

Main Guidelines for the Coordination of the Macroeconomic Development Specific to the Current European Context

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Abstract

The emergence and evolution of some phenomena according to the economic shocks category are, for the current macroeconomic environment, facilitated by the evolution, towards very complex levels, of the real economy relations, which have been extended to the international dimension, by the following two steps:

- *the economic co-operation of some already developed national systems, and*
 - *the evolution of the economic integration processes,*
- which have multiplied and developed the transmission systems of the economic shocks over the macroeconomic borders.*

In such situation, the participation of the macroeconomic national systems to international economic co-operation programs have associated macroeconomic risks having an intensity degree with the high likelihood of effects emergence, directly proportional to the complexity level of the economic co-operation program. This level has become a real source for the transmission channels of the macroeconomic shocks all over the system, as it is represented by the economic co-operation area.

Key words: *macroeconomic, integration, system, shocks, transmission, evolution, sustainability*

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Introduction

The participation of the national macroeconomic systems to programs of international economic cooperation involves transmission channels for the macroeconomic shocks throughout the system represented by the area of economic cooperation – channels whose network is associated to a level of complexity directly proportional to the complexity of the relations of economic cooperation.

Consequently, by assuming risk administration as priority objective – subordinated to the main strategic objective of sustainability – we will notice the necessity for a correspondence of the administrative capacity of the macroeconomic administrative system with the level of complexity of the transmission channels for the shocks, having as input the complexity of the economic relations within the system.

In terms of the structure of the economic cooperation area, the administrative optimum at the area level is achieved when the heterogeneity of the composing macroeconomic systems is correlated with the complexity of the program of economic cooperation; this involves two perspectives:

1. The heterogeneity of the composing macroeconomic systems is, itself, a source of potential macroeconomic shocks – shocks that become real in the moment when their evolution is eased by the existence of some transmission channels; consequently, from this perspective, the degree of heterogeneity at the level of the area of economic cooperation must be correlated with the level of complexity of the economic cooperation.
2. The gap between the administrative capacity of the macroeconomic administrative system and the development potential of the real economy represents a second source of macroeconomic shocks – in turn, this perspective can be approached from the standpoint of two subordinated levels:
 - The national macroeconomic level – at this level of approach, the shocks originate in the national macroeconomic framework of a participant to the area of economic cooperation and can be transmitted throughout the entire area of cooperation through the transmission channels associated to the relations of economic cooperation;
 - The zonary level, under the conditions in which the complexity of the form of macroeconomic cooperation presumes common administrative institutions at the area level – situation in which the shocks originate at the regional level and are transmitted throughout the system through transmission channels established by the relations of cooperation.

This revealed the need for a relation between:

- N = the complexity of the relations from the real economy – with a particular case, the complexity of the relations of economic cooperation within an economic area that consists of several macroeconomic entities;
- P = the potential of development of the relations from the real economy;
- C = the macroeconomic administrative capacity,

relation which yields the dimension of some potential economic shocks and which presumes the existence of a sustainable system of correlations connecting the elements of this system which evaluates the sources of economic development as follows:

$$C \leftrightarrow N$$

and

$$C \leftrightarrow P$$

where N , P and C are multitudes consisting of such a number of components that allows the full characterisation of each multitude.

Taking into consideration the above conditions of correlation, the description of these multitudes becomes:

$$N = \{ n_i \mid 1 \leq i \leq v \} \quad (1)$$

$$P = \{ p_j \mid 1 \leq j \leq m \} \quad (2)$$

$$C = \{ c_k \mid 1 \leq k \leq t \} \quad (3)$$

Where:

n_i = the sources which generate transmission channels of the economic effects within the system of economic relations;

p_j = the sources which generate transmission channels of the economic effects within the real economy;

c_k = the instruments of macroeconomic policy needed to administer the processes and phenomena from the real economy when n_i and p_j are active.

This yields, by way of necessity, starting from the hypothesis of an optimal macroeconomic administrative capacity, the condition that:

$$v + m \leq t, \quad (4)$$

The description of this model is valid for a national macroeconomic level or for a macroeconomic area that can be characterised by:

- an administrable level of heterogeneity;
- a unique administrative system.

When the area of action of this national system is exceeded, when it comes to a regional macroeconomic area such as the particular case of the process of European integration, the system of equations that describe the above model needs to represent too the situation produced by the existence of some level of heterogeneity of the composing national macroeconomic entities:

$$E = \{ e_l \mid 1 \leq l \leq z \} \quad (5)$$

Where: z = the number of national entities composing the regional macroeconomic system – case in which, compared to the national macroeconomic case, the condition of optimality of the administrative capacity becomes:

$$v + m + z \leq t \quad (6)$$

In this case, by administrative capacity we understand the reunion of two multitudes, i.e.:

$$C_n = \{ c_k \mid 1 \leq k \leq t \} \quad (7)$$

and

$$C_r = \{ c_h \mid 1 \leq h \leq u \} \quad (8)$$

where:

C_n = the instruments of macroeconomic policy needed to administer the processes and phenomena from the national real economy;

C_r = the instruments of macroeconomic policy needed to administer the processes and phenomena from the regional real economy.

As the process of integration progresses, as the heterogeneity of the national macroeconomic systems decreases, t drops to t_{\min} and u increases to u_{\max} , which represents the optimum of administrative capacity of the integrated regional system, the end of the process of integration. This capacity is represented by:

$$C_{\text{total}} = C_n + C_r \quad (9)$$

where:

$$C_n = \{ c_k \mid 1 \leq k \leq t_{\min} \} \quad (10)$$

and

$$C_r = \{ c_h \mid 1 \leq h \leq u_{\max} \} \quad (11)$$

This is a condition necessary for the macroeconomic sustainability of the process of regional integration – the establishment of a macroeconomic administrative system whose level of development ensures the requirements resulting from:

- Application of macroeconomic policies;
- Administration of macroeconomic risks.

With these specifications, we have to set the conditions arising from the assumption of macroeconomic objectives subordinated to the strategic objective of sustainability, and of the limits of the capacity of macroeconomic administration, t_{\min} and u_{\max} .

Description of the Optimal Pattern of the Administrative System for the Development of the Society, corresponding to the Current Conditions

The analysis from this subchapter will investigate the optimal model of the regional administrative system, based on economic cooperation, starting from the idea that one of the characteristics of the current context is the progress of the regional integration processes, in particular the case of the European integration.

The main motivation for a process of regional integration, at the national and regional level, is that of reaching a sustainable standard and potential of economic and social development, better than the one resulting from the national macroeconomic approach.

Having in mind the strategic objective of finishing the process of regional integration, namely reaching a sustainable standard and potential of economic and social development, better than the one resulting from the national approach, it becomes necessary to design the process of integration using the subsystem of the specific aspects of the future entities composing the region as main input element.

The main results of such methodological process, generated by the characteristic situation of the studied case of integration described by the degree of heterogeneity of the composing entities are:

- The extensive and intensive adjustment of the process of integration, which covers the following aspects:
- Optimal utilization of the development potential of the composing entities by designing a proper process of integration whose consolidated potential of development is the result of the optimal composition of the individual development potentials:

$$pid = f1_{\text{optim}}(pudi), 2 \leq i \leq n \quad (12)$$

where:

pid = consolidated potential of development;

$f1_{\text{optim}}$ = optimal way of composing the individual development potentials, key-element number 1 of the process of integration;

$pudi$ = potential of development of the composing entity „i”;

n = number of entities composing the regional integrated system,

The development of the composition function $f1_{\text{optim}}$ actually is the extensive and intensive adjustment of the process of integration which ensures the accomplishment of the main strategic objective of the process of integration:

- Optimal utilization of the specific individual economic and social elements, so that their contribution to reaching and maintaining the integrated potential of development ensures the accomplishment of a sustainable maximum of the this potential:

$$pid = f2_{\text{optim}}(sudi), 2 \leq i \leq n \quad (13)$$

where:

$f2_{\text{optim}}$ = the optimal modality of composing the specific individual economic and social elements, key-element number 2 of the process of integration – element whose final form must ensure the preservation of the relative economic advantage or each composing entity; this relative economic advantage is one of the elements of the function of potential of economic and social development „i”;

$sudi$ = specific economic and social element of the composing entity „i”;

n = number of entities composing the regional integrated system,

- The design of the administrative system of the regional entity should take into consideration both the maintenance of an optimal level of (institutional, methodological, legislative and procedural) flexibility and the provision of a minimal level of efficiency so that the operation of this administrative system should occur along the following guidelines:
 - the sizing of the regional administrative system so as to establish the functionalities that are strictly necessary to administer regional problems. If this level is exceeded, this actually means the replacement of the administrative functionality of the composing entities by the regional component; this is both inefficient (in the acceptance of this analysis, the reason being that the establishment of the integrated system is associated to an approach based on economic cooperation while preserving the national autonomy of setting the strategies of economic and social development fitting the national potential of development and the specificity of the economic system), and destructive (the uniqueness of a regional administrative form whose size doesn't take into consideration the heterogeneity of the composing macroeconomic entities may create constraints of the macroeconomic trends of development);
 - the flexible operation both of the regional administrative system and of the national administrative systems towards meeting the following objectives:
 - Ensuring the maximal administrative capacity, particularly in the event of macroeconomic shocks;
 - Ensuring the maximal capacity to assimilate the benefits resulting from the establishment of the regional consortium of economic cooperation;
 - The established administrative system should also be used as stimulant for the development of the regional project of economic cooperation;
- The development of national macroeconomic administrative systems operating at high levels of the administrative capacity; this ensures both the correlation between the level of the administrative capacity and the potential of macroeconomic development, and the potential for cooperation, at the administrative level, according to the requirements resulting from the establishment of the regional consortium of economic cooperation;
- The regional administrative capacity does not replace any of the necessary functionalities of the national administrative capacity; rather, it merely correlates with the requirement for administration resulting from the establishment of the regional consortium of economic cooperation, possibly completing the national macroeconomic administrative capacity to manage the possible macroeconomic risks.

Discussing about the materialization of the administrative capacity of the macroeconomic system, and using the following notations:

C_i = macroeconomic administrative capacity of the national entity "i" component of the regional consortium of economic cooperation;

C_r = macroeconomic administrative capacity, established at the regional level, for the needs of regional administration of the problems arising from the establishment of the regional consortium of economic cooperation;

$2 \leq i \leq n$, n = number of the national macroeconomic entities composing the regional consortium of economic cooperation,

C_T = total macroeconomic administrative capacity necessary for the administration of all the macroeconomic problems within the region where the regional consortium of economic cooperation operates,

We have:

$$CT = C_i + C_r \quad (14)$$

where C_i and C_r bear the meaning of C_{iMax} and C_{rMax} , in order to ensure the necessary administrative capacities.

Maintaining this necessary condition presumes that there is no pressure from the regional level on the administration of the national level, the only coordinating principle of the regional consortium of economic cooperation being that of the compatibility between the composing national entities, while the extent of cooperation depends on the heterogeneity of the established regional system.

The Current Macroeconomic Conditions – Factor Determining the Review of the Main Elements of the Societal Development

Besides the main characteristics of the current international conditions, the present macroeconomic situation may be further described using the following circumstances:

- Increasing complexity of the system of channels transmitting the macroeconomic shocks and effects, resulting from the increasing complexity of the real economy;
- Increasing complexity of the system of channels transmitting the macroeconomic shocks and effects, resulting from the development of the processes of regional integration.

Under the present international macroeconomic situation, the macroeconomic effects generated by shocks and transmitted through the channels specific to the international politico-economic development took by surprise most of the national and regional macroeconomic entities by exceeding their administrative capacities and the portfolio of solutions for the administration of these phenomena, thus producing deep economic and social effects.

This requires reviewing the main elements of the processes of development towards the identification of solutions to administer the received economic shocks.

The main aspect and, at the same time, result of this process of reviewing is, obviously, the increased level of agreement between the complexity the system of channels transmitting the economic effects throughout the real economy and the administrative capacity of the macroeconomic system. The following scenarios may be thus applied:

- Limiting, for an optimal length of time, the evolutions which increase further the complexity of the system of transmission channels, in parallel with the increase of the administrative capacity of the macroeconomic system; this will yield, at the end of an optimal length of time, a sustainable level of agreement between the complexity of the system of channels transmitting the economic effects throughout the real economy and the administrative capacity of the macroeconomic system;
- Increasing the administrative capacity of the macroeconomic system until a sustainable level of agreement is reached between the complexity of the system of channels transmitting the economic effects throughout the real economy and the administrative capacity of the macroeconomic system.

At first sight, it may seem optimal to apply the second scenario, the main potential reasons being related to the continuity of the rate of economic development. However, given the possible deep economic effects and the risk of their spreading through the transmission channels specific to the current stage of development of the international economy, in the acceptance of this study, we propose to select, as reference, the first scenario as it was generally described above.

The particular case of this scenario is, generally speaking and in agreement with the general subject of analysis, the case of the European Economic and Monetary Union, particularly the continuation of the process of integration.

Consequently, in the acceptance of this analysis, given the current international macroeconomic situation, we propose to limit, for an optimal length of time, the evolutions which increase further the complexity of the system of transmission channels, in parallel with the increase of the administrative capacity of the macroeconomic system so as to attain, at the end of an optimal length of time, a sustainable level of agreement between the complexity of the system of channels transmitting the economic effects throughout the real economy and the administrative capacity of the macroeconomic system. This process involves the following *stages*:

- Identification, among the directions of development associated to the process of European integration, of those which complicate further the system of cross border transmission channels for the economic effects and which exceed the current macroeconomic administrative capacity of the involved systems;
- Identification of the weaknesses of the administrative capacity of the macroeconomic system;
- Evaluation of the strategies and programs aiming to enhance the agreement of the administrative capacity of the macroeconomic system with the complexity of the transmission channels from the real economy;
- Implementation of the programs aiming to enhance the agreement of the administrative capacity of the macroeconomic system with the complexity of the transmission channels from the real economy
- Reevaluation of the program and of the subsequent performance of the integration process in terms of the:
 - New configuration of the regional and national macroeconomic administrative system;
 - New objectives resulting from the reevaluation of the integration process;
 - Circumstantial perspectives;
- Reorganisation of the integration programs to be continued;
- Continuation of the process of integration also taking into account the possible (as deemed necessary by the reviewed objectives) transformation of the character of “integrated regional system” into a character of “system of regional economic cooperation”.

Defining Elements of the Optimal Scenario of Coordination of the Macroeconomic Development

Generally speaking, an optimal scenario, in the acceptance of the present study, of coordination of the macroeconomic development, must follow a minimal set of conditions, as follows:

- Ensure such a potential for development that the collaboration between the macroeconomic administrative factor and the driving force of the real economy provides a sustainable balance between the societal needs and resources;
- Ensure a sustainable correlation between the administrative capacity of the macroeconomic administrative factor and the potential for development of the driving force of the real economy, which to allow the administration of the system of channels transmitting the effects throughout the real economy towards:

- Risk management;
- Establishing facilities, through measures of macroeconomic policy, towards the development of the real economy; together with the system of transmission channels it may form the technical basis for the implementation of the programs of macroeconomic policies;
- Ensure the cooperation of the macroeconomic administrative factor with the driving force of the real economy towards the definition of objectives and towards setting and implementing the associated strategies and programs; it is essential that the decisions on the orientation, directions of action and the target evolutions are taken within the framework of cooperation between the two key-factors of the national economic and social system
- Identification and employment of a set of principles focusing on the national interest throughout the process of designing and implementation of the programs of economic and social development.

The observance of this set of conditions is likely to ensure the development of the economic and social system on the basis of the principles of prudence and profitability.

Under the conditions of the current international macroeconomic situation, the main element of administration, at any level of economic entity, is risk management and dampening the effects generated by the economic shocks. Phenomenologically, this approach aims first of all to enhance the administrative capacity of the macroeconomic system so that the employed portfolio of administration instruments fits the complexity of the system of transmission channels from the real economy.

Starting from the present world situation which is regarded as a sum of lessons that have to be learnt to the benefit of the future theoretical and practical approaches, this analysis proposes some elements, taken to be important, of a pattern of macroeconomic administration. The design of the macroeconomic administrative system must start from the following aspects:

- The real economy is the driving factor for development;
- The macroeconomic administrative system is the coordinating factor of the development;
- There must be a balanced development of the entire economic system, that may induce the sustainable development of the entire society;
- The operation of the system of macroeconomic policies will be supported by a proper institutional system;
- The size and functionalities of the administrative system are coordinated, in real time, with the requirement of intervention on the real system.

Consequently, the macroeconomic policies will monitor directly both the demand and offer and the size of the framework and of the stimulants needed by the evolution of the demand and offer. The following set of policies is proposed, which will make the system of the macroeconomic policies the main functional link of the central public administration. In the first stage, the system of the macroeconomic policies will include:

- a. The monetary policy;
- b. The currency policy;
- c. The budget policy;
 - i. The policy of revenues;
 - ii. The policy of expenditures;

- iii. The policy of investments;
- iv. The policy of resources;
- v. The policy of reserves;
- d. The fiscal policy;
- e. Policies in the field of labour and social protection:
 - i. The wage policy;
 - ii. The employment policy;
 - iii. The policy of social protection;
- f. The policy of national resources administration;
- g. The policy of investments.

All these policies will be administrated, under conditions of correlation (in terms of the strategic objectives) and of coordination (in terms of implementation of the specific programs) with the view to stimulate and guide the development of the real economic systems.

The system of macroeconomic policies administration is to be coordinated by a National Authority for Economic Sustainability which will collaborate closely with a permanent inter-ministerial commission. The National Authority for Economic Sustainability will be an institution of the central public administration and its main activity will be the permanent correlation of the underlying concepts and strategies which operate the system of macroeconomic policies with the purpose to accomplish the national strategic objectives.

This will probably require the corresponding reconfiguration of the public administrative system.

Conclusions

Taking into account the systemic character of the European Union, the process of European integration refers to a highly heterogeneous system in several areas. This paper is mainly concerned with the economic area, but the process of integration also affects other related areas, such as the social area in terms of mentality and behaviour. First of all, we may conclude that the European Union system is highly varied and heterogeneous by its very nature: composed of highly different entities.

The degree of system heterogeneity given by the differences between the composing entities must fit the depth of the interaction between these composing entities, so that no adverse reactions to system's integrity should appear. During the second stage of development, that aims to reduce the degree of heterogeneity, the interaction between the composing entities may go even deeper.

Since the degree of heterogeneity will not be possibly reduced beyond a threshold level given by the minimal level of the degree of heterogeneity, correspondingly, the depth of the interactions between the composing entities will not be possibly increased beyond a threshold level given by the maximal depth of the interaction; this is in agreement with the condition of preserving the integrity of the system, which requires managing the risk of adverse reactions that may endanger this characteristic of integrity.

In close connection with the general level of the case analysed above, we may identify three stages of evolution that are required by the present system of the European Union once it aims at an integrated macroeconomic system:

- Stage I, characterised by a high level of system heterogeneity, given by the large variety of the composing entities;
- Stage II, characterised by the progress of a process of European integration aiming to reduce the level of system heterogeneity to a threshold value defined as the lowest possible level of system heterogeneity and to increase the intensity of the process of European integration to a threshold value defined as the highest possible complexity of the cooperation relation which maintain the condition of system integrity – the lack of any intrinsic risk to the preservation of system integrity;
- Stage III, characterised by:
 - Setting the functional characteristics of the system;
 - Finalising the process of European integration and its continuation with the complex evolutionary process of the entire system of the European Union.

The current stage of development of the European Union corresponds to stage II of system evolution. This stage is characterised by the following aspects:

- Level of system heterogeneity given by the large variety of the composing entities: $GE > GEMin$
- The process of European integration, which is in progress, aims to reduce system heterogeneity to a threshold value defined as the lowest possible level of system heterogeneity and to increase the intensity of the process of European integration to a threshold value defined as the highest possible complexity of the cooperation relation which maintain the condition of system integrity, considering, however the real aspects of some European economies; in the acceptance of the present analysis, the complexity and objectives of this running process of integration have the following *deficiencies*:
 - Lack of correlation between the complexity and objectives of the process of integration with the level of system heterogeneity GE ;
 - Lack of correlation between the objectives of the process of European integration and the threshold level of system heterogeneity $GEMin$;
 - Lack of correlation between the intensity of the process of European integration and the threshold level of system heterogeneity $GEMin$;
 - The threshold value $GEMin$ of system heterogeneity and the threshold level of the interaction between the entities composing the system (of the cooperation between the composing entities, level of cooperation which is actually given by the depth of integration) are not taken into consideration, of the highest level of the interaction between system components which depends directly on $GEMin$;
- Evolution, at the international macroeconomic scale, of the macroeconomic solidity depreciation of the macroeconomic systems due to the fact that the levels of administrative capacity of the macroeconomic systems have been partially outmatched by the development capacity of the real economy; this hampered the risk management capacity and generated effects that have been transmitted and multiplied through transmission channels specific to the European system – channels that have been multiplied, in turn, by the insufficient administrative capacity of the macroeconomic systems. This situation induced adverse effects within the European system – effects that have degenerated because the levels of administrative capacity of the macroeconomic systems have been substantially outmatched by the development capacity of the real economy systems, by the performance standards of the process of European integration, thus hindering the accomplishment of the programmed objectives.

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Note: the source of the mathematical model is the author's concept.