



## METHODOLOGICAL ASPECTS OF THE STUDY OF THE RESOURCE POTENTIAL OF PENSION SYSTEM: MODELING AND FORECASTING

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### ABSTRACT

**Objective:** The objective of this paper is to examine the methodological approaches to analyzing the resource potential of pension systems, with a focus on modeling and forecasting. The study aims to highlight the significance of resource capabilities in shaping national policies for pension system enhancement.

**Methods:** The research employs a combination of qualitative and quantitative methods, including systemic analysis and forecasting techniques. The study integrates various scientific approaches, including the analysis of historical, current, and future trends in the resource potential of pension systems.

**Results:** The study identifies key characteristics of resource potential in pension systems, including the quantity and quality of assets, administrative competence, and the technological infrastructure supporting pension services. The research also develops a conceptual model for predicting the resource potential within the national pension framework, emphasizing the importance of understanding both the static and dynamic aspects of resource capacity.

**Conclusions:** The findings suggest that a comprehensive approach to modeling and forecasting resource potential is crucial for the stability and sustainability of pension systems. The study underscores the need for a systemic viewpoint in evaluating the future trajectories of pension resources, particularly in the face of political, economic, and demographic challenges.

**Keywords:** Resource potential of the pension system. Pension provision. State pension system. Modeling and forecasting. Methodological principles of forecasting the potential of pension resources.





## ASPECTOS METODOLÓGICOS DO ESTUDO DO POTENCIAL DE RECURSOS DO SISTEMA DE PENSÕES: MODELAGEM E PREVISÃO

### RESUMO

**Objetivo:** O objetivo deste artigo é examinar as abordagens metodológicas para a análise do potencial de recursos dos sistemas de pensões, com foco na modelagem e previsão. O estudo visa destacar a importância das capacidades de recursos na formulação de políticas nacionais para o aprimoramento do sistema de pensões.

**Métodos:** A pesquisa emprega uma combinação de métodos qualitativos e quantitativos, incluindo análise sistêmica e técnicas de previsão. O estudo integra várias abordagens científicas, incluindo a análise de tendências históricas, atuais e futuras no potencial de recursos dos sistemas de pensões.

**Resultados:** O estudo identifica as principais características do potencial de recursos nos sistemas de pensões, incluindo a quantidade e a qualidade dos ativos, a competência administrativa e a infraestrutura tecnológica que suporta os serviços de pensões. A pesquisa também desenvolve um modelo conceitual para prever o potencial de recursos dentro do sistema nacional de pensões, enfatizando a importância de entender tanto os aspectos estáticos quanto dinâmicos da capacidade de recursos.

**Conclusões:** Os resultados sugerem que uma abordagem abrangente para a modelagem e previsão do potencial de recursos é crucial para a estabilidade e sustentabilidade dos sistemas de pensões. O estudo destaca a necessidade de uma visão sistêmica na avaliação das trajetórias futuras dos recursos de pensões, especialmente diante de desafios políticos, econômicos e demográficos.

**Palavras-chave:** Potencial de recursos do sistema de pensões. Provisão de pensões. Sistema de pensões estatal. Modelagem e previsão. Princípios metodológicos de previsão do potencial de recursos de pensões.

### INTRODUCTION

Currently, the system responsible for providing pensions is witnessing a decline in its effectiveness. This downturn is rooted in the scarcity of financial resources available for pension allocations, juxtaposed with an increase in the populace reaching retirement age. This challenge is not unique to our nation; indeed, it is a dilemma encountered on a global scale. Different countries are confronting this issue and devising various strategies to mitigate its impact. In Russia, the disparity between the income and outgoings of the pension fund is compromising its stability. This situation has shifted the pension system's emphasis towards combating poverty rather than





ensuring a comfortable living standard for the majority of retirees, unlike in countries where the economy is more socialized.

The performance of the pension system and its ability to provide services is greatly influenced by the resources available to the pension fund, including how effectively these resources are utilized. This foundation is crucial for enhancing the living standards of retirees, those who have lost their main source of income, families with many children, individuals receiving maternal benefits, and other groups as defined by law. Furthermore, the resource capacity within the pension scheme is vital for maintaining its stability and equilibrium. The growth rate of resources within this sector is significantly shaped by the unique aspects of how they are accumulated and deployed.

Identifying the resource capacity of pension support systems as a compilation of probabilistic prospects available for utilization, it's recognized that these resources can be harnessed over an extended period to address the fundamental binary objective of advancing the system. Scholarly discussions within the field of economics regard this objective as enhancing the financial coverage and increment of pension rights for citizens, alongside fostering a stable and balanced pension infrastructure.

Consequently, the characteristics and the state of the resource capacity are vital in shaping a future-oriented national strategy for the evolution of the pension support framework. On this note, T.L. Skripchenko posits that "the augmentation of an organization's resource base is imperative for the continuous and reliable operation of not just the pension arrangement, but the nation's economic framework at large." (Skripchenko, 2009).

It's important to note that within economic investigation, the capacity and capabilities of organizations are leveraged for a numerical evaluation of various subjects, activities, and events. This approach is adopted because it not only provides a snapshot of the present condition of the examined subjects, activities, and events, but also outlines, following the observations of N.A. Martynova, the comprehensive collection of assets, stocks, and resources at disposal that can be activated and employed towards accomplishing a specific objective. (Martynova, 2019).

Simultaneously, the essence of the resource capacity encompasses both the quantity and quality of the observed elements, actions, or occurrences. The quality aspect is influenced by certain features inherent to pension resources, which include:

- Their purposeful nature concerning payments to individuals;





- Their ability to showcase the distribution and support attributes;
- The transparency present in their formation and utilization processes;
- Their dependency level on the governmental budget;
- The extent to which they achieve the pension fund's intended objectives.

Hence, as highlighted by N.A. Martynova in her research, evaluating the efficiency of utilizing the existent resource capability within pension security organizations involves techniques that juxtapose the evolution of numerical data, analyze the composition and the qualitative consumption metrics of resources to determine and evaluate the feasibility and wisdom in leveraging these assets. (Martynova, 2019).

At present, there is a growing acknowledgment among researchers and professionals regarding the insufficiency of solely relying on a predetermined array of evaluative techniques. Instead, there's a burgeoning consensus on the necessity for a holistic and integrated approach when analyzing and assessing the resource capabilities inherent in this domain. Embarking on a systematic approach is deemed imperative for strategic scrutiny, construction of models, and forward-looking predictions.

The critical nature of adopting such a methodology in exploring the notion of "resource capacity in pension provision" gains further validation from the understanding that the objectives and challenges envisioned for the future are shaped not merely by the financial assets at the disposal of the pension fund. They are influenced by the totality of resource potential and its individual components. This encompasses not only the capability for a numerical expansion of financial assets, which forms the cornerstone of pension coverage and the delivery of state pension services, but also the enhancement of the qualitative attributes of all resources involved. This enhancement, in turn, contributes to the elevation of pension offerings, the quality of pension services, and bolstering the sturdy nature of the pension infrastructure.

Experience indicates that a deficit or surplus in the resource capacity related to pension funding does not straightforwardly reflect issues of pension system stability. This observation is equally valid concerning the aggregate financial contributions from the national budget. In her investigation into the equilibrium and durability of Russia's pension scheme, M.L. Sedova identifies specific characteristics of these issues within the domestic pension framework. She asserts that the importance of examining the





pension system's resilience is not connected to the future financial obligations stemming from the methods of covering the Pension Fund's budget shortfall. Instead, it pertains to commitments to pensions that are established over the entire duration of collecting and disbursing insurance premiums. (Sedova, 2018).

## METHODOLOGY

In her evaluation of the ongoing adjustments to the pension framework, M.L. Sedova indicates that elevating the age at which individuals retire does not stand as the sole or clear-cut solution for enhancing the economic solidity of the pension arrangement. She suggests that alternative strategies exist, capable of mitigating the impact of the system's intrinsic growth dynamics. (Sedova, 2018).

Certainly, some argue that the choice to increase the age of retirement lacked thorough, scientific investigation and consideration of its future implications, influenced instead by practices from economically advanced nations without accommodating Russia's unique circumstances.

Consequently, operating the pension scheme in challenging political, socioeconomic, and demographic contexts emphasizes the critical requirement for a comprehensive toolkit for modeling and predicting, covering both pension obligations and insurance contributions.

Exploring the potential of resources through specific approaches allows for the identification of possibilities for efficiently addressing pressing issues. Concurrently, in recognizing these possibilities and their feasibility, it's crucial to consider that their analysis and appraisal ought to be conducted with a holistic outlook. This includes pinpointing elements that contribute to addressing the dual challenge faced by the pension system's evolution. Such elements will be examined from two perspectives: those that are evident and those that are concealed or underlying. Further, this examination must be enhanced by investigating the dynamics and reciprocal impacts among these elements, aiming to uncover opportunities for generating a synergistic outcome.

The necessity to explore and validate the future trajectories for pension system evolution stands as both a critical academic inquiry and a practical imperative. Nonetheless, prominent economists today acknowledge significant challenges within the domain of strategic prediction and planning. These challenges have their roots in the initial phases of "perestroika" and continue to impact contemporary processes. A.I.





Selivanov, through his extensive research findings, emphasizes this issue. He argues that a robust strategic management framework inherently requires an integrated, scientifically-based forecasting methodology. Despite numerous efforts spanning over a decade, creating an accurate long-term forecast has repeatedly proven unsuccessful. As the global community advances in forecasting and strategic governance, our nation remains stalled at a primitive stage of immediate, manual oversight. Establishing a formidable, independent forecasting entity that can rival international counterparts presents a formidable challenge in the current climate. (Selivanov, 2021).

The foundational theory presented is intricately linked with the subject matter of our study. Its significance is underscored by its ability to provide insights into why numerous predictions have not materialized as planned, notably the underdeveloped forecasting attempts between 2017 and 2019 aimed for the years 2030 and 2035. This also ties into the ongoing alterations within the pension system, which have continued for several years.

To usher in further modifications to the nation's pension scheme, it is critical to construct credible long-range demographic projections, estimate the workforce and pension beneficiaries, and predict the pension fund's income and outflow for the foreseeable future. The culmination of these predictive efforts should be the construction of a forecasting framework. This framework ought to offer a detailed long-term outlook on the accumulation and allocation of the pension system's resources, along with the development and application of actuarial prediction models.

Resource potential stands as a multifaceted and intricate sphere, showcasing a diverse array of frameworks each designed to address specific challenges. The task at hand necessitates analyzing the essential characteristics that models focusing on pension resource potential ought to embody. Drawing insights from the "Automated Control Systems and Industrial Safety" Center of Excellence's findings on model characteristics, it's possible to delineate the core aspects of these frameworks:

- Every framework embodies fundamental elements including the investigator, the objective (aimed at enhancing the quality of life for individuals with disabilities through the sustainable and balanced utilization of pension resource capabilities), the origin-point (the resource capacity within the national pension system and associated services), and the reproduction method of the framework. The issue being addressed





by the investigator holds paramount importance, for devoid of it, the framework's significance is diminished;

- It has been previously established that a collection of frameworks exists in relation to resource potential, each offering adequacy yet differing in narrative based on the designated issue. Despite potentially sharing information on resource potential, its dynamics, and interconnections, these models diverge in the manner of presenting or replicating said information;

- Frameworks pertaining to resource potential represent a relative and simplified reflection of the original resource, never mirroring it completely and invariably offering a less comprehensive depiction of the resource potential;

- Given the economic essence of pension resources, the models that represent this domain inherently possess an informational character. Irrespective of their economic basis, the problem at hand, or the execution strategy, each framework is essentially an information-centric aggregate concerning the resource potential system and its operational context.

Within the realm of scholarly articles, there's a recognition that objects used for modeling possess unique attributes exclusive to them. These attributes evolve over time, mirror the inner condition, are impermanent, and can undergo formation, disintegration, and division. This phenomenon arises from the interconnected nature of objects, where they are subject to external influences and can also exert influence on their surroundings. (Todortsev, 2008).

The resource capacity of pension schemes, when considered as a subject for simulation, encompasses distinct features such as condition, performance, and uniqueness. These particular traits play a vital role in the simulation process based on the objective at hand, providing foundational data for the development and examination of models. Consequently, the resource capacity's condition is captured through both static and dynamic aspects. The former outlines every attribute of the pension scheme's resource capacity, whereas the latter details the specific metrics of these attributes.

Furthermore, the conduct of the subject under simulation demonstrates its interactions with surrounding entities, illustrating the impact of these interactions on the subject's own attributes or state changes. In essence, the conduct of pension scheme resources outlines their adaptive responses and actions under varying scenarios.





Individual characteristics of a given model, specifically the capacity of a public pension system, set it apart from analogous models, such as the capabilities of a private pension system. The step-by-step approach of modeling begins by identifying the limits of the subject in question. In this context, the focus is on the capabilities of both the pension system and the services it provides. While setting these limits can sometimes be straightforward, often it's essential for enhancing the precision and reliability of predictions.

The process of defining the scope of the studied capabilities should always precede their analysis, serving multiple purposes: it not only facilitates the management of the analysis but also signals its completion. Moreover, determining these limits helps in specifying the characteristics of the capabilities, including the extent of their application and the level of detail to be considered.

The extent of the scope delineates the outer limits of the envisioned potential and solution framing, distinguishing between what is encompassed within the model's focus and what is excluded. Hence, in aligning with the research theme on the resource potential of pension systems, we confine our investigative scope by exclusively considering the public pension scheme and related services, deliberately excluding the resource capabilities of private pension entities.

The granularity of analysis reveals the level of detail and differentiation among the components of resource potential, necessitating a breakdown into distinct functional segments. This enables a clear definition of the object under study, shedding light on its internal architecture, core functionalities, and the interconnectedness of its elements. Consequently, upon defining the confines of our study object - in this instance, the resource potential within pension systems - the rationale behind excluding certain components from the model becomes evident.

The approach to analyzing resource capacity integrates dimensions of both space and time. Thus, from a systematic perspective, the concept of "resource potential" is understood to weave together a trio of interconnected layers.

At its core, the initial layer delves into the historical narrative of the systematic framework. This involves recognizing that resource capacity holds onto its historical lineage, safeguarding the web of interactions and ties from its inception. This includes the inherent abilities that shape its growth and operational prowess.

The next layer focuses on the present dynamics, showcasing the existing condition, operational activities, and the deployment of resources for advancement. It







distinguishes between the potentials that have been tapped into and those that remain to be explored.

At the tertiary stage, emphasis is placed on envisioning future advancements in leveraging resources, tied closely to strategic planning. This stage is instrumental in establishing networks and fostering relationships that will serve future needs, utilizing emerging possibilities as keystones for advancement.

Employing a systems thinking approach at this juncture highlights the stark contrast in the latent capabilities for enhancing the resource base of pension schemes across the various stages evaluated. As such, while the untapped potentials at the initial stage result in reduced efficiency within the state pension system and its offerings, the identification and integration of existing and future potentials enhance the pension framework's agility and adaptability to fluctuating environments both internally and externally. Overall, the resource potential's level effectively summarizes the current condition of the pension system, cultivated through the synergistic interplay among all three assessed stages.

The essence of resource potential is embodied in a comprehensive snapshot that encapsulates its evolutionary trajectory through past, present, and anticipated future capacities within the economic framework, aiming to address the needs and engagements of all stakeholders within the pension system and its associated services. This comprehensive perspective is critical in the planning and projection of resource potential. It's imperative to acknowledge the historical patterns that have shaped and are shaping its current and future state, alongside the existing circumstances of its manifestation influenced by previously seized and missed opportunities.

When examining the methodological approaches to analyzing the resource capacity of pension systems, it's crucial to highlight a particular attribute that is essential for both modeling and predictive efforts. This attribute is the dynamic nature of the resource capacity. The focus on dynamics stems from the understanding that it represents transformation across temporal dimensions. However, when delving into the notion of object dynamics, as applied within technical research, the process reveals complexities. This complexity is notably influenced by the phenomenon known as "aftereffect." The reasoning behind changes over time being rooted in both current influences and the historical context of its evolution can be attributed to the encompassing nature of system methodologies. It underscores that the dynamic traits





of resource capabilities, along with various socio-economic entities, are founded on systemic theoretical principles. Overlooking such a crucial aspect diminishes the accuracy of models and undermines the dependability of long-term predictions.

## RESULTS

The essence and capacity of resources dedicated to pension services is a complex and evolving subject, delineated by an extensive array of criteria and methodologies. In its examination, numerous objectives are identified and addressed, guiding the selection of a proper model for analysis. From an evaluation of the core traits relating to the resourcing of pension services, distinctive characteristics pivotal to its modeling can be outlined. These characteristics encompass:

- The extent and caliber of assets within the pension scheme;
- The competence of administrators in harnessing the full potential of pension assets;
- The structure and comprehensiveness of the data framework supporting national pension schemes and related services;
- The inventive capabilities of the pension scheme in modernizing service delivery mechanisms and the technological infrastructure of pension-related services;
- The strategic integration of distributive and accumulative approaches in developing the resource base for pension services, tailored to fit the specific socio-economic backdrop of the nation;
- The level of professional development and training provided to pension scheme employees for effective public engagement.

Therefore, a model represents a streamlined representation of the prototype, inherently connected to it and mirroring its fundamental characteristics, interactions, and relationships. This framework's examination acts as an instrument for acquiring new insights and verifying pre-existing knowledge about a different system (Collective of authors, 2011).

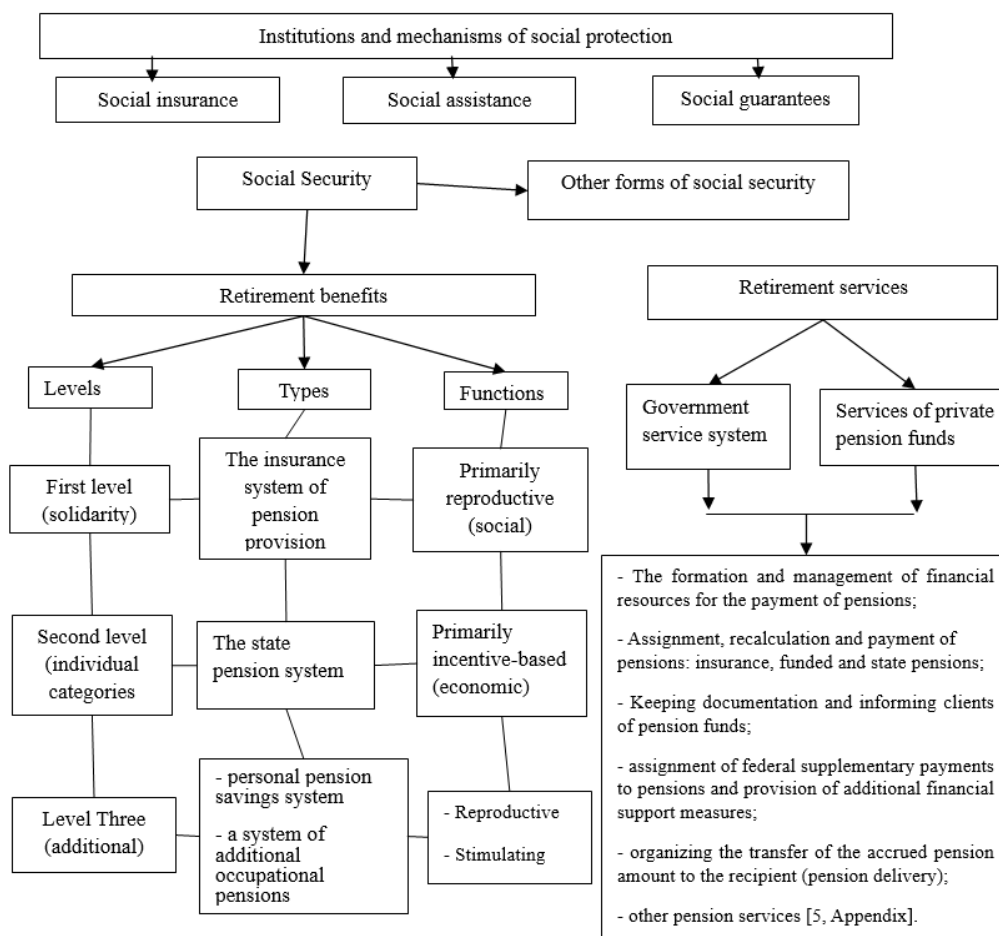
Today, a variety of models play a crucial role in forecasting within the socio-economic domain. These tools are invaluable for identifying the dynamics and causative links among socio-economic elements, along with predicting the future trends and behaviors of entities, processes, and occurrences over extended periods. The modeling technique, offering a comprehensive approach, serves as a mechanism



for prediction. It provides insights by simulating data, enabling evaluations of expected burdens, trajectories of entities, and their intrinsic operations.

A model dedicated to predicting the future availability of pension resources exemplifies how one can gain insights into potential future conditions of these resources and pinpoint the methods and timing for reaching these states. Essentially, it acts as an effective representation of the forecasting system, precisely depicting the capabilities regarding pension allocations and forming a foundation for predicting their forthcoming implications.

For a model to be considered effective, it must reflect the essence of the real-world subject it represents without mirroring it entirely. Losing the actual essence of modeling means failing to maintain the critical balance between resemblance and innovation—the cornerstone of predictive modeling. The primary attribute that sets the model apart from its real-world counterpart is its adaptability in forecasting changes, which should have no direct impact on the original data being modeled.



**Figure 1.** Conceptual scheme of the methodology for forecasting the resource potential of the state pension provision system  
 Source: Designed by author.



Nowadays, predicting trends within the socio-economic field is becoming a key instrument for guiding and advancing the socio-economic sector. Against this backdrop, the theoretical foundations and methodological approaches to socio-economic predictions gain critical significance. The scientific approach to predicting economic trends encompasses a comprehensive framework of principles, techniques, and metrics employed throughout the forecasting process. A diagrammatic representation, labeled as Figure 1, illustrates the theoretical model for projecting the resource capability of the national pension system.

It is fundamentally understood within the realms of scientific inquiry that societal dynamics adhere to specific rational patterns, and the objective of intellectual pursuit lies in uncovering and formally articulating these patterns as established principles. (Collective of authors, 2011). Indeed, the underlying framework for forecasting approaches constitutes a theoretical representation for organizing forecast-related activities. This framework categorizes the activities, establishes a foundational rationale, elucidates both the logical and chronological structure, and enhancing the organization of these activities eventually contributes to the creation of an efficient model, thereby elevating the accuracy and reliability of forecasts.

In the context of predicting and modeling pension resources, one must acknowledge that the selected forecasting techniques must be consistently integrated with a variety of other universal scientific methodologies, specialized strategies, and a cross-disciplinary perspective. This methodological application is relevant across various levels of investigation, addressing specific issues related to pension funding such as demographic trends, the pattern of workforce participation, the development of income and expenditure in the country's pension resource pool, its sustainability, and more.

The challenge in simulating social processes within Russia lies in the fact that a considerable number of these processes do not conform to existing models and necessitate a theoretical examination tailored to the current social context.

The process of prediction, viewed as an academic practice of anticipation, outlines a collection of foundational principles that guide the act of forecasting. These fundamental principles embody the core concepts, the foundational philosophy behind predictive theory, and its governing standards. Drawing from R.P. Rudakova's exploration into the challenges of forecasting (Rudakova, 2010), we are able to





delineate methodological tenets for anticipating the capabilities of pension resources, such as:

- The principle of systemic analysis necessitates the examination of pension resources' potential through a holistic lens. The significance of this approach was previously highlighted, and it is further explained here as an amalgamation of various system-oriented methodologies—including elemental, structural, functional, integrative, communicative, and historical perspectives—in the construction of pension system resource development projections.

- The principle of creating multiple forecasting scenarios involves crafting a range of possible predictions, utilizing available data and insights specific to the field in question, and making informed assumptions about the future landscape of the pension system (Gurinovich, 2021);

The reliability principle emphasizes the importance of precision and the scientific foundation in forecasting efforts. This principle asserts that predictions must consider the mandates of objective economic principles and consistencies. Additionally, the principle concerning focus and setting objectives encompasses the creation of expectations for the pension system's future and the means to attain these visions. It also covers the objectives outlined for economic advancement and the evolution of pension support. In the context of prognostication, forming a goal is a fundamental, crucial aspect of the activity and simultaneously serves as a prediction itself. (Aleksandrova, 2022);

The concept of persistence emphasizes the importance of creating and continuously refining a predictive model for pension-related processes, ensuring adjustments are made at each juncture of supervision, following a thorough evaluation and the integration of newly acquired data (Börsch-Supan, 2005). Moreover, the tenet of productivity underscores the essential goal of obtaining a significant fiscal benefit from the application of pension system and service forecasts, surpassing the investment required for the forecast's formulation, by capitalizing on the enhancement of resource capabilities (Bobkov, 2020). Lastly, the integration of political and economic considerations suggests that the projection of pension system trends ought to cater to the collective interests of all pension-related parties: the government, the community, and individual citizens, ensuring a harmonized approach to pension planning (Gruber, 2004).





The fundamental tenets for predicting the resource capabilities within the national pension system and associated services are essential, foundational, and must be utilized collectively in socio-economic predictions. Additionally, these principles ought to hold paramount importance in anticipating the growth of both the nationwide pension system and its services, as well as in individual regions or specific local pension sectors (Gruber, 2005). This approach is justified due to the observable variation in resource potential across the Russian territories (Gustman, 2005; Holzmann, 2005; Jousten, 2005).

A critical aspect of forward-looking analysis involves crafting unique methodologies aimed at bolstering the accuracy and credibility of future projections (Oksanen, 2004). In this light, an interdisciplinary methodological framework distinguishes between two layers of defining and modeling future outcomes for the subject in question (Bayazitova, 2021; Reno, 2005).

On one hand, there's a layer focused on outlining potential or desired outcomes for the entity being forecasted, along with identifying ways to tackle previously pinpointed issues (Shiller, 2005).

On the other, a layer exists that is more prescriptive, zeroing in on the exploration of strategies for issue resolution by leveraging forecasted insights about what lies ahead.e (Yermo, 2002).

The method under consideration for predicting facilitates the identification of various dimensions in the study of pension funds and their capabilities, treating them as a subject for scientific simulation and projection. This includes both cognitive and strategic facets. As a cognitive process, the prediction concerning this entity should capture the underlying patterns and potential trajectories within the pension framework. In its capacity, such forecasting enhances our understanding of the entity as a system, alongside its interaction with the broader context, broadening our informational horizon. It furnishes analytical tools necessary for realizing the most favourable or anticipated condition of the analyzed socio-economic framework, enabling the recognition of the societal and economic impacts on the surrounding milieu. (Arbatli, 2016).

In a methodological context, the significance of understanding the model object's cognitive dimensions, especially its temporal aspects and the scope of prediction, cannot be overstated. Commonly, it's believed that predictive knowledge is confined to the object's future data. Nonetheless, it's more frequent that the focus of





predictive analysis encompasses not only the future but also the current and past states of the object in question. This leads to an extension of the object's scope by incorporating both currently obscure or potentially unfathomable phenomena and processes from the present and past. Such an inclusive approach significantly enhances the precision and dependability of scientific predictions, refining the effectiveness of the models employed (Park, 2012).

The justification for this methodology is evident in the contemporary practice of pension system forecasts. It has been previously observed that predictions regarding the evolution of pension provisioning's resource capabilities, as well as the pension system in its entirety amidst ongoing reforms, have met with unfavourable outcomes. Efforts to construct a long-term forecast based on rigorous scientific principles were unsuccessful, primarily due to the lack of a robust methodological foundation. (Selivanov, 2021).

Therefore, "the challenge of scientific forecasting encompasses both the theoretical and knowledge-based dimension linked to the examination of forecasts as a function governed by dialectical laws, specific economic and social regulations, along with the theoretical foundation provided by various other disciplines; and the practical dimension, notably reflected in the explicit linkage between forecasting and the processes of planning and governance." (Parsadanov, 2002; Finogenova 2022).

Forecasting doesn't stand alone but is an integral part of a "diagnosis-forecasting-management" system. Within this framework, forecasting serves as the crucial connection between evaluating an entity's current condition and arranging the modalities of engagement with it. It is within this tightly knit sequence of system components that forecasting emerges as the foundation for directing actions and behaviors towards realizing the intended condition of the subject matter and fulfilling the designated objectives. (Pryadeho, 2014).

The foundational framework for analyzing and projecting the resource capacity, including associated entities, activities, and events for a detailed forecast of the pension scheme's evolution, is anchored in the theories surrounding the growth and operational capabilities of resource potential. These theories allow for an in-depth understanding of the principles and causal connections governing its expansion and movement.





## CONCLUSION

Through predictive analysis, it becomes possible to define the extent and impact of these principles and causations on the overall progression of the pension scheme's resource capacity. From this perspective, the resource capacity is to be viewed as a dynamic entity, its nature and future course shaped by the interplay among various elements, activities, and occurrences. Consequently, this enables a considered estimation of both the resource capacity and the pension system's future trajectory with a relative level of certainty.

This paper examines the methodical approaches to analyzing the resource capabilities integral to pension funding, focusing on its potential for simulation and predictive studies. Highlighting the significance of these resource capabilities and their attributes as critical influencers in shaping forward-looking national policies for pension system enhancement, it emphasizes the crucial role of adopting a systemic viewpoint for thorough strategic evaluation, simulation, and extensive future projections. It argues the importance of leveraging a comprehensive suite of simulation and projection techniques to address the challenges faced by the pension system under severe political, economic, and demographic pressures, emphasizing the necessity to meet its fundamental objectives. Furthermore, it unfolds the conceptual framework for understanding the resource capabilities in pension funding, identifying its essential elements such as its state, dynamics, uniqueness, and limits which provide foundational data for model development and analysis. It elucidates on the intricate interrelations and dynamics of the resource potential, bridging both spatial and temporal dimensions. Finally, it proposes a conceptual model for predicting the resource potential within the national pension framework and establishes methodical principles for the anticipation of pension resource capacities.

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