal morality and discipline, which aim at creating a partnership relationship between taxpayer and tax authority.

Cultural standards and historical development of fiscal institutions contribute to the determination of the tax code, which, in its turn, determines the environment and constraints of fiscal kind (legislation, regulations on enforcement and collection of taxes) and, finally, the interaction between participants.

On this basis we can interpret the country-specific fiscal culture as the totality of dependencies and ties caused by the continuous interaction of formal and informal institutions, historically embedded in the culture of that country, connected to the national tax system and its implementation.

Disruptive elements in the consolidation of the fiscal culture are linked to the magnitude of changes in the tax system, to the history and perception of the national tax system. According to international organizations, in Western societies most tax reforms consist of only minor changes to the tax system, for example,

broadening of a tax base, change of tax rates by one percentage point. In these circumstances, fiscal culture does not change obviously. More obvious are changes in the fiscal culture in the case of fiscal reforms of deeper magnitude, as can be seen in the economies in transformation, as is the case of Romania. In such situations, cultural delays occur on adaptation to the new democratic system, namely the fact of having democratic rights also means having obligations. Some positive developments on the fiscal, behavioural side can be acquired by democratization and transformation only on a long term, as long as taxpayers comply with and observe the tax law.

Resetting the behaviour of taxpayers, which would lead to condensation and strengthening of fiscal culture in emerging economies will require an intensive educational effort and, especially, for a long time. During adaptation to the new fiscal reality, tax systems in these countries will not generate enough revenue.

Such changes, such as changing the Tax Code or Tax Procedure Code, without assessing the fact that they are included in the national fiscal culture, can generate low levels of collection and a tendency towards non-compliance from the part of taxpayers, who will not feel morally obliged to fulfil their part of the institutional contract with the state, as a result of the quality and quantity of public goods provided by the state.

We observe, thus, that a modern tax system does not presume only adding some rules and taxes, but also requires long history of its creation and consolidation, wherein a certain fiscal enculturation of taxpayers to shape and consolidate, which would facilitate the smooth operation and law observance in fiscal matters and beyond.

Tax systems in developed countries are most of them the result of such fiscal developments, of gradual accumulations that were long studied and analysed as to their sanctioning as fiscal rules, which contributed to the formation and consolidation of a culture in fiscal matters that was subsequently integrated into the national culture of those countries.

Frequent changes in the organization mode of the Romanian state affected the consolidation of a modern tax system, based on studies and cultural accumulations in tax matters. Taxpayers' fiscal behaviour manifested differently from one stage to another, which did

not allow any modelling of genetic determinants of taxpayers, particularly at the level of perception and voluntary tax compliance.

In addition to genetic determinants, a man is the product of the environment in which he/she is formed, and the education on the attitude towards taxes can have a decisive impact on his/her fiscal behaviour. The evolution of Romanian society in the last 100 years, during which the formation of such an education towards taxes seems to be plausible, did not show any continuity, perpetuation of values, sufficient respect towards law observance, in general, and tax law observance, in particular.

5. Some conclusions

The interaction between taxpayers and tax authorities has a long history, being present in historical writings and multidisciplinary addressed. This has been addressed more as the behaviour of the two parties involved and less in terms of tax culture as a phenomenon that expresses more than the interaction authority - taxpayer itself, managing to bring together the knowledge, belief, art, morals, law, custom and any other capabilities and habits acquired by man as a member of society and as a taxpayer.

Under the contribution to fiscal consolidation and development of culture, this paper has the merit of "bring" this concept Romanian lands and trying its development assessment under the two ordinances of the Romanian state.

From sociological perspective, taxpayers are positioned to the tax authority by their perception about taxation. They try to understand what their contributions to the community consist in when they due various taxes, try to assess fiscal policy, tax rates and the use of taxes to the provision of public goods, and also the interaction between them and the tax authorities. These assessments outline the motivation to comply with taxes or not and generate the subsequent fiscal behaviour.

From justice and equity point of view, taxation should generate obligations and rights for both sides, respectively for taxpayers and for the state itself as the beneficiary of taxpayers' fiscal contributions. Thus, taxation should be seen as an equitable form for integration of the taxpayer into an open contractual mechanism and not as a submission and isolation one that might deviate his behaviour towards a dangerous trend.

From an economic perspective, taxation is perceived as having its main objective the maximization of revenues to the state budget. This perception, created by authorities, is harmful. The authorities should identify methods of perceiving the taxation as an integration form for the taxpayer in an economic circuit in which he, on one hand, contributes to system supply and, on the other hand, is the beneficiary of public policies through the mechanism of redistribution.

Condensation of taxation interference results with the mentioned disciplines determines a certain culture for taxpayer related to fiscally which creates at society level the so-called tax culture, as an important part of national culture. The longer historical evolution the tax system has, with no frequent changes, the more developed that state is. Emerging countries, as Romania, which have not strengthen an adequate, transparent, non-bureaucratic, with no significant changes fiscal system, are confronting with delays in consolidation of fiscal culture for taxpayers, and these are reflected in national culture as well.

The "status" of the national tax culture is still in search of its own identity, having "heritage" and consistent historical accumulation of taxation, and what has been gained under the influence of the processes of democratization and European Integration of the Romanian society education is insufficient fiscal consolidation and crystallization of a specific tax culture.

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ASPECTS OF THE EURO AREA FINANCIAL SYSTEM FRAGMENTATION

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Abstract

With the emergence of the global financial and economic crisis, a number of side effects have been felt both in the U.S. and especially within Europe, particularly in the euro area. Among those, it stands out the financial-banking market fragmentation issue, a phenomenon discussed and analysed by financial experts, analysts, researchers and political leaders. The term fragmentation can be seen in antithesis with the concept of integration, the presence of one not involving the entirely cancellation of the existence and the effects of the second. However, a reduction in the effects of fragmentation may contribute to the increase of the economic and monetary integration, which is the desired facet for a fully functional European Union (EU). Moreover, in order to create a viable Economic and Monetary Union (EMU), it is essential to reverse the phenomenon of fragmentation of financial markets and restore the path of European integration. Thus, this article proposes to follow the conduct of the phenomenon of fragmentation in the euro area in order to develop some measures which would allow the diminishing of its negative effects.

Keywords: effects of the global financial and economic crisis, EMU, integration, fragmentation, financial system

JEL Classification: G01, G15, F15, F12

1. Introduction

In the literature and in the activity of the practitioners, the term of fragmentation is analysed from many points of view, similarly with the term of integration. For instance, at the macroeconomic level, one may speak of regional fragmentation/integration, fragmentation/integration of the euro area, fragmentation/integration of the single market, while at the microeconomic level the issues concern the fragmentation/integration of the banking system,

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fragmentation/integration of the financial markets within a particular country, fragmentation/integration of the different processes within an enterprise or between enterprises.

Concerning the fragmentation at the macroeconomic level, one may speak of a disordered, fast and/or strong movement of capitals from one side of the world to the other or within a particular geographical area, but one may also analyse at the microeconomic level of an individual branch (for instance, if we speak of the banking system, about migration of the debtors and creditors towards “strong” and “safe” banks while avoiding the “small” banks and the banks originating from the euro zone countries that have problems), between different branches of the economy or within an individual institution, such as fragmentation among the products provided by a bank, which causes serious imbalances due to the migration of the banking balance from one side to the other side, where there are positions that are considered to be safer and more attractive (such as lower volume of credits and higher volume of governmental bonds from the core countries of the Euro zone or bonds issued by the government of the host country). Even at the level of a particular region, for instance, the Euro zone, we may speak of fragmentation of the financial market between the core countries and the periphery countries, deeply affected by the sovereign debts crisis. From the available multitude of approaches we selected and focused our analysis on the fragmentation within the EU, and of the Euro zone, particularly.

2. Is the fragmentation phenomenon dangerous for the Euro zone?

The sovereign debts crisis, which started in late 2009, brought again to the forefront¹ the problem of the financial fragmentation within the European Union, within the Euro zone particularly; however, it has been present in various forms and degrees of intensity even before the crisis started. The phenomenon of fragmentation is opposed to the phenomenon of integration, the financial integration being a major component of the economic integration. The very establishment of the European Union is a complex and advanced form of economic, political, legislative, social

¹ *BCE, Financial Stability Review, December 2012 and May 2013, IMF reports, World Economic and Financial Survey, Global Financial Stability Report, Restoring Confidence and Progressing on Reforms, October 2012 and Global Financial Stability Report, Old Risks, New Challenges, April 2013.*

and cultural integration of the composing national economies; the euro zone has an even more integrated financial system designed to support the single currency policy.

Several “elements” help us understand the phenomenon of fragmentation within the EU, among which the current economic crisis from Europe and the triangle companies-institutions-the state.

The current crisis from Europe revealed the, not so fair, policy of the banks of making private profits and of sharing the losses with the tax-payers (Lemaitre, 2008), which shows the disagreement between this policy and the public at large. Under the pretext that the governments are the rescuers of the banks they take excessive risks.

Under the pretext of preserving the stability of the European citizens (political reasons, therefore) the central administrations made lobby in different forms to bail out the private entities (manufacturing companies or financial institutions). The financial assistance was either in the form of state participation to the capital of the private companies (some kind of nationalization), or as different programs supporting the economy or the consumers by cutting the taxes.

In order to cope with these expenditures, the national states were forced to take loans, through the mediation of the same financial institutions. Under the present conditions, the loans came from other developed states. If problems appear in these developed states too, the above-mentioned triangle runs the risk of breaking.

The contagion caused by the manifestations of the crisis is feared both by EU officials and by the rest of the world. This is the reason why in the EU there are a lot of discussions about bailing out the banks from the states that have problems (Greece, Spain, etc.). Within this context there are increasing demands to establish a single banking monitoring system, the European Banking Union, as well as to introduce measures aiming to save and preserve the health of the credit institutions and the stability of the financial system, to divide the activity of the banks.

The establishment of the Single European Bank Surveillance System actually is the first step towards the establishment of the European Banking Union, which means the development of a single framework to cure the “problem banks”, uniformization of the schemes which guarantee the bank deposits and the establishment of a mechanism of fiscal assistance from the governments.

All these steps are the pillars of the European Banking Union, whose establishment is very important in order to avoid the current fragmentation within the Euro zone. It has been quite clearly, for instance, that the German banks avoided the French market these

recent years. Also, the German and the French banks started to pull out from Spain, while the Spanish banks pull out from Portugal. The situation from Greece is even worse, very many European banks withdrawing from there. These movements of the banks cause unwanted and dangerous effects: they complicate the mechanism of monetary transmission particularly in the Euro zone, they prevent the free circulation of the capital and isolate the banks with problems from the Euro zone.

The *fragmentation of the Euro zone* ultimately leads to the *fragmentation of the single market*, which is the main pillar of the EU. Subsequently, the fragmentation of single market could blow a devastating effect on all the national economies, both within the EU and at the regional and worldwide level too.

The draft of regulation for the Single European Bank Surveillance System includes several provisions, three of which are mostly debated: the institution which to monitor the banks throughout Europe; the number of banks to be included in this system and whether the banks from the member states that are not within the Euro area should be included or not within this system.

These provisions have both supporters and contenders. The supporters of the last two provisions invoke the same requirement, which is to preserve the integrity of the single market of the financial services.

Under the pretext of a better protection of the economy, of the clients and of the financial sector, the EU financial experts recommended the division of the banking operations: separation of the investment banking from the commercial banking. These recommendations have already been implemented by several countries such as Great Britain and the USA. The European proposal demands that the two operations (investment banking and commercial banking), but that they maintained within the same universal commercial bank, preserving thus some group synergy. The investment banking services will be allowed only for the banks which have deposits. The separation of the two operations should become compulsory only if the value of the traded assets and of the assets available for sales exceeds by 15-25% the total value. The European financial experts consider that in this way, the banks would become more simple and easier to monitor.

EU recommendation is strongly criticised both by the banks and by some analysts who consider that the banking system will suffer due to additional financial efforts.

Given the power of the large banking groups and, therefore, their reluctance towards this recommendation, the authorities may demand a deeper separation in order to require the division of the large banks. Currently, in the EU there are very many banks with a rather precarious capitalization. The demanded division would just weaken further their capital and therefor increase the operational costs of these banks, which would, of course, end up being borne by the clients.

Although the fragmentation of the financial market started on the background of the sovereign debts crisis (consequence of the global economic and financial crisis), it continues to disturb the existence of EU countries and will continue to do so even after the misbalances will be solved, thus affecting the capacity of the banks to provide credits to the economy. The economic and financial crisis produced strong disturbances within the banking market by the build-up of sovereign debts within the portfolio of the banking system, particularly in the countries experiencing hard times (Greece, Ireland, Cyprus, Italy, Spain, Portugal and Slovenia). As this problem was noticed, the EU banking system, particularly the banking system within the Euro zone, tried to reduce gradually their exposure to these countries, so that indebtedness turned even more difficult and getting loans became restrictive not just for those particular countries, but also for the banking system from these states affected by the sovereign debts crisis. Thus, the phenomenon of financial market fragmentation within the Euro zone is the result of the difficult conditions encountered by the issuers of sovereign debts bonds, of the liquidity and capital constraints affecting the financial sector (the banking sector particularly), but also of the current overall economic situation, the economy still being in a state of stagnation.

Furthermore, although it rather seems to be some kind of regional problem, the sovereign debts crisis from the Euro zone may be serious threat to the global financial stability², on the background of the persisting feeling of uncertainty on the markets, which contributes to the deficient distribution of the capitals both at the level of a country or region, both between countries and geographical areas of the world.

The countries affected by the sovereign debts crisis display *considerable pressures on the financial crisis due to the lack of access to financing*, which produces imbalances of capital allocation

² IMF, *World Economic and Financial Survey, Global Financial Stability Report, Restoring Confidence and Progressing on Reforms, October 2012.*

and which disturbs the price of the assets. Fragmentation was also noticed within the banking system by “clogging” the transmission channel of the funds from the lenders to the borrowers. The non-financial sector, mainly the SMEs suffer most on the short term in the countries affected by the sovereign debts crisis. For instance, in these countries, the financing cost for the SMEs is twice as high as in other countries, in Spain, the financing cost for the SMEs being 35% higher than the average of the Euro zone (Maudos, 2013). The disturbance of the non-financial system due to the restricted access to financing is reflected sooner or later on the financial system of a particular country, affecting ultimately the financial stability of that country spreading, by contagion, in wider areas (such as the Euro zone, all the EU).

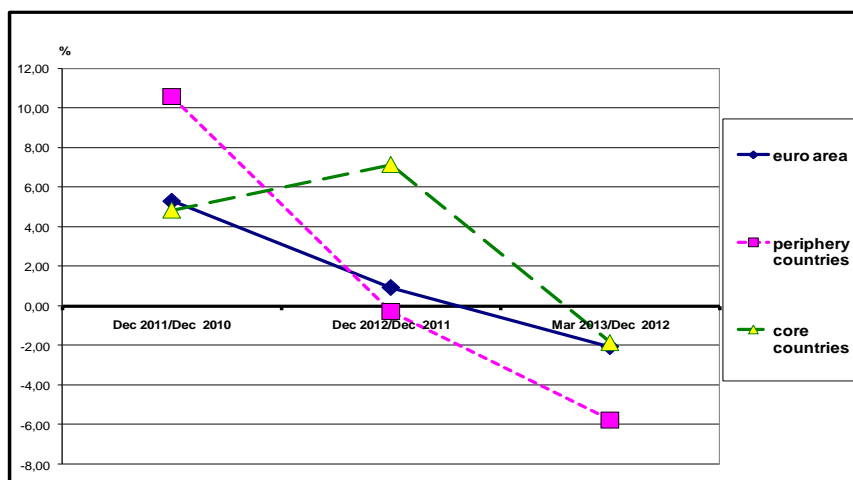
An indicator of the financial fragmentation is the relocation of the bank deposits. Thus, the investors and the large companies, showing an increased sensitiveness to the variations in the state of the countries affected by the sovereign debts crisis, moved their deposits from these countries to “safer” countries, sometimes within the same geographical area. For instance, the deposits from the Euro zone countries with problems migrated towards other countries from the Euro zone (since the end of 2011, this internal relocation of the deposits reached 6 billion Euro, according to ECB (BCE (*Financial Stability Review*, December 2012)).

We may also notice the *orientation of the financial decisions towards their own country*, both concerning the accumulation of sovereign debt and concerning the credits for investments, in order to decrease the cross-border exposure. This phenomenon can be seen from the decreasing inter-banking credit of the banks resident in the countries less affected by the sovereign debts crisis towards banks from the countries affected by the sovereign debts crisis. For instance, as of the end of 2011, the cross-border credits decreased by 17% for the banks located in countries experiencing difficulties, compared with just 2% in the rest of the Euro zone (BCE, 2012).

As a natural consequence of these aspects shown above, the *availability of foreign finances to support the private non-banking sector decreased, while the differences in the cost of financing increased*. The rate of credit increase displayed a negative growth (more than -5%) in the Euro zone periphery countries affected by the sovereign debts crisis (Figure 1), the situation displaying large difference within the entire EU. The decreasing demand for credits in the euro zone countries in difficulty was not accompanied by the decrease of the interest rates for the bank loans, which shows that

the offer of credits plays an important role in the preservation of this situation, the Euro zone still being dominated by a strong risk aversion and by a macroeconomic environment which still is extremely frail. Furthermore, the companies and the population from the countries affected by the sovereign debts crisis are much more dependent on the bank credits, fact which worsens their perspectives of getting the financing they need.

Figure 1 – Foreign credits of the banks towards the non-banking sector from the Euro zone, annual growth (%)



Source: BIS data, calculations by the author. The core countries are considered to be: Finland, Germany, Luxemburg, Netherlands, Belgium, Estonia, France, Malta, Austria, Slovakia, while the periphery countries are considered to be: Greece, Ireland, Cyprus, Italy, Spain, Portugal and Slovenia

Actually, as a consequence of the unfavourable evolutions and of the tensions displayed by the markets of the sovereign debts, a higher credit risk is perceived and associated to the banks from the Euro zone, particularly to the banks from the countries having difficulties to manage their sovereign debts. As the credit risks increase, the banks from the countries affected by the sovereign debts crisis recorded higher costs for refinancing. Thus, the lower volume of credits taken by the companies and by the population can be perceived as a response reaction to credit limitation showing the fragmentation of the inter-banking monetary market. In 2012, part of the deficit of funds felt on the market of the inter-banking credit, securitized or not, was covered by ECB operations, particularly by the LTROs, aimed to inject liquidity within the system. Besides the lower

volume of loans, a lower volume of the inter-banking cross-border deposits was recorded. For instance, according to ECB (*Financial Stability Review*, December 2012), in mid 2012, the inter-banking cross-border deposits accounted for just 20% of the total inter-banking deposits within the Euro area, compared to 45% in 2008.

The sovereign debts crisis put pressure on the banking markets by deteriorating the financing perspectives, which contributed to the fragmentation of the banking sector from the Euro zone and not only. The sovereign risk affected in many ways the financing conditions of the banks. Thus, the sovereign debts “embedded” into the balances among the purchased debts titles, lead to a higher exposure of the banks to the evolution of the debts, weakening at the same time the perception of the investors about the quality of the banking system particularly in the countries strongly affected by the evolution of the public debts.

At the same time, the expansion of the sovereign risk questions how much and what part of the banking portfolio is still sustainable, so that the banking system can continue to borrow. The shift of debts from one state to another, through the banking system, perpetuates the contagion effect between states, deteriorating the financing conditions both within the Euro zone countries and the EU as a whole, and at the level of the banking system.

It is difficult to foresee, both in time and space, the conjugated effect of the sovereign debts crisis on the banking system from the Euro zone and on the economies from the Euro zone countries, but it is visible that fragmentation remained an important problem which threatens the financial stability from this part of the world. ECB, through the standard and non-standard measures taken from the very moment when the sovereign debts crisis started to show up, tried to alleviate the dangers threatening the financial stability of the Euro zone and to correct the transmission mechanism of the monetary policy, the local conditions for credit having to reflect the adjustment of the key interest rates of ECB monetary policy. The European Council too joined ECB measures to limit the adverse effects of the sovereign debts crisis by establishing possibilities for direct recapitalization of the banks through the European Stability Mechanism, as the Single Supervisory Mechanism became operational in June 2012, in the attempt to break the adverse relations between the sovereign debts crisis and the functioning of the banking system.

The operational costs, which are still very high, may lead to a process of disordered disintermediation at bank level, thus causing

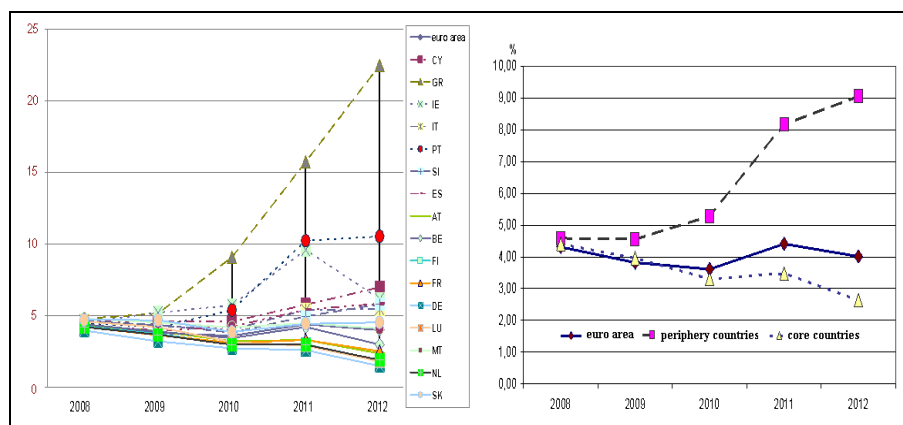
the fragmentation of the banking market. The eligibility conditions for credits are still tightened on the background of these high costs, particularly for the small companies, which don't have at all an easy access on the capital market. For instance, according to the report on the financial stability from May 2013, ECB showed that the average interest rates for new loans taken by SMEs (of about 1 million Euro) in Germany and France were at historical low limits, below 3%, while the similar rates reached values of 4.5-5% in Italy and Spain. This leads to the fragmentation of the market for banking financing, contributing to the economic divergence of the countries from the Euro zone. Actually, it might be even worse the fact that besides the fragmentation of the financing by the migration of the capital from one country to another, a process of relocation of the companies may occur, based on reasons of economic, fiscal, politic and social environment, plus the actual conditions of financing from the banking market of a particular country.

Of course, it is only normal and natural that there are differences of cost between the products offered by the financial-banking system, which enables an efficient allocation of the capitals within a particular country or between countries. However, if the differences are noticeable (both geographically and in time), they may lead to important migrations of the capital towards more attractive areas, and this will create a local "vacuum" of financing which is difficult to cover on the short and medium term. This has actually happened within the Euro zone, producing a strong divergence between the interest rates for the credits granted by the core countries and by the periphery countries. The fast migration of the capitals from the countries at the "periphery" of the Euro zone towards the core countries may lead to the phenomenon of *sudden stop* and even to currency crises.

At the same time, the monetary transmission mechanism showed to have flaws, particularly since even though ECB reduced the monetary policy interest rates, this was not been seen in the interest rates for the credits granted by the periphery countries.

If we watch the interest rates for the long-term governmental bonds according to the Maastricht criterion over the period 2008-2012, we may notice that the gaps widened between the core countries and the periphery countries affected by the sovereign debts crisis (Fig. 2).

Figure 2 - Interest rates for the long-term governmental bonds according to the Maastricht criterion (%)



Source: BIS data, calculations by the author. The core countries are considered to be: Finland, Germany, Luxemburg, Netherlands, Belgium, Estonia, France, Malta, Austria, Slovakia, while the periphery countries are considered to be: Greece, Ireland, Cyprus, Italy, Spain, Portugal and Slovenia

The graph shows a “compression” or reduction of the gaps between the yields of the long-term governmental bonds in the core countries and an increase, or “explosion” of them in the periphery countries. Thus, over the period 2008-2012, the minimal values were reported for Germany, while the largest values were reported for Malta, Ireland and, lately, for Greece, the differential between the minimal and maximal data increasing strongly from just 0.83% in 2008 to 21% in 2012. The higher volume of such bonds in the portfolio of banks increased the risks assumed by the banks and, implicitly, the cost of their products. Hence, the investors were worried by the possibility of higher costs of bank recapitalization, of higher risks attached to the fiscal consolidation of the Euro zone countries (particularly the countries having difficulties with the public debt) and of an even deeper economic contraction. Thus, the withdrawal of a significant share of investors active on the market of the sovereign debts in the countries from the periphery of the Euro zone affected the banking market from these countries by a lower volume of deposits of the non-resident people and by a lower availability to provide financing,

Regarding the bank assets, although the European countries made important efforts to recapitalise, strengthening their balance and preventing an important reduction of the assets, however,

according to IMF³, from the end of the third quarter 2011, until the end of the second quarter 2012, the total assets (excluding the derivatives and the intangible assets) of the largest banks in the EU decreased by 600 billion USD or 2% of the total bank assets.

Because of the phenomenon of fragmentation, in the first quarter of 2012, much of the process of de-intermediation which contributed to the decrease of bank assets, is due to the policy of banks to reduce the size of their balance by de-investment and reduction of the less important activities (such as Great Britain), by the decrease of the assets in other currencies (for instance, the French banks reduced their exposure towards the assets expressed in US dollars), by selling their branches in other parts of the world (for instance, the Danish banks closed their subsidiaries from the United States and Latin America, while some Austrian banks sold their subsidiaries from Easter Europe counties), by separating the banking activity from other activities (such as from the insurance activity, in Denmark) (IMF, 2012). Therefore, we should not be surprised by the increasing gaps between the core and the periphery countries in terms of credits granted for the economy, this process gaining speed in the first groups of countries and crashing in the second group because of the significant reduction of the exposure of the banks towards the countries from the periphery of the Euro zone.

At the same time, the phenomenon of fragmentation can also be a consequence of the reactions to the persistence of risks related to the redenomination of the Euro (the countries aiming to revert top the local currencies). Although the risk of redenomination is not significant, meaning that it will actually happen, however, the important banks from the EU, particularly from the Euro zone, tried to compensate locally the assets with the liabilities and to limit financing by the “mother” banks for their representatives in the periphery countries.

Furthermore, according to IMF (2012), the European banks used their subsidiaries from the periphery countries of the Euro zone to obtain financing through LTROs refinancing operations, and some cross-border banks operating in the periphery countries used, through their branches, the sovereign debts of the particular periphery countries to obtain liquidity from the local central banks. This situation is also due to the regulations which aim to protect the local depositors. As an adverse effect of these regulations is that, wanting

³ IMF, *World Economic and Financial Survey, Global Financial Stability Report, Restoring Confidence and Progressing on Reforms, October 2012.*

to avoid contagion, some host countries imposed restrictions to the banks from the periphery countries to obtain funds from other countries through their branches. Actually, each country tried to protect against a possible outflow of capitals or against contagion with the sovereign debts crisis through the banking system, thus deepening further the gaps between the core and the periphery countries of the Euro zone. These gaps led to the fragmentation of the financial-banking market, concomitantly with a phenomenon of financial “repression”⁴.

Conclusions

At the beginning of 2013, the fragmentation of the banking market was still a problem, the financing costs remaining still very different depending on the country where the bank had its headquarters and on the bank size. The financing costs remained extremely high, even for the large banks from the Euro zone, even though they are privileged and have an easier access to financing. As of February 2013, the process of issuing bonds slowed significantly due to the uncertainty related to the elections in Italy and after the official assistance for the banking sector from Cyprus. Although issuing bonds means that the activity is resuming, we may say that the still persistent volatility of the financing markets can produce a deterioration of this process. Hence, it is extremely important that bank surveillance is strengthened; by improving the system of regulations bank surveillance could provide a coherent and predictable framework for bank financing.

Thus, in order to reduce the phenomenon of market fragmentation, it is necessary to stabilise the market that provides financing for the economy, particularly of the banking market, to temper the strong movement of the capitals and to release the process of European integration solving, at least partially, the fiscal-budgetary problems within the Euro zone.

The banks from the Euro zone hold an important share of the Romanian banking system. Hence, Romania, next to the other “host” countries of the banks from the Euro zone, must get involved in solving the problems of a possible contagion from the Euro zone

⁴ According the IMF, the financial repression refers to the fact that the local banks are encouraged or asked to buy part of the national governmental bonds, which makes them reduce their portfolio of assets provided for the purchase of these assets thus remaining within their own parameters of debt payment.

banking system, particularly to avoid the fragmentation of its financial system.

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THE CURRENT ACCOUNT OF ROMANIA – EVOLUTION, FACTORS OF INFLUENCE, FINANCING

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Abstract

The balance of the current account is a tool used to establish the level of economic development of a country, its international specialization and its degree of dependence on foreign markets. Based on the analysis of a few indicators considered relevant by the author, the article⁹ aims to present the evolution of Romania's current account balance and of its components during the period 2005-2013, showing the determinants, and highlighting the extent to which the crisis has been one of the factors influencing Romania's current account. Also, the ways of financing Romania's current account deficit will be analysed, highlighting the advantages and disadvantages of this type of financing.

Keywords: incomes, services, deficit, financing, investment, foreign loans and credits

JEL Classification: F14, F32, G01

1. Introduction

As it is known, the current account balance is an instrument which characterizes the level of economic development of a particular country, the international specialization of each individual economy and its level of dependence on the foreign market.

As of 2003, the current account deficit of Romania increased spectacularly and this rapid growth even questioned, at a particular moment, its sustainability.

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⁹ *The article is based on the chapter "The assessment of the balance of payments", from the research project "The financial stance of Romania" elaborated in CFMR "Victor Slăvescu" in 2013, under the coordination of Prof. E. Dinga, PhD.*

Although from 1997 to 2006, Romania received foreign direct investments which allowed the cover, without problems seemingly, of the negative current account balance, the long-term perpetuation of a high current account deficit is not sustainable because the large inflows of foreign direct investments don't occur continuously, on an unlimited period of time, because they depend on a multitude of factors, some of them exogenous to that particular economy. On the other hand, financing a high current account deficit through foreign direct investments is not efficient if these inflows of foreign direct investments don't increase, after a period, the exports of the recipient economy and if they don't generate added value in the economy.

The situation of the current account balance of Romania changed as of 2009 when, on the background of the international economic and financial crisis, both the deficit and the main source of financing, the foreign direct investments, decreased significantly.

2. The evolution of the current account balance and its components

In Romania, the subaccount of goods and services influences mostly the evolution and balance of the current account. Within the subaccount of goods and services, the goods (commercial balance) have the highest weight.

Monitoring the evolution of exports, imports, trade balance and current account balance we notice that 2009 is a year of breach which shows that the Romanian economy has felt the effects of the economic and financial crisis through the trade channel, the trust channel and through the effect of contagion.

The blockage of the capital markets and the strong decrease of the international financial flows forced the multinational companies to reduce their global expansion within the limit of the available financial resources and this reduced the international trade flows.

The exports of goods and services as well as the exports of goods from Romania increased throughout the analysed period, except in 2009 and 2012 for the goods. After the reduction of 2009, the Romania's exports have resumed their strong increase (except 2012).

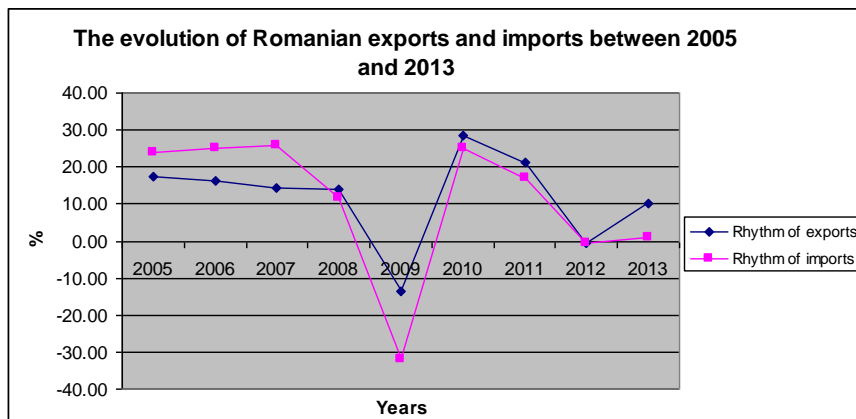
The imports have increased each year until 2008 included. The strong increase of the imports of goods noticed until 2008, in 2010 and 2011 (see Chart 1) reflects the excess of demand on the domestic market (for the final consumption of the households, for the

intermediary consumption and less for the gross formation of capital), and the real appreciation of the national currency. It is important to notice that a high level of dependence of the national economy on imports may affect the sustainable development of the Romanian economy.

The economic and financial crisis has as effect the significant decrease of the imports in 2009. Since many of the raw materials and intermediary products used in Romania are imported, this decrease affected negatively the economy: lower volumes of goods required by the manufacturing process, the activity of the economic agents contracted and the economic growth shrank. In 2010 and 2011 there was some relaxation of the situation, when the imports increased strongly on the background of the efforts to overcome the crisis.

As of 2008, the rate of increase of the imports was lower than the rate of increase of exports of goods and services, which improved the trade balance (see Chart 1).

Chart 1



Source: author's calculations based on NBR data

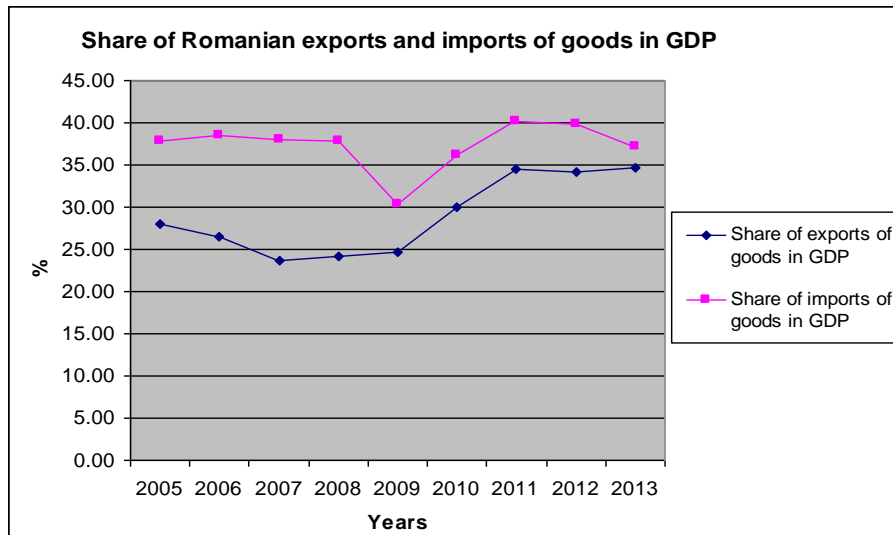
On the background of the international economic and financial crisis, which decreased the domestic and foreign consumption, as well as the national production, the negative balance of the net export decreased over the period 2009-2013, after the sharp increase from 2007-2008. The net export decreased significantly in 2013, on the background of increasing exports of goods and services, which had a much higher rate of growth than the imports of goods and services. Thus, the trade balance deficit decreased in 2013 by more than half compared to 2012, and the surplus of the services subaccount

doubled. If this situation continues, it may be considered as an evolution of the Romanian economy towards the structure of the developed economies, whose sector of services is very developed. If we analyse the structure of the services we may notice that the positive evolution of the balance of this subaccount is due mainly to the transportation services. This might seem a paradox under the conditions in which the road and railway infrastructure in Romania is still not too developed. Within this context, given the high demand for transportation through Romania, in order to capitalise this opportunity, we propose that the fast development of the road and railway infrastructure is included among the development priorities of Romania.

The modest share, less than a third, of the exports of goods to GDP (see Chart 2) shows a modest contribution of the exports to the formation of the GDP, due to the lack of a macroeconomic policy aiming to consolidate the Romanian exports, due to the incapacity of the exports to capitalise the opportunities arising from the increasing openness of the Romanian economy towards the international markets, and due to the insufficient adaptation of the industrial production to the requirements of the foreign markets. The increase of the share of exports to GDP in 2010 and 2011 can be explained by a slower rate of GDP growth due to the effects of the international financial crisis. The value from 2012 is almost equal with that from 2011, which shows, on the background of the slight decrease of the exports of goods, the economic stagnation from 2012, a worrying situation for Romania, which seems not to have yet recovered from the effects of the economic and financial crisis.

During the analysed period, the share of imports of goods to GDP exceeded constantly the share of exports to GDP (see Chart 2), which had negative effects on the trade balance and on the country's degree of indebtedness. The share of imports of goods to GDP of Romania shows that the domestic production of Romania is completed to a large extent by imports. For this indicator too, 2009 is a year of breach, when it displayed a decrease. Starting with 2009, a decreasing gap has been noticed between the share of imports and exports to GDP (see Chart 2).

Chart 2



Source: author's calculations based on NBR data

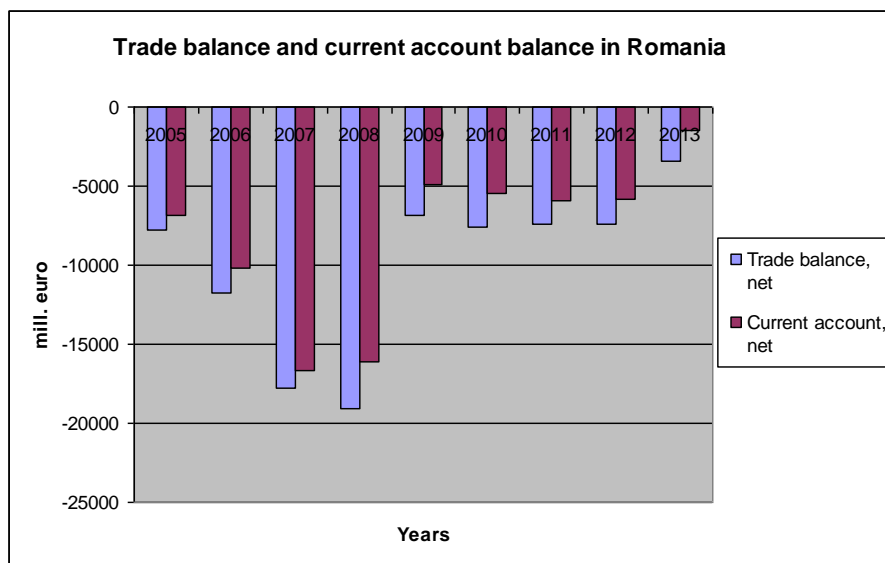
As one may notice from the evolution of the indicators shown above, the crisis of 2008 had positive effects on the trade balance of Romania. On the other hand, as the imports decreased, consumption also decreased, which shows a strong dependence of the domestic consumption on the imports. In order to avoid that the imports increase once the economy recovers, it is absolutely necessary that the domestic consumption becomes oriented towards national products, both by stimulating the Romanian producers and by an awareness-raising campaign of the Romanian consumers towards the national products.

Before the onset of the international economic and financial crisis, the situation was worrisome because the trade balance deficit was constantly increasing (see Chart 3). The increase of the trade balance deficit occurred because the dynamics of the imports was higher than the dynamics of the exports, being stimulated by the increase in the demand for consumer goods, for primary energy resources, by the pay raise and by the fast expansion of the nongovernmental credit for household long term goods. However, this situation tempered down in 2008, when due to the decrease in the volume of imports, the trade balance improved namely the rate of growth of the deficit tempered. Significant decreases of the trade

balance deficit were noticed in 2009 and 2013. The trade balance became rather stable as of 2009.

The increase of the current account deficit is explained the internal structural adjustments of the economy, by the continuation of the process of convergence and by the real appreciation of the national currency between 2005 and 2007, in 2010 and 2013. As of 2008, the balance of the current account decreased, the most significant decrease being recorded in 2013 (see Chart 3).

Chart 3



Source: author's calculations based on NBR data

The negative value of the share of the trade balance deficit to GDP shows that the deficit of the trade balance affects the domestic economic process, which calls for concrete measures in the field of macroeconomic policies in order to stop the outflow of the national income. This indicator had much lower values in 2009-2013 due to the effects of the economic and financial crisis on the foreign trade of Romania (see Chart 4).

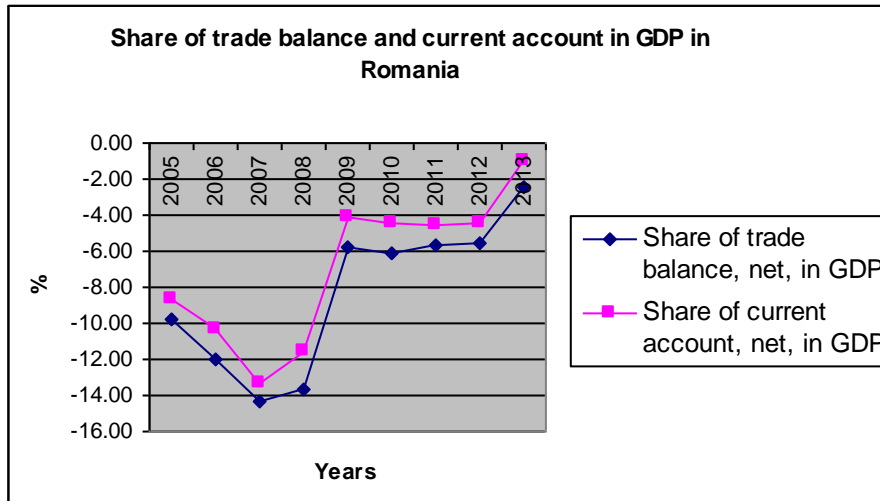
Although the share of the current account deficit to GDP exceeded the conventional threshold of sustainability of the current account deficit (5% of the GDP, according to IMF), in each year from 2004 to 2008 (see Chart 4), the value of the foreign deficit of Romania was not worrisome because its financing was ensured, particularly by inflows of foreign direct investments. Apparently, the

Romanian economy has opened towards the world much faster than it has been restructured.

Between 2009 and 2013, the share of the current account deficit to GDP was below 5% due to the effects of the economic and financial crisis, which came into Romania through the channels of trade and trust and by contagion. This evolution shows that an external factor, such as the crisis, may induce, on the short term, positive changes in the share of the current account deficit to GDP, but they are not deep long time changes.

It is necessary that the decrease of the current account deficit takes place due to the reorganisation of the economy on sustainable bases. This evolution prevents the increase of the share of the current account deficit to GDP once the world economy revives. Furthermore, it is advisable that the economy re-orientates towards fields of activity in which Romania has competitive and comparative advantages, process which should ensure the medium and long-term sustainability of the current account deficit. The evolution from 2013 shows a possible improvement of the quality of the Romanian exports and an adaptation of their structure to the foreign demands.

Chart 4



Source: author's calculations based on NBR data

The analysis of the trade balance share to current account balance shows that, throughout the analysed period, the evolution of the trade balance was the cause of the current account deficit,

evolution supported by the indicator “the normed length of the vectors of structure of the current account on debit and credit” (see Table 1).

Table 1 The normed length of the vectors of structure of the current account

Indicators	2005	2006	2007	2008	2009	2010	2011	2012	2013
Normed length of the vector of structure of the current account on credit*	0.63	0.59	0.55	0.55	0.61	0.70	0.74	0.73	0.74
Normed length of the vector of structure of the current account on debit **	0.76	0.74	0.68	0.71	0.74	0.79	0.79	0.77	0.73

Source: author's calculations based on NBR data.

* Formula of calculation:
$$\overline{vsc\overline{c\overline{c\overline{c}}}}_i = \frac{vsc\overline{c\overline{c\overline{c}}}_i(e) - vsc\overline{c\overline{c\overline{c}}}_i(m)}{vsc\overline{c\overline{c\overline{c}}}_i(M) - vsc\overline{c\overline{c\overline{c}}}_i(m)},$$
 where

$$vsc\overline{c\overline{c\overline{c}}}_i = \sqrt{\sum_{j=1}^3 (\overline{c\overline{c\overline{c}}}_i^j)^2},$$

where

$$\overline{c\overline{c\overline{c}}}_i^j = \frac{c\overline{c\overline{c}}_i^j}{c\overline{c\overline{c}}_i}$$

where,

- $vsc\overline{c\overline{c\overline{c}}}_i$: vector of structure of the current account on credit, at moment (year) "i",
- the "e" between brackets refers to the measured (observed) value of the vector's length,
- the "m" between brackets refers to the minimal possible value of the vector's length,
- the "M" between brackets refers to the maximal possible value of the vector's length,
- $c\overline{c\overline{c}}_i^j$: component "j" of the current account on credit, at moment (year) "i",

- CCC_i : nominal value of the current account on credit, at moment (year) "i"

** Formula of calculation: $\overline{vsccd}_i = \frac{vsccd_i(e) - vsccd_i(m)}{vsccd_i(M) - vsccd_i(m)}$, where

$$vsccd_i = \sqrt{\sum_{j=1}^3 (\overline{cccd}_i^j)^2}, \text{ where}$$

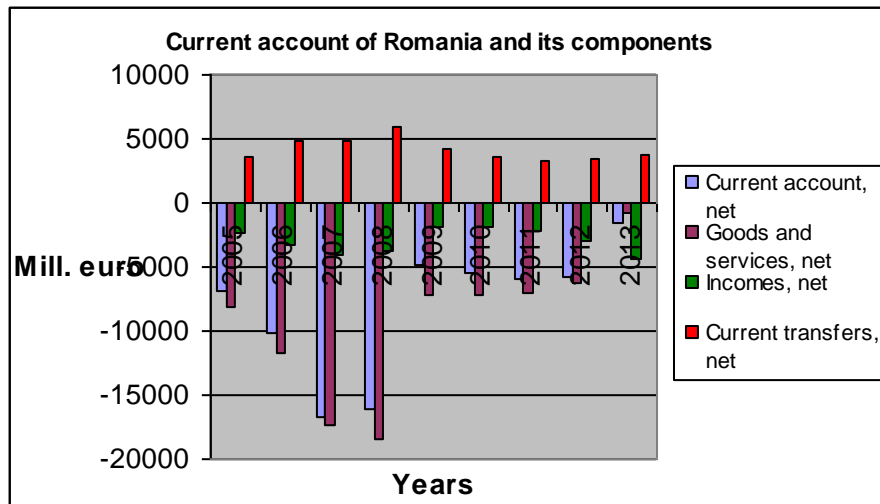
$$\overline{cccd}_i^j = \frac{cccd_i^j}{CCD_i}$$

where,

- $vsccd_i$: vector of structure of the current account on debit, at moment (year) "i"
- the "e" between brackets refers to the measured (observed) value of the vector's length,
- the "m" between brackets refers to the minimal possible value of the vector's length,
- the "M" between brackets refers to the maximal possible value of the vector's length,
- $cccd_i^j$: component "j" of the current account of debit, at moment (year) "i"
- CCD_i : nominal value of the current account of debit, at moment (year) "i"

The evolution of the balance of the subaccount of incomes oscillated during the analysed period (see Chart 5). Thus, the deficit of the balance of revenues increased until 2007 included, thereafter it decreased and it increased again between 2010 and 2013.

Chart 5



Source: author's calculations based on NBR data

Within the balance of the incomes, the positive balance of the compensation of employees has contributed to the deficit reduction during the analysed period, with increasing values from 2005 to 2007. As of 2008, the positive balance of the revenues from work decreased, with a significant decrease in 2009.

Regarding the direct investment income, one may notice high rates of benefits outflows from 2005 to 2008, followed by a sizeable decrease in 2009. The increase of the deficit of direct investment income has resumed in 2012.

The balance of the portfolio investment income oscillated from one year to the next one, displaying either positive or negative values, which were low.

The balance of income from other capital investment (interests) was negative and it increased from 2005 to 2008, in 2011 and 2012.

In conclusion, the deficit of the subaccount of incomes consists mainly of the deficits of the direct investment income and income from other capital investment (interests).

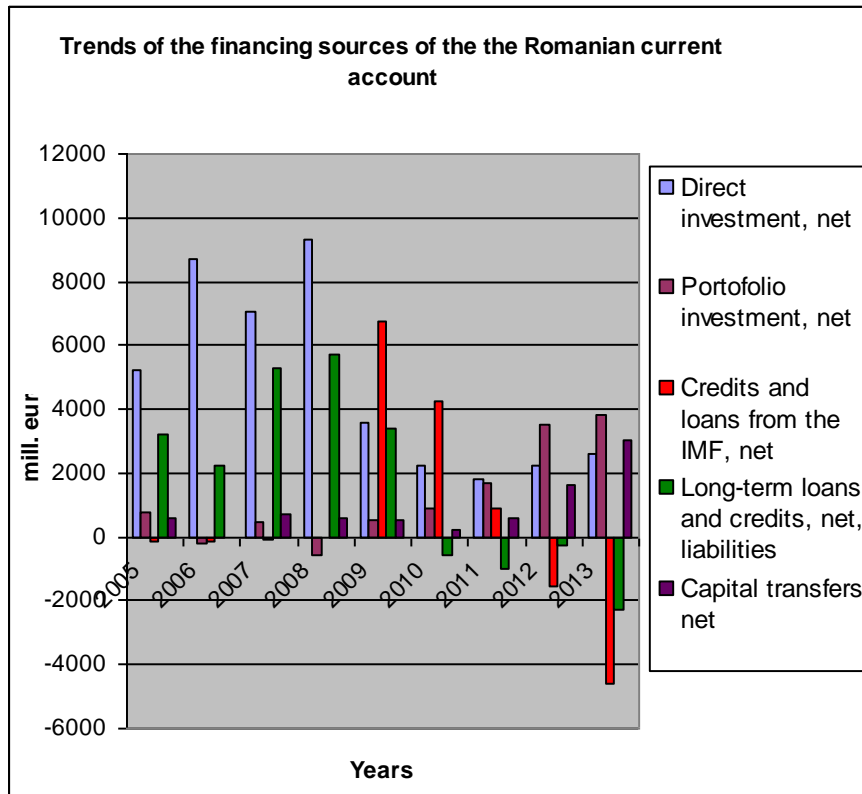
The positive balance of the subaccount of current transfers counterbalanced partially, in each year of the surveyed period, the current account deficit (see Chart 5). 2009 was a year of breach for this subaccount too, when the increase of the positive balance

stopped and it was followed by a decrease until 2001, included. The transfers of other sectors compose most of this subaccount.

3. Financing the current account deficit

The financing of the current account deficit had a turning point in 2009 too; the inflow of “free” capitals decreased, while the inflows of capitals contracted by the state increased (see Chart 6). This was caused by the effects of the economic and financial crisis which had increased the risk aversion of the investors and had decreased the liquidity worldwide, effects transmitted through the channels of trade and trust and by contagion. The situation improved after 2012, when the inflows of foreign direct investments revived slightly.

Chart 6



Source: author's calculations based on NBR data

Chart 6 shows that after 2010, the importance of the capital transfers within the capital and financial account increased on the

background of the higher inflows of capital for the public administration as EU funds. This evolution is rather late because Romania became EU member state in 2007 and it could have capitalised on such funds from the very same year. Implicitly, the transfers of capital contribute in a higher and higher proportion to the financing of the current account deficit.

After 1997, the foreign direct investments have been the main source of financing the current account deficit in Romania. This structure of financing shows a high level of sustainability of the current account deficit in Romania and the state autonomy in relation with the foreign public debt. On the medium and long-term, however, one must take into consideration the limited nature of the privatizable assets, as well as the effects of the world economic crises such as the increase in the risk aversion of the investors, the decrease in the amount of liquidity and the persistence of the basic factors which generated the foreign imbalance. Among them, the most important is the type of economic growth based on the internal absorption, not on the net export, reflected, among others by:

- the existence of a lower rate of growth of exports than the rate of growth of imports (except a few years) (see Chart 1);
- the annual increase, from 2003 to 2008, of the weight of the current account deficit within the GDP (see Chart 4).

The high level of inflows of foreign direct investments in Romania in the years preceding the crisis shows the high confidence of the foreign investors in Romania. While up to 2008, the inflow of foreign investments has not been affected by the international economic and financial crisis, the situation has changed as of 2009. On the background of a higher aversion to risk, between 2009 and 2011 the foreign investors had not considered Romania to be a favourable location for profitable business. This situation changed slightly in 2012 and in 2013 (see Chart 6). It remains to be seen whether this trend is a long-term one or whether it is merely conjunctural. The lower inflow of foreign direct investments in Romania, from 2009 to 2011, is due both to the internal factors, among which the lower stock of privatizable assets, the very poor economic growth which was no longer able to attract green-field investments, and to the external factors such as the higher risk aversion of the investors within the context of the international turbulences, the high crisis of financial liquidities and the lower growth perspectives of the economies receiving foreign direct investments.

In 2009 the current account deficit has been covered mainly by foreign direct investments, on the background of the strong decrease of both the external deficit and of the inflow of foreign direct investments (see Chart 6). The contribution of the foreign direct investments to the financing of the current account deficit has deteriorated as of 2010, as the external deficit increased and as the foreign direct investments continued to diminish; 2013 showed some improvement of the situation as the current account deficit decreased significantly and the inflow of foreign direct investments increased slightly.

Therefore, the net foreign direct investments have been and continue to be a very important factor, which counterbalances the current account deficit in Romania, even though its share has decreased significantly (see Chart 7).

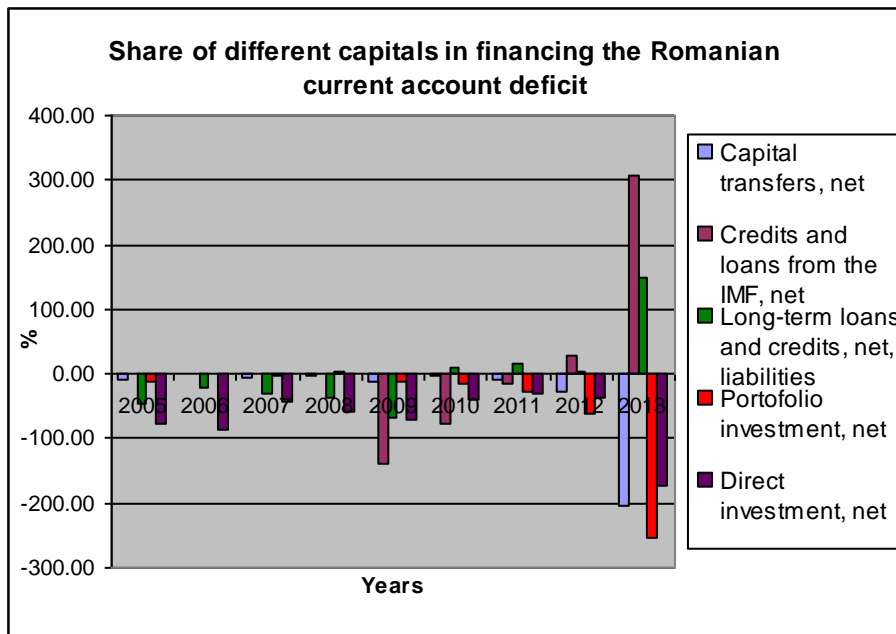
The action of the automatic fiscal stabilizers affected the budget situation in Romania by increasing the amount necessary to finance the public debt. Under the conditions in which the internal resources were insufficient, Romania asked for foreign assistance from the international financial institutions (International Monetary Fund, World Bank, European Commission). Thus, from 2009 to 2011, the credits and loans from the International Monetary Fund were an important source used to cover the external deficit. However, starting with 2012, the situation reversed and Romania started to pay back the loans towards the International Monetary Fund, situation which produced major effects both on the balance of payments and within the economy. Thus, the imports of goods reduced drastically. Therefore, an advantageous structure of the balance of payments has to be found, adapted to the level of development of Romania.

The long-term loans and credits, liabilities, show inflows of funds from private sources from 2005 to 2009, followed by outflows as of 2010. This evolution reflects in the way in which those capitals were used to offset the current account deficit. As of 2011, the situation reversed and these flows contributed to the formation of the external deficit, as some of the loans have been paid back (see Charts 6 and 7).

The use of foreign credits and loans to finance the external deficit and to support the economic growth requires the analysis of the microeconomic risks (higher exposure to a possible foreign shock and the effects on the Romanian banking system) and of the macroeconomic risks as well, in terms of the foreign debt

sustainability. Among the risks generated by the increase of the medium and long-term foreign debt there are the exchange rate risk (an important depreciation of the exchange rate would increase significantly the cost of the foreign financing) and a higher risk premium if the perception of the investors changes and they withdraw the capitals either due to an internal shock or, by contagion, following a crisis in a country in the region, with effects in the direction of the increase of the cost of the public debt service and of imposing harsher conditions on the states which use or are compelled to use this method of financing.

Chart 7



Source: author's calculations based on NBR data

Note: the plus sign shows the contribution to the increase of the current account deficit, while the minus sign shows the contribution to the reduction of the current account deficit

4. Conclusions

From the analysis, we can see that 2009 has represented a breach in the evolution of all the components of the current account, which shows that the economic and financial crisis had multiple

effects on Romania, through the trade and trust channels and through contagion.

All along the analysed period the imports exceeded the exports, which increased the trade balance deficit during the period preceding the manifestation of the international economic and financial crisis. It must be taken into consideration that a high level of dependency of the national production on imports may cause adverse effects on the economy and may affect the sustainable development of the Romanian economy.

The crisis improved the situation because as of 2008, the rate of growth of imports was lower than the rate of growth of exports (goods and services), which improved the trade balance.

Since the imports decreased and the consumption diminished too following the crisis started in 2008, we notice a strong dependency of the domestic consumption on imports. Within this context, we consider proper that the domestic consumers should be oriented towards national products, both by stimulating the Romanian producers to provide the demanded, high quality goods, and by raising the awareness of the Romanian consumers towards national products.

The low share of the exports of goods to GDP shows the modest contribution of the exports to the formation of the GDP, explained by the incapacity of the exports to capitalise the opportunities provided by the increasing openness of the Romanian economy towards the international markets and by the insufficient adaptation of the industrial production to the requirements of the foreign markets.

Since the transportation services are one of the factors, which have contributed lately to the decrease of the current account deficit and given the high demand for transportation through Romania, the road and railroad infrastructure must be developed as fast as possible.

The high share of the current account deficit to GDP shows the negative effect of the current account deficit on the domestic economic process, the conventional sustainability threshold of the current account deficit (5% of the GDP) being constantly exceeded from 2004 to 2008. The share of the current account deficit to GDP has not been a reason to worry as long as the current account deficit was financed particularly through the inflows of foreign direct investments. As of 2009, the share of the current account deficit to

GDP has been lower than 5%, because of the effects of the economic and financial crisis. This evolution shows that an external factor, possibly cyclic, as a crisis, may induce on the short-term a trend of diminishing the current account deficit to GDP, but the change is not for a long period. The decrease of the current account deficit should occur due to the reorganisation of the economy on sustainable bases, so that the share of the current account deficit to GDP doesn't increase when the world economy revives. Furthermore, the economy should target areas of activities in which Romania has competitive and comparative advantages, process which should ensure the medium and long-term sustainability of the current account deficit.

The financing of the current account deficit came mainly from foreign direct investments after 1998 (autonomous sources of investments), which shows the high sustainability of the current account deficit in Romania.

The year 2009 was a turning year for the financing of the current account deficit too, the inflows of "free" capitals decreasing, while the inflows of capitals contracted by the state increasing. This was due to the effects of the economic and financial crisis by increasing the risk aversion of investors and by decreasing the global liquidity, effects transmitted through the financial and trust channels and by contagion.

The analysis of the current account financing in Romania shows the need to find a balanced share between the sources of financing which produce foreign debt and the foreign direct investments, as well as to draw a uniform payback schedule of the due payments, so that the outflows of capital don't affect adversely the domestic economic process.

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