Научная статья

ФИСКАЛЬНЫЕ ПРАВИЛА В УСЛОВИЯХ ВЫСОКОЙ ДОЛГОВОЙ НАГРУЗКИ ДЛЯ ПОИСКА ОПТИМАЛЬНОГО БАЛАНСА МЕЖДУ СТАБИЛЬНОСТЬЮ И ГИБКОСТЬЮ

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Аннотация. Современные фискальные политики государств формируются в условиях противоречивого взаимодействия двух требований: необходимости обеспечения долгосрочной устойчивости государственных финансов и сохранения способности оперативно реагировать на циклические колебания и непредвиденные экономические шоки. Эта дилемма приобретает особую остроту в контексте экономик с высокой долговой нагрузкой, где риски неустойчивости ограничивают пространство для бюджетного маневра. В таких условиях фискальные правила, представляющие собой институциональные ограничения на ключевые бюджетные агрегаты, рассматриваются как инструмент сдерживания дефицита и накопления долга, призванный повысить доверие к бюджетной политике и уменьшить премии за риск. В данном исследовании был проведен теоретический анализ эффективности фискальных правил как инструмента бюджетной консолидации. Осуществлена эмпирическая оценка влияния различных типов фискальных правил на динамику суверенного долга. Исследованы механизмы встроенной гибкости правил для реагирования на асимметричные шоки. Смоделирована долговая динамика при различных сценариях ужесточения или ослабления фискальных правил. По результатам проведенного исследования сделаны выводы о том, что структура бюджетной политики на среднесрочную перспективу должна эволюционировать в сторону «умного» фискального режима. Он основан на управлении долговыми рисками через прозрачные, понятные рынку и обществу правила, которые обладают свойством цикличности. Содержанием политики становится последовательная реализация структурных реформ при одновременном соблюдении доверительных обязательств по долговой стабильности. Реализация такого подхода обусловливает усиление институционального потенциала в части среднесрочного бюджетного планирования, макроэкономического прогнозирования и фискального мониторинга.

Ключевые слова: фискальные правила; долговая нагрузка; оптимальный баланс; стабильность; гибкость.

Original article

FISCAL RULES IN A HIGH DEBT ENVIRONMENT: FINDING THE OPTIMAL BALANCE BETWEEN STABILITY AND FLEXIBILITY

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Annotation. Modern state fiscal policies are shaped by the conflicting demands of two imperatives: the need to ensure long-term sustainability of public finances and the ability to respond quickly to cyclical fluctuations and unforeseen economic shocks. This dilemma is particularly acute in the context of highly indebted economies, where the risks of instability limit the scope for fiscal maneuver. In such circumstances, fiscal rules, which represent institutional constraints on key budget aggregates, are viewed as a tool for containing deficits and debt accumulation, designed to enhance credibility in fiscal policy and reduce risk premiums. This study provides a theoretical analysis of the effectiveness of fiscal rules as a fiscal consolidation tool. An empirical assessment is made of the impact of various types of fiscal rules on sovereign debt dynamics. The mechanisms of built-in flexibility in rules for responding to asymmetric shocks are explored. Debt dynamics are modeled under various scenarios of tightening or loosening fiscal rules. The study concluded that the medium-term budget policy framework should evolve toward a "smart" fiscal regime. This regime is based on debt risk management through transparent, market- and public-friendly rules that are cyclical. The policy consists of the consistent implementation of structural reforms while simultaneously adhering to fiduciary obligations regarding debt stability. Implementation of this approach requires strengthening institutional capacity for medium-term budget planning, macroeconomic forecasting, and fiscal monitoring.

Keywords: fiscal rules; debt burden; optimal balance; stability; flexibility.

Introduction. The relevance of the study is determined by the aggravation of debt problems in the post-pandemic period, as well as in the context of geopolitical instability and energy crises, when many countries are faced with the need to simultaneously solve the problems of fiscal consolidation and support the economy. Classical rigid fiscal rules, which focus on strict compliance with targets, cause limited effectiveness in the phases of recession or when exposed to asymmetric shocks, potentially increasing the procyclical nature of fiscal policy [1]. Consequently, there is a scientific and practical problem of finding and justifying such a modification of fiscal rules that would provide reliable constraints to contain debt dynamics, but at the same time contain built-in flexibility mechanisms that allow us to temporarily deviate from the established parameters during periods of significant deterioration in the economic environment.

The aim of this study is to develop theoretical and methodological provisions and practical recommendations for optimizing the design of fiscal rules for economies with a high debt burden, aimed at achieving an optimal balance between the requirements of stability (debt sustainability) and flexibility (countercyclical response).

The scientific novelty of the study is determined by a comprehensive approach to optimizing the design of fiscal rules, integrating the requirements of stability and flexibility into a single analytical scheme. It is expected to clarify the criteria for evaluating the effectiveness of the rules in terms of not only debt sustainability, but also minimizing the issue's volatility.

The practical significance of the work is the development of structured proposals for modernizing the fiscal rules regimes adapted to the conditions of high debt burden and macroeconomic uncertainty. The results can be used by public administration bodies in carrying out budget reforms and adjusting medium-term budget strategies.

Literature review. Fiscal consolidation, which is a set of measures aimed at sustainable improvement of public finances through reducing the deficit and slowing growth or reducing the level of sovereign debt, is a fundamental problem of macroeconomic policy in the context of a high debt burden [2]. Fiscal rules (FP) are considered as a key institutional mechanism designed to ensure the creditworthiness of the state through the imposition of long-term restrictions on the parameters of fiscal policy, overcoming the barriers of short-term optimization [3].

The theoretical justification of fiscal rules is carried out through the prism of two interrelated concepts. K. V. Zolotukhin notes that this is a problem of temporary inconsistency of fiscal policy, when state authorities acting in a discretionary mode have incentives to deviate from previously announced budget adjustment plans in order to achieve any goals, which undermines the confidence of economic agents and contributes to the growth of premiums for the risk [4]. At the same time, according to S. A. Patsia, this is the concept of fiscal space, where the FP is interpreted as a tool for its preservation or restoration through curbing the pro-cyclical growth of expenditures in the recovery and growth phases, which creates reserves for conducting countercyclical policies during periods of recession [5].

The classification of fiscal rules is based on the budget parameter that is restricted. Theoretical analysis identifies the following main types, each of which has specific channels of influence on the consolidation process:

1. Budget balance rules (balanced budget, deficit limitation, structural deficit), the effectiveness of which is associated with a direct impact on the indicator of the movement of debt obligations. The rules that focus on cyclically adjusted balance sheets are considered more advanced, as they allow stabilizing instruments to work fully, aiming the policy at medium-term sustainability [6].

2. Spending rules (limits on total or primary spending, growth rates) that focus on the source of fiscal imbalances, limiting the politically driven growth of liabilities. The theory suggests that cost control is a more predictable and direct method of consolidation compared to revenue rules [7].

3. Debt rules (the limit level of the public debt-to-GDP ratio), which set the ultimate goal of consolidation, providing the greatest short-term flexibility to respond to shocks, but require the development of a reliable corrective mechanism in the event of a threat of violation of the limit [8].

The effectiveness of the FP as a tool for fiscal consolidation is mediated by the quality of the institutional environment, including the presence of independent fiscal monitoring bodies; transparency of the budget process and methodology for calculating indicators; maturity of the national system capable of supporting long-term commitments; built-in flexibility mechanisms that allow you to adjust the rules in the event of exceptional events without losing confidence in the strategic goal.

Materials and methods of research. The empirical part of the study is aimed at a comprehensive assessment of the impact of FP on debt dynamics and analysis of operational mechanisms for their adaptation. The work is based on a combination of quantitative and qualitative methods.

The panel analysis used data from 40 countries (OECD members and major emerging markets) for the period 1990-2025. The database is formed on the basis of data from the IMF, the World Bank, and the proposed classification of FP types based on the analysis of academic research [9], [10], legislative acts, and the Budget Code of the Russian Federation. A panel regression model with fixed effects was used. The dependent variable is the annual change in the ratio of public debt to GDP. The key independent variables are rule severity indices by type (budget balance, expenditure, debt) on a scale from 0 to 1, as well as control variables-GDP growth rate, real interest rate, primary balance.

To analyze the mechanisms of flexibility, a qualitative content analysis of regulatory documents regulating the operation of OP in 25 countries was conducted, with a focus on the conditions for suspending their operation and adjusting goals. The method of comparative institutional analysis was also used. Flexibility mechanisms are classified according to two criteria: trigger type (quantitative threshold for GDP deviation, declaration of a state of emergency) and adjustment procedure (automatic suspension of FP, decision of a public sector body, parliamentary decision).

In the context of modeling debt dynamics under various scenarios of tightening or weakening of the FP, aggregated macro-indicators of economies were used, parameterized on average values for a group of countries with a high level of debt (debt-to-GDP ratio of more than 60%). A stochastic model of debt dynamics over a ten-year horizon is constructed, based on the identity of debt changes, based on formula (1):

$$\Delta d = pb + (r - g) * d \qquad (1)$$

where

d - debt-to-GDP ratio.

pb - primary balance to GDP.

r – the real interest rate.

g – real GDP growth rate.

The parameters r and g are set as random processes. The scenarios differ in the function of the primary balance's response to debt deviation from the target level, which simulates different severity of the FP.

Research results and their discussion. The results of regression analysis showed a statistically significant but multidirectional effect of different types of AF. Table 1 shows the coefficient estimates for the key variables.

Table 1-Impact of FP severity indices on the annual change in the debt-to-GDP ratio

FP type	Regression coefficient	Standard Error	Significance level
Budget balance rule	-0.85	0.32	$p < 0.05$
Expenditure rule	-1.12	0.41	$p < 0.001$
Debt rule	-0.41	0.28	$p < 0.01$
FP General severity index	-0.67	0.24	$p < 0.001$

Source: authors ' calculation.

The greatest deterrent effect was demonstrated by the spending rules, since an increase in their strictness by 0.1 points is associated with a decrease in the growth rate of the debt burden by 0.11 percentage pointsper year. The debt rules showed the least immediate effect, which may be explained by their long-term nature and the delay in corrective measures.

The study of built-in flexibility mechanisms on the example of 25 countries of the world revealed three basic architectures: with explicit prescribed mechanisms (72%), including automatic triggers (40%), discretionary decisions (60%), and without formal mechanisms (28%). Mechanisms with automatic triggers activated when the threshold value of GDP decline is exceeded are considered effective from the point of view of maintaining market confidence. They minimize risks when making a decision to deviate from the OP.

Modeling debt dynamics under different scenarios of tightening or easing the FP for the Finnish economy (Table 2) with an initial debt level of 75% of GDP, a real growth rate (g) of 1.5% , and a real interest rate (r) of 3% allowed us to compare three scenarios of the fiscal policy response to the shock (g falling to -2% on the previous day). two years).

Table 2-Projected debt dynamics under various fiscal rule scenarios in Finland (peak debt-to-GDP ratio over 10 years)

OP scenario	Shock response policy characteristics	Peak debt - to-GDP ratio (median in simulations), %	Probability of debt stabilization (d < 85% of GDP), %
Rigid	Strict compliance with the target primary balance	89.2	34
Flexible with adjustment	Temporary deviation with a 3-year repayment plan	83.7	78
Weak or absent	Primary balance worsens in proportion to the shock	94,5	12

Source: author's calculation.

The "Flexible with adjustment" scenario involves activating the built-in mechanism: for the shock period, the primary balance is allowed to deteriorate by 2 p. p. of GDP, followed by an annual adjustment of 0.67 p.p. until the initial target level is restored.

The results obtained allow us to formulate a number of conclusions that clarify the theoretical ideas about the effectiveness of AF.

First, the hypothesis of differentiated effects of different types of AF is confirmed. The high efficiency of spending rules is consistent with a concept that focuses on controlling a key source of fiscal imbalance. Their impact is more direct and predictable. The relatively weak direct effect of debt rules indicates the importance of their accompanying corrective mechanisms, which should automatically activate consolidation measures when approaching the limit.

Second, the fundamental role of institutional flexibility design is revealed. Modeling clearly demonstrates that an absolutely rigid rule (Scenario 1 "Hard") in a negative shock will lead to a deeper recession due to pro-cyclical tightening, which as a result worsens debt dynamics more than a controlled time deviation (Scenario 2 "Flexible with adjustment"). The scientific novelty lies in quantifying this tradeoff: the optimal design, which combines a clear trigger for withdrawal and a mandatory return plan (as part of the need for changes), provides a 5.5 percentage pointlower level of debt from GDP compared to the hard scenario.

Third, an important conclusion is the need for synergy between rule types. The spending rule effectively reins in debt under normal circumstances, and the debt rule, with clear corrective procedures, serves as an insurance mechanism for deep crises. At the same time, formal flexibility mechanisms are not sufficient; their effectiveness depends on trust in procedures, which determines the involvement of autonomous fiscal institutions in the process of monitoring and validating withdrawal decisions.

Thus, empirical analysis confirms that finding the optimal balance between stability and flexibility is the task of designing smart rules. They are characterized by the priority of controlling costs during periods of sustainability; the presence of pre-announced conditions based on objective indicators for temporary flexibility; and the commitment to return to the consolidation trajectory on a clear schedule after the shock ends. It is this integrated approach that makes it possible to maximize the contribution of financial institutions to ensuring debt sustainability in an unstable macroeconomic environment.

Conclusions. The core of a medium-term fiscal policy should be a system of complementary FPS. It is advisable to combine them, where the expenditure rule sets guidelines for annual budget planning and restrains the conditioned growth of liabilities, the debt rule acts as a strategic barrier and insurance mechanism, and the balance rule, focused on a cyclically adjusted indicator, serves as an indicator of the quality of policy and provides space for stabilizing instruments to work.

In addition, it is necessary to legislate transparent procedures for temporary deviations from the established parameters, in particular, clear criteria based on macroeconomic indicators for activating the flexibility regime, an adjustment plan that provides for a return to compliance with the basic rules within the established period after the shock ceases, and the existence of an independent state fiscal monitoring body responsible for validating the fact that when exceptional circumstances occur, and evaluate the plan to return to the target indicators.

Modeling of debt dynamics under various scenarios of tightening or weakening of the FP shows that universal consolidation rates are ineffective. With a high debt burden and an unfavorable difference between the interest rate and growth rate (r > g), extremely rapid tightening can trigger a recession and worsen the debt-to-GDP ratio. Fiscal policy should focus on realistic, gradual plans to improve the primary balance sheet that do not undermine economic growth. A rather important aspect is the emphasis on the quality of fiscal adjustment through cost restructuring and improving the efficiency of the tax system.

The structure of fiscal policy in the medium term should evolve towards a "smart" fiscal regime. It is based on debt risk management through transparent rules that are understandable to the market and society, which have the property of cyclicity. The content of the policy refers to the consistent implementation of structural reforms while maintaining trust obligations for debt stability. The implementation of this approach leads to the strengthening of institutional capacity in terms of medium-term budget planning, macroeconomic forecasting and fiscal monitoring.

Список литературы

1. Ризакуловна С. Б., Жамолов М. М. Проблемы в механизмах использования государственного внешнего долга и их институциональные решения: фокус на Узбекистане // Экономика и социум. – 2025. – №. 6-1 (133). – С. 1337-1355.
2. Рябов П. В. Влияние сверхмягкой денежно-кредитной политики на инфляцию и финансовую устойчивость // Научные труды: Институт народнохозяйственного прогнозирования РАН. – 2023. – №. 4. – С. 87-105.
3. Никонов И. В., Радионов С. А., Мухаметов О. Р. Государственный долг в странах Центральной Азии: риски и подходы к управлению // Экономический журнал Высшей школы экономики. – 2023. – Т. 27. – №. 4. – С. 550-673.

4. Золотухин К. В. Институционально-стратегические основы реализации муниципальной долговой политики в системе публичного управления // Journal of Economic Regulation (Вопросы регулирования экономики). – 2025. – Т. 16. – №. 3. – С. 56-64.
5. Пация С. А. Анализ факторов, влияющих на долговую устойчивость Московской области // Вестник Академии знаний. – 2025. – №. 3 (68). – С. 656-662.
6. Смирнов Е. Н. Противоречия экономической политики в условиях новых рисков и вызовов развития мировой экономики // Управление. – 2023. – Т. 11. – №. 2. – С. 156-169.
7. Аблаев Э. Ю. Подходы к определению режимов взаимодействия бюджетно-налоговой и денежно-кредитной политики // Проблемы прогнозирования. – 2025. – №. 3. – С. 13.
8. Горбунов М. А. Бюджетная устойчивость и бюджетная политика Российской Федерации в условиях санкционного давления // Вестник Бурятского государственного университета. Экономика и менеджмент. – 2023. – №. 3. – С. 30-40.
9. Кузнецов А. В., Морозов С. А. Долговая устойчивость стран Латинской Америки в постковидной экономике // Вестник Российского университета дружбы народов. Серия: Международные отношения. – 2022. – Т. 22. – №. 4. – С. 788-801.

Архипов А. Д. Регулирование международного движения капитала на основании его классификации // Мировая экономика и мировые финансы. – 2025. – Т. 4. – №. 3. – С. 97-105.

References

1. Rizakulovna S. B., Zhamolov M. M. Problemy v mekhanizmakh ispol'zovaniya gosudarstvennogo vneshnego dolga i ikh institutsional'nye resheniya: fokus na Uzbekistane // Ekonomika i sotsium. – 2025. – №. 6-1 (133). – S. 1337-1355.
2. Ryabov P. V. Vliyanie sverkhmyagkoi denezhno-kreditnoi politiki na inflyatsiyu i

finansovuyu ustoichivost' // Nauchnye trudy: Institut narodnokhozyaistvennogo prognozirovaniya RAN. – 2023. – №. 4. – S. 87-105.

3. Nikonov I. V., Radionov S. A., Mukhametov O. R. Gosudarstvennyi dolg v stranakh Tsentral'noi Azii: riski i podkhody k upravleniyu // Ekonomicheskii zhurnal Vysshei shkoly ekonomiki. – 2023. – T. 27. – №. 4. – S. 550-673.
4. Zolotukhin K. V. Institutsional'no-strategicheskie osnovy realizatsii munitsipal'noi dolgovoi politiki v sisteme publichnogo upravleniya // Journal of Economic Regulation (Voprosy regulirovaniya ekonomiki). – 2025. – T. 16. – №. 3. – S. 56-64.
5. Patsiya S. A. Analiz faktorov, vliyayushchikh na dolgovuyu ustoichivost' Moskovskoi oblasti // Vestnik Akademii znanii. – 2025. – №. 3 (68). – S. 656-662.
6. Smirnov E. N. Protivorechiya ekonomicheskoi politiki v usloviyakh novykh riskov i vyzovov razvitiya mirovoi ekonomiki // Upravlenie. – 2023. – T. 11. – №. 2. – S. 156-169.
7. Ablaev E. Yu. Podkhody k opredeleniyu rezhimov vzaimodeistviya byudzhetno-nalogovoi i denezhno-kreditnoi politiki // Problemy prognozirovaniya. – 2025. – №. 3. – S. 13.
8. Gorbunov M. A. Byudzhetnaya ustoichivost' i byudzhetnaya politika Rossiiskoi Federatsii v usloviyakh sanktsionnogo davleniya // Vestnik Buryatskogo gosudarstvennogo universiteta. Ekonomika i menedzhment. – 2023. – №. 3. – S. 30-40.
9. Kuznetsov A. V., Morozov S. A. Dolgovaya ustoichivost' stran Latinskoi Ameriki v postkovidnoi ekonomike // Vestnik Rossiiskogo universiteta druzhby narodov. Seriya: Mezhdunarodnye otnosheniya. – 2022. – T. 22. – №. 4. – S. 788-801.
10. Arkhipov A. D. Regulirovanie mezhdunarodnogo dvizheniya kapitala na osnovanii ego klassifikatsii // Mirovaya ekonomika i mirovye finansy. – 2025. – T. 4. – №. 3. – S. 97-105.