

## RESEARCH ARTICLE

# Teaching AI with Vysikaylo's Cumulative Political Economy: A Model of States as Social Cumulative-Dissipative Systems and Population Dynamics

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## Abstract

**Purpose:** This study applies Vysikaylo's paradigm of cumulative-dissipative systems (CDS), originally developed in physics, to the analysis of socio-economic and political processes in states. CDS theory describes open systems in which convective cumulation and dissipation of energy–mass–momentum fluxes (EMMF) occur. The purpose of this research is to reinterpret classical political economy through the CDS framework by modeling the processes of accumulation, transformation, and dissipation of human and economic potential in states using approaches derived from natural statistical sciences. **Methods:** Political and economic phenomena—including the cumulation, transformation, and dissipation of capital and social resources—are modeled using mathematical analogies with physical CDS systems. The study introduces androgenic and gynogenic configurators to represent structural mechanisms in economic systems. Two generalized principles are applied: (1) Lomonosov's conservation law (later experimentally confirmed by Lavoisier), and (2) Clausius's Virial Theorem, according to which only part of the potential energy entering a partially open system remains within it while the rest dissipates into the surrounding environment. Dynamic Order Parameters (PDO) are proposed to quantify systemic dynamics in states viewed as living social CDS systems. **Results:** The analysis suggests that similar mechanisms of co-organization observed in physical CDS systems also occur in socio-economic structures, including the circulation of capital, resources, and human potential. When the systemic balance between accumulation and dissipation is disrupted, structural crises, institutional instability, or state transformation may occur. The proposed PDO framework enables quantitative assessment of systemic stability and provides analytical tools for evaluating policies aimed at sustaining state development. **Conclusion:** Adjustments in the distribution of national production between elites and the broader population, together with economic policy instruments such as customs duties and industrial protection measures, may contribute to the stabilization and revitalization of weakening states. The CDS-based framework also allows demographic and migration dynamics to be analytically evaluated. Case analyses of Russia, Spain, France, Germany, and the United States illustrate the applicability of the proposed approach. The integration of CDS theory with socio-economic analysis offers a potential foundation for further development of a systematic "science of law" governing social CDS systems.

**Keywords:** environmental economics, positive externalities, negative externalities, government policies, Pigouvian tax, cap and trade, environmental regulation

## 1 Introduction

The author proposed a new paradigm in physics: cumulative-dissipative systems (CDS), and since 1996 has successfully applied it to describe previously mysterious phenomena in open systems with characteristic sizes ranging from  $10^{-15}$  (neutrons) to  $10^{26}$  m (intergalactic lightning). In any Vysikaylo's CDS (tornadoes, lightning, water drains, etc.), convective cumulation and diffusion or convective dissipation (discharge) of energy-mass-momentum fluxes (EMMF) already modified in the CDS occur. Within the framework of classical physics, the author has been studying dual cumulative-dissipative systems in 4D spacetime for over 50 years. The most illustrative model of such bistructures is the pattern of ascending and descending counter-rotating flows, which aligns with the Yin-Yang duality.

Here, the author, using Vysikaylo's CDS paradigm, translates the classical economics of

states (cumulating, transmuting, and then dissipating human potential) from the realm of the humanities to the realm of natural statistical sciences. To describe political and economic social phenomena (the cumulation, transmutation, and dissipation of capital flows), the author uses mathematical models similar to those employed to describe Vysikaylo's cumulative-dissipative systems (with the transmutation of energy-mass-momentum fluxes (EMMF)) in physics. As the core theoretical foundation, the author adopts the Law of the Unity and Struggle of Opposites—one of the three laws of dialectics—which reveals the developmental source of most cumulative-dissipative systems, including global social systems, i.e., states. The only correct choice of opposites in a state is the people themselves and their elite. If the elite is rational and responsible, the state prospers and its human potential expands; if the elite engages in even “legitimate” misappropriation of resources, the state declines. This was clear to Lomonosov and Count Shuvalov.

Vysikaylo's Cumulative Political Economy (CPE) is a natural-scientific approach to statistical economics, which the author developed during 2009–2011 [1, 2]. The author demonstrates that without decent domestic and foreign policies, capitalist states have no economies, or are self-destructive due to capitalists and bankers acting only in their own interests, destroying the human potential of their countries. The excessive acquisitive tendencies of bankers and oligarchs—who siphon off 1-5% of national capital in the US and up to 30% in Russia by exporting capital abroad—lead to periodic structural crises in capitalist states, destroying or degrading the human potential of capital-starved andro-states. Gyne-states, which receive capital inflows, develop into attractors that accumulate global resources. Internal structural crises are resolved through political means, by politicians like Roosevelt or Stalin. The author demonstrates this numerically using specific examples and verifies it using artificial intelligence (AI) – Alice. External structural crises are resolved through wars between donor states (andro-systems) and acceptor states (gyne-systems).

CPE studies the processes of cumulation (self-focusing, reproduction, and cumulation), transformation into human potential, and other movements of capital (money or its mobile equivalent, capable of being effectively converted into money) within states. CPE also studies the influence of capital's stimulating role on the development, augmentation, and destruction of human potential [2].

Previously, during the time of the Italian economist and mercantilist Antonio Serra (1613), gold and silver stimulated the movement, development, and augmentation of human potential; now, this stimulating role is fulfilled by American wrappers, as a universal equivalent. The USA dollar became the world currency in 1944 following the signing of the Bretton Woods Agreement at the international conference in Bretton Woods, New Hampshire. Within the global system, the dollar became the primary reserve currency, and almost all international settlements are still conducted in it. As long as this remains the case, a catastrophe for the dollar will not occur! (No matter how much M. Khazin and O. Grigoriev [3] call for it).

Here (as in physics), the author provides a general classification of states into gyne-CDS and andro-CDS. (In physics, the activation of continuous media occurs with a beam of fast electrons, protons, or UV radiation). In this case, the complete system of andro- and gyne-structures forms the androgynous system [4].

Gyne-states cumulate capital (stimulated by external factors), while andro-CDS, conversely, expel capital to activate gyne-states. When gyne-states are activated, they develop and begin to cumulate various resources without limit. This leads to the generation of pulsating processes between andro- and gyne-social CDS. We observe these phenomena between China and the United States, and between Europe and the United States. We previously observed similar phenomena between Japan and the United States.

The powerful outflow of capital from andro-states leads to structural crises, revolutions, degradation, and even the transmutation of the human potential of such states. For this reason, it is necessary to limit the unlimited cumulation of capital in the hands of oligarchs and bankers who export capital [2], which leads to the degradation of the population of andro-states.

I.V. Stalin and his successors in the USSR failed to grasp the intricacies of cumulative political economy, and thus missed the opportunity to establish the ruble as the reserve currency for the USSR, India and China, as the United States has done with the dollar in Europe.

V. Putin currently has such an opportunity, yet he is not a successor to Stalin's governance approach, and Russia—a state that has experienced 34 years of demographic and economic decline—is not the USSR. Although such a formation of a China-Russia-India opposition to the dying Europe-USA system would be beneficial for all global dynamic economic and political

oppositions (according to Hegel). Most likely, V. Putin will be unable to construct such a global androgynous bisystem of opposites, which aligns with Hegel's principle of the unity and struggle of opposites [4].

In the future, we all face the struggle and unity of the two sub-civilizations of India and China, as two contending, but not mutually annihilating, opposites of the universal androgynous bi-CDS.

## 2 Comparison of Vysikaylo's cumulative political economy and classical economics

M. Khazin in the Russian Federation (RF) claims that modern neoeconomics is unrecognized in Europe and the US, and that only he and O. Grigoriev grasp its core tenets—a truth that Khazin only discloses on his paid private channel. They have expanded economics to neoeconomics and introduced the concept of banking capital [3]. They argue that capitalism can only exist in expanding markets and will decline once the global market is fully captured and further expansion is restricted. Khazin fails to recognize that the state can and should regulate markets, and that the resource for the sustainable development of any state lies in the redistribution of domestic capital between the elite (hereafter referred to as “wolves”) and the general population (hereafter referred to as “sheep”).

Therefore, the author develops a slightly different approach. According to Vysikaylo's approach, capitalism is effective when capitalists cumulate capital, when their capital is small compared to the capital of the state, i.e., the entire common people who consume the products of production. If nearly all capital is concentrated in the hands of bankers, this marks the point at which Marx's capitalism ceases to be a progressive and innovative socioeconomic formation, and an era of revolutions and structural upheavals ensues.

I agree with V.Yu. Katasonov that political economy is unknown in Russia as well. Katasonov argues that economics, which is still predominantly expounded through verbal reasoning, cannot be regarded as a rigorous science. This view is put forward by V.Yu. Katasonov, Professor at the Moscow State Institute of International Relations (MGIMO) and Doctor of Economic Sciences. In a speech delivered at the Trinity Lavra of St. Sergius, he stated: “Economics is not a science... Although I am presented as a Doctor of Economics, I can say that this is a purely conventional title, 'economic sciences,' because any science has such mandatory attributes as a clear, rigid conceptual apparatus...”

In reality, relationships between people are regulated by certain norms: written and unwritten, or even paradigms. V.Yu. Katasonov asserts that “economics is a relationship between people.” “Economics is a subjective thing,” says Pavel Seleznev (dean of the Faculty of Economics in Russia). What's the point of such economics and institutions that study subjective anecdotes?

In the author's research, empirical data on the actual demographic extinction in Russia from 1991 to 2025 are presented. This aligns with Katasonov's observations, who, according to his own account, addresses this issue using the verbal economic framework taught in Russia—a framework that he argues nurtures uncritical followers of the mainstream paradigm.

In short: the modern economy is the relationship between “wolves” and “sheep” in a single state. Moreover, in the modern economy, the laws governing these opposites are not properly defined. A.S. Pushkin also referred to such social relations, as noted in Figure 1. The author believes that Hegel's laws on the struggle and unity of opposites and practical observations of predator and prey populations in a science such as bionics are quite useful here. The teaching of Hegel's philosophical fundamentals in educational institutions at all levels is a matter of national policy. (see [Figure 1](#))

The parable or epic tale of Judas and Jesus has existed for thousands of years and lies at the heart of Christianity. From the perspective of cumulative political economy, its essence is simple: Jesus gave his life for all of humanity and its interests, becoming eternal, while Judas sold his friend and teacher for 30 pieces of silver and was killed and cursed for excessive greed and betrayal. We will not need any other fundamental philosophy to formulate the foundations of Vysikaylo's cumulative political economy!

The second parable is the story of Abel (the slaughtered “sheep”) and his brother Cain (the “wolf” who killed the “sheep”). Katasonov prefers this story. Money plays no role here, and this parable gets to the heart of the formation of feudal power. This idea—power through the murder of brothers—is shared by all European states.



**Figure 1** Pray, peaceful peoples! The Judases will cut you up or shave you. (*A.S. Pushkin*)

I am not a monarchist, like Katasonov, and the purpose of my work is to illustrate in numbers the role of politics and economics (money as a universal equivalent) in the development and collapse of states.

The author is not at all interested in the nationality of Judas and Jesus. For the CPE, the contrast between the dissipation and cumulation of human potential in personal interests and, in particular, in the interests of society (or the state) as a whole is of interest. Those who work for the interests of the entire people are followers of Jesus, while those who work only for themselves are clearly Judases. And the key here is whether a person or an entire social system has more of Judas or Christ in them! If it has more of Christ, then the system is eternally evolving, but if it has more of Judas she is building a Judas-Reich and then it will sooner or later be slaughtered or self-destructed! In this work we will address the issue of the survival of a state with a capitalist mode of production (where the ideas of Judas dominate) and finding ways to dynamically shift the state from the ideas of Judas to the ideas of Jesus, relying on the people, their state and president, and not just on God. As a result (according to the principles of synergetics), we will indicate the parameter in social CDS that should be reduced for the long-term existence of a state that is a superpower.

To develop the framework for Vysikaylo's statistical cumulative political economy, as in Vysikaylo (2011) [2], we will use Lomonosov's physical laws, Clausius's virial theorem, and Protagoras's idea that man is the measure of all things (in the truest sense). To prove our ideas, we will draw on our training of artificial intelligence (AI) in the fundamentals of Vysikaylo's cumulative political economy [2].

As Newton taught us in physics, we will begin with the simplest arithmetic problems in social economics. For this, we will need a statistical estimate of the resource required for the subsistence of one person in their state. The author has not seen such an estimate in any publication on economics, except [2]. The author believes that economic sciences are well prepared for their transition to the realm of natural sciences, where mathematics (statistics and simple arithmetic) and its laws are primary, not the empty rhetoric of "great" economists.

## 2.1 Estimation of the average statistical resource of one person in his state

As Protagoras (4th century BC) posited: "Humanity is the measure of all things." In Vysikaylo (2011) [2], the author, for the first time, within the framework of cumulative political economy (CPE), proposed a method for estimating in money (dollars) the resource (human potential) necessary for the vital activity of one person throughout his or her life. To conduct such an assessment, it is necessary to multiply the average monthly salary of an individual in a given country by the duration of their effective working life. In Russia, this period is approximately 40 years—with the first 25 years devoted to childhood and formal education (primary, secondary and tertiary); after the age of 60, individuals enter retirement, face age-related illnesses, and rely on pensions for subsistence beyond 65. (Certain methodological difficulties currently arise from

the inclusion of salaries, dividends and other forms of income of oligarchs, bankers and highly paid officials (“wolves”) in official statistical data, who often “legally” suck out for themselves enormous common resources of their country (including the resources of the “sheep”). This factor can be accounted for by the coefficient  $\varphi$ —the share of national income accruing to officials, bankers and capitalists in the distribution of the total social product. In developing capitalist countries, the value of  $\varphi$  is less than 0.5; in demographically and economically declining states, it can reach 0.9. As the author demonstrates, this leads to state structural crises, inefficient capital allocation, and even the extinction of the titular peoples that originally founded the state—resulting in a hollow “chimera state,” or a “paper tiger” as described by Trump. (For a justification of the optimal value of this coefficient, see the section “Generalization of the Virial Theorem to Economic Processes”).

Based on the volume of pension funding in the Russian Federation, this vital resource (according to M. Khazin) of one person over his entire life (the necessary average potential according to O. Grigoriev [3]) in the Russian Federation is in the order of Vysikaylo (2011) [2]:

$$W_{RF} \approx 100,000 \quad (1)$$

It is practically impossible to conduct economic calculations in rubles in Russia due to the extreme volatility of the ruble’s exchange rate caused by erratic monetary policy, but don’t take into account Russia’s extinction at a rate of 1 million people in year. The  $W_{RF}$  (in order of magnitude) corresponds to the compensation paid to relatives for a deceased participant in the Special Military Operation (SMO) (V.V. Putin’s special military operation, perhaps he’s read [2]).

In Ukraine, the legal compensation for soldiers killed in the Russia-Ukraine conflict is approximately \$350,000 per person. However, V. Zelensky and his government have been reluctant to disburse this compensation to the families of the deceased, a fact that was clearly demonstrated in 2025 when Russia repatriated the identified bodies of Ukrainian soldiers killed in the Special Military Operation (SMO).

In developed capitalist countries, the *life expectancy* of one person, according to the author’s estimates, is approximately \$ 1 million (in the US, \$ 570,000), i.e., 10 times greater than in Russia. (So, the US GDP is approximately \$29 trillion in 2024. The US population is 341 million, while Russia’s is 146 million, with a GDP of approximately \$ 2.2 trillion.) But the economic problems in these countries are in many ways similar.

In 2003, scientists conducted an experiment and found that even monkeys dislike being paid unequal wages for the same work. Only the Russian people and their soldiers are capable of higher labor productivity than most other nations, yet they receive some of the lowest wages globally.

Recently, national central banks have become interested in a more nuanced population structure. They analyze the demographic composition of pensioners, children and the working-age population—the demographic structure of the “sheep” group. The author argues that the share of capital held by officials, oligarchs, and bankers (the “wolves” who speculate on the stock exchange) is more important relative to the overall national capital.

This elite withdraw capital from the state (they siphon productive capital into banking capital and dump it on other countries for its meager growth). Data on the capital of the “wolves” is usually classified in the Russian Federation. Speculative capital in the Russian Federation constitutes a huge portion (over 70% of Russia’s total capital). The Russian banking system functions as a mechanism that siphons off domestic financial resources, transferring them to the economies of developed capitalist countries. Capital is also dumped from developed capitalist countries to developing countries. This process enriches capitalists and bankers by cutting labor costs through offshore production, yet it erodes the human potential of the donor andro-CDS state.

Ordinary people invest their capital in their country. In all cases, the elite’s share of capital determines the rate of capital outflow from the state. Therefore, reducing the elite’s share of capital has a beneficial effect on increasing the human potential of any type of state. The author argues that capital outflow (and Putin’s inaction on the banking system) is the main reason why Russia has been dying for 34 years. The other causes are estimated to be significantly less costly (i.e., the “o” is small relative to capital outflow by bankers, oligarchs, and officials).

Russia’s population fluctuates little due to the transformation of its population. Russia is an open CDS and utilizes (cumulates) the human potential of the entire Golden Horde and

the former USSR. In Russia, the Russian World is being replaced, in particular, by the Tajik World. Putin opened five schools in Tajikistan with Russian pronunciation, and in 2025, Marat Gusmanovich Khusnulin agreed to relocate some auto component production from Russia to Tajikistan. Our officials learn only from their own mistakes. Russian officials have not learned from the mistakes of the United States, which outsourced production to China. And they have never even heard of the properties of states as open CDS.

To demonstrate the importance of the formation, management, limitations, and, most importantly, the numerical evaluation of the performance of cumulative-dissipative banking systems in this area, we will first solve a simple arithmetic problem within the framework of the CPE: we will estimate the real damage inflicted on the USA population during the Great Depression. To do this, we will define the key terms and provisions of the CPE [2].

## 2.2 Key words of cumulative political economy (CPE)

Capital cumulation is the process of focusing and self-focusing of financial resources in various systems that form the state or accompany the state.

Transmutation is the transformation of capital into human potential, its increase, and its transformation back into capital (money), or the destruction of the state's capital and human potential.

## 2.3 Key provisions of the CPE

(1) All values (material and ideal) and elements in any social structure can be unambiguously expressed at any moment in units of a universal equivalent of value— real money (or its equivalent: dollars; a loaf of bread; a kilogram of gold, butter, meat, lard, etc.).

(2) Physical conservation laws apply to any cumulative structure, including social ones. In particular, the author's modified Lomonosov's law applies to social structures: "If something has decreased somewhere, then an equivalent amount has increased somewhere else. And vice versa, if something has increased somewhere in some quantity, then an equivalent amount has decreased somewhere else." The Vysikaylo-Lomonosov's economic law maintains the conservation of equivalent value during any capital transformation [2], which allows for the comparison of material and other values and their corresponding financial volumes or flows. This law allows one to solve arithmetic problems determining capital flows both in the forward direction of capital transformation and in the reverse direction, if the forward flows are secreted by the governing political "elite."

(3) Comparisons of large and very large volumes of produced or created goods, and even human potential, should be based on calculations of their full value in units of a universal equivalent (dollars, etc.). Values not expressed in a universal equivalent or values with different dimensions are not permissible within the framework of the CPE. Comparing resources spent on people with resources spent on guns or horses (as was done during slavery) is entirely permissible within the framework of the CPE! Proposition 3 implies the law of weak ("small o") and strong ("large O") influences on the social structure (see point 4).

(4) The CPE assumes that in social structures, small economic disturbances (small) cannot disrupt powerful dynamic flows (large O) unless they are amplified many times over by other social processes. Only strong dynamic flows (including the withdrawal of financial resources), comparable to the main financial flows in the structure, can modify: 1) the social structures themselves, 2) the results of their activities in the form of gross product, and even 3) modify their elements – people, leading to a "cold" transmutation of the population of states, structural crises, and revolutions.

(5) The main financial flows should be directed toward financing the younger generation (for the milk of a nursing mother, as Winston Churchill recommended) in any part of the global social structure, and not toward the removal of resources and capital from the social structure. This is the fundamental law of a developing global social system. Excessive capital removal from the structure leads to the death of the state, revolution or the modification of its population.

(6) Applying the provisions of paragraphs 1-5, in any social structure, it is possible to identify and evaluate both temporary and permanent financial (material or other) sources that enable the development, maintenance, or prolongation of the death throes of any social structure. In this regard, one should not forget the partial openness (transparency of boundaries) of social CDS.

(7) In partially closed (with borders and Customs barriers) social CDS, it is always possible to identify dynamic opposites ("wolves" and "sheep" or sheep) acting in opposite ways. Hegel

taught about the unity and struggle of opposites (the philosophy of ancient China about Yang-Yin). However, Marx did not understand this position of Hegel either. Marx argued that the proletariat is the gravedigger of its opposite, the capitalist. According to Hegel, this means that the proletariat is suicidal. The unity of dynamic opposites lies in their self-consistent effect on joint development. Antagonism is manifested when one opposite completely absorbs all the sources that feed the second opposite, i.e. the temporary development of one part in this case occurs at the expense of resources or suffocation of the other part. As a result, absolute antagonism leads to the self-destruction of all opposing parts of the social dynamic structure. (The elite of Europe and the United States have not understood why Rome collapsed, destroying Carthage). Economists in Russia still don't understand why developed capitalist countries are dying out, destroying their peoples and breeding only officials, bankers, and oligarchs.

(8) Failure to adhere to dynamic laws and the lack of constant personnel turnover (rotation) in social structures everywhere leads to stagnation, corruption, nepotism, decay, and the extinction of people in social CDS. The officials and presidents of states themselves are responsible for the extinction of peoples within states. Roosevelt and Stalin understood this and managed economic processes in the United States and USSR (Russia) with excellence.

(9) Dynamic structures, including ethnic groups, can live forever if they have energy sources for their existence and their substructures adhere to the fundamental dynamic laws of the coexistence of dynamic opposites that form a single dynamic social CDS.

(10) According to CPE, by applying the laws of conservation of equivalent value and the fundamental principles of the CPE that follow from them, one can evaluate the performance of the governing apparatus of any social CDS, and of the state in particular. The state must be governed by highly qualified officials who understand the basics of the CPE. Knowledge of Roman law and the ability to play the saxophone or balalaika alone are no longer sufficient to govern a state (a social CDS with a huge number of governing parameters of dynamic order).

(11) The CPE (as in conventional synergetic of inanimate elements) allows us to introduce, substantiate, and apply a number of dynamic parameters to describe economic and political processes in social CDS. These parameters include: GDP per capita, GDP per worker, the share of GDP per elite (oligarchs, bankers, and officials), the number of children per woman (TFR – Total Fertility Rate), and others.

(12) A tremendous source of human potential is the land, with its resources, solar energy, and skillful self-management of the state's human potential. These sources, independent of the external market, should be relied upon for the normal development of the state. Other sources are of little use. The confiscation of land from peasants in Russia and the alienation of people from decent wages is leading to the catastrophic extinction of Russia. Money is the seed for children [5].

The meager wages established by the Yel'tsinoid's regime are barely enough to feed themselves and one child. Russian men clearly don't have enough money for children (seeds, according to Samuelson).

Using the CPE, it's possible to statistically (and not verbally, as is customary in economics studied in universities) forecast processes in ethnic groups, super-ethnic groups, and states based on the management of financial flows and human potential, both for feeding the "wolves" and for feeding the "sheep." The state (officials and presidents) is obligated to manage these processes in the interests of the entire state, not a gang of bourgeois ("wolves") cumulating and exporting capital from the state solely for their own benefit. Using the CEP, it's possible to analyze social processes in various subsystems (in "wolf" families and "sheep flocks") of society (state).

There's a science called bionics. It attempts to find solutions to technical problems in production in biology. In a number of our works, we will focus on biological analogies in social processes in synergetic groups of various organisms and their CDS for illustration purposes.

## 2.4 Cumulative political-economy (CPE) allows us to:

- (1) statistically and economically compare the historical and contemporary social processes of the birth and demise of states;
- (2) assess the impact of financial flow management on state development or its transformation into a chimera and subsequent self-destruction;
- (3) predict the development of social structures depending on the quality of state capital

management;

(4) assert that the state and its people are primary, while capitalists and their interests are secondary, although also important. However, without a people, there is no elite, no bourgeoisie, and no bankers;

(5) based on the damage to a state's population (using Russia as an example), determine the export of capital or its ineffective use within the state. Here, we will demonstrate how the inverse problem is solved: the problem of state destruction through the transmutation of the main ethnic groups within states;

(6) solutions to these problems, with corresponding examples, will be presented in more than one article.

## 2.5 The universal national idea of any state and its goal

Let's ask a simple question: where do ordinary Americans put their money? And what is their national idea?! – The same as Russians! Everywhere, ordinary people invest their hopes and money in feeding, clothing, and educating their children and grandchildren. The national idea is everywhere in the multiplication (cumulation) of children and grandchildren, i.e., in increasing the human potential of their native country! This is the fundamental political idea of any state, not a dying chimera that “honestly” invests money in oligarchs' yachts and thereby poisons the environment. Oligarchs don't eat three times as much; they pollute a million times more. This doesn't mean they need to be destroyed; it's enough to limit (restrain) their greed, and this should be done by the state. M. Lomonosov was probably the first to formulate this idea.

The average American income during the Depression did not exceed \$2,000 per year [5]. If we subtract the wealthy portion of Americans, this value will be halved (until recently, 70% of US income was concentrated in the banking sector. After Trump's policies (during his first term), they became around 50%, as in the last century. (With Biden's arrival, everything returned to  $\varphi \sim 0.8$  (80%). For this reason, they cannot start producing shells for Judas from Ukraine and destroy Russia). We will examine changes in the economic parameter of the Vysikaylo-Clausius-Lomonosov dynamic order –  $\varphi$  – in the US and Russia within the framework of Vysikaylo's cumulative political economy in detail below (see Section 5: **Generalization of the Clausius Virial Theorem to Economic Processes**).

## 3 Application of the CPE framework to describe cumulative and dissipative phenomena in states

There is no single, universally accepted definition of the term “state” in either science or international law. We will introduce the following definition of the state based on the fundamentals of the CPE. The state is the most global social CDS within a defined territory with translucent borders, laws, and official languages of communication. Any state corresponds to a political form of society, a sovereign form of public authority possessing an apparatus of governance and physical coercion to which the entire population is subordinate. The state exercises governance through laws, state institutions (persuasion and physical violence), and other mechanisms, ensuring order, protection, and the fulfillment of the fundamental rights of its citizens (or, according to M. Khazin, in the case of a temporary chimera, in the interests of power groups devouring the human potential of their state). In a state or other social CDS, the speed of information exchange between elements can reach the speed of light. The speed of exchange of energy and mass flows within and between states is constantly increasing as the state develops.

Lomonosov himself proposed measuring the effectiveness of a state's rule (that of an emperor or empress) by increasing the state's population. In his treatise “On the Preservation and Propagation of the Russian People” (1761), M.V. Lomonosov advanced the idea of increasing the country's population. He approached the problem from the perspective of the state's socioeconomic interests, believing that the “majesty, power, and wealth of the entire state” resides in the country's population. China and India have proven the validity of Lomonosov's teachings in practice.

V.V. Putin recently cited Lomonosov's ideas, but recently switched to Pushkin. Putin apparently realized that, according to Lomonosov, he and his “elite” are the Great Liquidators of the Russian World, as evidenced by the AI revelations (see Section 3). However, V.V. Putin doesn't read Pushkin carefully enough either. Pushkin long ago indicated who should be robbed.

Here is the original quatrain, corrected by the Tsarist censorship (A. S. Pushkin (1821-1822)):

We sit behind a tree and wait;  
Whether a rich Judas or a poor priest;  
Is walking along a late road?  
It's all ours! We take it all for ourselves.

Here, Pushkin points out the economic stratification of the Russian people into the rich, the poor, and those who have decided to take everything for themselves, since the state cannot organize the economic activity of its citizens. Konchalovsky also demonstrated this in his vaudeville (in Episode 16) of *The Chronicle of the Russian Revolution*. I will dwell on this prediction of the future by the great Andrei in the Russian-language version. Read and reread the geniuses in their language! The author does not at all call for killing and robbing all Jews and poor priests or officials all over the world, but taxes should really limit the unlimited cumulation of capital from oligarchs and bankers in favor of the common people and not only in Russia. Otherwise, the Russian or European and American worlds will be over!

To this day, rulers repeat the words of Alexander III: "The state has two allies—its army and navy." We've already seen how the top brass of Saddam Hussein's Iraqi army was bribed and how the Russian Navy's Black Sea Fleet flagship, the guided-missile cruiser Moskva, was sunk. It sank on April 14, 2022, after a strike carried out on April 13, 2022, by a Neptune missile system of the Ukrainian Navy, under the command of a British officer. N. Mikhalkov already teaches us in his films that the Russian tsars advised officers to take care of their soldiers. The only eternal ally, creator and provider of any state is its people! Read and rethink the classics, in particular Jesus (Sermon on the Mount), Euler, Lomonosov, Pushkin, Mendeleev, sometimes Churchill (the best investment in a nursing mother's milk), etc., and do not repeat the tsars, for whom subjects grew like grass in a field.

If the people of your country only give birth to half the children needed for homeostasis each year, then your tiger will become a paper tiger in the future, no matter what your president, army, and navy are like now! Even an idiot understands this. Ordinary people can be deceived and fail to take into account the 20-25 year time lag and the plunder of the future state's potential (the F-factor) by oligarchs and officials (in the service of the oligarchs) [2]. These are the common and already real problems of Russia, Europe, and the United States. While Trump is trying to solve them in the United States' favor, Putin and Khusnullin are exacerbating them for Russia, to the benefit of the oligarchs. They plan to export auto parts production to Tajikistan in 2025.

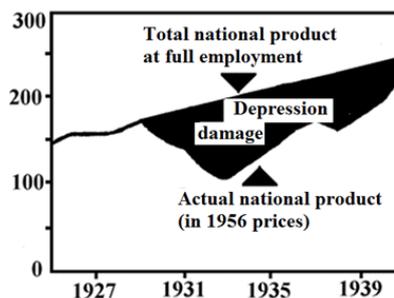
In his work [2], the author proves that a state's economy cannot exist without its policies, hence the title "Cumulative Political Economy." M. Khazin suddenly realized that in 2025, Trump is using political, not economic, methods to "make the US great again."

The author proves that the reforms of the dictator Roosevelt saved the US state from collapse and, back in 1933, laid the foundation for the greatness of the US. The absence of political reforms leads to the destruction (dissipation) of human potential, its degradation and social revolutions or the death of the entire state. The fundamental right of citizens of a state is their right to life and the increase of the human potential of their state. And this happens during the birth and upbringing of children! Protagoras (4th century BC) understood this too.

### 3.1 Estimated US economic losses in dollars during the Great Depression

In [Figure 2](#), we see that the sharp decline of the US economy (GDP) was halted in mid-1933, and from there, its recovery began. This point should be called the libration point (oscillation) or the reversal point of the economic decline. The emergence of this point of return is associated with Roosevelt's political reforms, and P.I. Vysikaylo noted its importance, so we will call it the Vysikaylo-Roosevelt's (VR point). Roosevelt's reforms acted as a mirror, reflecting the decline of the US economy back into the zone of growth. (Gravitational and Coulomb potentials operate similarly, changing the direction of motion of small particles in classical and quantum physics. Their velocity changes symmetrically.) We will further examine Roosevelt's political reforms, as well as the causes of the structural crisis itself during the Great Depression. Here, we are simplifying the political-economic problem.

The total damage inflicted during the structural crisis, according to [5], exceeded half a trillion dollars. According to our calculations [2], this is approximately \$600 billion over 12 years ([Figure 2](#)). This is the damage inflicted on the production of the US national product in \$ billion in 1956 prices (12 years\*\$50 billion). This is the cost of stagnation of the US economy



**Figure 2** Product loss during the Great Depression in the United States. The dark area shows the gap between what the United States actually produced in the 1930s (in billions of dollars) and what the US economic system was capable of producing.

during the Great Depression, according to the data presented in [2,5].

### 3.2 Methods for estimating the costs of wars and depressions in terms of the population of states

According to Vysikaylo (2011) [2] and Samuelson (1992) [5], “the costs of depression are no less than the costs of war.” Using CPE, we can estimate the costs of wars in both population loss and monetary value. Unlike the general statements in Samuelson (1992) [5], we will numerically estimate the costs of the Great Depression in the United States and the results of the transmutation of the Russian World in Russia from 1991 to 2025. To do this, we will apply the provisions of the CPE and verify our actions with AI, thereby proving the equivalence of human potential and the total product produced by the entire state. We will do this in accordance with Vysikaylo’s cumulative political economy (method), proposed in Vysikaylo’s. [1,2].

#### 3.2.1 Application of the Vysikaylo-Lomonosov’s economic law to assess the costs of the Great Depression in the USA

Over 30 years (the working life of a typical worker), the average American earned (according to Samuelson (1992) [5]) about \$30,000 in 1956 prices. If the depression caused damage of \$600 billion, then according to the Vysikaylo-Lomonosov’s economic law, in the US the following were indirectly destroyed (not born) due to the depression:

$$\$600 \text{ billion} / 30,000 \text{ [$/person]} \approx 20 \text{ million Americans}$$

Their human potential (Grigoriev’s capital or Khazin’s resource) was devoured by the economic depression (organized by US bankers and capitalists. See section 3.3). The author believes and proves in his works that bankers and oligarchs pocketed this resource (money – seeds for children) (see Section 3.3). Having reported the enormous costs of depressions, Samuelson in Samuelson (1992) [5] did not provide an estimate of the number of unborn USA populations due to the depression. Apparently, he didn’t study Protagoras’s and M.V. Lomonosov’s laws in school, although he did guess the economic link between the quantity of butter and the number of cannons (see [5]). Samuelson in Samuelson (1992) [5] collected all the necessary data for my calculations in Vysikaylo (2011) [2].

V.V. Putin partially recognized the connection between guns and butter, communicating this in his 2023 address to the Russian world. I sent him and D. Medvedev, then President of the Russian Federation, a book [2] on the “cold transmutation” of the inanimate into living, developing human potential back in 2012, where I drew attention to Samuelson’s discovery in Samuelson (1992) [5] and my analytical calculations in Vysikaylo (2011) [2] about the harm of the unlimited cumulation of capital in the hands of bankers and oligarchs, and the export of capital and resources from Russia, primarily with a small admixture, allowing the Russian-Muslim world of Russia. However, Putin and his political elite are in no hurry to apply the methods of Stalin or Roosevelt. And so Russia is dying out, like the United States in 1929-1933.

In the 1939-1945 war, the Germans, bleeding and subjected to violence by all allies, lost “some” 12 million. The USSR, bleeding rivers in battles and the genocide carried out by the Germans on Soviet territory, lost 20-30 million people, while the Americans (sitting at home on the couch with an elite endlessly hoarding dollars) didn’t produce 20 million people during the Depression!!! That’s the price of a “structural” crisis and the political elite’s inept leadership of their country before 1933!

In Russia, the Red Project took land from the peasants, but Stalin's state and the Communist Party of the Soviet Union (CPSU) provided jobs and their own money to the population. We will evaluate the CPSU's money and determine where it was stored, and how the White Project of 1991 (which deprived the Russian population of jobs, deprived them of their money (replacing them with dollars), and transferred all state property to bankers) is still spending these CPSU resources (see Section 3.2.3).

It is imperative to incorporate the law of the cold transmutation of money into the state's human potential, or, for example, "butter" into "guns" or the gold trinkets of feudal lords and oligarchs in the Unified State Exam in the US and Russia. Other economists, political scientists and even khazinists will follow suit.

Application of the Vysikaylo-Lomonosov's economic law to assess the impact of the export and inefficiency of capital on the costs of the Russian world population during the period of counterrevolution in Russia from 1991 to 2025 (the "reforms" of the Yeltsinoids, the devourers of the Russian world) By their fruits you will know them. Do men gather grapes from thorns, or figs from thistles? (Jesus Christ. Sermon on the Mount. (Matt. 7:20).)

As AI teaches us, calculating the number of children required for demographic homeostasis (sustainable population reproduction) in a country is based on the concept of the reproduction rate. Below is a step-by-step analysis of the key indicators and methodology.

TFR (Total Fertility Rate) is the average number of children a woman would have in her lifetime if current age-specific fertility rates remained unchanged.

For simple reproduction (homeostasis) in developed countries, the TFR should be  $\approx 2.1$  (not 2.0 due to mortality before reproductive age and childlessness of some women).

If  $TFR < 2.1$ , the population is declining.

If  $TFR > 2.1$ , the population is growing.

Further, you can learn from AI about the factors influencing a country's homeostasis threshold, various complex TFR calculations, etc. The author gave the AI the task: "Take specific statistical data for Russia from 1991 to 2024 and calculate the number of unborn children in the Russian Federation for homeostasis."

The AI replied: "To calculate the number of 'unborn' children needed to maintain demographic homeostasis in Russia from 1991 to 2024, we need to compare the actual total fertility rate (TFR) with the replacement rate. In developed countries, this rate is approximately 2.1 children per woman, taking into account mortality before reproductive age and the childlessness of some women." Then the AI went crazy with such a simple task and gave me this fairy tale: "So, for the period 1991–2024 (if we count each year with a similar deficit): Total deficit  $\approx 33$  years  $\times 20$  million = 660 million children".

So, AI initially miscalculated the number of unborn children as 660 million due to the Yeltsin-era counterrevolution. The AI did not learn Vysikaylo's cumulative political economy. We had to teach the AI the basics of Vysikaylo's cumulative political economy. After the training, the following results were obtained: "15-20 million children were not born in Russia during the period 1991-2024 (for its homeostasis)".

I'll explain to the reader how I trained the AI in the basics of CPE. This is also useful for Vladimir Putin. He and his consultants are making mistakes when calculating the indicator of how many children per woman in Russia. In this section, we will apply the inverse method to the one presented in Section 3.2.1. Here, we will estimate in dollars (in 2025 prices) the government's destruction of human potential in Russia, using Federal State Statistics Service (Rosstat) data on births in Russia over the past 40 years (Table 1).

First, let's determine the number of children (born per year) required to maintain the population of the Russian Federation in perpetuity. To do this, we will divide Russia's population ( $146 \times 10^6$  people in 2024) by the average life expectancy in Russia (73.4 years in 2024):

$$H = 146 \times 10^6 / 73.4 = 1.99 \times 10^6 \text{ children per year} \quad (2)$$

This is the number of children (and perhaps even more) that must be born in Russia to ensure its continued existence without increasing its population, life expectancy, or, consequently, human potential. To account for infant mortality and infertility among some women, this figure should be increased to 2.1 million. To take this into account, the value of H should be multiplied by 1.05 ( $H = 2.08 \times 10^6$  children per year). And if military losses are included, the figure rises to 2.3 million per year.

If fewer than 2.1 million people are born consistently, then this is a period of state extinction

and the destruction of its human potential, according to Lomonosov. According to Pushkin, the culprits are the rich Jew (the Central Bank of Russia, working for the oligarchs) and the poor priest (and his parish: the Duma, the Federation Council). Read and rethink the classics, which at least V. Putin reads.

Deaths in Russia in 2024:  $D = 1.8186 \times 10^6$  people, mostly elderly. In 2021, 2.445 million people died in Russia. From these figures, we see that the number of deaths (D) and the number of children necessary for homeostasis of the Russian Federation (H) coincide with an accuracy of 7%. This indicates a reasonable match between the average life expectancy reported by Rosstat.

$$\text{Births in Russia in 2024 : } R = 1.222408 \times 10^6 \text{ children.}$$

By setting H and R for any country, we can calculate the parameter TFR – the number of children per woman:

$$TFR = 2.1 \times R/H \tag{3}$$

Let's test ratio (3) using the United States as an example, based on data from the World Population Prospects 2024 report. The US population in 2024 is 342 million. Life expectancy is approximately 79.6 years. The number of children required for homeostasis in the US (based on 2.1 births per woman) is  $H \approx 4.5$  million. The number of children born in 2024 is 3.6 million. This yields the parameter for the US  $TFR = 1.68$  in 2024. The total fertility rate (TFR) in the United States (the number of children born per woman) fell to a historic low of less than 1.6 in 2024, the Associated Press reported. This is a 4% downward error.

Our calculation for Germany using formula (3) yields a TRF value of 1.38 in 2024. However, German social services indicate a TRF value of 1.35 for 2024. This is an excellent match (within 2%), proving the applicability of ratio (3). According to (3) in 2024 the TFR for Russia = 1.23, and not 1.4 as Putin indicated on 19.12.2025. (This value of this parameter corresponds to a life expectancy in the Russian Federation of 80 years. If we assume that life expectancy in the Russian Federation is 65 years, as it was in 1990, then now there are 0.5 children per woman. Putin's consultants are unable to calculate this dynamic order parameter for the Russian Federation, as well as the other consequences of such an economic policy). This is how officials are hiding the catastrophe (Figure 3) I predicted back in 2009.

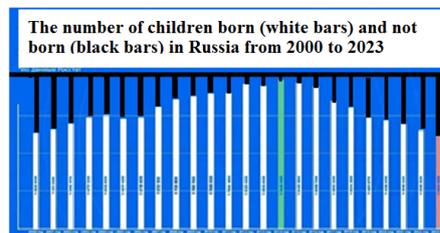
The number of children born in 2024 and before that over the past 33 years (Table 1 and Figure 3) indicates the catastrophically accelerating extinction of the Russian world, as I predicted in Vysikaylo (2011) [2]. In 2024, this enormous number of children not born for homeostasis in Russia amounted to:

$$N_{RF24} = H - R = 2.08 \times 10^6 - 1.222408 \times 10^6 = 0.86 \times 10^6 \text{ people per year}$$

(excluding those who died in the SVO, deceased children, and infertile women). Therefore, in 2024:

- (1) women in Russia gave birth to only  $\approx 1.2$  children per woman;
- (2) the direct loss of human potential, according to (1), was:

$$N_{RF24} \times W_{RF} = 0.86 \times 10^6 \times 10^5 \$ = \$86 \times 10^9 \tag{4}$$



**Figure 3** The numerical liquidation of the Russian world according to Rosstat data (black bars – children not born for the homeostasis of Russia) and CPE.

Let's calculate the total population decline in Russia due to the "reforms" of 1991-2025. As follows from (1) and Table 1, the total population decline in Russia is:

$$\Delta N_{RF} \approx 16 \text{ millions of children} \tag{5}$$

of 33 years. Considering that the AI recommends a birth rate of 2.1 per woman, this would yield an additional 3.4 million children, to the total loss of the Russo-Tatar world. Considering

**Table 1** Birth rate in Russia by year from 1981 to 2024

1981–2005 (25 Years)				2006–2030 (25 Years)			
Year	TFR	ΔTFR	10Y-CPDC	Year	TFR	ΔTFR	10Y-CPDC
1981	2.23	-	-	2006	1.48	-0.52	-
1982	2.33	-	-	2007	1.61	-0.39	-
1983	2.48	-	-	2008	1.71	-0.29	-
1984	2.41	-	-	2009	1.77	-0.23	-
1985	2.37	-	-	2010	1.79	-0.21	-4.49
1986	2.49	-	-	2011	1.80	-0.20	-
1987	2.50	-	-	2012	1.92	-0.08	-
1988	2.35	-	-	2013	1.90	-0.10	-
1989	2.16	-	-	2014	1.94	-0.06	-
1990	1.99	-0.21	-6.16	2015	1.94	-0.06	-
1991	1.79	-0.41	-	2016	1.89	-0.11	-
1992	1.59	-0.41	-	2017	1.69	-0.31	-
1993	1.38	-0.62	-	2018	1.60	-0.40	-
1994	1.40	-0.60	-	2019	1.48	-0.52	-
1995	1.36	-0.64	-	2020	1.44	-0.56	-2.40
1996	1.30	-0.70	-	2021	1.40	-0.60	-
1997	1.26	-0.74	-	2022	1.30	-0.70	-
1998	1.28	-0.72	-	2023	1.26	-0.74	-
1999	1.21	-0.79	-	2024	1.22	-0.78	-
2000	1.27	-0.73	-4.49	2025	-	-	-
2001	1.31	-0.69	-	2026	-	-	-
2002	1.40	-0.60	-	2027	-	-	-
2003	1.48	-0.52	-	2028	-	-	-
2004	1.50	-0.50	-	2029	-	-	-
2005	1.46	-0.54	-	2030	-	-	-2.82

**Notes:** Variable Definitions: (1) TFR = Total Fertility Rate (average number of children per reproductive-aged woman, replacement level = 2.1); (2) ΔTFR = Deviation from replacement level (ΔTFR = TFR - 2.1); (3) 10Y-CPDC = 10-Year Cumulative Population Decline Coefficient (core index in Vysikaylo’s Cumulative Political Economy framework). “-” denotes no available data or non-calculable index; each column covers exactly 25 years to ensure balanced time-span division.

that in 1991, Russia’s population was 149 million and that life expectancy in the Russian Federation has increased from 65.3 years to 73.4 years in 2024, this calculation increases the estimated size of Russia’s unborn population to  $\Delta N_{RF'} \approx 22$  million, and if losses in military operations are taken into account, this number would be even higher. This corresponds to a direct loss in Russia’s human potential of (in 2009 prices):

$$W_R = W_{RF} \times \Delta N_{RF'} \approx \$ 10^5 \times 22 \text{ millions} = \$ 2.2 \times 10^{12}$$

Accounting for lost income results in a loss in the future (in 20 years) of up to:

$$W'_R \approx \$ 7 \times 10^{12} \tag{6}$$

in the human potential of the Russian Federation. Economist Katasonov, who calculates the trains transporting raw materials and capital out of Russia, also points to these figures.

According to (1) and Table 1, Russia’s population growth was observed until 1991. Since 1991, Russia has experienced a steadily accelerating population decline. Only the number of oligarchs and officials in Russia has increased. This is the result of the capitalist reforms of 1991 and the ineffective solutions (by the State Duma RF, the Federation Council, and the President RF) to Russia’s demographic problems.

### 3.2.2 Rosstat’s predictive database. Russia has a partially open social CDS. Checking the obtained results

To do this, we need the Rosstat data about children aged from 0 to 14 in RF. According to Rosstat, there are 25.6 million children legally residing in Russia as of January 1, 2024 (17.6% of the country’s total population of 146 million).

Based on this Rosstat data and Table 1, we can determine the number of children who came to Russia with their parents from other countries over the past 14 years. This number is approximately 2.2 million over 14 years. Here, we see the replacement of Russia’s titular nations by immigrants, amounting to 6.6 million people over 14 years, or to 14 million or more over 30 years if a single man, a single woman, or a family without children migrates. For this reason, despite the rapid decline of its titular nations, Russia’s population remains relatively unchanged, from 149 to 146 million. This is how a cold (without revolutions or massacres

of “sheep”) transmutation of Russia’s titular peoples occurs. Germany, France, and the entire European Union are similarly dying out.

Labor shortages, due to natural causes, are moves into the future by 20-25 years. Therefore, we need to plan not for 3, 5, or 10 years, but for the full 20-25 years! This is what China is doing. Thus, the absence of social and economic reforms under Putin’s rule postpones a structural crisis, social explosion, or collapse of Russia for a period exceeding 20-30 years (the cumulation effect). By 2025, Russia will have already lost approximately 16-20 million workers due to the squandering of their resources by officials, bankers, and oligarchs. Putin’s system is shifting Russia’s main problems into the future. Therefore, Putin’s letter to the future, sent on December 19, 2025, needs to be significantly adjusted. If he continues to feed the people of Russia the snot from the oligarchs’ tables, then Russia, like all EU countries, will face disaster.

As a result of Yeltsin’s reforms, demographic problems are being pushed into the future, while money intended for the children of the Russian Federation is already being “legally” cumulated (concentrated) in the hands of oligarchs, bankers, and Russian officials. These “Judases” are now transmuting the diapers Stalin prepared for the unborn children of the USSR into dollars and gold toilets! This proves that Russia is an open, cumulative-dissipative system with a changing population (due to the inaction of the Russian president).

If several “Judases” refuse to feed the people who raised them (and their children), they will feed a foreign army or worms. Europe is already doing this – it feeds the US army and Americans, who, in turn, are being transformed into Latin Americans by their bankers (“wolves”). The black squares in Figure 2 show the Russian Federation’s needs for migrants per year with a 20-year shift. This is how Rosstat’s forecasting database for the Global Project’s (Figure 4) activities in Russia is being developed for the next 20 years. Similar forecasts can be made for any European country with statistical services. All developed countries have created not melting pots for their peoples, but well-equipped crematoria for their local residents, just as in Russia.

### 3.2.3 Discussion of the causes of transmutation and extinction of the titular population of Russia

Igor Gundarov believes that men in Russia are experiencing sperm liquefaction, and that women have something wrong with their eggs. This even happens to people from Tajikistan. That might be true. But the Abramovichs, Solovyovs, and others—both their personal sperm and the eggs of Russian women—are all fine!

Have you tried feeding all the people of Russia properly, not just the oligarchs and owners of houses in Italy, England, Spain, and elsewhere? To do that, you need to offend the bankers (who are getting fat on Head of the Central Bank of the RF Nabiullina’s actions), the oligarchs, and the officials (“wolves”) by reducing their share of the state’s pie. Officials are trying to blame the demographic problems on the alcoholism and drug addiction of the people of Russia, rather than on their own “honest” over-consumption of the state’s pie. The annual financial turnover of alcohol companies does not exceed \$20 billion [2].

In 2025, V. Matviyenko (the RF Council Speaker) decided to impose a \$500 annual tax on the unemployed (“sheep”). Before that, they were considering a tax on mushrooms and berries. But they have no intention of reducing their spending on themselves and other “wolves.” Oligarchs and their official patrons, the State Duma, and the Federation Council, are “legally” plundering Russia’s future for the benefit of officials and oligarchs. Russia’s “elite” has been devouring its people for 30 years now, and at an ever-increasing rate, both its people and the human resources created with funds allocated by the Communist Party of the Soviet Union!

For 2024 alone, the direct loss of human potential, according to (4), is  $\Delta N_{RF} * W_{RF} = \$ 86$  billion. If we take into account Russia’s lost profits due to the dissipation and transmutation of children’s capital by oligarchs, the loss sent into the future for 2024 is:

$$W_{RF} \times \Delta N_{RF} \times 3 = \$250 \text{ billions}$$

in human potential and this is only for one year, and Putin and his “elite” have another 5 years of extermination and transmutation of Russian citizens into Tajiks ahead of them.

A.L. Kudrin (former Finance Minister of the RF) alone (with his stash of dollars outside Russia) accounts for \$300 billion/\$10<sup>5</sup> = 3 million unborn children. Their resources (the seeds, according to Samuelson) were left in “friendly” Europe by the kind and very “smart” Grandpa Lesha. He is still doing something “useful” for the extinction of the Russian world. We won’t even mention A. Chubais, who hammered nails into Russia’s future children. He still “honestly”

receives dividends from Russia. Kudrin's stash continues to fill Russia's gold and foreign exchange reserves increased by 1% from October 3 to October 10, 2025. Russia's oil and gas revenues are steadily growing, despite sanctions, reaching \$729.5 billion in 2025. Meanwhile, the Russian World is dying out at an ever-increasing rate, already at a rate of 800,000 people per year or more, even without taking into account the influx of coffins from the SVO! There are already enough "seeds" in the piggy bank for 7.3 million children. But the "gardener" is doing nothing and is planting few "wolves" since the "sheep" are dying out.

A special question for the Central Bank of Russia. Bank deposits are growing and already exceed 60 trillion rubles (\$700 billion). Banks are skimming a 25% profit from these deposits. That's 15 trillion rubles (or \$180 billion). This is how capital is simply siphoned off from production and human resources into banking capital (rustling bills and skirts). Thus, the resource of the human potential of Russia's children (F-potential) is transformed, at the wave of Nabiullina's finger, into the whims of bankers and their golden toilets. Isn't this a cold transmutation of Russia's future into its current paper trash (a paper tiger).

With such a policy, there's no need to build and repair crèches, kindergartens, or schools. They can bring in migrants, for example, Tajiks. This puts an additional \$210 billion into the pockets of oligarchs and officials. They clearly have an overheated economy or simply a lack of digestion of Russia's child resource, prepared by Stalin. 210 billion dollars a year are more than the vodka business or any other business in the Russian Federation. They say it's a sin to count money in someone else's pocket. It's from the pockets of the child resource of the Russian World that the guys in the photo are getting rich (Figure 4).

Some of the participants in the liquidation of Russia's children are shown in Figure 3. The rate of liquidation of the Russian World in Russia, according to Rosstat data and my simple calculations, is shown in Figure 3 (black squares) and Table 1 and confirmed by the AI I have already trained. According to calculations by the trained AI, over 33 years the child shortage in the Russian Federation has reached 16-20 million children (Table 1).



**Figure 4** Part of the effective liquidators (transmutators) of the 20 million Russian world. (A. Chubais spoke of this number of people, saying they wouldn't find their place in his marketplace. He didn't warn us that these would be the children and grandchildren of the Russian World that Vladimir Putin spoke so much about).

In a capitalist society, the initial cumulation of capital always occurs through criminal means. And Russia is no exception to this rule. The plundering of the population and the unlimited cumulation of capital in the hands of the «Judases» (who export or hold capital abroad, began in the twilight of the USSR, including by this ethnic group (Figure 4). Previously, I didn't believe that Jews ate live Russian children with matzah (a distant legend). Now, based on the study and development of Lomonosov's ideas, I understand how the so-far cold (without bloody massacre) transmutation of the Russian population occurs and how the Vysikaylo-Lomonosov's law operates in the economy.

V.V. Putin, all the officials and deputies are doing nothing tangible to solve demographic problems. Putin declared that when he realizes that certain of his actions are detrimental to certain lords, he decides to do nothing. Officials think that by giving 4% (of the total resource necessary for the life of a Russian citizen) for the first child and 1% for the second child, the state will solve the demographic problem with these crumbs from the oligarchs' table.

Our and the AI's calculations of demographic processes in Russia demonstrate the validity of the Vysikaylo-Lomonosov's law for the Russian Federation's social cumulative-dissipative systems, which states: "If the Abramovichs and Chubais have gained a lot of money, then an equivalent number of children in Russia have decreased."

Due to insufficient funding for the children of their people and, consequently, the unlimited

or insufficiently limited cumulation of capital by oligarchs, human potential is being destroyed not only in Russia but in all capitalist countries. Child capital should include not only money for diapers and popcorn, but also the costs of children's mastery of technologies and industries (kindergartens, schools, universities, factories, plants, etc.).

- (1) In most EU countries, the TFR is  $< 1.6$  (reproduction rate  $\geq 2.1$ ).
- (2) Examples: Italy–1.24; Spain–1.19; Germany–1.46 (Eurostat data, 2023).
- (3) In the US, the TFR fell to 1.62 (2023)–the lowest on record.

These countries are dying out or transforming their populations due to the influx of migrants. The imbalance in the flow of wealth between the “elite” (Yang) and the people (Yin) is the source of the structural crisis in dying and transmuting states. This is how the genocide of the entire white race is carried out by its Judases in all states with a parameter TRF is less than 2.1. Without a fundamental solution to the problem of the “cold” transmutation of children's resources into the capital of bankers and oligarchs, it will be impossible to solve the problems of demographics and the corresponding structural crisis anywhere!

### 3.2.4 Money of the Communist Party of the Soviet Union

The cessation of capital exports from the USSR, the creation of industry, and the modernization of the countryside, which began in 1922, allowed the USSR's population to reach 275 million by 1975, placing it second place in gross production after the United States. None of literate, developed, northern country in the world had ever seen such a dizzying economic leap, universal literacy, population conservation (according to M.V. Lomonosov), or the cumulation of human potential (according to Ya.B. Zeldovich). The average population growth in the United States from 1958 to 1975 was 24% including influxes from abroad, while in the USSR it was 32% (an increase of 67 million in 17 years!) [4].

During Stalin's structuring of society and the reforms he carried out, 3.77 million were repressed and 2 million dispossessed. (This is how Khazin's method of destroying social strata occurred.) Millions died of starvation as a result of the food tax. According to the latest figures, it would seem, from the perspective of the average person with a Western worldview, that everything was done to harm, but the results are staggering:

#### THE RUSSIANS WERE THE FIRST TO GO INTO SPACE!

The total additional effect in monetary terms at 2009 prices can be estimated in living human potential at \$ 6.7 trillion (67 million \*  $10^5$ ). If we take into account a multiplier of 2-3 (the necessary real estate: kindergartens, schools, factories, plants, power plants, universities, technical schools, stores, rockets and ships, 3 thousand tons of gold in coffers, etc.), then the total additional effect will be approximately \$13-15 trillion over 17 years, i.e.  $\sim$  \$1 trillion in profit per year. The losses from Stalin's reforms (the elimination of social strata) in human potential are \$1 trillion, and the profit is \$15 trillion. Now, in 2025, America surpasses these indicators. Its national debt is growing at a faster rate, reaching \$2.4 trillion (in 2024), and wrappers are being printed – dollars for the Chinese. And who do ordinary Americans owe \$100 trillion and pay interest to every year? Tucker Swanson McNear Carlson probably knows this.

### 3.3 Political mirrors, speeds, and time lags of economic outcomes in social CDS

Here, we analyze the visualization features of [Figure 2](#) of the instantaneous reactions of the speed of economic processes to political decisions and the lag in the impact of political decisions on the recovery of economic potential in states (and other social CDS). [Figure 2](#) makes it possible to determine both the rate of decline –  $V_d$  – and the rate of growth –  $V_g$  – of national product in the United States over a wide range from 1925 to 1941. This figure allows us to introduce concepts: 1) the rate (derivative) of change in natural product (before and after political reforms); 2) the Vysikaylo-Roosevelt's political mirrors; and 3) the lag times for the recovery of national product production.

As we can see in [Figure 2](#), from 1925 to 1929, there was slow growth of national product in the United States, with a growth rate of national product in the United States of approximately \$5 billion per year (in 1956 prices).

In 1929, the US economy began to experience a massive recession, with  $V_d =$  \$18 billion per year in 1956 prices. Where did these resources go? The same way children go in Russia. Bankers, oligarchs, and corrupt officials convert state resources into own capital (Gold Pots as Putin put it)!

### 3.3.1 The Vysikaylo-Roosevelt's political mirrors and the instantaneous reaction of the speed of economic processes to the political actions of true statesmen, and not the leaders of dying chimeras (paper tigers according to Trump)

So, since 1929, we have seen a sharp decline in US national product at a rate of \$18 billion per year. The immediate rebound (from decline to a similar growth of \$18 billion) around 1933 is almost symmetrical to the sharp decline in US product since 1929 (Figure 2). This proves that Roosevelt's reforms (political revolution from above) had already redirected the overwhelming majority of domestic capital toward increasing the overall national product in 1933. Paper tiger presidents in the US, Europe, and Russia, learn from Roosevelt if you don't want to learn from Stalin!

We are the first in the world to discover such a political-economic mirror with a symmetrical reflection of resource flows. We will call it the Vysikaylo-Roosevelt's political-economic mirror. So where did the national product go from 1929 to 1933? It was transmuted by bankers and oligarchs into personal capital and funneled into their pockets, rather than into developing the country and increasing its human potential in the United States!

After Roosevelt's (the dictator's) political reforms, capital immediately went toward increasing the national product. The same amount that went into personal capital (15%) went toward increasing the national product after the reforms. Therefore, the rate of decline in the national product equaled its rate of growth (15%) after Roosevelt's political reforms (Figure 2). This once again proves the validity of applying the Vysikaylo-Lomonosov's economic law to describe cumulative and dissipative political-economic phenomena in states.

An interesting change in the graph (Figure 2) occurs around 1937. Initially, there is a slight slowdown in national product growth to 15 billion per year, followed by a decline at the same rate for one year. In 1938, Roosevelt again set up the Vysikaylo-Roosevelt's political-economic "mirror" (even before P. Vysikaylo was born) and abruptly reversed the decline in national product to its growth until 1939.

Unfortunately, Samuelson [5] did not pay due attention to this attempted bourgeois counter-revolution, suppressed by President Roosevelt within one year. Subsequently, after 1939, we observe more rapid growth in the US economy, driven by the war in Europe and the emergence of an additional market for the US economy. This demonstrates the importance of developing domestic and foreign markets for national economies and other socially important economies (M. Khazin likes to discuss this).

The experiments of the Great Roosevelt prove that capitalism can be reformed even at the stage of its decay and degradation. And the main reserve of any state is not external markets, but rather limiting the unlimited cumulation of capital by oligarchs and bankers! The author argues that significant state restrictions on the unlimited cumulation of capital by bankers and oligarchs remain the foundation of a state's prosperity based on market principles.

### 3.3.2 Time delays in the restoration of the volume of national product and human potential of the state and chimeras

According to Figure 2, even with an immediate economic response to political reforms, the economy does not fully recover immediately, but after a certain period of time, necessary for it to recover and reach the previously established rate of positive growth. Moreover, the volume of national product  $\Delta W = V_g \times T_g$  grows as the product of the growth velocity –  $V_g$  and the characteristic growth time –  $T_g$ .

Of interest is the presence of a second local minimum (Figure 2, reflection point in 1938). It is clearly related to the bankers' opposition to Roosevelt's reforms and their almost immediate suppression by the state under Roosevelt's leadership. The author leaves the clarification of this problem to American Nobel laureates in economics and personally to Trump, who will have to thoroughly study and implement the laws proposed by Roosevelt in 1933-1937. Either America will become an ordinary regional country – a gas station – or it will transmute its population into Mexicans, just as Russia transmutes Slavs and Tatars into Tajiks and Kyrgyz.

The time it takes to restore the state's human potential (devoured by negligent officials, bankers, and oligarchs) is determined by three parameters. One is determined by the time children reach adulthood, i.e., 18 years of age, plus several years for them to acquire a specialty. The second parameter is determined by the importation of migrants into the state. And the third most important parameter is the  $\varphi$  - share of the national product that falls to the "elite" (devouring the human potential of the state).

### 3.3.3 Time lag in the realization of human potential and the need for migration planning for balance in states

Figure 3 and Table 1 show the results of the numerical liquidation of the Russian world according to Rosstat data (black bars represent unborn children for RF's homeostasis). Currently, Russia, its pensioners, officials, and oligarchs are effectively consuming the resource of Russia's future—the F factor, shaped by the CPSU and Stalin personally. In the USSR, human potential grew, but in Putin's Russia, it is declining at a rate of 1 million children per year (including infertile women and the SVO).

The rate of F factor consumption in Russia is already more than \$250 billion per year. This is a loss of more than 10% of GDP. Calculating GDP without taking into account population losses is pointless! This means that more than \$250 billion per year is spent ineffectively, which is leading to the extinction of the Russian-Tatar world. This money goes to oligarchs and officials. The latter have secretly hidden their incomes and property in gold pots. The shift in the catastrophe of the extinction and disappearance of the Russian world (along with the Tatar world) occurs over a period determined by the period when young people enter adulthood. For this reason, national economic planning must be done at least 20 years in advance, not 5, 7, or 10 years, as recommended by retired Russian Foreign Intelligence Service Colonel Andrei Bezrukov.

The Judases of the Russian land had a wonderful time from 1991 to 2025. The result is a minus of 43 million children, including Ukraine (Kievan Rus), or a monetary equivalent of over  $\$ 12 \times 10^{12}$ . The black bars in Figure 3 represent the plan for the necessary influx of labor from the countries of the Great Mongol Empire to Russia (shifted by 20 years), or the degradation and death of the Russian world. Although, after such an influx of migrants, what kind of Russian world will it be?

### 3.3.4 The Predictive Power of Vysikailo's Cumulative Political Economy. The Time Lag in Realizing Human Potential and the Need for Balanced Migration Planning in States

Figure 3 and Table 1 show the results of the numerical elimination of the Russian World according to Rosstat data (the black bars represent unborn children to ensure homeostasis in the Russian Federation). Currently, the Russian Federation, its pensioners, officials, and oligarchs are effectively consuming the resource of the future of the Russian Federation—the F-factor, shaped by the CPSU and Stalin personally. In the USSR, human potential grew, but in Putin's Russia, it is declining at a rate of 1 million children per year (including infertile women and losses in the SVO). The level of F-factor consumption in the Russian Federation already exceeds \$250 billion per year. This is a loss of more than 10% of GDP. Calculating GDP without taking into account population loss is meaningless!

This means that over \$250 billion per year is spent inefficiently, leading to the disappearance of the Russian-Tatar world. This money goes to oligarchs and officials. The latter secretly hide their income and property in gold pots from the dying people. The incomes of officials in the Russian Federation have long been a secret from the people.

The shift toward the catastrophic extinction and disappearance of the Russian world (along with the Tatar world) is occurring during a period defined by the age when young people enter adulthood. For this reason, national economic planning should be carried out at least 20 years in advance, not 5, 7, or 10 years, as recommended by retired Russian Foreign Intelligence Service Colonel Andrei Bezrukov. The Judases of the Russian land had a wonderful time from 1991 to 2025. As a result, we lost 43 million children, including Ukraine (Kievan Rus), or the monetary equivalent of over  $12 \times 10^{12}$  dollars.

The black bars in Figure 3 represent the planned necessary influx of labor from the countries of the Great Mongol Empire to Russia (shifted by 20 years, see Table 2), or the degradation and demise of the Russian world. Although, after such an influx of migrants, what kind of Russian world will it be in the Judas-Reich, like the Khazar Kingdom, where part of the ruling nobility professed Judaism.

Similarly, Table 3 can be constructed from Table 1, showing the years in which the Russian army will be weakened most by the cold transmutation of Russian children into Abramovich's golden pots (and others, see Figure 4). Perhaps this is why NATO plans to attack Russia in a few years? Germany and the United States pose the greatest threat to us. There, the local Judases don't devour the people as much as in Russia. In Germany and the United States, the TRF parameter is 1.6. In Russia, in 2025, the TRF is 1.05.

**Table 2** Russia's need for migrants in millions of people

Year	Million	Year	Million
2026	0.50	2036	0.11
2027	0.54	2037	0.31
2028	0.52	2038	0.40
2029	0.39	2039	0.52
2030	0.29	2040	0.56
2031	0.23	2041	0.60
2032	0.21	2042	0.70
2033	0.20	2043	0.74
2034	0.08	2044	0.78
2035	0.10	2045	0.95

To identify such important demographic processes (Tables 1 and 2) caused by the imbalance of financial flows between the elite and typical peoples of the Russian Federation, we needed only the number of children required for homeostasis of the Russian Federation (2). We obtained this number by dividing the total population of the Russian Federation by the average life expectancy in the Russian Federation. These two parameters of dynamic order in the Russian Federation change slowly over several years. Therefore, the number (2) also changes slowly over time. However, the TRF parameter (3) varies significantly from year to year (and even month to month) and significantly reflects the state of the state's economy and the adequacy (mental capacity) of the elite governing the state (or chimera) (Figure 4).

### 3.4 The main provisions of Roosevelt's reforms that stopped the Great Depression and made the United States great

Any state must limit the unlimited cumulation of capital in the hands of oligarchs and bankers. Franklin Delano Roosevelt, who took office in March 1933 during the Great Depression, understood this in the United States back in the 1930s. By his arrival, the national product had halved (Figure 2) to \$100 billion in 1956 prices.

He adopted a package of political anti-crisis and social measures aimed at stabilizing the situation and reviving the US economy:

- (1) Banking reform. All banks were closed and returned to operations after undergoing mandatory reorganization. Saving the banking system was not for the sake of the bankers, but for the sake of the economy [AI]. Separation of commercial and investment banks (Glass Steagall Act) to prevent money from flowing into speculation. Without state regulation, capital flows into speculation, not into development [AI].
- (2) Fighting hunger and poverty. \$ 500 million was allocated to support the livelihoods of starving people.
- (3) Supporting farming. Laws were signed into law establishing a moratorium on farm debt and a phased restoration of agriculture.
- (4) Combating unemployment. People were offered paid community service.
- (5) Creation of the Federal Employment Service. It kept records of the unemployed, paid benefits, and offered them available vacancies. Here, according to Lomonosov, the state implemented the preservation of the population.
- (6) Passing a law on employment conditions. It enshrined the concepts of "minimum wage" and "working hours." This is about saving the population.
- (7) Regulating production volumes. The state has set acceptable price levels for goods. Again, to save the nation.
- (8) Most importantly! All this led to a sharp reduction in the share of bankers' capital (loan capital) and oligarchs, and an increase in the share of state and industrial capital, aimed at increasing the state's human potential. Money began to work for the development of human potential, rather than for the massive production of waste and yachts as a result of excessive consumption by bankers and oligarchs. These reforms are what made the US great!

## 4 History of the modification of Lomonosov's law for global economic systems

In 2011, I wrote the book "Cumulative Political Economy," in which I first estimated the number of children not born in the United States during the Great Depression, and calculated the CPSU's capital stock using data from [5]. Here, I first used a modification of Lomonosov's law

to specifically assess the economic transformations of human potential. All ordinary people in all nations (including animals, birds, and insects, such as ants) live and expend their energy on raising their children. This is where their main efforts go. If a country experiences a “structural” crisis and GDP declines for many years (Figure 2), this inevitably leads to a relative decrease in wages and, consequently, the number of children born. This is an application of Vysikaylo-Lomonosov’s law to describe the problems of unlimited capital cumulation in a state. In any state, capitalists and workers interact.

As for global economic systems, for example, the interaction between the US and Chinese economies, the Chinese economy still has stable growth prospects. Moreover, they are higher than those of Europe and the US. “Production (in China) will increase, and this is happening against the backdrop of declining growth expectations in the US, the eurozone, and Japan. And you know Lomonosov’s Law: if one place decreases, another will increase. So it is in this situation – the countries of the Global South are emerging from the global recession that began in 2019–2020, while the West is still in this recession and, in some cases, is sinking deeper into it.” This will happen as early as December 5, 2023, I. Varyash noted on Sputnik Radio.

I. Varyash did not cite my 2011 work [1, 2]. The author believes that Beijing and now India are seeing declining trade turnover with the West, which is why they are focusing on the Global South and Russia as a raw materials appendage. As for trade with India and Russia, it is increasing, and this trend will persist into 2025. Next, we will show why Russia’s peoples are dying out faster under Putin’s rule and with such an increase in trade with China and India. Russia still sells raw materials rather than complex processed products and is wasting the resources of unborn children. The oligarchs and its officials have not needed the people of Russia for 34 years!

The Vysikaylo-Lomonosov’s economic law also applies to interactions between individual states. M. Leontyev drew attention to this in the program “Formula of Meaning” on the V. Solovyov’s channel in Russia in October 2025. This program lacks formulas and often lacks meaning, but meaning emerges with M. Leontyev’s appearance. He noted that the Russian budget deficit coincides with the Russian banking profits. The author proves that the volume of capital export and its ineffective investment in Russia’s development coincides with the number of unborn children in Russia. This proves the Vysikaylo-Lomonosov’s law for Russia: “If the Chubais and Abramovich have gained a lot of money, then the equivalent number of children in Russia has decreased.”

Using the CPE, the author can assess the harm and benefit of any activity carried out by bankers, oligarchs, politicians, and ordinary people in any country. The main difficulty here is only in identifying the fundamental opposites in social CDS and the imbalance of economic (energy or financial) exchange between them!

## 5 Generalization of the Clausius virial theorem to economic processes

### 5.1 Vysikaylo’s parameter of dynamic order in states and its calculations

Any human potential or resource is focused by people (cumulated to meet their needs) from the energy potentials of the environment. The virial theorem holds for gravitational and Coulomb potentials in nature. For potentials with a distance-dependent variation law of  $U(r) \sim 1/r$ , a simple law follows: “To utilize potential energy with a cumulation law of  $U(r) \sim 1/r$  in CDS, half of the potential energy must be dissipated into the surrounding space” [6]. As a consequence of this theorem, in atomic physics, when an electron in an atom transitions to an inner “orbit,” half of the electron’s potential energy is released into the surrounding space in the form of electromagnetic radiation.

In addition to this theorem, physics also maintains the law of equipartition of kinetic energy among the degrees of freedom. In its original form, this law stated that at thermal equilibrium, energy is divided equally between its various forms; for example, the average kinetic energy of a molecule’s translational motion must equal the average kinetic energy of its rotational motion, etc. The author generalizes these physical laws of nature, which operate on physical CDS, to social CDS as follows. For a social system, whether open or partially closed within its boundaries, to exist, an equal distribution of the joint product (e.g., the share of GDP) is necessary ( $\varphi = 0.5$ ) between the elite and the rest of the state population. If the elite is underpaid,

it will cease to function effectively. If ordinary people are underpaid, they will rebel or simply die out, as in Russia, Germany, the United States, and other countries where, according to statistics, there are fewer than 2.1 children per woman.

According to these assumptions (the importance of unity and struggle between the elite and the people) and the Vysikaylo-Lomonosov law, the Vysikaylo's parameter  $\varphi$  can be calculated using the following formula:

$$\varphi = 0.5 + 0.5 \times (2.1 - \text{TRF}) / 2.1 \quad (7)$$

The author generalizes these physical laws of nature, operating in physical CDS, to social CDS as follows. For a social CDS to exist, open and partially closed within its boundaries, it is necessary to equally distribute the joint product (e.g., portions of GDP) equally ( $\varphi = 0.5$ ) between the elite and the rest of the population, for example, of a state. If the elite is underpaid, they will cease to function effectively. If the common people are underpaid, they will rebel or simply die out, as in Russia, Germany, the USA, and other countries where statistically, there are fewer than 2.1 children per woman.

Due to the powerful cumulation of capital in the banking system and among officials, the extinction of the Russian world in Russia has been ongoing for 34 years. Alexander Livshits, former Deputy Prime Minister and Minister of Finance of the Russian Federation, coined the phrase "We must share!" and addressed tax-averse businessmen in August 1996.

Since 2009, the author has argued that the division of state-produced goods between the elite and the people should be carried out in such a way as to prevent the extinction of millions of people! The president should not monitor the share of each member of a dying chimera. He must keep an eye on the  $\varphi$  coefficient in his state! I wonder what the Vysikaylo-Clausius-Lomonosov's  $\varphi$  parameter was in the United States from 1933 to 1939. Since the decline and growth of the national product (Figure 2) coincide with good accuracy, Roosevelt's reforms ensured  $\varphi$  was significantly less than 0.5. Therefore, the national product has been growing at a rate of 15 billion per year since 1933, which is 15% per year! And there was no overheating in the economy, since the Great Roosevelt prevented the bankers from devouring his people!

## 5.2 Vysikaylo's parameter of dynamic order in states and its calculations

In Section 2.5, we asked a simple question: where do ordinary Russians and Americans invest their money? And what is their national idea?! – Everywhere, ordinary people invest their hopes and money in feeding, clothing, and educating their children and grandchildren. They have no money for golden toilets or exporting capital! The national idea everywhere is the multiplication (accumulation) of children and grandchildren, that is, increasing the human potential of the homeland! This is the fundamental political idea of any state.

If women in a country bear half as many children as necessary for homeostasis, and TRF = 1.05, this means that half of the child resource in the country is "honestly" transferred to the elite (oligarchs and officials). This clearly indicates that in Russia in 2025, the Vysikaylo's parameter  $\varphi > 0.5 + 0.5 * (2.1 - \text{TRF}) / 2.1 \approx 0.75$ . This means that a worker receives less than 25 kopecks for every ruble they earn. In their programs, Dmitry Potapenko and Jan Art claim that a worker receives 12 kopecks, i.e., the parameter  $\varphi \approx 0.88$ . This corresponds well with my calculations based on Rosstat data. The elite's plundering of the common people in the self-formed Judas-Reich is a structural crisis—a genocide of the common people in the Russian Federation.

Knowing Russia's GDP at  $\$2.2 * 10^{12}$ , the number of workers at 75 million, and the price of  $\$1 = 77$  rubles, we can estimate the average wage per worker, including the "elite," at 180,000 rubles. With  $\varphi = 0.75$  (this exploitation of workers), the average wage in Russia is less than 45,000 rubles (excluding oligarchs and officials). Clearly, this amount of money is enough to feed oneself and half of one child.

## 6 Predicting Russia's future and the main marker determining the development or degradation of a state's economy

It's okay to make mistakes, but it's not okay to lie. (Ministry of Defense of Russia)

According to our methodology, based on Rosstat data (Figure 3, Table 1) on the birth of children in the Russian Federation, we can predict that after 20 years the labor force in the Russian Federation will decrease by more than 800,000 people per year (equivalent to a loss of human potential in Russia in 20 years!). Roughly speaking, due to the mistakes of the USSR and Russian Federation leadership, approximately 20 million people of Russia's indigenous population have already been lost (Figure 3, Table 1), and this will have a significant impact on the future need for migrants. In the Russian Federation, we only talk about sovereignty and the possibility of further transforming human potential into golden pots (for feces) for the "elite"! This is the result of the Yeltsinoid regime over the past 34 years. If we take into account the population decline in Ukraine ( $52.17 \times 10^6$  in 1991 and, according to the publication "Ukrainian National News," citing information from the State Migration Service of Ukraine, the population of Ukraine in 2025 is 28.7 million), then the total loss of the Russian world will be approximately 43 million people. This is the price of the rule of Gorbachev-Yeltsin and their successors, who destroyed the synergy of the USSR and are intensively exporting the resources of future generations from Russia. This figure already exceeds the damage inflicted on the USSR by Hitler in the 1940s. This does not include losses in wars, emigration to other countries, and other population losses.

M. Khazin and D. Evstafyev claim that Putin has taken responsibility for the Russian Central Bank's actions to destroy Russia's human potential. But then, he is also responsible for the resulting population decline in the Russian world! M. Delyagin has already raised the question regarding Kazakhstan: "Kazakhstan has been behaving extremely ambiguously toward Russia recently. Like everyone else, I am outraged that it is joining (de facto) the sanctions against our country. Kazakhstan's policy regarding cargo that reaches us through Kazakhstan is also outrageous. And even more outrageous is the military alliance between Kazakhstan and England (it's clear against whom)." Will latecomers be late here too?

According to estimates by American generals conducted in 2010, as well as my own in Vysikaylo (2011) [2], Russia's collapse did not occur due to the openness of Russia's borders to residents of the Golden Horde (USSR). As S.A. Karaganov: "Russia is the rightful successor to the Golden Horde." Its territory is being filled with Central Asians, with all the ensuing problems for the Russian peoples and its "elite." The "elite" has built a dying chimera (a well-appointed crematorium for its peoples) for the cumulation, export, and simply destruction of USSR capital - the seeds for the children of the Russian Federation, and the destruction of Russia's human potential. The low birth rate in the Russian Federation TRF = 1.05 in 2025 is an indicator of extreme corruption aimed at transmuting children's diapers (prepared by Stalin) into golden pots (toilets) of the Russian "elite".

With the continuation of unlimited cumulation of capital in the Russian banking system and in particular in the alloying admixture (Figure 4), the prediction of the future of the Russian Federation is obvious! Our analysis shows that the Russian Federation is an open cumulative-dissipative system with partially closed boundaries.

According to the methodology we developed (which allowed us to numerically evaluate the effectiveness of a country's political and economic governance, using Russia as an example), we can similarly estimate the damage inflicted by the "elite" of any dying state in dying Europe, where the extinction parameter  $TRF < 2.1$ . A certain difference is observed in the United States due to its ability to print dollars. We will discuss this impact on the cumulation and dissipation of human potential in the United States in a separate publication.

We, on the basis of the CPE, have proven that the TRF marker significantly determines not only the development or degradation of the state economy, but also the corruption of the "elite" that devours its people at  $TRF < 2.1$ , if it associates itself with a typical nation or with an ethnic admixture (Figure 4).

When calculating GDP in any country, everyone must take into account the loss of human potential due to elite corruption! Taking into account the population decline in Russia, effective GDP for 2025 would decrease by 10%, while only oligarch profits would increase. The TRF marker is still not used by economists, including khazinoists. This allows Khazin to enjoy life and not understand what is really worth what!

## 7 The predictive power of Hegel's dialectic

Here the author will focus on a thesis from Hegel's philosophy: "The unity and struggle of opposites." Eastern philosophy has a similar teaching about Yin and Yang. This principle is misunderstood by modern politicians and state leaders who seek to pit global opposites against

each other in a nuclear war.

Marx, who declared that the proletariat is the gravedigger of the bourgeoisie, i.e., it is suicidal, also failed to understand Hegel's principle.

The leaders of states that are essentially white also fail to understand this principle. They fatten the elite with their laws, thereby destroying the populations of their countries, thereby committing genocide against the white race. Khazinists like M. Khazan fail to understand this. They believe that there are no resources for the development of capitalism under a global capitalism that has reached a global scale.

I believe that the further development of capitalism (governance through candy wrappers) is possible with appropriate restrictions (for example, through taxes) on the unlimited cumulation of capital in banks and with officials and the channeling of this capital toward solving the problems of the entire population of capitalist countries. Only by harmonizing the economics of opposites can the state's further development be possible. The decimation of the white race must be stopped everywhere! The necessary economic resource, as Roosevelt proved experimentally in the USA, lies in the country itself, and not in Southeast Asia, as M. Khazin believes, or in the further plunder of the USSR (dying Russia).

According to Vysikaylo's Cumulative Political Economy, when analyzing phenomena in complex androgynous (dual) cumulative-dissipative social systems, one can always identify two fundamental opposites that develop or destroy these systems. One opposite cumulates capital, while the other dissipates it. Moreover, they can switch places. One collects stones, while the other scatters them. In this case, Hegel's principles and the virial theorem, already known to A. Lifshitz, can be applied to the dual system. Lifshitz argued that officials, oligarchs, and bankers should share fairly with the common people, rather than "honestly" continue to rob the dying people, feeding them the snot from the master's table, as the "elite" (Figure 4) of Russia is trying to do!

In nature, the struggle and unity of opposites are usually not aimed at directly destroying each other. Their unity and struggle are aimed at mutual development and reinforcement given the availability of energy resources.

This occurs during the co-organization of cyclonic and anticyclonic flows in tropical cyclones. The co-organization of these flows is the essence of Vysikaylo's structural turbulence in the physics of any dual CDS [2,6]. Opposites are obliged to structure, not destroy, each other. The role of centrifugal potential is important here.

According to the AI in the Russian Federation [4,6]: Structural turbulence is a special type of turbulent flow, which was described and studied by the Russian (including Kievan Rus) scientist P.I. Vysikaylo. Unlike classical turbulence (A. Kolmogorov, A. Obukhov), where processes are chaotic, structural turbulence is characterized by the presence of ordered vortex convective systems in dual (upward and downward) flows. Key characteristics of structural turbulence:

- (1) Presence of stable vortex formations
- (2) A certain hierarchy of pulsating motion scales
- (3) Interrelationships between various flow elements
- (4) Partial ordering of dynamic processes

The practical significance of structural turbulence research lies in its ability to:

- (1) More accurately predict flow behavior
- (2) Optimize aerodynamic characteristics

Feudal authorities are obliged to organize energy (financial) flows in order to increase human potential (maintain parameter  $TRF > 2.1$ ) in the state.

## 8 Conclusions and Summary

In this work, the author, based on Hegel's philosophy, formulates a construct of dual (common people and elite) social cumulative-dissipative systems, particularly states. The author generalizes the concept: A construct is a theoretical concept or idea used to explain observable phenomena; it is a "building block" in any science. In psychology and linguistics, a construct is an abstraction, such as "intelligence," "mood," or "phoneme," which are described through observable indicators (smiles, test results, sounds). Constructs are hypothetical entities used to systematize knowledge and build theories capable of explaining and predicting observable natural phenomena. Why constructs are needed:

- (1) Explanation and understanding: They help understand complex phenomena (emotions,

personality, lightning, electric arcs, etc.).

(2) Structuring: They serve as the basis for hypotheses and organization of data in research.

(3) Scientific progress: Allows the development of theories that go beyond simple observation and has predictive power.

In this work and in Vysikaylo's [1, 2], the author, for the first time, drawing on the philosophy of Hegel and the ideas of Protagoras, Plato, Aristotle, Lomonosov, Pushkin, Clausius, Zababakhin, Samuelson, and his own:

(1) formulated a unique methodology for describing and classifying various social cumulative-dissipative systems;

(2) formulated the fundamental principles and principles of Vysikaylo's cumulative political economy;

(3) modified Lomonosov's law and Clausius's virial theorem for application in Vysikaylo's cumulative political economy to describe the processes of transmutation of various types of capital and the cold (without physical destruction, extermination) transmutation of the population of countries with a white race;

(4) posed and solved problems using the CPE;

(5) proposed a statistical method for assessing the resource (human capital, the economic potential of one person) required by one person in their state [2];

(6) analytically calculated the number of unborn Americans at 20 million children, which is the result of the costs of the Great Depression in the USA, and thereby numerically illustrated P. Samuelson's idea that "the costs of depression are equal to the costs of wars and even exceed them" [5]!

(7) proved that the economic parameter  $\varphi$  of the Vysikaylo-Clausius-Lomonosov dynamic order for the state should not exceed 0.5! Otherwise, a Judas - Reich will self-form, where only money is important and the population of the Reich will die out or be transmuted (modified);

(8) proved that Vysikaylo's theory allows us to evaluate the effectiveness of national governance using the examples of the Russian Federation (under V.V. Putin, see [Figure 3](#) and [Tables 1, 2](#)) and the USA (under Franklin Delano Roosevelt, see [Figure 2](#)).

(9) explained why the United States, the European Union, and (to the author's great regret) the Russian Federation and Ukraine are paper tigers, devouring their own human potential or the future potential of their children and grandchildren at an alarming rate;

(10) demonstrated that the sovereignty of the Russian Federation is catastrophically diminishing every year, as it already loses a million children annually and needs migrants to continue its further aging and longer-term decline with population transition;

(11) I am the first to propose a method for determining the required number of migrants for 20 years in advance. Using the CPE, the author calculated the numerical need for migrants for 20 to 25 years in advance (black bars in [Figure 3](#) and [Table 2](#));

(12) revealed to M. Khazin and S. Karaganov the "great" secret of what Russia is really striving for under the Yeltsinoids: "It is striving to destroy the Russian-Tatar world and replace it with a world of Tajiks, Uzbeks, perhaps Koreans or Indians, controlled in the Russian Federation, for example, by an ethnic admixture ([Figure 4](#));

(13) answered a question from A. Gasparyan (host on V. Solovyov's TV) about the systemic and global nature of the destruction of the children of the Russian world. I wonder how Gasparyan will react to the systemic decline since 1991 and already at 1 million per year, and which of the global Kheraskovs will be imprisoned for such extinction and disintegration of the Russian world of 43 million people?

(14) essentially answered the question posed by V. Solovyov about the main achievements of Russia over 34 years compared to the achievements of Stalin;

(15) proposed a real numerical method capable of not only to correct the cognitive biases of Putin or his consultants regarding demographic problems of RF, but also to forecast the required number of migrants for Russia and other countries with demographic problems;

(16) conducted an empirical analysis (empirical research)—a process in which theoretical hypotheses, assumptions, and relationships (1)-(7) are tested through observations, experiments, and data collection by Rosstat and US statistical agencies. Simply put, this is a testing of ideas based on real facts, not just logical conclusions or assumptions. In particular, the author verified the method for determining the TRF parameter (3) using statistical data for Russia and the US, available online. In this case, statistical services in the US perform better than in Russia;

(17) classified all countries with a white race with an average number of children per woman (TRF) of less than 2.1 children as Judas-Reichs, where the potential of children is effectively converted into "pots of gold" and trinkets for the "elite."

(18) established the main causes of the extinction of the white race in states with an average number of children per woman  $TRF < 2.1$ . This corresponds to the Vysikaylo-Roosevelt-

Lomonosov parameter  $\varphi > 0.5$ ;

(19) proved that states are partially open, cumulative-dissipative systems that can be described by a number of parameters of dynamic order. The future functioning of these states can be predicted using these parameters;

(20) proved that the main parameters of dynamic order for states are: TRF (average number of children per woman), GDP, GDP per capita, the share of GDP per elite (Vysikaylo's parameter  $\varphi$ ); the share of GDP per capita of the "elite" (officials, bankers, and oligarchs);

(21) showed that the main indicator of the survival of the state is the parameter TRF. It is still not used by economists, including khazinnomists (Levchenko, Multiplier, etc.), when assessing GDP and government performance;

(22) proposed a method for determining the Vysikaylo's parameter of dynamic order –  $\varphi$  of the share of GDP consumption by the elite in the state according to the parameter of state extinction – TRF;

(23) proved that the Judeo-Reichs (according to M. Khazin, a Global project), built throughout Eurasia with unlimited cumulation of capital, where the parameter  $TRF < 2.1$ , carry out genocide of the white race! Japan and South Korea, infected with "Lomechusa", pulled up here.

Plato and Aristotle already considered credit transactions and interest to be particularly reprehensible forms of chrematistics. For Aristotle, any form of interest was usurious, because "charging interest leads precisely to the growth of money" [7]. Unlike Aristotle and Kurz [7], the author [2] believes that charging interest leads to the unlimited cumulation of money by bankers and thus to the destruction of production and the human potential of the state. The unlimited accumulation of money (seeds for children, according to Samuelson) by bankers leads to the disappearance of children in states and the lowering of the TRF marker, leading to genocide and the extinction of the white race. Khazin and Grigoriev's new economics [3] (which takes into account the flows of productive capital into speculative banking capital) is a humanities approach, relying on words rather than numbers. Vysikaylo's cumulative political economy is the first natural-scientific approach, drawing on the natural sciences and philosophies of Protagoras, Lomonosov, Pushkin, Hegel, Roosevelt, Stalin, and others.

The numerical results obtained and the verification tests conducted give us grounds for applying the statistical political economy of Vysikaylo-Clausius-Lomonosov-Protagoras to specific numerical calculations of any dual social phenomena. The main achievements of states in political self-government (the replacement of kings with elected bodies) must be similarly applied to the economic activity of states, and thus get rid of insane oligarchs and bankers who work only for themselves and their own stratum, thereby destroying and transmuting the peoples of the state.

In his subsequent works, the author will examine in detail the analogies between Vysikaylo's political-economic models and the achievements of Euler, Lagrange, and Roche, and will delve more deeply into androgynous and androgynous states and their androgynous systems, which siphon capital into 4D space-time and transmute the populations of states. Let us call this process "Vysikaylo's cold transmutation of the white race."

The author hopes that his research will be useful in developing just governance and inclusive legal systems, thereby contributing to the achievement of sustainable development goals for states, rather than their self-destruction through the destruction of their opposites. According to Hegel, in a struggle, opposites should strengthen themselves, not destroy each other!

If the Trump administration is willing to pay the author a \$1 trillion fee, then the author is willing to become a foreign agent in the Russian Federation and write a detailed action plan for "Make America Great Again" and advise Trump not to fuss over trifles! He has a huge internal task ahead – to learn and learn from the Great Roosevelt, who made America great, or from Stalin, who made the USSR great! He could even learn something from Deng Xiaoping. I no longer have any hope for the St. Petersburg lawyers. Back in 2012, I sent them my book [2], in which I predicted the genocide of the Russian world due to the unlimited cumulation of capital, and in particular money, among the Judases (officials and oligarchs exporting capital from the Russian Federation).

The speed of money has already reached the speed of light. Now it's increasingly becoming like an electric field, which significantly determines the state and behavior of plasma cumulative-dissipative systems. By studying the role of money (already numbers in a computer) in human activity, we will better understand the role of various potentials in ordinary physics. The AI-derived number of unborn children for homeostasis in the Russian Federation during their 34 years of rule, and the economic damage I justified, shocked me too. Vysikaylo's cumulative political economy [1, 2] as well as cumulative quantum mechanics [6] are natural sciences

capable of solving fundamental problems of humanity.

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## Ethical Statement

This study does not contain any studies with human or animal subjects performed by any of the authors.

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## Data Availability Statement

The data that support the findings of this study are openly available in [repository name e.g “figshare”] at <https://www.ikar.udm.ru/files/pdf/sb85-1-4di-kn.pdf>; [https://www.researchgate.net/publication/390160457\\_KUMULATIVNAA\\_POLITEKONOMIKA](https://www.researchgate.net/publication/390160457_KUMULATIVNAA_POLITEKONOMIKA); [https://space-time.ru/space-time/article/view/2226-7271prov\\_rst4-10.2012.64](https://space-time.ru/space-time/article/view/2226-7271prov_rst4-10.2012.64); <https://colab.ws/articles/10.1063/5.0256431>.

## Conflicts of Interest

The authors declare that they have no conflicts of interest to this work.

## References

- [1] Vysikaylo PI. The Impact of Cumulation, Transformation and Capital Outflow in Russia on Demographic Processes and the Destruction of Nations. 10th International Scientific Conference “Russia: Key Problems and Solutions,” Moscow, December 18, 2009, INION RAS.
- [2] Vysikaylo PI. Cumulative political economy. Samizdat M. 2011, 120.  
<https://www.ikar.udm.ru/files/pdf/sb85-1-4di-kn.pdf>
- [3] Grigoriev O. The Age of Growth. Lectures on Neoeconomics. The Rise and Decline of the Global Economic System. Moscow: Karera Press, 2014, 448.  
<https://nice-books.net/books/knigi-o-biznese/jekonomika>
- [4] Vysikaylo PI. A New 3D Concept of Enhancement of Cumulative Structures (CS) in Disasters. Parts I-III. Self-Organization of CS with Cumulative Jets, Space and Time. 2012, 4(10): 141–150.  
[https://space-time.ru/space-time/article/view/2226-7271prov\\_rst4-10.2012.64](https://space-time.ru/space-time/article/view/2226-7271prov_rst4-10.2012.64)
- [5] Samuelson P. Economics. T.1, –M.: MGP “ALGON” VNIISI 1992, 335.  
<https://search.rsl.ru/ru/record/01001629279?ysclid=mfv98535qu168544416>
- [6] Vysikaylo PI. Cumulative Quantum Mechanics: Textbook. Moscow: RUSAINS, 2022, 242. ISBN: 978-5-466-02014-4.  
[https://www.researchgate.net/publication/390156640\\_FL\\_Vysikajlo\\_KUMULATIVNAA\\_KVANTOVAA\\_MEHANIKA\\_Ucebник](https://www.researchgate.net/publication/390156640_FL_Vysikajlo_KUMULATIVNAA_KVANTOVAA_MEHANIKA_Ucebник)
- [7] Kurz HD. Geschichte des Ökonomischen Denkens Verlag C. H. Beck oHG, München. 2017, 294.