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## Procedural approach to macroeconomic policy analysis: content and application

**Abstract.** The article under consideration gives prominence to the analysis of macroeconomic policy as a specific area of expertise. It specifies the content of procedural approach to the analysis of macroeconomic policy performance. It defines the applicability of the procedural approach to its basic element, i.e. the

policy problem analysis, by the example of two problems, which have acquired urgent topicality in the Ukrainian economics and politics in 2015-2016. It refers to the problems regarding the changes to the Tax Code and power industry pricing pattern. The article substantiates the expediency of a combination of the procedural approach and policy analysis approaches, such as macroeconomic stability assessment approach, benchmarking approach and the Governance concept. It explains the importance of policymakers argumentation analysis for its problems structuring.

**Keywords:** Macroeconomic Policy; Policy Analysis; Procedural Approach to Policy Analysis; Policy Problems Structuring

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#### Процесуальний підхід до аналізу макроекономічної політики: зміст та застосування

**Анотація.** Статтю присвячено дослідженню предметної сфери аналізу макроекономічної політики як спеціальної галузі знань. Уточнено зміст процесуального підходу до аналізу макроекономічної політики. Показано можливості застосування базового елемента процесуального підходу – аналізу проблем політики на прикладі двох проблем, що набули особливої актуальності в українській економіці та політиці у 2015-2016 роках. Обґрунтовано доцільність поєднання процесуального підходу з іншими підходами в аналізі політики, а саме: підходом на основі оцінювання макроекономічної стабільності, підходом на засадах бенчмаркінгу, а також на засадах концепції «Governance». Пояснено важливість аналізу аргументації виробників політики для структурування її проблем.

**Ключові слова:** макроекономічна політика; аналіз політики; процесуальний підхід до аналізу політики; структурування проблем політики.

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#### Процессуальный подход к анализу макроэкономической политики: содержание и применение

**Аннотация.** Статья посвящена исследованию предметной сферы анализа макроэкономической политики как специальной области знания. Уточняется содержание процессуального подхода к анализу макроэкономической политики. Показаны возможности использования базового элемента процессуального подхода – анализа проблем политики на примере двух проблем, ставших актуальными в украинской экономике в 2015-2016 годах. Обоснована целесообразность сочетания процессуального подхода с другими подходами в анализе политики, а именно: с подходом на основе оценки макроэкономической стабильности, подходом на основе бенчмаркинга, а также на основе концепции «Governance». Обоснована значимость анализа аргументации производителей политики для структурирования ее проблем.

**Ключевые слова:** макроэкономическая политика; анализ политики; процессуальный подход к анализу политики; структурирование проблем политики.

**1. Introduction.** Implementation of macroeconomic policy analysis assumes urgent topicality for countries with underdeveloped markets and unfinished institutional reforms, characterised by permanent macroeconomic instability, which can be surmounted by a proper macroeconomic policy of the government.

A procedural approach is part of macroeconomic policy analysis. In order to disclose its content and define applicability, it is expedient to specify macroeconomic policy analysis subject area and the content of its separate elements.

**2. Brief Literature Review.** Researches concerning macroeconomic policy analysis can be conditionally divided into two groups. The first one includes studying fundamental problems of macroeconomic policy. The second one - macroeconomic policy analysis. F. Fisher (2003) [2], W. Dunn (2011) [6], W. Thisen and W. Walker (2013) [3], D. Weimer and A. Vining (2014) [4], T. Birkland (2015) [5], S. Baker, N. Bloom, St. Davis (2015) [7], R. Catalin-Valentin (2015) [8] are the well-known researchers described issues related to the first group mentioned above. The researchers of the second group are such famous macroeconomists as O. Blanchard (2013) [15], M. Woodford (2010) [10], T. J. Sargent (2015) [12], C. Sims (2012) [14], A. Shleifer (2014) [13], J. Tirole (2015) [14], Summers L. (2014).

**3. Purpose.** Fundamental researches disclose the policy analysis as an application of a certain procedure of selection

and organisation of information related to the external world, its comprehension and interpretation [1, 153]. Analysts who apply the procedural approach pay adequate attention to the argumentation procedure. The purpose of this article is to specify the content and the applicability of the basic procedure of the procedural approach to the accomplishment of the Ukrainian macroeconomic policy analysis.

**4. Results.** Modern science considers public policy analysis mainly with regard to its two fundamental meanings: as activities aimed at the formation of knowledge-based on causes, effects, effectiveness of the policy and its alternatives; as a special methodology of practical solution of policy problems [2-8].

The first meaning involves a theoretical aspect, while the second one is practical. However, policy analysis is considered to be both theoretical and practical subject in both meanings.

The subject area of macroeconomic policy analysis relates to the *macroeconomic stability* phenomenon. The traditional use of the word-combination «stabilisation macroeconomic policy» testifies in favor of this assumption.

Macroeconomic policy analysts are ultimately interested in the efficiency of government activities regarding abidance of fundamental macroeconomic proportions, negotiation on macroeconomic imbalances and provision of sustainable economic growth.

While explaining the subject area of macroeconomic policy analysis it is necessary to consider two aspects concerning zones of intersection with other close in meaning subject areas and the structure beyond the intersection zones.

We assume that macroeconomic policy analysis has direct zones of intersection with macroeconomic analysis (macroeconomics) and econometric analysis (econometrics) (Figure 1).

The common zone with macroeconomics appears when the policy analysis performance is accompanied by the deductive substantiation of conclusions on macroeconomic consequences of certain fiscal and monetary instruments employment. The logic of such substantiation is presented by macroeconomic models involving graphic representation patterns as for instance in *IS-LM-BP*, *NX(NS - I)* models, iteration models (the SWAN model in particular) by logical chains of pulse advance within the financial and monetary transmission channels, etc.

The results (conclusions) of the deductive analysis depend upon the assumptions as concerns the conditions under which the macroeconomic policy is being enforced. These conditions include the duration of a period (short or long), economic climate (full employment of resources or resources underemployment, high or low inflation), the intensity of connections with the rest of the world (higher or lower capital flows), exchange rate regimes (floating or fixed), economic entities expectation character (adaptive, rational, under-rational), etc. After the financial crisis in 2008-2010 there were some attempts to introduce the existing in the country financial model (more or less speculative) as a condition into theoretical analysis.

The majority of modern manuals in macroeconomics disclose the arguments for the benefit of the macroeconomic theory and macroeconomic policy analysis common content. For example, the edition of O. Blanchard and D. Johnson [15] textbook ends with the chapter called «Back to Policy», which summarises the possibilities and restrictions of macroeconomic regulation by means of fiscal and monetary policy instruments.

Econometrics and macroeconomic policy analysis of the intersection zone proceeds from econometrics contents. Its founder and Nobel laureate Ragnar Frisch emphasized that science was appointed for the real awareness of quantitative correlations in modern economic life [8]. The necessity of such awareness enlarges upon the connections existing between the macroeconomic policy instruments and results, its alternative variants, achieved results and lost opportunities.

Due to the lack of special researches, it is difficult to answer the question regarding the subject area of macroeconomic policy analysis beyond the intersection zone with macroeconomics and econometrics. We assume that this sphere relates to the implementation of certain (inherent to macroeconomic analysis in particular) approaches to policy and the employment of instruments immanent to these approaches. In capacity of such approaches and subject area elements, one may consider the following approaches:

- the approach based on macroeconomic stability level assessment;
- the benchmarking-based comparative approach;
- the Governance concept;
- the procedural approach.

The approach based on macroeconomic stability level assessment presupposes the definition of the following parameters:

- the degree of deviation of real macroeconomic indices from their equilibrium values;
- the degree of approximation of factual variability (volatility) of interconnected macroeconomic variables to the optimum value;
- the degree of the achievement of targets admitted by the government as regards such macroeconomic indices as inflation, money supply, national currency rate fluctuation, etc.;
- the degree of the abidance by fiscal and monetary policy rules admitted by the science and public regulation practice.

The lack of a substantiated basis for the definition of a degree of deviation from certain macroeconomic parameters complicates this approach implementation. In particular, it is quite difficult to calculate equal output values, general price level, employment level or currency rate fluctuations variability optimum values, export capacity, budget revenues, etc. The practice of

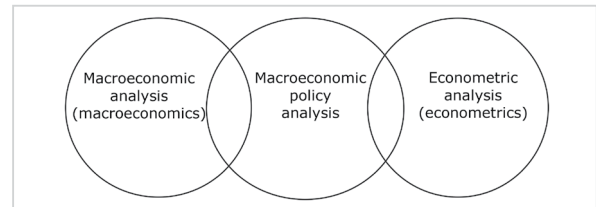


Fig. 1: Zones of intersection of subject area of macroeconomic policy analysis with other sciences  
Source: Author compilation

macroeconomic indices targeting implemented by the governments in different countries delivers contradictory results – from positive to neutral and negative. Macroeconomic policy fiscal and monetary rules provide for their recurrent revision aimed at specification when they are submitted in the form of macroeconomic indices limit values as, for example, national debt shares, budget deficit shares in GDP, etc. Without this, the assessment of the abidance by rules becomes unessential.

The *Benchmarking-based comparative approach* is an instrument used for the definition of macroeconomic policy biggest failures or, on the contrary, achievements when compared with other countries. For this purpose, in every separate experience spheres (directions) for comparison, indicators for assessment and countries for comparison are selected. For example, if it is necessary to assess the current debt sphere policy in Ukraine, a set of some macroeconomic indicators (indices) becomes expedient to be applied. These indices include the share of gross public debt in GDP ( $\frac{B}{G}$ ), the rate of public debt changes ( $\% \Delta B$ ) and the changes of public debt payments ( $\% \Delta iB_{-1}$ ), the relationship between the domestic and foreign public debt ( $\frac{B_{ext}}{B_{int}}$ ) and between two shares of debt redemption – service and repayment ( $\frac{iB_{serv}}{iB_{repm}}$ ), the share of public debt service payments in GDP ( $\frac{iB_{serv}}{G}$ ) and in budget expenditures ( $\frac{iB_{serv}}{G}$ ). Certain precautions, which appear in the course of application of this approach, relate to the selection of countries. If the comparison group includes countries with the worst debt sphere indices, the results of the analysis appear artificially improved, and therefore biased.

The *Governance concept* is based on the recognition that the values of the policy are not only the achieved macroeconomic indices, but also the way of their achievement. It is assumed that good instruments cannot cause bad consequences.

The *Governance concept* provides for the assessment of a state as an entity, which performs macroeconomic policy. In reliance on this concept, it is possible to use the World Bank WGI (Worldwide Government Indicators) information base [16].

The WGI base structural elements are the information blocks implying six indicators of public activities, namely choice and accountability, political stability, government effectiveness, regulation quality, rule of law, corruption control.

We consider that the WGI base index characterising the government is an ability to create rational policy and regulations, which provide for private sector development, has a significant potential for the macroeconomic policy analysis. While comparing the dynamics of macroeconomic indices with the dynamics of public regulation quality indices by this indicator, it is possible to generalise macroeconomic policy institutional support.

The Reform Monitoring Index (iMoPe) in Ukraine can be regarded as an informational base for the assessment of the Governance concept policy [17]. It is used to inform the Ukrainian society about the rate and depth of reforms and is calculated on the basis of new regulatory acts (laws) expert assessment and implementation quality.

The *procedural approach* to the analysis of macroeconomic policy differs from all the other approaches mentioned above as it puts an emphasis on the major analytical procedures content and interrelations. There are different views on their set. We consider the set of analytical procedures by W. Dann to be sufficiently simple, clear and suitable for use in macroeconomic policy analysis performance [6, 6] (Figure 2).

According to the offered scheme, structuring of policy problems is regarded as an analysis of the basic procedure. Problems structuring is extended by such analytical procedures as:

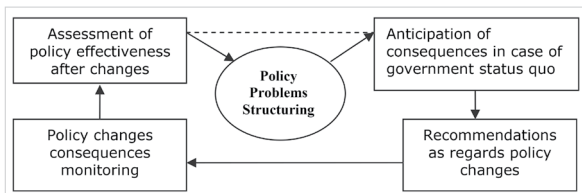


Fig. 2: The system of procedural approach in policy analysis  
Source: Developed by the author according to [6]

- prediction of consequences in case of the government's status quo (the government's inaction), i.e. in case of preserving the existing trends in the economy;
- formulation of recommendations related to necessary policy changes with regard to previously studied trends;
- monitoring of policy changes consequences according to certain indices and indicators;
- assessment of policy effectiveness after all the offered changes have been implemented with regard to the defined values (targets) and specific tasks.

The content of analytical procedures of the procedural approach implies that it is connected with the three previously studied approaches to macroeconomic policy analysis. In particular, macroeconomic stability assessment by deviation indices and on the benchmarking basis becomes obligatory at the stage of problem structuring, predicting the consequences of the government's status quo and changes monitoring. The Governance concept analysis becomes appropriate in case of problem structuring, formulation of recommendations relating to the evaluation of changes and policy effectiveness.

Policy problems structuring as the main element of the procedural approach implies the derivation of certain statements (S) of a recommendation character out of politically relevant information (PRI). Politically relevant information is information which relates to a certain sphere and interprets the existing problem.

A simplified scheme of policy problems structuring is rendered in Figure 3.

The scheme explains that policy problems structuring is a transition from politically relevant information (PRI) to statements, which contain recommendations regarding policy changes (S) through certain arguments, or reasons (R). For a more profound substantiation of reasons (R) additional thoughts (facts) are introduced, which confirms the reasons (RC), and thus counterarguments are taken into analysis (CA).

The appliance of even a simplified scheme of problem structuring can lead to a considerable analytical result related to the regulation of information, argumentation and policymakers' conclusions in a certain sphere. Let us consider two examples

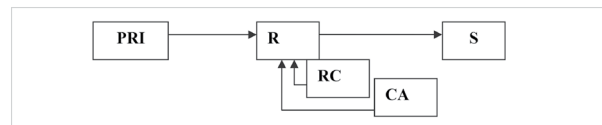


Fig. 3: Policy problems structuring scheme  
Source: Author compilation

of appliance of policy structuring for the analysis of the Ukrainian stabilising macroeconomic policy.

The first example illustrates the possibilities of the use of problems structuring while evaluating its alternative variants. It concerns two aspects of substantiation of activities in the financial sector, which were reflected in two tax system reform projects introduced in 2015 by the Ministry of Finance and the Committee of the Supreme Council of Ukraine.

Structuring of tax policy problems as a means of macroeconomic stabilisation process according to the earlier offered scheme (Figure 3) is reflected further in Table 1.

Information relevant to tax sphere includes the facts provided in sources [18; 19; 20; 21], which reflects the following:

- the existence of tax system reforming alternative values and targets, accordingly, focusing on different aspects of tax sphere, namely on the amount of budget deficit as a factor of financial destabilisation and on the performance of commitments to international donors (IMF), in accordance with one approach, and on tax gap negotiation, on tax losses due to ineffective public management, in accordance with the other;
- the necessity to take into account the influence of an institutional environment and namely the widespread corruption, the low quality of public services, the unattractiveness of investment climate, etc. while substantiating tax system changes;
- different ideas of project initiators as regards expedient tax rates: in the amount of 20% for four kinds of main taxes – value added tax (VAT), natural entity income tax (NEIT), enterprise profit tax (EPT), common social payments (CSP) – according to one approach, as well as other more liberal tax rates (NIT – 10%, EPT – 15%, CSP – 20%), according to the other;
- the existence of an excessive tax burden in Ukraine compared to other post-socialist EU member-states (23.5% of GDP in Ukraine in 2014 against 20.5% on an average in 11 post-socialist EU member-states);
- the probability of tax losses from tax system liberalisation (the perspective evaluation of losses in 2016 amounts to UAH 200 billion);
- the existence of tax proceeds anticipated losses compensators from the liberalisation in the form of counteraction to revenues extraction from the country through offshore compa-

Tab. 1: Tax policy problems structuring

Problem structuring elements	Elements content in accordance with the Ministry of Finance logic	Elements content in accordance with the Supreme Council Committee logic
<b>PRI</b> ↓	Budget deficit destroys national economy unstable financial balance which has been caused by means of the acceptance of credit assistance from international donors (IMF), whose stand regarding budget deficit growth impossibility is determinant	To a considerable degree state budget deficit is a consequence of distorted relationships between taxpayers and the government, which lead to a decrease in motivation for tax payments, investment activity, and, as a result, to tax system inefficiency
<b>R</b> ↓	<b>Whereas</b> budget deficit partially relates to Ukrainian corruption and shadow economy and to economy tax unattractiveness for foreign investors...	<b>Whereas</b> motivation for domestic taxpayers and economy attractiveness for foreign investors mainly relate to tax rates (tax burden)...
<b>RC</b> ↓	<b>Because</b> the existing corruption and complicated tax administration cause business escape to a shadow sphere and avoidance of tax liabilities as well as greater risks for foreign investors (when compared to other countries)	<b>Because</b> the Ukrainian economy is characterized by a respectively higher general tax burden and respectively larger tax redistribution through the budget under the worse quality of public services in comparison with other post-socialist countries
<b>CA</b> ↓	<b>But instead,</b> tax system liberalisation, according to an alternative project, can lead to a significant reduction of budget tax revenues	<b>But instead,</b> even under tax burden decrease and tax revenues possible reduction losses compensators can be used
<b>Σ S</b>	<b>Thus,</b> it is expedient to reform the tax system by means of tax rates unification for different taxes and avoidance of tax credits, special regimes, tax assessment exceptions for corruption avoidance and economy investment attractiveness growth	<b>Thus,</b> it is expedient to reform tax system by means of tax liberalisation i.e. a reduction of tax rates to a more attractive level, when compared to other countries, and the provision of more qualitative public services under public expenditures decrease

Source: Author compilation

nies and through transfer pricing, as well as in the form of redistribution of a revenue tax burden into consumption taxes.

The *second example* illustrates the use of policy problems structuring to predict possible macroeconomic consequences of government's reforms. By this example, we analyse macroeconomic policy problems caused by the change of pricing system in the power sector in 2015 and by related changes in social and budgetary spheres.

Politically relevant information for problem structuring is available in the sources [22; 23; 24; 25; 26] and represented as follows:

- long-lasting practice of a direct budget subsidy assistance to power sector manufacturers through lowered (nonmarket) prices for energy, which posed threats to macrofinancial stability;
- the existence of government liabilities to international donors as regards power companies budget subsidies reduction to prevent macrofinancial instability exacerbation;
- the lack reforms in the power sector along with producers' monopoly, baselessness of communal services payments for householders, absence of necessary power consumption accounting and energy conservation,
- compensatory payments have been offered to one third of all consumers (5.5 million Ukrainian families) to prevent household mass financial insolvency caused by energy sources price increase;
- positive experience related to consumers compensatory payments use under the conditions of newly accepted communal services payments for householders in post-socialist countries, when the payments were combined with motivation to save power sources, along with the creation of competitive environment in the power sector and reforming in public management of natural monopolies.

This policy problem structuring is verbalised in Table 2.

**5. Conclusions.** The conclusions related macroeconomic consequences of the energy and social spheres changes offered by the government are deplorable. The prevention of macrofinancial instability in one form may lead to the occurrence of instability in another form. The burden of target sub-

Tab. 2: Budget sphere problems structuring due to power sector changes

Policy problem structuring elements	The content of separate elements explaining the government logic
<b>PRI</b> ↓	The refusal of a direct subsidy assistance to power sector producers and the increase of energy sources prices and communal services payments for householders (which are interpreted by the government as market prices) have created a situation when one third of all energy consumers became state public subsidies recipients.
<b>R</b> ↓	<b>Whereas</b> it is necessary to exercise a transfer into a market price formation and to decrease the budget burden
<b>RS</b> ↓	<b>Because</b> <ul style="list-style-type: none"> <li>- the difference between power resources prices (higher for producers and lower for consumers) lays the foundation for these resources corruptive employment,</li> <li>- lowered prices limit the investment possibilities aimed at power resources production expansion and technologies improvement,</li> <li>- only market prices motivate consumers to lower power resources using</li> </ul>
<b>CA</b> ↓	<b>And instead,</b> additional expenditures for public payments by higher prices for insolvent consumers can be compensated by <i>target subsidies</i>
<b>Σ S</b>	<b>Thus,</b> it is expedient to reform power sector by means of a transfer to higher (market) prices for power sources and higher (market) communal services payments for householders combined with target subsidies for insolvent households.

Source: Author compilation

sidies for consumers can appear instead of the unsubstantiated burden on the budget in the form of power companies' grants. The neglect of an important share of politically relevant information which regards international experience gives all grounds to make such conclusions. The latter demonstrates the necessity to implement target subsidies to eliminate manufacturers' monopoly to create incentives relevant to power conservation incentives creation at all stages of a technological cycle for all economic entities. Without doing this, public subsidies will not be able solve the existing problems.

The analytical procedure of problem structuring becomes expedient in other problematic spheres of the Ukrainian policy, which includes the uncontrolled hryvnia devaluation, the instability of banking system, the contradictions within a new system of local finances.

The question may arise whether the policy analysis concerning the issues of problem structuring by means of the argumentation analysis is considered to be too simplified. The answer to this question may be found in the work by B. Godin who wrote: «A narrative gives meaning to science, technology and innovation, and to policy actions. It helps put science, technology and innovation on the political agenda» [27; 14]. The macroeconomic policy analysis can hardly avoid the analysis of argumentation of those who make it.

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