SELF-BALANCING MARKETS

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1. Introduction

Human history is a strange paradox. On one hand, we have reached incredible levels of scientific and technological progress. On the other hand, the most basic human necessities like housing, clean water and food security remain unsolved for a huge part of the global population. Neo-liberalism promised prosperity for all but it has failed to provide a healthy economic environment for the masses. Financial crises have become more frequent and the most vulnerable people paid the highest price each time.

1.1. The Paradox of Progress and the "Second-Hand Smoke" Economy

Human progress seems to move in two directions at once. It is linear in its technology but cyclic in its crises. We build more advanced tools, yet we fall into the same traps of inflation, unemployment, and housing shortages. Most people today feel that something is fundamentally wrong with the financial system. They live in a rat race, working harder every day only to see their fair share of the economy shrink.

Perhaps the most frustrating part of the current system is that it is impossible to escape. Even if a person chooses not to borrow money or engage in rent-seeking, they still suffer from the system's deficiencies. It is like second-hand smoke. You may choose not to smoke to stay healthy but you still get cancer because everyone around you is smoking, and the government does not intervene to protect you. In our economy, even if you are responsible, you are still poisoned by the unemployment, inflation, financial bubbles, etc. caused by others.

1.2. A Historical Shift from Growth to Stability

Throughout history, the nature of human conflict has changed based on what society valued most. Hunter-gatherers fought over territory; agrarian societies fought over land; mercantilists fought over trade routes; industrialists fought over markets. Today, in the era of financial capitalism, the fight is over financialization through unrestricted capital flow and the independence of central banks.

However, we are reaching the end of the growth frenzy. In the past, economies focused only on expansion but several factors suggest this era is closing:

1. **Scientific Stagnation:** Despite our gadgets, fundamental scientific and technological breakthroughs have stalled in recent years.
2. **Demographic Shift:** The world is aging. In the near future, the primary challenge to our social contract will be the gerontocratic shift i.e. the fiscal weight of an aging population that no longer produces but still consumes.
3. **Revenue Stagnation:** The revenue from capital and industry is stalling.

Because of these shifts, the focus of economics must move away from endless growth and toward stability and resilience. We need a healthy way to manage a de-growth or zero-growth reality without causing a total social collapse.

1.3. The Purpose of the Thesis

This thesis is an attempt to alleviate the pain caused by the current financial and economic system. It proposes a new framework for the social contract through four main pillars:

i. **Taxation Reform:** A shift toward **wealth-based taxation** combined with a **negative tax** to redistribute wealth fairly and ensure a survival floor for everyone.

ii. **Financial Reform:** An alternative **stock-based financial system** that creates self-balancing markets and reduces the danger of debt-driven collapses.

iii. **Monetary Reform:** A **constant-growth (deterministic) currency** policy that protects the masses from the volatility of financial cycles and prevents the hidden tax of unpredictable inflation.

iv. **Constitutional Reform:** An **uncompromised balance of powers** where executive, legislative and judiciary branches are isolated and their members are elected independently with an intentional mix of randomness so that no force will gain influence over the system.

By re-organizing these systems, we can move from a rent-seeking economy to a production economy that finally uses our vast scientific progress to solve the basic needs of humanity.

2. Axioms

The theoretical foundation of this thesis is built upon the synthesis of structural market mechanics and the ethical principles of economic justice.

1. **The Axiom of Do No Harm:** The primary purpose of the state is to ensure that economic agents have the freedom to act but never at the cost of others. The cost of bad decisions must be paid entirely by the bad actors which will shield the innocent public and responsible taxpayers from the "second-hand smoke" of private financial failures.
2. **The Axiom of Shared Risk:** Wealth generation must arise from productive profit-seeking and shared risk rather than the extractive, guaranteed returns of interest-based finance. To cure the social exploitation, where the labor of the masses solely feeds the capital owners, the system must transition to a stock-based financial architecture that eliminates debt-driven cycles.
3. **The Axiom of Wealth Circulation:** Private property carries a public responsibility. Therefore, wealth must not be hoarded or allowed to accumulate into a

mathematical singularity of economic power. An isomorphic wealth tax must be applied to real estate and financial assets which will create a carrying cost that forces idle capital out of passive rent-seeking and back into active production.

4. **The Axiom of the Survival Floor:** To prevent severe inequality and the destructive friction it causes, society must implement a permanent, rule-based re-distribution mechanism. A dynamic negative tax must provide an automatic survival floor which will ensure that those in the lowest wealth brackets can comfortably afford basic human necessities like food and housing.
5. **The Axiom of Honest Trade:** Markets must operate on transparency by eliminating the information asymmetry that primarily benefits capital owners. By utilizing a shareholder banking system, the economy forces a self-revealing truth regarding asset values which will destroy the deceptive illusions of debt-based financial bubbles.
6. **The Axiom of the True Purpose of Money:** Money is not an intrinsic commodity or a standalone factory intended to accumulate more money. It must strictly serve as a convenient veil over barter. Its purpose should be solely to facilitate the real exchange of goods and services without disrupting the real production economy.
7. **The Axiom of Labor Dignity:** Human labor is not a mere financial instrument to be exploited during volatile credit cycles. By eliminating income taxes, the state removes a structural barrier to individual liberty which will empower laborers to keep the full value of their work and rapidly reach their maximum potential.
8. **The Axiom of Deterministic Law:** The macroeconomic environment must be governed by fixed, unyielding and predictable mathematical rules rather than arbitrary human interventions. A constant-growth, deterministic monetary policy removes political manipulation from the money supply by establishing the absolute institutional clarity needed for a stable society.
9. **The Axiom of Altruism and Contribution:** Value in a society is fundamentally subjective and is not strictly defined by direct financial returns. The economic framework must protect and support altruistic and stewardship behaviors which are the efforts made for the public good, environment and social infrastructure without expecting an upfront financial reward.
10. **The Axiom of Intergenerational Justice:** The social contract must not function as a system that robs the young through housing inflation and debt to support the elderly. By shifting the tax base away from the labor of the youth and onto accumulated wealth, the economy ensures intergenerational harmony where the elderly are supported by the system's structural constants and the young are free to innovate.

3. Theory

To construct an economy that balances itself automatically, a deep, solid theoretical foundation must be built. Economic theories often fail because they treat the system like a machine with static pieces. In this chapter, the core concepts of macroeconomics such as value, money, power and institutions are redefined by looking at how human nature and systemic rules interact over time.

3.1. Value

In this framework, value is fundamentally subjective and depends on individual choices and the general state of the economy. Traditional views treat value as something fixed inside a product but real value is dynamic. When an innovation enters the market and increases the general industrial output, it raises the general purchasing power of the citizens. Because the general state of the economy becomes more powerful, the exact same production process suddenly becomes more valuable. Value is a reflection of the systemic efficiency and the purchasing capacity of the human agents within the system.

3.2. Distribution

The distribution of wealth in a society is the direct result of a constant power struggle between land owners, capital owners and workers. If distribution is left to be determined completely by the raw forces of human nature and unrestrained market power, those who hold the initial power will continuously suck up all the economic wealth. Mathematically, this creates a singularity where wealth accumulates at a single point. When the system gets close to this singularity, a populist government usually rises to power. These governments make arbitrary, uncoordinated re-distributions to lower income and wealth groups. This arbitrary action is highly ineffective, fails to truly benefit the needy people over the long term and creates deep ambiguity in the investment environment which severely hurts economic development. A healthy macroeconomy needs a permanent, rule-based re-distribution mechanism. This framework argues that wealth must be re-distributed in a systematic way so that citizens at the absolute lowest bracket of the wealth tiers can comfortably afford basic human necessities including housing, food and education.

3.3. Macro Dynamics

Market economies possess an internal logic that naturally gravitates toward a full-employment equilibrium over the long run. However, in the short run, the state of the economy is highly volatile and unstable due to internal (endogenous) and external (exogenous) shocks.

Internal crises, such as the 1929 Great Depression or the 2008 Mortgage Crisis, are the direct product of the structural flaws within the current financial system. Under the current regime, central banks attempt to set the interest rate to target inflation while

commercial banks endogenously create money through fractional reserve banking under heavy state regulations.

This method is inherently unstable. Setting an arbitrary interest rate to target inflation is exactly like a central independent state organ trying to fix the price of an economic good. When you try to fix the price of money, it will always experience over-supply or shortages.

Economic Ocean Tier	***Propagation Behavior under Interest Rate Control***
Financial Assets & Derivatives	Absorbs speculative over-supply, creating volatile asset bubbles.
Real Estate Markets	Suffers from artificial price inflation and land hoarding.
Labor (Human) Capital	Experiences severe under-utilization (unemployment) or distortion.

Because money propagates through these endless oceans and the central bank has limited information about the system through which money flows, this control mechanism will always swing between chaos and stagnation. Due to information asymmetry, this broken system benefits capital owners most, allowing them to indirectly dictate interest rates through their accumulated influence.

To prevent internal shocks, there should be an alternative financial architecture that completely changes the internal mechanism of the system so that demand collapses do not happen in the first place.

External crises, like the 1970s Oil Crisis or the COVID-19 pandemic, are completely unpredictable events that enter the economy from the outside world. When an external shock hits, a falling demand means that the economy is being forced to stabilize and transition into a completely new state. To handle these shocks, the government must avoid direct, discretionary market bailing. Instead, it must utilize rule-based, systemic tools to alleviate the pain of the public until the new equilibrium state is safely reached.

The state must establish rigid regulatory circuit breakers between separate industries and private corporations. If a company or an entire sector takes reckless risks and hits a wall, they must face the consequences entirely on their own balance sheet. The government must never intervene to save reckless financial actors at the cost of regular, responsible citizens and industries. The most prominent example is the banking sector. The state must put institutions in place that completely insulate the public from the failures of private financial institutions.

3.4. Money and Credit

Money stems from the human will to power. Economic agents do not view money as a neutral object. They use it as an active tool to acquire more power, satisfy their

consumption needs and meet their lusts through barter. The current financial framework serves and fuels this aggressive will to power because money functions as an active, endogenous force that disrupts real production and employment.

Central banks determine the base price (the rent) of money, sell it to fractional reserve banks and those banks apply their own profit margin to rent it out again to companies and laborers in the form of credit. This leads to a constant state of over-utilization or under-utilization in the economy because it is computationally impossible to coordinate an entire economy using interest rates or a dynamically shifting money supply.

Money should be nothing more than a convenient veil over barter, designed solely to facilitate real exchanges of goods and services. Human agents should not be able to use money itself as a standalone factory to accumulate more money or if they want to do this, it should be insulated from the general public and should be a part of the open market at which government will not have to intervene.

Crucially, making money-printing profitable through the protection of the state forces the entire public to suffer from the instability of credit cycles, even those responsible citizens who never participated in the credit market.

Money must be created by the state based on a hard mathematical rule that is protected by institutions so it cannot be altered by political actors.

By forcing money creation to follow strict rules, the state uses its natural organizational monopoly to permanently free the public from the financial rent-seeking behavior of capital. Capital owners remain free to seek financial rents in the open market, but the government, the central bank and the general public will no longer be a part of their game.

3.5. Institutions

Markets are fundamentally shaped and built by evolving institutional legal frameworks and the power dynamics that protect property rights. To understand a macroeconomy, we must explicitly model how laws, cultural habits, and corporate structures dictate the physical behavior of economic agents over time. Because the state holds a natural organizational monopoly, it possesses endless structural power over the economic arena. If the state uses this immense power based on rigid, predictable rules protected by independent institutions, it will enable the most stable and high-performing economic environment for its citizens, private companies and capital owners alike. This rule-based structure is the only way to permanently free the public and the state from being enslaved by organized interest groups or external corporate forces.

3.6. Knowledge

The macroeconomic future is fundamentally unknowable and un-quantifiable. Human society is an open system where unexpected structural breaks make perfect mathematical forecasting impossible. Therefore, the role of government and state

institutions must be to set up clear, unyielding rules of the game so that those private agents who choose to take very high risks must absorb their own reward or punishment directly. High-risk behavior by speculative actors must be structurally isolated so it can never pull down or pollute the rest of the production economy. The government should never have to make micro-interventions for a specific firm, person, company or industry. The state must save its energy exclusively to intervene during general, system-wide external shocks that threaten the entire population while internal shocks are eliminated entirely by the alternative structural design of the new architecture.

3.7. Power

The economy is an arena of constant, relentless power struggles between individuals, organized interest groups and corporate monopolies. The state must never allow itself to become a participant in this power struggle. The government must act as a completely fair, independent ruler of the game that dynamically re-distributes economic power based on pre-determined rules. The state must minimize the initial friction and structural inertia of the market. Private companies, groups and individuals should never be allowed to hold onto dominant economic positions simply due to market inertia, passive network effects, corporate brand perception or monopolistic positions. By decreasing entry barriers, tracking asset utilization through automated tools, and utilizing wealth tax; the government ensures that those who hold economic power are constantly those creative agents who deserve to hold it due to their superior efficiency and better handling of resources.

3.8. Temporality

The macroeconomy is strictly path-dependent and historical. Severe recessions and internal structural shocks cause permanent, irreversible damage to the future trajectory of a country. History cannot be rewritten or reversed. When an economy falls into a severe, uncompensated depression, it does not simply bounce back to its old trend line. A deep crisis permanently breaks down human capital through prolonged unemployment, alters or stops vital investment trajectories and shifts the entire nation onto an entirely different, lower structural path. Because the past permanently reshapes the future, the primary goal of the independent institutions must be to implement a financial architecture that completely eliminates internal shocks before they can cause permanent structural hysteresis while the pain of external shocks is alleviated by pre-determined rules.

3.9. Growth, Environment, Physical Limits

The long-term growth potential of an economy is unlimited because human creativity and potential are unlimited. Mainstream fears regarding physical limits to growth fail to understand the adaptive power of the price mechanism. Natural resources and environmental degradation are external factors that the market can dynamically clear. If

a physical resource becomes scarce, the price mechanism naturally increases its carrying cost which instantly incentivizes profit-seeking innovators to invent technological substitutes. Therefore, there are no hard physical or planetary limits to human economic growth. However, because environmental degradation creates massive negative externalities that cross borders, strong global cooperation remains necessary to ensure that the global commons are protected while individual economies continue to expand their productive potential.

4. The Economic Behavior of Agents

To design effective monetary, financial, and taxation policies, we must first understand the fundamental behaviors of economic agents. Economic activity is driven by human nature. While classical economics often assumes all agents are rational, this thesis argues that agents can be categorized by their primary motivation.

The role of the government is to strike a balance between these behaviors. By using the right policy tools, the state can discourage extractive behaviors and encourage productive ones to run the economy in an optimal way.

4.1. Rent-Seeking Behavior (The Extractive Approach)

Rent-seeking is the attempt to gain income and wealth before creating any new value for society. It is defined as expecting an upfront income or benefit simply by holding the rights over a specific asset class. Individuals with dark traits, i.e. a desire for control and gain at the expense of others in manipulative ways, usually fall into this category.

- **4.1.1. Real Estate Rent-Seeking:** Gaining income simply by owning land or buildings.
- **4.1.2. Organizational (Bureaucratic) Rent-Seeking:** Some corporations use their market power, network effects or monopolistic position to secure revenue. Because of customer habits and bias, they stop innovating and instead focus on protecting their market share through inertia.
- **4.1.3. Financial Rent-Seeking:** Earning income through interest or financial manipulation that does not involve sharing the risk of a productive enterprise.
- **4.1.4. Labor Rent-Seeking:** This occurs when employees seek compensation simply for renting out their time and credentials rather than focusing on the actual output or value they create for the organization.
- **4.1.5. Regulatory and Lobbying Rent-Seeking:** Using political influence to change laws or regulations to gain an unfair advantage or to block competitors from entering the market.

4.2. Profit-Seeking Behavior (The Creative Approach)

In contrast, profit-seeking is the drive to create new value. It is defined as producing a good or service without a guaranteed upfront payment where the reward is proportional to the demand created. This behavior is usually found in creative and innovative individuals.

- **4.2.1. Entrepreneurial Profit-Seeking:** Taking risks to build a business that solves a problem or fulfills a market need.
- **4.2.2. Academic and Artistic Profit-Seeking:** Creating intellectual or aesthetic value. The profit here is the recognition and demand for new ideas, stories or discoveries.
- **4.2.3. Technological Profit-Seeking:** Researching and developing new tools that increase the efficiency of the entire economy.

4.3. Speculative Behavior (The Timing Approach)

Speculative behavior is different from both rent and profit seeking. The speculators do not necessarily want to own the asset for its rent nor do they want to use it for production. The focus is on market timing. It can be defined as buying an asset today solely because of the belief that the price will change tomorrow. Speculators bet on the price instead of investing in the value. While they provide liquidity, excessive speculative behavior leads to the bubbles that will be mentioned in later sections.

4.4. Maintenance and Stewardship Behavior (The Preservation Approach)

An economy must also maintain what it already has. Stewardship behavior can be defined as investing resources to prevent the decay of existing assets (infrastructure, environment, or social institutions). Capital depreciates without stewardship. This behavior is seeking a long-term stability instead of seeking rent or profit. A healthy economy needs agents who are willing to be caretakers of the system.

4.5. Contribution and Altruistic Behavior (The Social Approach)

Finally, there is behavior that creates positive externalities without any direct financial return. It can be defined as creating value for the public good such as open-source software, community volunteering, or environmental protection. In the current financial system, contribution behavior is often punished because it has no rent. This thesis argues that the negative tax helps to support these agents allowing them to continue their work for the benefit of everyone.

The taxation, monetary and financial policies proposed in this thesis are designed to move the average human behavior away from rent-seeking and speculation toward profit-seeking, stewardship, and contribution.

5. <u>The Monetary System</u>

The current global monetary system is built on an illusion of purchasing power. In a fiat regime, money has no intrinsic value. Money's worth is determined by the policies of

central banks and the trust in the government. This system allows for the decimation of wealth and income through inflation which is often used as a tool to reduce the real value of the people's savings during economic mismanagement. To protect the economy and the masses, we must move toward a constant-growth (deterministic) currency system.

5.1. Constant-Growth Money Supply

A stable economy requires a currency with a foundation that cannot be moved by political pressure. Traditionally, a fixed currency can be built on three main foundations: gold, land or a mathematically fixed supply.

While each has benefits, they also have serious problems:

- **Gold:** The supply of gold is not truly stable because it depends on mining technology and new discoveries. It is tangible but physically limited in a way that doesn't always match economic needs.
- **Land:** While land is a real asset, its value is highly subjective and changes based on location and local laws. It is very difficult to use land as a direct anchor for a global currency.
- **Mathematically Fixed Supply:** This could be the most transparent option but it can be too rigid for a modern economy that needs liquidity in case of a crisis and too much overhead to collect financial asset tax.

This thesis suggests a constant-growth money supply (also can be called a deterministic model). In this system, the money supply does not stay the same forever but it grows at a fixed, pre-determined rate of π_{fixed}.

The formula for this expansion would be:

$$M_{t+1} = M_t(1 + \pi_{fixed})$$

This model better than a standard fiat system in many ways:

i. **Anti-Manipulation**: Because the rate is fixed by a mathematical rule, it cannot be changed by politicians to win an election or hide a budget deficit.

ii. **Real Claim on Output**: Money stops being a perceived value that changes every day. It becomes a real claim on the total output of the economy.

iii. **Stability and Flexibility**: It provides the hardness of gold but with the flexibility to ensure the system never runs out of liquidity.

The expanded amount of money created each month is not free money. It is paid directly to the national budget as a form of wealth tax. As explained in later sections, this growth acts as an indirect financial wealth tax. If the money supply stayed 100% fixed, we would need a different, more complex way to collect taxes from liquid assets. By using a

constant growth rate, the tax is built-in to the currency itself. This makes the system extremely efficient and hard to avoid.

5.2. Crisis Management and Monetary Expansion & Destruction

One major criticism of a hard-fixed money supply is that it leaves the government handcuffed during an emergency such as a war, natural disaster or total financial collapse. To solve this, this research proposes a legalized crisis expansion mechanism:

i. **Temporary Issuance:** In a crisis, the government has the legal authority to increase the money supply by a capped amount (e.g. by up to $(1 + \pi_{fixed})^n$ where n is government election duration).

ii. **Productive Allocation:** This money must be spent specifically on infrastructure, research and development or essential survival services to increase the real capacity of the economy.

iii. **Monetary Payback (Destruction):** The expansion is treated as a debt to the monetary system. The government is legally required to destroy (delete) this extra money over a pre-determined period through monthly installments from tax revenue.

By forcing the government to pay back the printed money, the system prevents hyperinflation and ensures that the long-term money supply remains stable. It turns the government into a disciplined borrower rather than an unlimited printer. It also liberates the government and public from the rent-seeking power of financial asset owners.

5.3. Monetary Corridor

In this regime, money supply will increase in a monetary corridor. The structural architecture of the monetary corridor establishes a bounded trajectory for the constant-growth money supply. As it is demonstrated in the chart, the money supply structurally increases alongside a regular expansion trend but it is strictly constrained by a mathematical upper limit. In the occurrence of an economic crisis, the money supply will suddenly increase up to this upper limit or to an intermediate level in-between to provide necessary liquidity to the market. Subsequently, the trajectory will proceed in a horizontal direction over time until it successfully reaches and intersects the regular money supply trend again. During such emergencies, the government is granted the legal authority to increase the money supply by a capped amount. Because this expansion is treated as a debt to the monetary system, the government is legally required to destroy this extra money over a pre-determined period to prevent long-term currency devaluation.

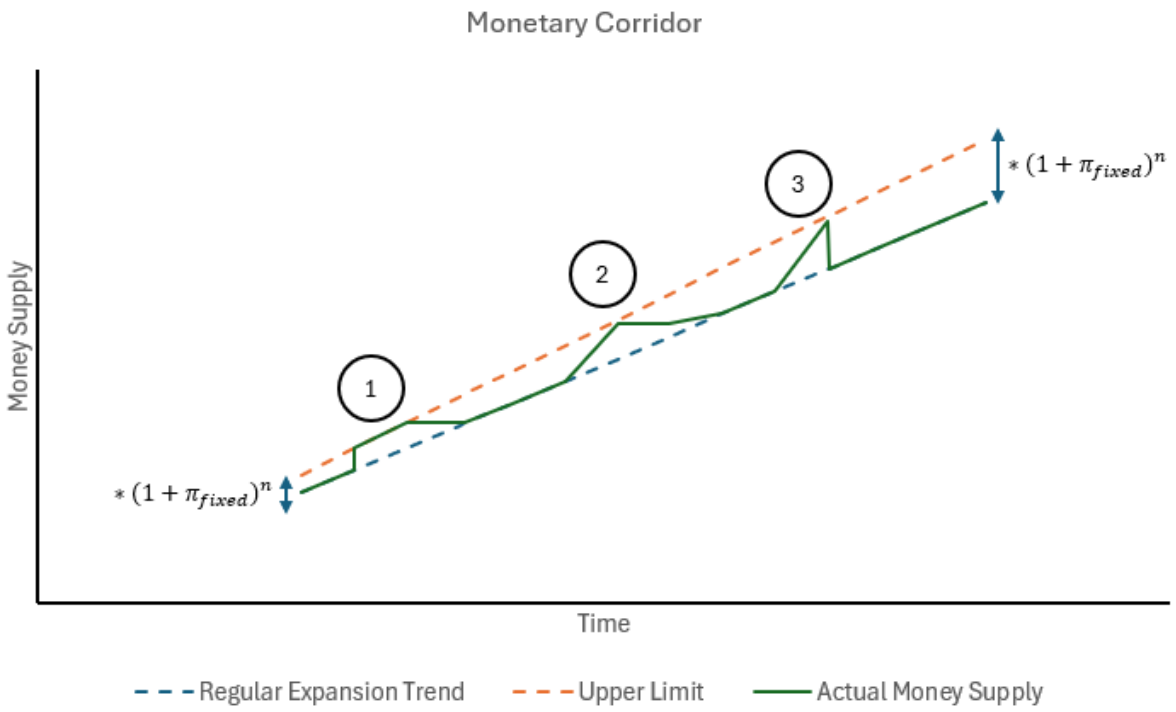


Chart: Monetary Corridor

The dynamic behavior of this corridor is categorized into three distinct cases based on the nature of the economic disturbance:

- **Case 1 (Sudden External Shock):** This represents the case where the money supply is suddenly increased as a direct response to a severe and unpredictable external shock such as the COVID-19 pandemic. The money supply is pushed immediately to the upper trend limit, sustained at that elevated position and then reaches the regular trend horizontally over time. The increased money supply will go to the budget deficit to cover the decreasing tax revenue and it is also allocated to productive infrastructure investment.
- **Case 2 (Mild Crisis):** This case demonstrates a situation where the money supply slightly moves away from the regular trend and gets close to the upper limit gradually over time. This gradual deviation occurs due to a mild crisis such as external oil price increases. Under this condition, the money supply will be getting closer to the regular trend based on the stabilization of the oil prices over time.
- **Case 3 (Speculative Attack):** This scenario represents a sudden decrease in the money supply due to a speculative attack on the financial architecture. The sudden negative shock disrupts the regular trend momentarily, resulting in a sharp contraction before the system mathematically corrects itself to resume the deterministic growth path.

5.4. The Constant-Growth Model as Indirect Taxation

As discussed in more detail in Financial Asset Tax section, this thesis proposes that the fixed money supply should follow a Constant-Growth Model. Instead of a perfectly static supply, the money supply will expand at a fixed, legally mandated rate of π_{fixed}. It acts as an indirect wealth tax on cash and liquid financial assets. It is unavoidable and requires no bureaucratic reporting. Because the growth rate is fixed by law and cannot be changed by central bankers, the market can price it in perfectly. This removes the inflationary surprise caused by the system itself that currently ruins the long-term planning of laborers and businesses.

5.5. Transitioning to Real Value

By moving to a deterministic system, the economy switches from debt-based value to asset-based value. In the current system, money is created when someone takes a loan (debt). In the proposed system, money is a fixed resource that represents the real value of the production economy. For example, in case of a technological breakthrough, this may lead to deflation which makes everyone benefit from progress. This protects the fair share of the citizens and prevents the “second-hand smoke" of inflation from destroying the wealth of the responsible saver and from destroying the income of low and middle class. This also prevents or decreases the effect of financial cycles.

6. The Financial System

The current financial system is inherently unstable. It creates crises through its own structure, leading to damaging economic cycles. To fix this, we must understand the difference between internal and external shocks and move toward a system that balances itself automatically.

In economic history, we can divide crises into two categories: exogenous (external) and endogenous (internal). Before the Great Depression, most economists believed cycles were caused by external factors (like wars or bad harvests). The Great Depression was the first major internal shock. It happened because the financialization of the economy, i.e. the expansion of credit and debt reached a peak. In response, Keynesian economics suggested that the government must intervene to stop these cycles. However, this failed to explain the 1970s Oil Crisis which was an external shock. 2008 Mortgage Crisis was another internal crisis caused by the extreme financialization of real estate. Financialization has now reached a plateau where debt can no longer drive growth as it did before.

Modern bubbles, like the Dot-com bubble or the current AI boom, are a combination of a product cycle and a credit (debt) cycle. Excessive debt often fuels innovation. In the short term, investment in new technology usually surpasses the actual financial return, making a recession inevitable. However, in the long term, the innovative products created during this debt frenzy eventually become profitable and mainstream. While innovation is beneficial for economy, interest-based debt creates a frenzy that leads to a crash.

6.1. Financialization

To understand the current instability of the global economy, we must analyze the process of financialization. In this section, we define financialization as the period where financial institutions, markets, and motives grow significantly larger than the real production economy. This process is a structural shift where the intermediary (the bank) starts to capture more value than the producer (the worker or factory). The following analysis is based on the four-panel chart generated from the Federal Reserve Economic Data (FRED) using series from the Bureau of Economic Analysis (BEA) and the Federal Reserve Board (FRB).

In the decades following World War II, the financial system was a servant to the real economy. As seen in the Total Financial Sector Assets to GDP and Household Debt-to-GDP charts, the levels were relatively low and stable. During this time, the financial sector's share of domestic profits was below 15%. The economy grew because of industrial production not because of asset price inflation. Starting in the early 1980s, the trajectory of every chart changed. This was triggered by massive deregulation such as the Depository Institutions Deregulation and Monetary Control Act of 1980 and the Garn-St Germain Act of 1982. These laws allowed banks to take more risks and created new types of debt. As the charts show, this is when the positive feedback loop began. Financial assets exploded from 150% of GDP to over 500%.

Each chart in the provided figure tells a specific part of this story:

- **Finance & Insurance Value Added (A758RC1A027NBEA):** This measures the service fee that the financial sector charges the rest of the country. We see that this share grew exponentially over the decades until hitting a peak before 2008 crisis and still could not reach that peak.
- **Total Financial Sector Assets to GDP (FBTFASQ027S):** This represents the gross size of the financial system. It shows a massive disconnect. While the real economy (GDP) grew linearly, financial assets grew exponentially and then became flat after 2008 crisis. This means the system started creating claims on wealth much faster than the economy was creating actual wealth and then stalled.
- **Financial Sector Profit Share:** Using the comparison between **Total Corporate Profits (CP)** and **Non-financial Profits (A463RC1Q027SBEA)**, we see a trend similar to the Finance & Insurance Value Added, hitting a disturbing peak of more than 50% before 2008 crisis and never reaching that peak again.
- **Household Debt-to-GDP (CMDEBT):** This chart shows the fuel of the late financialization period. Since wages stayed flat, the only way to keep

consumption high was to increase household debt. This line climbed steadily until it hit the wall in 2008.

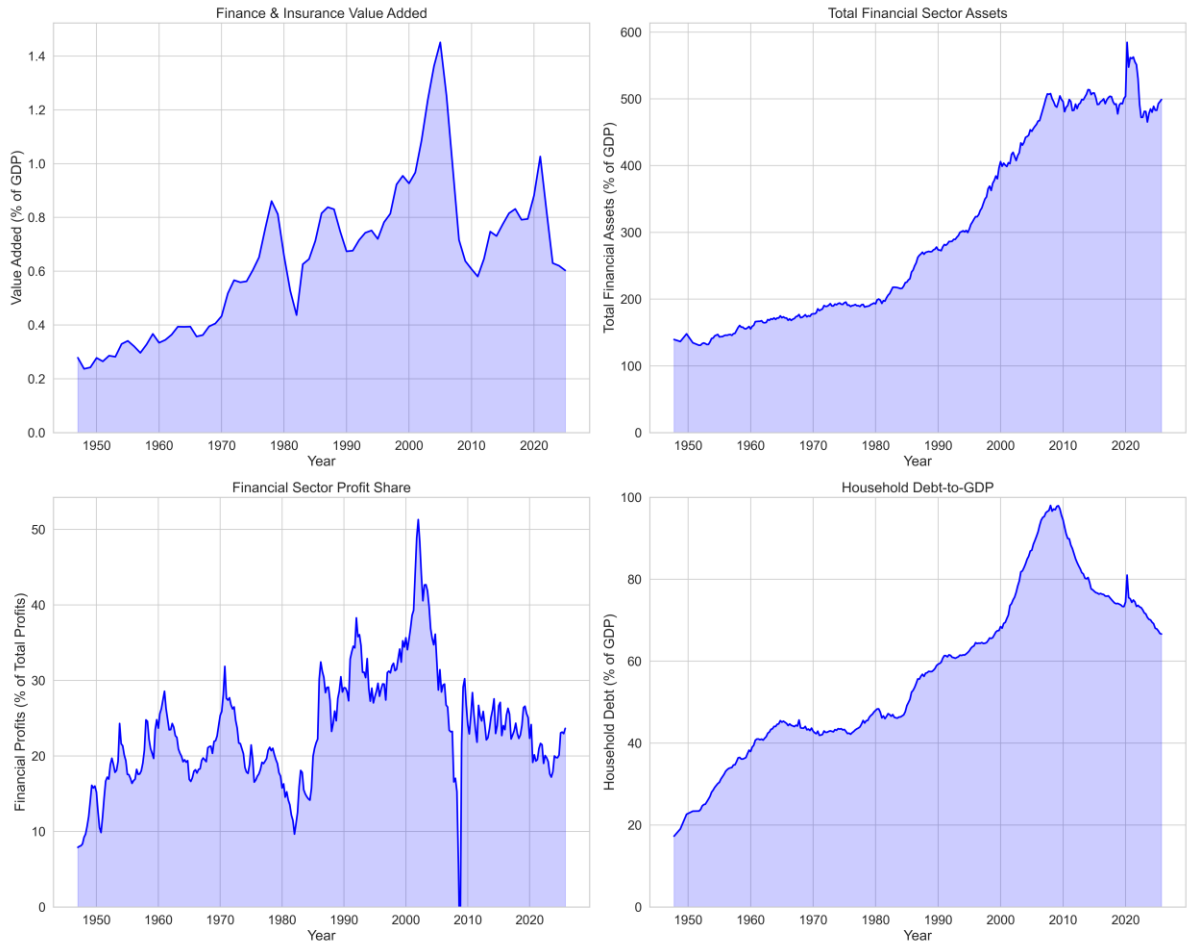


Chart: Financialization in US

For a long time, financialization was seen as a source of wealth. When your house price goes up because of a debt bubble, you feel richer. As we see in the charts after 2008, the U.S. economy has stalled. The lines for debt and assets have stopped their steep climb because the real economy can no longer support the interest payments. We have reached a point of diminishing returns. In the past, adding $1 of debt might have created $0.50 of GDP growth. Today, because the financial sector is so heavy and overhead is so high, adding new debt creates almost no new wealth. It only serves to pay back old interest. Real economy works harder but the surplus is immediately sucked into the financial layer.

It is important to notice that this is not only a U.S. problem. The U.S. was the first to reach this limit but other countries are following the same path. Many developing nations and European economies are trying to financialize to grow their GDP. However, the data suggests that every country will hit this same wall. When the financial sector grows

beyond the capacity of the production sector to pay interest, a crisis is inevitable. Whether it is China's real estate debt or Europe's banking complexity, the world is hitting a global limit where the financial illusion no longer increases real human wealth.

6.2. Inequality

To show that the current debt-based financial system is inherently designed for rent-seeking, we can analyze the hard historical data. This section presents an empirical machine learning analysis showing how interest rates, inflation and tax policies directly cause the concentration of wealth in the United States.

6.2.1. Methodology

Traditional economic papers often use simple linear models or stepwise regressions. The problem with stepwise regression is that it tests variables one by one which can easily get trapped in local optima and miss complex, multi-variable interactions.

To solve this, an automated feature-engineering and exhaustive search computational pipeline is built in Python. This pipeline utilizes an exhaustive OLS search method. This means the algorithm tests every single possible combination of up to three features across the entire dataset. By doing this, it is guaranteed that the absolute global optimum is found for out-of-sample predictive power rather than just a good enough configuration.

6.2.2. Data Sources and the Target Metric

The analytical dataset combines long-run inequality indicators with high-frequency macroeconomic data from 1955 through 2020:

- **Wealth Distribution Metrics:** Sourced from the World Inequality Database (WID), focusing specifically on the wealth shares of the top 1% and top 0.1% of the US population.
- **Interest Rate and Macro Indicators:** Sourced directly via the Federal Reserve Economic Data (FRED) API, including the Federal Funds Rate, the 3-Month Treasury Bill Secondary Market Rate (TB3MS), and the Consumer Price Index (CPI) for real inflation adjustments.
- **Tax Policy Data:** Historical frameworks containing average marginal income tax rates and capital gains tax brackets.

The target for all models is defined as the 5-year change (Δ) in the wealth share. We use a 5-year difference window because wealth concentration does not react instantly to a change in policy. This choice filters out short-term market noise and captures real structural shifts.

6.2.3. Feature Engineering and the Regime Search Space

Economic policies have memory. In other words, a change in interest rates today continues to affect the economy years later. To model this regime-dependency, the script expands the base economic variables into a high-dimensional search space of 364 candidate features using three transformations:

1. **Rolling Windows (W):** Moving averages calculated over 3, 5, 7, and 10 years to capture the duration of policy regimes.
2. **Lags (L):** Time-shifting features back by 1 to 5 years to account for the delayed transmission mechanism of monetary policy.
3. **Regime Indicators:** Measuring sustained periods where interest rates remain below their rolling historical trends.
    - *Financial Repression Share:* Identifying periods where real interest rates are negative (below inflation) which transfers wealth from savers to owners of debt-leveraged capital.
    - *Synergy Indices:* Multiplicative interaction terms capturing the combined effect of low-rate environments and specific tax brackets.

6.2.4. Validation Strategy and Optimization Hierarchy

To make sure the model discovers a true economic law instead of just overfitting the noise, the script applies a strict verification structure:

- **Training Window (1955–2010):** The baseline period used for OLS coefficient estimation.
- **Rolling Cross-Validation (Rolling CV):** A 10-year block CV with 3 distinct splits. The block approach matches the typical length of an economic cycle (e.g. the high-inflation 1970s vs. the low-rate 2000s). Models are heavily penalized if their performance is unstable across different sub-eras.
- **Out-of-Sample Holdout (2011–2020):** A final 10-year data window that is kept completely hidden from the selection process and used to verify the final predictive accuracy.

The winning models were selected using a unified ranking score that maximized the holdout R^2 while minimizing the gap between training and validation performance.

6.2.5. Empirical Results

The computational pipeline analyzed the high-dimensional search space through an exhaustive search. Two distinct, high-fidelity equations are found that explain the velocity of wealth accumulation. The models use a 3-feature framework optimized for out-of-sample generalization to avoid the local optima traps common in standard stepwise

regression. These models capture how the velocity of wealth accumulation changes over 5-year horizons based on historical regime shifts in the American economy.

6.2.5.1. Model A – Top 1% Wealth Share Change

The optimal model explaining the 5-year change in the wealth share of the Top 1% yields an out-of-sample holdout $R^2 = 0.681$. The validated ordinary least squares (OLS) equation is specified as follows:

$$\begin{aligned}\Delta\, Top\ 1\% = {} & -0.108 - 0.031\left(Avg\ Marginal\ Tax_{W5,L3}\right) \\ & + 0.283\left(Nominal\ Rate\ Drawdown_{W7,L3}\right) \\ & + 0.405\left(Real\ Rate\ Drawdown_{W7,L5}\right)\end{aligned}$$

- **Avg Marginal Tax (W5, L3):** This represents the 5-year moving average of the top statutory marginal income tax rate in the United States, shifted backward by a 3-year lag to capture delayed policy transmission. It measures the direct tax friction on high-income labor and business earnings.
- **Nominal Rate Drawdown (W7, L3):** Calculated within a 7-year rolling window lagged by 3 years, this metric tracks the peak-to-trough drop of the nominal Federal Funds Rate. The mathematical function scans the window sequentially, identifies the highest nominal interest rate achieved up to that year, and records the maximum drop from that peak. It does not look at the absolute level of the rate, but rather how much cheaper borrowing became relative to the recent past.
- **Real Rate Drawdown (W7, L5):** This is calculated identically to the nominal drawdown but uses the real interest rate (the nominal rate minus the annual consumer price inflation rate) over a 7-year window with a 5-year lag. It measures the maximum drop in the real cost of capital.

This model shows that wealth concentration at the 1% level is heavily driven by the cumulative easing of interest rates (both nominal and real) combined with the level of income taxation. The positive signs on both drawdown coefficients mean that when interest rates fall deeply below their recent historical peaks and stay low, it acts as a powerful macro-accelerator that expands the wealth share of the top 1%.

6.2.5.2. Model B – Top 0.1% Wealth Share Change

When we look at the ultra-wealthy tier, the Top 0.1%, the exhaustive search identifies a different combination of policy metrics and yields an out-of-sample holdout $R^2 = 0.697$:

$$\begin{aligned}\Delta\, Top\ 0.1\% = {} & -0.088 + 0.457\left(Policy - Real\ Repression\ Share_{W7,L2}\right) \\ & + 0.338\left(Structural\ Wealth\ Ratio_{W7,L5}\right) \\ & - 0.497\left(After - Tax\ Real\ Drawdown_{W10,L5}\right)\end{aligned}$$

- **Policy-Real Repression Share (W7, L2):** This complex index is calculated over a 7-year window with a 2-year lag by multiplying Nominal Rate Downshock and Real

Rate Negative Share. Nominal Rate Downshock is the sum of all negative year-over-year changes (cuts) in the nominal Federal Funds rate inside that window. Real Rate Negative Share is the percentage of years within that same window where the real interest rate was strictly below zero. Therefore, this variable spikes only when the central bank aggressively cuts interest rates while savers are already losing purchasing power to inflation.

- **Structural Wealth Ratio (W7, L5):** This term measures the ratio of after-tax monetary easing relative to income tax friction. It is calculated by taking the peak-to-trough drawdown of the after-tax real interest rate (where the real rate is adjusted downwards by the capital gains tax rate: $\text{Real Rate} * [1 - \tau_{cg}]$) and dividing it by the average top marginal income tax rate expressed as a decimal.
- **After-Tax Real Drawdown (W10, L5):** Calculated over a long 10-year rolling window with a 5-year lag, this measures the absolute peak-to-trough maximum drop of the real interest rate after adjusting for capital gains tax liabilities.

For the ultra-wealthy, simple drawdowns are not the main driver. Instead, the model places the highest weight on financial repression where inflation eats the value of cash while interest rates are cut. This shows that the top 0.1% are highly sensitive to complex structural ratios that measure how monetary liquidity interacts directly with tax shields.

When a central bank creates a deep Nominal or Real Rate Drawdown, it lowers the cost of borrowing money. However, this cheap credit is not distributed equally. Normal citizens use credit for consumption (like credit cards or car loans) which does not build wealth. In contrast, wealthy agents use this cheap credit as leverage to buy up existing finite assets like corporate equities and real estate. This massive inflow of capital causes asset prices to swell, expanding the wealth share of those who already own assets.

Furthermore, when Financial Repression occurs (captured by the Policy-Real Repression Share), the interest rate on cash deposits falls below the rate of inflation. For normal savers who rely on bank deposits, this regime acts as an invisible tax that erodes their savings. But for large asset holders, negative real rates mean their debts are being inflated away while the real assets they purchased with that debt continue to rise in nominal value.

Tax policy acts as the secondary gear in this machine. When marginal income taxes are lower, high earners have more cash to invest in the stock market. More importantly, when the capital gains tax is low, it changes the after-tax real rate, creating a high structural wealth ratio where capital compounds faster than the real growth rate of the economy.

The difference between Model A and Model B reveals that the Top 1% and the Top 0.1% do not accumulate wealth in the same way. Their economic behavior and asset structures are fundamentally different.

The Top 1% group is largely made up of highly paid professionals, successful doctors, lawyers, and corporate executives. A significant portion of their wealth accumulation still depends on savings from labor income. Therefore, Model A shows a negative coefficient for the Avg Marginal Tax ($\beta = -0.031$). When income taxes are high, it limits their capacity to save and invest, which slows down the velocity of their wealth concentration. They are also highly sensitive to simple nominal and real interest rate drawdowns because they use standard mortgage and portfolio leverage to build their asset base.

The Top 0.1%, however, is the ultra-wealthy tier of capital owners and multi-generational investors. They do not rely on a salary or labor income. Consequently, standard income tax rates do not slow them down. Instead, they operate at a structural level where they exploit macroeconomic regimes.

As Model B demonstrates, their wealth velocity is overwhelmingly driven by the Policy-Real Repression Share ($\beta = 0.457$). Because they have direct access to institutional debt markets, they can borrow millions at near-zero rates during financial repression periods to purchase real corporate assets, using inflation as a tool to transfer wealth from cash-holding savers to themselves.

The negative sign on their 10-year After-Tax Real Drawdown ($\beta = -0.497$) indicates that a long-term stabilization or recovery of real interest rates after tax acts as a powerful brake on their wealth accumulation. While the Top 1% are impacted by the direct tax on their income, the Top 0.1% are masters of capital structure. They rely on monetary distortion, negative real rates, and low capital gains taxes to pull away from the rest of society.

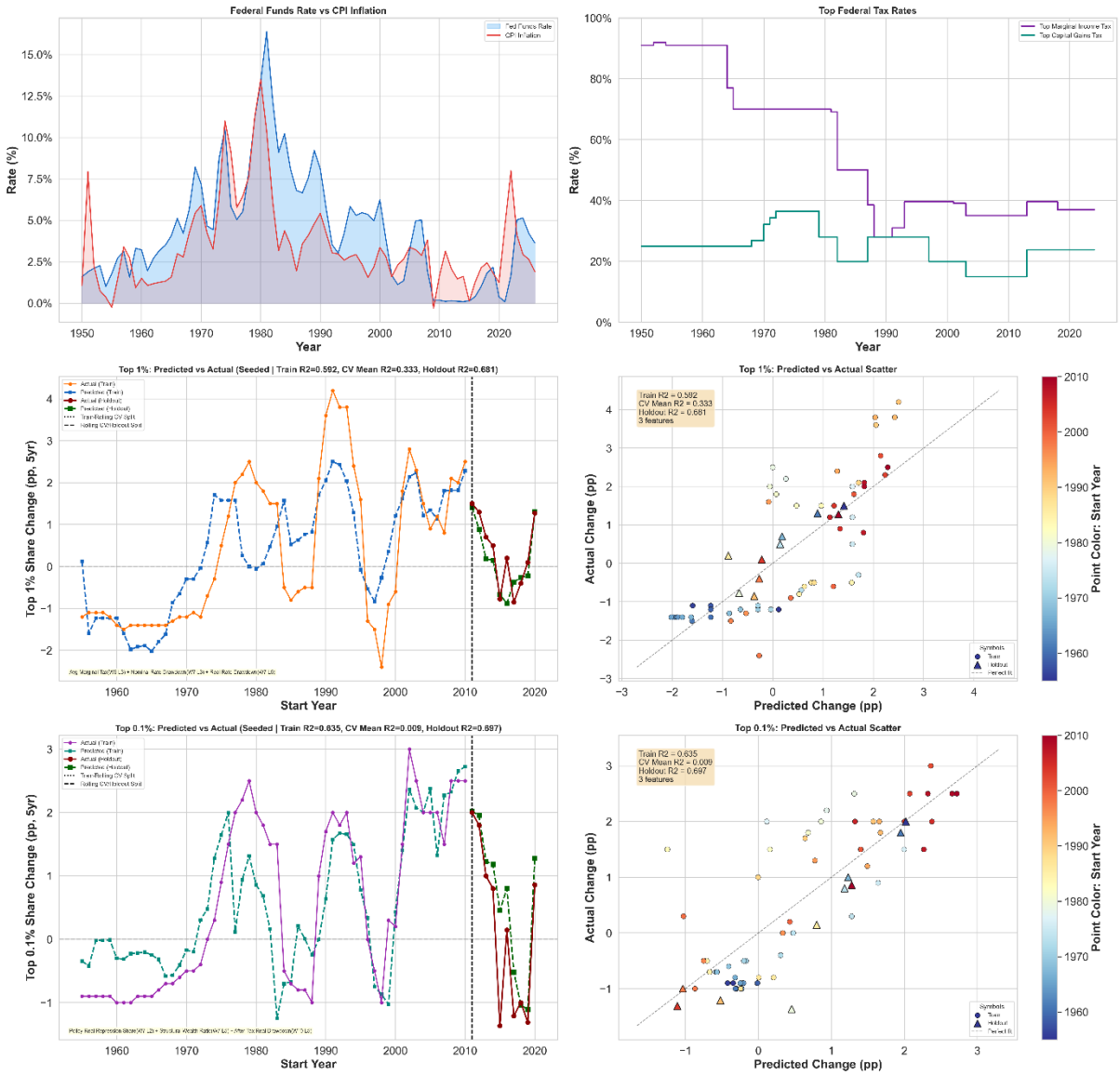


Figure: Rolling Window Policy Analysis and Model Out-of-Sample Verification

These empirical results reveal a critical flaw in traditional macroeconomic management. Central banks claim that lowering interest rates helps the economy by stimulating demand. However, the data shows that under the current system, sustained low-rate regimes and financial repression are the primary drivers of inequality.

When the central bank keeps interest rates artificially low for a long period, normal citizens cannot grow their savings because bank accounts pay less than inflation. At the same time, the financial elite can borrow massive amounts of cheap money to buy up real assets like real estate and stocks. This drives asset prices up, making the wealthy richer while forcing the young and working classes to take on huge debts just to survive. The pipeline output shows that the 5-year change in inequality is a mathematically predictable result of monetary distortion.

Traditional economists often argue that if you try to tax this wealth or fix the system, it will cause capital flight. The rich will simply move their money to another country. This thesis proposes a combined tax, financial, and monetary reform that explicitly solves this problem through its structural design.

In Section 4.1, it is shown that the constant-growth money supply acts as an automatic, uniform carrying cost on liquid assets ($k = \pi_{fixed} = \tau_w$). If a wealthy agent tries to liquidate their assets into cash to flee the country, they are instantly hit by the programmatic expansion of the currency. The cost is built into the money itself. You cannot run away from it unless you leave the entire currency ecosystem.

Because the proposed system completely removes taxes on labor and productive transfers ($\tau_i = 0$), the return on real production is higher than anywhere else in the world. As shown in the Game Theory section, the Nash Equilibrium flips. An investor will not want to move their capital to a foreign country where they have to pay high corporate income tax. They will prefer to keep their capital inside the proposed system, moving it from idle assets into the production means of the system and into the stock-based finance (shareholder banking).

By shifting the tax base from the creation of wealth (labor/income) to the hoarding of wealth (idle assets), we remove the incentive for capital flight. Wealth stays in the country not because it is trapped by laws but because the proposed system provides the most efficient, predictable and high-performing production environment. The mathematical results from the empirical pipeline show that to fix inequality, we must stop trying to patch the system with post-crisis wealth redistribution. Instead, we must implement an algorithmic architecture that stops the distortion at the source.

6.3. The Proposal: Stock-Based Finance

This thesis proposes an alternative stock-based finance. In this system, banks act as intermediaries for real equity instead of lending money at an arbitrary interest rate. Depositors put their money into specific stocks through the bank. Lenders (borrowers) take money from the bank based on those same stocks. If more people want to deposit in a stock than borrow against it, the bank keeps the money invested in the stock. If more people want to borrow than deposit, the bank stops lending for that specific stock until more deposits arrive.

Feature	*Interest-Based Finance*	*Stock-Based Finance*
Risk	Arbitrary interest rates	Real economy / Industry performance
Repayment	Fixed capital + interest	Flexible (repaying in shares/value)
Primary Risk	Default / Bankruptcy	Underperformance against the stock
Incentive	Financial Rent-Seeking	Productive Profit-Seeking

Table: Comparison of Incentives

6.3.1. The Self-Balancing Mechanism

The most important advantage of stock-based finance is that it is counter-cyclical. It prevents the boom-and-bust cycles that interest-based systems encourage.

- **During a Boom:** In the current system, high money supply leads to lower interest rates, making borrowing cheaper and causing the economy to over-expand (bubble). In a stock-based system, when money supply is high, that money flows into stocks. This makes borrowing harder and more expensive, acting as a natural brake on the economy.
- **During a Bust:** In the current system, banks stop lending during a crash which causes companies to go bankrupt. In a Stock-Based System, when stock prices are low, it becomes easier and cheaper to borrow against them. This provides liquidity exactly when the market needs it most.

6.3.2. Reducing Rent-Seeking and Systemic Risk

By implementing stock-based finance alongside the traditional system, a stabilizer is created. The government would no longer feel the need to bail out traditional banks because the stock-based system provides a safe alternative for the real economy.

This shift reduces financial rent-seeking and bureaucratic rent-seeking. Banks can no longer survive just by manipulating interest rates or using their monopolistic power. They must become efficient managers of real economic assets. The economy becomes de-financialized and focused back on production.

6.3.3. Handling External Shocks

While stock-based finance solves internal crises, external shocks (like COVID-19 or the 70s Oil Crisis) still require government action. As discussed in the Monetary System section, the government should borrow from itself by temporarily increasing the money supply. Extra money should be invested in infrastructure and R&D which will bring long term revenue. The amount of money can be decided to target full employment. A slightly higher unemployment rate than full employment should be targeted to prevent overshooting. The amount must be capped by law to prevent hyperinflation. The extra money must be destroyed through monthly installments which should start immediately after borrowing. This ensures the government can protect the masses from natural disasters without destroying the long-term value of the currency. This also prevents governments from inefficient borrowing due to financial rent-seeking and bureaucratic rent-seeking caused by interest-based finance.

This system will be analyzed further in a dedicated section later.

7. The Taxation System

Taxation is fundamentally interconnected with the monetary and financial systems. To achieve a more efficient economy, this thesis proposes a transition away from taxing

transfers (such as value-added tax and income tax) and toward taxing assets (corporate enterprise value, financial assets, and real estate).

Shifting the tax base from what is earned or spent to what is owned will accelerate the economy toward its maximum potential through five key mechanisms:

i. Increased Velocity and Economic Mobility

By removing taxes on transfers and income, the velocity of money and added value will increase significantly. When the act of trading or earning is not penalized, economic agents including individuals, startups, and large organizations can reach their productive potential much faster. This creates a high-level of economic mobility, allowing capital and talent to move to where they are most effective without the friction of transaction taxes.

ii. Pressure for Innovation and Asset Utilization

In an asset-tax regime, owners of wealth are under constant pressure to innovate. Because they must pay a monthly tax based on the value of their holdings, they cannot afford to let assets sit idle. This forces a transition from a rent-seeking economy to a production economy. Asset holders must either make their property and capital highly productive to cover the tax or they must sell those assets to profit-seeking agents who can better utilize them. This prevents the hoarding of land or capital and ensures that resources are always in the hands of those who can create the most value.

iii. Empowerment of Labor

By eliminating income tax, the financial burden on labor is removed. When labor is less miserable and keeps the full value of its work, individuals are capable of making better, more long-term economic decisions. This empowerment allows workers to invest in their own skills or move into entrepreneurship, helping the entire population reach its best potential.

iv. Balancing Socio-Economic Power

A wealth-based tax naturally helps to balance the power between the most powerful and the least powerful members of society. While income taxes often hit the middle class the hardest, an asset-based tax focuses on the accumulated wealth at the top. This prevents an extreme concentration of power and ensures a more equitable distribution of economic influence.

v. Strategic Macroeconomic Steering

Finally, this system provides the government with the right tools to actively maneuver the economy. By adjusting the tax rates on specific asset classes (as discussed in the sections on real estate and motor vehicles), the state can encourage or discourage specific behaviors in real-time. This allows the government to control the direction of the

economy and maintain stability without drifting away into unproductive bubbles or financial collapses.

7.1. Real Estate Tax

In many modern economies, owning real estate solely to collect rent has become a primary rent-seeking activity. Especially during periods of low interest rates or high inflation, real estate is often treated not as a place to live or work but as a financial asset to protect wealth. This behavior creates a deadweight loss for the economy. This research proposes a monthly real estate tax to discourage the hoarding of property and to shift capital toward more productive sectors.

When real estate is used as a financial hedge, it often leads to a high number of empty apartments, unused commercial buildings and idle agricultural land. By applying a wealth tax to real estate, the government creates a carrying cost. This pressure forces owners to either utilize their assets (by renting them out at fair prices or starting a business) or sell them to those who will.

The goal is to ensure that every square meter of land serves the best performance of the economy. If an owner cannot make a property productive enough to cover its own tax, the asset will move into the hands of someone who can thereby increasing the total supply of housing and commercial space.

To ensure fairness and transparency, the valuation of each real estate unit including land and buildings should be calculated using advanced artificial intelligence tools. Unlike traditional appraisals, which are slow and subjective, AI can provide real-time, accurate valuations by analyzing satellite data, local transaction history and urban development patterns. The real estate tax rate should be the same as other asset taxes. This consistent rate ensures that the tax is tied to the current market value of the wealth rather than the historical purchase price. In times of a general economic crisis, the rate can be slightly decreased across the country. Furthermore, the system allows for localized adjustments. For example, if a specific region suffers from a flood, drought or other natural disaster, the AI can adjust valuations downward or the government can lower the rate locally to provide relief to owners.

While owning private property is a fundamental right, this thesis argues that it also carries a public responsibility. An owner has the duty to utilize their property in a way that serves both their personal interest and the public interest. By implementing this value-based tax, the state ensures that static wealth is converted into active capital, reducing the housing crisis and promoting a more dynamic production economy.

7.2. Motor Vehicle Tax

Similar to the real estate tax, a monthly motor vehicle tax is proposed as a key tool to capture wealth and ensure the best utilization of resources within the economy. In many

developing and developed nations, motor vehicles represent a significant portion of an individual's private wealth, yet they are often only taxed at the point of purchase or through small annual fees. This thesis suggests that vehicles should be treated as capital assets subject to a consistent wealth tax.

To ensure the system is fair and modern, the value of every motor vehicle in the country should be calculated using advanced artificial intelligence tools. These tools are capable to analyze market data, vehicle age, mileage, and condition to provide an accurate fair market value for each unit.

Following the logic of the real estate section, same monthly tax rate is recommended. By applying this tax monthly based on the current value, the state can ensure that the tax burden decreases as the vehicle depreciates which is more equitable than fixed-rate systems.

One of the primary advantages of this motor vehicle tax is its flexibility as a tool for fiscal policy. The tax level does not need to be static; instead, it can be adjusted based on the current state of the national economy.

- **During Economic Crises:** The government can implement a differentiated tax strategy to protect the production side of the economy. The tax level for commercial vehicles (trucks, delivery vans, and industrial transport) can be decreased to lower the operating costs for businesses.
- **Consumption Control:** Simultaneously, the tax level for non-commercial (private) vehicles can be increased. This serves to decrease luxury consumption and encourages individuals to keep their capital in more productive investments.

By shifting the tax burden in this way, the motor vehicle tax acts as a stabilizer. It discourages rent-seeking behavior where capital is locked in expensive, non-productive assets and encourages the movement of resources toward the production economy.

7.3. Financial Asset Tax

This thesis proposes a fundamental shift in fiscal policy by moving from taxing transactions (income and transfers) to taxing wealth. The goal of this change is to better utilize economic resources, shifting the national focus from a rent-seeking economy toward a production economy. While previous sections addressed wealth taxes on real estate and motor vehicles, those taxes alone are insufficient. Without a corresponding tax on financial assets, capital would simply run away from tangible assets and hide in liquid financial instruments.

In a standard fiat currency regime, applying a direct wealth tax on financial assets often triggers a massive exodus of capital to foreign markets. To prevent this, this research recommends a transition to a constant-growth (deterministic) currency system.

A fixed currency or a constant-growth currency provides what is known as exorbitant privilege. Because the government cannot devalue the currency at will, the money remains a stable store of value which naturally discourages citizens from moving their wealth abroad. This stability makes it significantly easier for both the state and private companies to borrow capital. However, this privilege is a double-edged sword. The ease of credit can push an economy to expand far beyond its real productive capacity, creating financial bubbles and eventual collapse. The proposed financial asset tax serves as a necessary stabilizer to manage this dilemma, cooling down over-expansion while generating tax revenue. In other words, the dilemma of exorbitant privilege provides the room to apply financial asset tax.

To ensure a comprehensive tax base and avoid loopholes, the financial asset tax must be applied as follows:

- **Directly Taxed Assets:** This category includes gold, all other precious metals, crypto-assets, and government bonds. These assets represent significant stores of wealth that do not contribute directly to production.
- **Indirect Taxation of Cash:** While physical and digital cash (bank balances) are financial assets, taxing them directly is difficult due to high rates of non-reporting and the ease of moving money. Instead, this research proposes an indirect tax via a constant-growth currency. The government will increase the money supply by a fixed rate (same as with real estate tax and motor vehicle tax) as mandated by law. This programmatic expansion acts as a soft tax on cash holders by slightly diluting the value of the currency, effectively collecting tax revenue without requiring individual reporting.
- **Foreign Currency Holdings:** Digital holdings of foreign currencies will be taxed automatically through banking data, while physical foreign cash will remain subject to mandatory reporting.

A key principle of this framework is the prevention of double taxation. Therefore, stocks and corporate bonds are strictly excluded from the financial asset tax. Since these instruments represent the value of a firm already subject to the value-based corporate tax (calculated on enterprise value), taxing them again at the individual level would be redundant.

Ultimately, the financial asset tax is designed to be global. It applies to all financial assets owned by a citizen regardless of location, unless that asset is already being taxed at the source through a value-based regime.

7.4. Corporate Tax

In the context of fiscal policy reform, this research proposes that corporate tax should be implemented based on the enterprise value (takeover price) of a company rather than

based on its profits. This approach is similar to the taxation systems used for real estate and motor vehicles. Specifically, a monthly tax rate same as other tax rates should be applied to the estimated value of the firm.

To ensure accuracy and transparency in this process, the valuation of the company should be calculated using advanced artificial intelligence tools. Furthermore, to determine the final tax base and avoid the problem of double taxation, the value of motor vehicles and real estate owned by the company must be subtracted from the total valuation. This adjustment is necessary because these specific assets will be subject to their own separate tax regulations.

7.5. Ad Tax

The implementation of a tax on advertising expenditures may serve as a strategic policy tool to moderate excessive consumerism and improve the national trade balance. By increasing the cost of promotional activities, such a tax encourages firms to reallocate their capital from marketing toward research and development (R&D). This shift is expected to foster a competitive environment where market share is gained through product innovation and quality enhancements rather than through brand visibility alone.

Furthermore, this fiscal measure could enhance corporate mobility and mitigate the risk of monopolization. In a market where advertising is less dominant, smaller, innovative firms can compete more effectively with established incumbents. When companies are forced to prioritize R&D to maintain their competitive advantage, the resulting technological advancements can strengthen the country's export profile. High-tech, high-quality goods are generally more competitive in international markets. Simultaneously, the cooling effect on domestic consumerism would likely lead to a reduction in imports, further stabilizing the current account.

Additionally, an advertising tax might address the issue of organizational rent-seeking. Currently, many firms rely on legacy products and bureaucratic business models, protecting their market position through heavy promotional spending rather than genuine improvement. The proposed tax would put significant pressure on these companies to abandon stagnant business plans and engage in continuous innovation. Consequently, the economy would transition from a marketing-driven model to a production-and-innovation-driven model, promoting long-term efficiency.

7.6. Import Tax

In the context of trade policy, it is argued that a uniform (flat) import tax rate should be applied to all imported goods. Import tax is primarily necessary to assist domestic companies in mitigating the fiscal burden imposed by corporate taxation. Without such a mechanism, foreign firms may gain a significant competitive advantage by

manufacturing their products abroad often in lower-tax jurisdictions and exporting them to the local market without facing similar tax pressures.

Furthermore, the implementation of a flat rate is essential from the perspective of economic efficiency. A non-uniform tariff structure, where rates vary depending on the specific product, represents a direct intervention in the market's natural equilibrium. Such distortions can lead to a non-optimal allocation of resources, moving the economy away from its most efficient state. Therefore, a flat import tax ensures a level playing field while maintaining the internal logic of a market-driven economy.

7.7. Negative Tax

To mitigate the regressive effects of real estate taxation on low-income households, this thesis proposes the implementation of a flat, constant negative tax for all citizens. When combined with a robust real estate tax, this fiscal framework offers a market-based solution to the housing crisis.

The primary advantage of a real estate tax lies in its ability to influence land and property utilization. By increasing the carrying cost of idle assets, the tax exerts pressure on owners to develop vacant land and reduce vacancy rates. High tax rates on unutilized land incentivize the construction of new residential units. Property owners are encouraged to rent out empty apartments to offset the tax burden, effectively increasing the total housing supply available in the market.

While it is expected that landlords will attempt to shift the incidence of the real estate tax onto tenants through higher rents, the negative tax functions as a compensatory mechanism. For poor families, the fiscal pressure of the real estate tax is effectively neutralized by the government-provided negative tax.

Unlike a fixed subsidy, the amount of the negative tax should be dynamic, functioning as an automatic stabilizer. The transfer amount can be adjusted based on prevailing economic indicators:

i. **During periods of high unemployment:** The negative tax is increased to support household liquidity and prevent housing instability.
ii. **During economic expansions:** The negative tax can be reduced as market participation and wages improve.

It is crucial to distinguish this proposal from universal basic income. The objective here is not to cover all living expenses but specifically to alleviate the tax-induced pressure on housing and to correct market failures.

By utilizing this tax-and-transfer model, the state can address housing shortages through market incentives rather than through direct, capital-intensive construction projects by government agencies such as TOKİ in Türkiye. This approach minimizes the need for direct state intervention in the construction sector while fostering economic inclusion.

By providing a basic financial floor, the negative tax also helps vulnerable individuals avoid vicious cycles of poverty, ensuring they remain integrated into the formal economy rather than being marginalized.

7.8. Sin Tax

The implementation of corrective taxation commonly referred to as sin taxes should be applied to products that have negative effects on public, healthcare and economy such as tobacco, alcohol, processed and fast-food products, etc. From the perspective of economic efficiency and social equity, individuals who do not consume these harmful goods should not be forced to bear the indirect financial burdens generated by those who do.

In many market economies, the consumption of these products creates significant negative externalities particularly through increased public healthcare expenditures and a reduction in overall labor productivity. Therefore, tax rates should not be arbitrary. They must be systematically calculated to reflect the marginal external cost these goods impose on the economy. By aligning the retail price with the true social cost, the government can reduce the economic distortion where the general public subsidizes the private health choices of specific consumer groups.

7.9. Income Tax

In the current economic framework, income tax can be interpreted as a levy on labor rent-seeking behavior. From this perspective, individuals provide their labor to employers in exchange for a predetermined monthly compensation, effectively renting out their human capital. This thesis proposes a shift in fiscal policy: tax pressure should be redirected toward other forms of rent-seeking, while labor rent should be largely exempted.

The rationale is that income tax compels individuals to increase their labor supply simply to maintain a constant level of net income. Consequently, income tax acts as a significant structural barrier to individual liberty. The objective of removing income tax is not to encourage leisure or reduce productivity. It is to provide individuals with the financial autonomy needed to make optimal life decisions and achieve their maximum potential more rapidly. Such a shift promotes social mobility and provides the government with more efficient mechanisms to manage the macroeconomy by targeting less productive rent-seeking activities.

Labor compensation can be viewed as a stream of payments that implies an underlying capital value. This value can be estimated using the relationship between the wage and the prevailing interest rate. The capital value of labor is defined by the following formula:

$$V = \frac{W}{i}$$

where *V* is capital value of labor, *W* is net wage and *i* is interest rate.

For instance, at an interest rate of 2%, a salary of 120,000 implies a labor capital value of 6,000,000 (120,000 / 0.02).

Economic fluctuations often arise when the cost of capital exceeds the return on labor. When the rent for capital becomes too high relative to labor, firms tend to reduce their workforce. This occurs because companies either reduce their capital borrowing or seek to earn rent from their own capital rather than investing in human labor. Because the skill level of the workforce (and thus the intrinsic value of labor) cannot adjust as rapidly as volatile interest rates and a gap emerges. This mismatch leads to increased unemployment which forces workers to accept stagnant wages or to accept increases that do not keep pace with inflation. This dynamic serves as a fundamental explanation for the Phillips Curve. In this view, the movement along the Phillips Curve is primarily driven by financial cycles while the noise or deviations from the curve result from non-financial external shocks.

Income tax further complicates this valuation by increasing the gross cost of labor. When we account for taxation on both labor income and interest income, the formula for the capital value of labor is adjusted as follows:

$$V = \frac{W(1+\tau)}{i(1-\tau)}$$

In this context, τ represents the income tax rate, assuming a uniform rate for both labor income and interest income without specific exemptions.

The inclusion of the income tax rate serves as a multiplier effect. Even when mathematically proportional, the presence of income tax increases the sensitivity of wages to changes in the interest rate. Workers are forced to defend the capital value of their labor more aggressively when their net take-home pay is reduced by the state. By removing income tax, the economy can reduce the volatility experienced by the working class during financial cycles. While many nations implement progressive tax brackets to shield low earners, this equation suggests that the taxation of interest income plays an equally critical role in the overall valuation of labor within the economy.

Moreover, in the current formula, i is treated as a risk-free interest rate. However, in the proposed stock-based system, i is replaced by shared risk. In the new system, the denominator for labor valuation isn't a fixed interest rate but a market-driven discount rate that includes volatility. This would further enhance the effect of removing income tax on the reduced sensitivity of wages to financial cycles.

$$V = x\frac{W}{i} + (1-x)\frac{W}{r}$$

Where r is discount rate and x is the weight of the interest-based finance in the hybrid financial system. This equation shows that wages are stabilized by both removing income tax and introducing the stability of the stock-based finance and constant-growth money supply.

7.10. Other Taxes

All other taxes should be eliminated. The elimination of various complex tax structures could significantly reduce the administrative burden and red tape within the government thereby minimizing opportunities for institutional corruption and fiscal malpractice. By simplifying the tax code, the state reduces the asymmetric information that often allows for the misappropriation of funds. Instead of relying on a centralized general fund, the government should move toward a user-pay principle where the cost of a public service is collected directly at the point of delivery (on-site collection).

The government can implement a direct fee-for-service model for administrative services such as the issuance of national identity cards, passports, or real estate titles. This prevents the pooling of revenues, ensuring that the budget for one department is not obscured by the spending of another. This logic is particularly applicable to infrastructure. For example, general directorates of highways and railway authorities should fund their operations through direct usage fees (e.g. tolls or distance-based charges) rather than general tax revenue.

This model provides the government with more accurate market signals. When revenue is tied directly to usage, it offers clearer data regarding the feasibility and necessity of future investments. By ensuring that each public service operates on a self-sustaining basis, the economy can avoid the distortions caused by heavy taxation, eventually moving toward a state of allocative efficiency and a more optimal economic equilibrium.

8. Stock-Based Finance (Self-Balancing Markets)

The current financial system is unstable by its nature. It expands the economy through a positive feedback loop that forces growth beyond its true capacity. When the economy eventually reaches this artificial limit, a shrinkage becomes inevitable. This creates the boom-and-bust cycles that lead to constant crises.

The worst part of this cycle is that it is not fair. Financial asset holders benefit from these cycles because of financial rent-seeking and information advantages. Meanwhile, the poor and middle class suffer most. They cannot protect themselves against these cycles. Instead, their labor is treated as just another financial instrument. To solve this, this thesis proposes stock-based finance which can also called shareholder banking.

8.1. Mechanics of Shareholder Banking

Stock-based finance works differently than the traditional interest-based system. Instead of the bank taking a spread between a depositor's interest and a lender's loan

rate, the bank acts as a neutral broker. Depositors select specific stocks to deposit their wealth into. The bank carries almost no risk because it does not guarantee a fixed return. It simply manages the connection between the investor and the borrower. Borrowers borrow capital based on the value of these stocks. Instead of paying an arbitrary interest rate, their repayment is flexible and tied to the real performance of the industry.

In shareholder banking, the bank acts as a high-performance matching engine. When a depositor wants to withdraw their funds (sell their stock), the bank does not need to wait for the borrower to pay back the loan. Instead, the bank automatically re-matches the borrower's debt to a new depositor who is currently entering the market for that same stock. If there is a temporary shortage of new depositors for a specific stock, the bank can utilize a liquidity buffer from its own capital or move the loan to a general index category. This ensures that the depositor always has the liquidity they expect from a bank account while the borrower continues their long-term production activity.

8.2. Empirical Evidence: Stocks vs. Interest (1960–2025)

To understand why depositors would choose this system, we must look at the historical data. The following table summarizes return percentages for the S&P 500 compared to traditional interest accounts from January 29, 1960, to December 31, 2025.

Period (Months)	*S&P500 Average Return*	*Interest Account Average*	*Risk Profile*
3	Higher	Lower	S&P 500: High Volatility
12	Higher	Lower	S&P 500: Potential Negative
36	Significantly Higher	Lower	S&P 500: Stabilizing
60	Dominant	Lowest	Interest: Losing to Inflation
120	Maximum Growth	Minimal	Interest: Safe but Stagnant

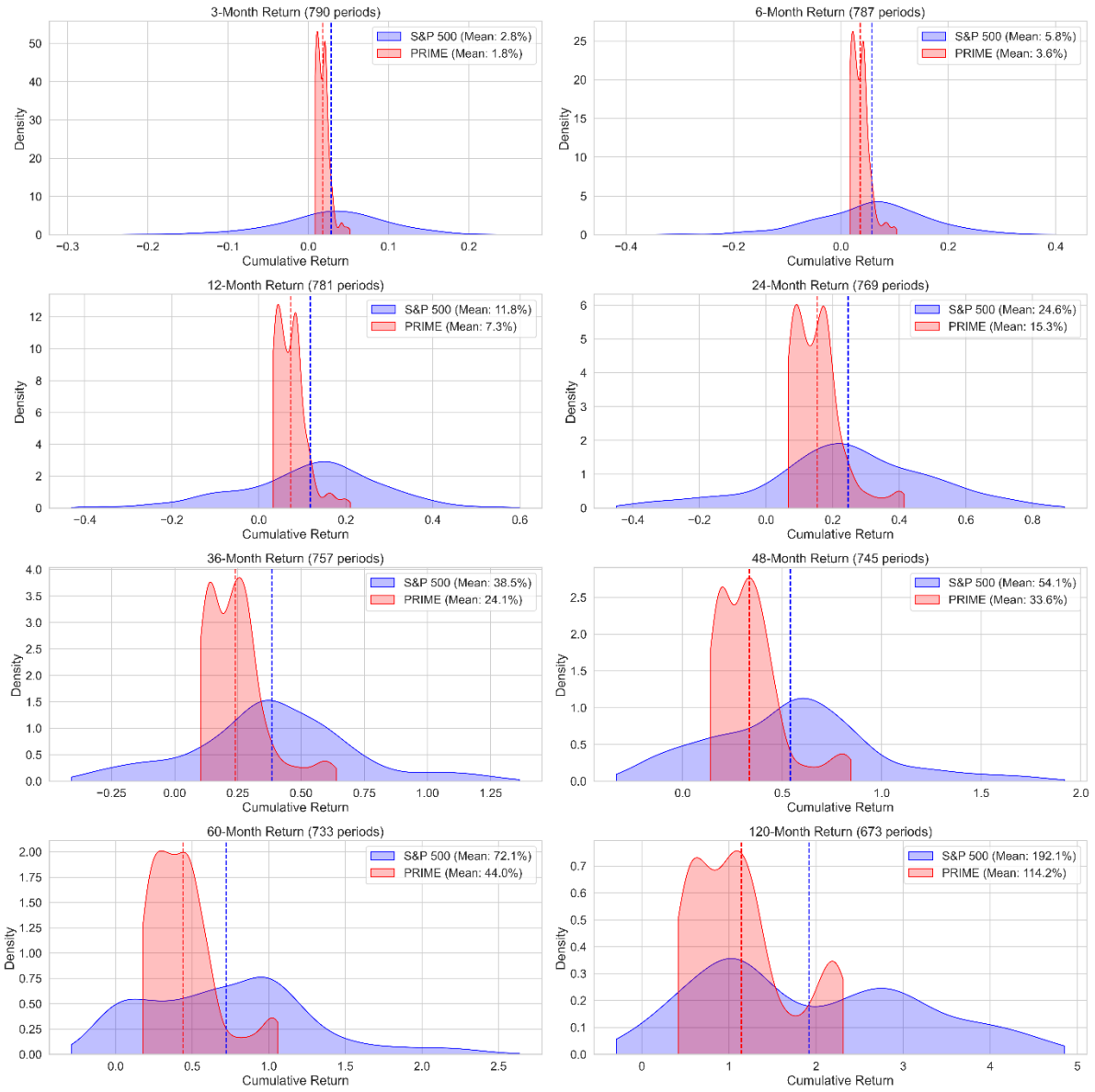
Table: Comparative Returns over Multiple Horizons

As shown in the data, the S&P 500 return distribution is much wider. It sometimes becomes negative, while interest accounts have a narrower distribution that stays above zero. However, in the long term, the profit-seeking nature of stocks provides much better wealth creation than the rent-seeking nature of interest.

Horizon (Months)	*SP500 Mean*	*SP500 Std*	*SP500 P10*	*SP500 P25*	*SP500 Median*	*SP500 P75*	*SP500 P90*
3	2.8%	7.4%	-6.2%	-0.9%	3.1%	7.4%	11.3%
6	5.8%	10.9%	-7.4%	-0.8%	6.2%	12.3%	18.7%
12	11.8%	16.0%	-10.3%	2.8%	13.5%	21.6%	30.9%
24	24.6%	24.1%	-6.1%	11.5%	24.5%	40.6%	55.2%

36	38.5%	31.6%	-4.2%	21.2%	37.8%	56.4%	74.2%
48	54.1%	41.1%	-1.1%	25.0%	55.3%	77.1%	102.3%
60	72.1%	53.6%	2.4%	29.5%	70.9%	103.7%	131.5%
120	192.1%	124.4%	44.9%	96.0%	163.6%	289.4%	374.3%

Horizon (Months)	***PRIME Mean***	***PRIME Std***	***PRIME P10***	***PRIME P25***	***PRIME Median***	***PRIME P75***	***PRIME P90***
3	1.8%	0.8%	0.8%	1.1%	1.7%	2.1%	2.7%
6	3.6%	1.7%	1.6%	2.3%	3.4%	4.3%	5.5%
12	7.3%	3.4%	3.3%	4.6%	6.9%	8.8%	11.3%
24	15.3%	7.3%	6.9%	9.4%	14.7%	18.3%	23.4%
36	24.1%	11.5%	11.1%	14.7%	23.1%	28.9%	36.9%
48	33.6%	16.1%	15.6%	20.7%	31.5%	39.7%	50.7%
60	44.0%	21.2%	20.7%	28.1%	39.8%	52.1%	69.4%
120	114.2%	56.2%	47.0%	67.1%	104.9%	134.2%	214.2%



8.3. Systemic Stability and Self-Balancing Markets

The self-balancing nature of this system can be explained by the cost of capital. In the current system, when a bubble starts, interest rates are often low, which makes people borrow more and makes the bubble bigger. In stock-based finance, the cost of borrowing is tied to the stock price. When a stock's price becomes overvalued (a bubble), the amount of collateral value needed to borrow increases, or the shares the borrower must promise to pay back become too expensive. This acts as a natural mathematical brake. The more expensive the stock becomes, the heavier the loan becomes for the borrower. This automatically slows down the flow of money into overheated sectors without any intervention from a central bank.

A key advantage of shareholder banking is that it reduces the volatility of the stock exchange index itself. Because the finance is tied to real economic activity, it alleviates the frenzy of the markets.

Furthermore, stock-based and interest-based systems can live together. In this dual system, the government can stop providing deposit guarantees for interest-based banks. If a traditional bank wants to take the risk of lending money for interest, it must own that risk entirely. If there is a panic in the economy, the stock-based system acts as a stabilizer since it is tied to the real economy.

Because of the constant-growth money supply discussed in the previous section, central banks will no longer need to use interest rates to control inflation. The market balances itself.

8.4. Stakeholder Advantages of Stock-Based Finance

There are several advantages of stock-based finance for depositors, lenders, and governments.

8.4.1. The Depositor (The Investor)

Because the bank's overhead is paid by the lender, the depositor pays no management fees or commissions. This is a significant advantage over current no-fee brokerages that often have hidden costs like payment for order flow. Depositors do not need to move money between an investing app and a spending account. Their investment is their bank balance. They can pay for daily expenses directly from their stock-based wealth. By removing interest, the system becomes accessible to the unbanked and ethical/religious investors (such as the Islamic finance market) who refuse to participate in interest-based exploitation. Since there will be no fees, this will be very attractive for small savers also.

8.4.2. The Borrower

Instead of fighting an arbitrary interest rate, borrowers are taking a risk against a real industrial asset. This flexibility prevents the bankruptcies caused by rigid debt payments during a market downturn. If a borrower uses the capital to be more productive than the stock they are tied to, they keep the surplus. This encourages profit-seeking behavior and real innovation rather than just survival.

8.4.3. The State and Economy

Since the deposits are tied to real, market-valued assets, the government does not need to provide taxpayer-funded deposit guarantees. The state is no longer responsible for bailing out banks. This removes the moral hazard where banks take big risks knowing the government will save them. If a traditional interest-based bank fails, the stock-based system remains a stable as a self-sufficient alternative. By reducing the bureaucratic rent-seeking and financial rent-seeking of traditional banks, the economy runs in a more optimal state.

By tying banking directly to the stock exchange, the shareholder banking model helps to alleviate extreme volatility in the index. It creates a stronger link between the financial world and the real production economy.

In conclusion, stock-based finance moves us away from a debt-based illusion toward a production-based reality. It ensures that the growth of the economy is real, sustainable, and shared by those who provide the labor and the capital.

8.5. The Two-Sided Information Signal and Market Discovery

A unique advantage of shareholder banking is that it generates two-sided information. In the current system, only the bank knows who is borrowing and why. In the proposed system, every transaction sends a clear signal to the entire market.

This happens because of the opposing motivations of the two players. Investors only select stocks they believe will perform well. Their goal is to grow their wealth by picking the strongest assets. Borrowers will naturally try to borrow against stocks they believe are overvalued or will perform poorly. Because their debt is tied to the stock's price, if the stock drops, the real value of what they must pay back also drops.

This creates a signaling gap. For every stock, there will be a ratio between the money invested (depositors' choice) and the money borrowed (borrowers' choice). The amount of money that resides in the real stock exchange versus the amount borrowed for each stock carries very important information for the public. If depositors put a lot of money into Stock A, but borrowers refuse to borrow against it, it means the market consensus is that Stock A is very strong. The money stays in the real exchange, driving production. If borrowers rush to borrow against Stock B, it means they are betting against that stock. Even if depositors like Stock B, the borrowers' high demand signals that a correction is coming. As a result, borrowers' worse performing stock bet will always have to be against depositors' better performing stock bet.

In this way, banks' internal data becomes a public utility. Everyone can see where the smart money (investors) and the strategic hedgers (borrowers) are disagreeing. Borrowers will always look for the worst stock to use as a debt anchor, while investors seek the strongest performers. The intersection of these two forces creates a self-revealing truth that is impossible in an interest-based system.

8.6. Deterministic Stability instead of Discretionary Monetary Policy

From a technical perspective, the proposed system solves the human latency problem of modern macroeconomics. The Central Bank must collect data, meet in committees, and then change interest rates. This is a slow, computational process that is always lagging behind reality.

The proposed system is algorithmic and real-time. The money supply grows by a fixed mathematical rule. There is no need for committee meetings or data collection to set the

price of money. The mathematical brake (Section 6.3) works instantly. The moment a stock becomes too expensive, the loan becomes heavier for the borrower. There is no delay in the cooling of the economy.

By moving the economy from human-decision-based to rule-based, the political noise and the errors that lead to crises are removed.

8.7. Anti-Fragility through Sharded Architecture

Finally, this system provides anti-fragility through what we can call financial sharding. In the traditional system, all deposits are mixed into one giant pool. If one part of the pool becomes toxic, the whole bank (and the whole country) can catch the contagion.

In shareholder banking, the risk is decentralized and isolated. Every account is sharded by the stock selection. If Stock X fails, the loss is limited only to those who chose Stock X. Because the system is distributed, a failure in one sector cannot cause a systemic collapse of the entire currency.

The architecture itself is safe, so we no longer need the external protection of the state. We have moved from a single-point-of-failure system to a distributed truth system. This is the ultimate goal of a modern, production-oriented economy.

8.8. The Source of Capital

In the proposed model, the capital will migrate from several traditional areas because the incentives have changed.

Gold will be one of the primary sources of migration. In many countries, especially where inflation is high, people do not trust banks. They buy gold and hide it under the mattress. This is dead money because it does not help the production economy. Because the stock-based bank offers zero fees and the utility of a debit card. People can keep the hard asset (stocks) instead of gold but they gain the ability to spend it instantly. This unlocks billions in idle wealth.

Government bonds will be another source. Currently, many savers choose government bonds or interest-savings accounts because they want safety. However, as shown in Section 6.2, over a 120-month horizon, the S&P 500 carries similar risk to the prime rate but with double the return. In a system with constant-growth money supply, government bonds will no longer have the artificial support of the central bank. Savers will realize that holding a production asset (stock) is safer than holding a debt asset (bond) in a world where the government cannot print money to pay you back.

As well as other sources of migration, there will be a new investor base. Current brokerages have entry barriers such as fees, minimum balances, and complex apps. People who can only save a very small amount will also enter the market. Because there

is no cost for the depositor (paid by the borrower), people can finally become shareholders of the economy they build.

Existing stock investors moving to this bank model will not decrease stock values. When an investor moves their Apple stock from a brokerage to a shareholder bank, they are not selling the stock. They are simply changing the custodian. The demand for the stock remains on the exchange. By making stock investment zero cost and giving it bank utility (debit cards, bill pay), there will be millions of new people to buy stocks. Mathematically, this should increase the value of the stock exchange index, as more capital flows into the production economy.

In this hybrid system, interest-based and stock-based finance will live side-by-side. The market will select the winner through natural selection without government intervention. Initially, interest-based finance will likely remain heavier. This is due to institutional inertia. People are used to the old system and many large corporations have legacy debt that will take years to pay off. However, over 5 to 10 years, the share will shift because of the efficiency gap. Since the government no longer guarantees interest-based deposits, those banks must hold more capital and charge higher fees. The stock-based bank has lower overhead. In any market, the lower-cost provider eventually takes the lead. As a result, stock-based finance has the potential to take more than 50% of the market.

The government does not need to force the end of interest. By simply removing the unfair protection (deposit guarantees) from interest-based banks, the market will naturally move capital toward the more efficient, transparent, and productive stock-based system. The natural selection of the market will ensure that only the most productive finance model survives as the foundation of the economy.

9. Incentive Compatibility and the Nash Equilibrium Flip

Human agents are utility maximizers. They will always follow the path that provides the highest return for the lowest risk. We must look at the mathematical incentives to understand why our current economy is failing. This section provides a formal Game Theory model to prove why rent-seeking is the only rational choice today and how the proposed system flips this logic.

9.1. Modeling the Current Fiat and Interest-Based System

In the current system, an economic agent must choose between rent-seeking (S_R) such as lending for interest or hoarding land and profit-seeking (S_P) such as starting a company or innovating.

In the current system, the utility for profit-seeking is:

$$U(S_P) = (1 - \tau_i)R_P - \pi - C$$

The utility for rent-seeking is:

$$U(S_R) = i - \pi$$

where R_P is the gross return from a productive activity, τ_i is the tax rate on income/transfers (income tax, VAT), i is the risk-free interest rate from lending, π is the rate of inflation, C is the cost of innovation and effort (high for profit-seekers, near zero for rent-seekers).

If we look at the interaction between two agents (Agent A and Agent B):

Agent	*Profit-Seeking (S_P)*	*Rent-Seeking (S_R)*
Profit-Seeking (S_P)	$(1-\tau_i)R_P - \pi - C, (1-\tau_i)R_P - \pi - C$	$(1-\tau_i)R_P - \pi - C, i - \pi$
Rent-Seeking (S_R)	$i - \pi, (1-\tau_i)R_P - \pi - C$	$i - \pi, i - \pi$

In most modern economies, τ_i is high (30-50%) and C is significant. Because the government protects interest rates i, it is mostly true that:

$$i - \pi > (1-\tau_i)R_P - \pi - C$$

When this inequality holds, S_R is a dominant strategy. The Nash Equilibrium is for both agents to choose rent-seeking. Capital is trapped in passive assets because the system penalizes the effort of production.

9.2. Modeling the Proposed System

Now, let us apply the changes proposed in this thesis:

- Remove income/transfer tax: $\tau_i = 0$
- Apply wealth tax on assets: τ_w (e.g. 0.2% monthly)
- Stock-based finance: removes the risk-free interest i and shares the risk
- Constant-growth currency: π_{fixed} (e.g. 0.2% monthly)

Constant-growth money supply rate i.e. financial asset tax π_{fixed} and the wealth tax rate τ_w are set to be equal to create a uniform carrying cost of capital. From a game theory perspective, this removes regulatory arbitrage i.e. the tendency for agents to hide in one asset class because it is taxed less than another. These two rates might be set slightly different by the government due to temporary fluctuations in the economy.

$$\pi_{fixed} = \tau_w = k$$

In this new system, the utility for profit-seeking (production) becomes:

$$U(S_P) = R_P - k - C$$

The utility for rent-seeking (holding wealth) becomes:

$$U(S_R) = -k$$

Agent	*Profit-Seeking (S_P)*	*Rent-Seeking (S_R)*
Profit-Seeking (S_P)	$R_P - k - C, R_P - k - C$	$R_P - k - C, -k$
Rent-Seeking (S_R)	$-k, R_P - k - C$	$-k, -k$

In traditional Keynesian economics, a liquidity trap happens when people hoard cash because they are afraid of the future. In the proposed system, if the expansion rate equals the wealth tax, cash is no longer a safe haven. The agent cannot wait out the market in cash to avoid the wealth tax on their house. The cost of time is applied to every dollar and every brick equally.

The agent will choose (S_P) if:

$$U(S_P) > U(S_R)$$

$$R_P - k - C > -k$$

$$R_p > C$$

It means that in the proposed system, an agent will innovate whenever the return of innovation is greater than the cost of effort. The tax k actually disappears from the decision-making process of the innovator. It only exists as a penalty for wealth.

Bubbles happen when everyone rushes into one asset like gold or real estate to hide from inflation or taxes. Because the rates are equalized ($\pi_{fixed} = \tau_w$), there is no cheaper place to hide. This forces capital to stop looking for safety and start looking for utility.

This equality ($\pi_{fixed} = \tau_w$) creates an isomorphic incentive structure. It means the shape of the incentive is the same regardless of the asset type. Since the cost is fixed and known (e.g. 0.2%), there is less information asymmetry. Agents don't have to guess what the central bank will do next. This improves economic stability. Because $U(S_R)$ is always negative ($-k$), the velocity of capital must increase. Agents are mathematically forced to keep their capital moving into S_P (production) just to stay at zero. By making the expansion rate and the wealth tax rate identical, the economy is refactored from a complex patchwork of different taxes into a single, elegant systemic constant. This makes the Nash Equilibrium of production much more stable and harder to avoid.

9.3. Foreign Direct Investment, Exorbitant Privilege and Global Competition

In our current world, fiat currencies are unpredictable. Central banks change interest rates and money supply based on political needs. This creates high information uncertainty.

9.3.1. The Magnet Effect of Predictability

In the proposed system, the money growth is fixed by law (e.g. 0.1% or 0.2% monthly). Because the rate is constant and deterministic, the currency becomes extremely

attractive to global liquid assets. Even though there is a small carrying cost (the expansion), the predictability is a huge advantage. Investors hate surprises more than they hate small, known costs. A fixed system removes the inflationary surprise due to financial cycles that destroys wealth in other countries. This creates a magnet effect. Cash and liquid assets will flow into this currency because they know exactly what the value will be in 5 or 10 years. This stability is a safe haven for global capital.

9.3.2. Exorbitant Privilege in a Fixed Regime

Historically, exorbitant privilege referred to the U.S. Dollar's status as the global reserve currency. In this thesis, it is argued that a fixed, constant-growth (deterministic) currency provides a new kind of exorbitant privilege.

Because the government cannot devalue the money at will to pay its debts, the currency becomes harder than any fiat money. Because the currency is fixed and government expansion is limited by law, the risk of devaluation becomes zero. Foreign investors and domestic citizens will prefer to hold this currency because it is a reliable store of value. This high demand allows the state and private actors to borrow money more easily. Even with a wealth tax, people will want to stay in this system because the cost of uncertainty in other countries is much higher than the cost of tax in the proposed system.

9.3.3. Game Theory of the Safe Haven

If we look at the competition between the proposed system (System S) and a foreign fiat system (System F):

- **System F:** High potential returns but high uncertainty since inflation is unpredictable e.g. it can be 2% or 20%.
- **System S:** Known return of $-k$ (but with 0% income tax and 0% transfer tax).

Capital will stay in System S as long as:

$$Utility(S) > Utility(F) - Cost\ of\ Uncertainty$$

Because income and transfer taxes are removed, the net profit for a productive company is much higher in the proposed system. When the predictability of the money supply is added, the exorbitant privilege makes it the most rational place for the global capital to stay. The money stays because it is the most efficient and safe place to grow.

9.3.4. Impact on Foreign Direct Investment (FDI)

The proposed system is very friendly to FDI. Most foreign companies are afraid of currency risk when they invest in a new country. In a traditional system, a company might make a profit in local currency but lose everything when the currency is devalued. In the proposed system, the fixed growth rate removes this fear. By offering zero income tax and a predictable currency, the country becomes a production paradise. The wealth tax is

simply the subscription fee for living in a stable, high-performance economy. This ensures that the exorbitant privilege is used to build knowledge economy, real industry and factories not just to fuel a growth frenzy or bubbles.

The Game Theory proof shows that the current system is mathematically designed to encourage rent-seeking. Because the cost of doing nothing is zero or positive (interest), and the cost of doing something is high (taxes and risk), agents rationally choose to be extractive. By switching the tax to assets and removing it from labor and transfers, we change the incentive compatibility of the entire economy. The Nash Equilibrium shifts from hiding wealth to circulating wealth. Rational agents will choose to innovate and contribute to avoid the carrying cost of idle assets. This flip ensures that the self-interest of the individual finally aligns with the prosperity of the public. This is how we move from a rat race to a production economy without needing to change the human nature. It is also shown that this system will not cause exodus of capital and it will attract FDI due to exorbitant privilege thanks to fixed, predictable, deterministic, constant-growth money supply which is tied by laws.

10. Modelling (AI Agent Based Simulation)

An LLM agent-based modelling will be used to predict the effects of new policies.

11. The Transition

A major problem with many economic theories is that they require a revolution to start. This thesis proposes a realistic, two-phase transition that allows the market to adapt naturally without causing a financial collapse.

11.1. Phase One: The Side-by-Side Existence

In the first phase, stock-based finance is introduced as a new competitor to the traditional interest-based banks. The two systems will exist side-by-side in the same economy.

The conversion of existing debt should not be enforced. The lifecycle of capital should do the work itself. When a traditional time-deposit (CD) or savings contract ends, the person is free to move that money. Because the stock-based bank offers zero fees and direct production growth, many will naturally move their new deposits there. When a company pays off an old interest-based loan, they will look for new capital. They will see that the stock-based bank offers flexible repayment and shared risk.

Over time, the market share of these two systems will reach a natural balance. The stock-based finance may become the dominant choice for the production economy while interest-based banking shrinks into a niche product for low-risk speculators.

After reaching a natural balance, the government will no longer guarantee deposits in traditional interest-based banks. In the current system, banks take big risks because they

know the state will bail them out. This is moral hazard. By removing the guarantee, interest-based banks must now own 100% of their risk. They will have to charge higher fees or interest to cover this risk which makes them less efficient.

During this initial phase of side-by-side existence, the transformation of the national taxation system must also be carried out independently. Except for the financial asset tax, the core fiscal reforms proposed in this thesis should be deployed step-by-step and updated gradually to allow individuals, corporations and markets to adapt without structural shocks.

The state will introduce and phase in the monthly real estate tax and motor vehicle tax using real-time asset valuations. Concurrently, corporate tax will be updated to target total enterprise value instead of just accounting profits, while the flat import tax, ad tax, and sin taxes are introduced to steer capital toward innovation.

To protect low-income households from the shifting tax incidence, the constant negative tax transfer mechanism will be rolled out gradually alongside the real estate asset tax to act as an immediate automatic economic stabilizer.

All traditional taxes on productivity, transfers, and labor (including the regressive value-added tax (VAT), complex corporate profit brackets, and the income tax on labor) will be systematically removed and phased out in direct proportion to the revenues generated by the new asset-based tax base.

It is important to emphasize that the financial asset tax is strictly excluded from Phase One. Because a direct wealth tax on liquid financial assets under a traditional fiat regime can trigger capital flight, this specific tax is structurally delayed. The financial asset tax will be launched exclusively during the second phase.

11.2. Phase Two: The Constant-Growth Monetary Regime

The second phase involves a fundamental change to the nature of money itself. This phase moves the economy from a fiat regime to a constant-growth (deterministic) money supply.

11.2.1. The Central Bank

The central bank stops deciding interest rates or trying to predict the economy. Its only job is to execute the mathematical expansion of the money supply (e.g. 0.1% or 0.2% monthly). It becomes a purely technical institution that ensures the monetary algorithm is followed perfectly. The expanded amount of money will be transferred to the budget as a tax on assets in the form of national currency. The expansion rate will be exactly equal to the isomorphic tax rate.

11.2.2. The Treasury and Government

The Treasury can no longer ask the central bank to print money to cover a budget deficit. The government must live within its tax revenue. If there is a crisis, as discussed earlier, the government must borrow from the system and pay it back (destroy the money) in fixed installments.

This phase creates the predictability and exorbitant privilege as discussed earlier. It makes the currency a global safe haven because the supply is fixed by law.

11.2.3. Financial and Liquid Asset Tax

After switching to the constant-growth monetary regime, the financial and liquid asset tax mechanism is finally ready to be fully activated. In the Phase One of the transition, this specific tax is strictly excluded because applying a direct wealth tax on liquid money in a standard fiat regime will naturally cause a massive capital flight to foreign markets. However, in Phase Two, the money supply growth is fixed by law and expands deterministically at a constant, isomorphic rate. Because of this predictable algorithmic stability, the currency gets a new kind of exorbitant privilege and the capital does not want to run away to other countries anymore.

To make sure we have a comprehensive tax base without loopholes, the taxation logic works in two ways. First, we use the indirect taxation of cash. When the central bank executes the mathematical expansion of the money supply, this new money is transferred directly to the national budget. This programmatic expansion acts exactly as a soft tax on all physical and digital cash holders because it slightly dilutes the currency value. The rate of this expansion is equal to the isomorphic tax rate we apply to other assets, which allows us to collect tax without asking for individual reporting. Second, direct taxes are applied to the financial assets that just store wealth but do not create direct production, which includes gold, precious metals, crypto-assets, and government bonds. For foreign currencies, digital holdings in banks are taxed automatically by the system, while physical foreign cash needs mandatory reporting by the citizens.

A very critical rule in this framework is the prevention of double taxation. Therefore, corporate bonds and stocks are strictly excluded from this financial asset tax. These instruments represent the value of a company that is already paying the corporate tax based on its total enterprise value. Taxing the individual shareholder again for the same asset would be redundant and inefficient.

By completing this phase, the expansion rate of the money supply acts as an automatic, uniform carrying cost on cash. If a wealthy agent tries to liquidate their investments into cash, they are instantly hit by this programmatic expansion. It becomes impossible to hide dead wealth and capital is mathematically forced to enter the real production economy and stock-based finance to avoid melting against the systemic constant.

11.3. The Application of the Transition to the Turkish Economy

To demonstrate how the theoretical framework of this thesis functions in a real-world setting, the two-phase transition model is applied directly to the Turkish economy over an 11-year horizon. The simulation sets 2026 as the base zeroth year (Y_0). It relies on baseline data from the International Monetary Fund (IMF) and the Central Bank of the Republic of Türkiye (TCMB) and tracks the economy through 2036 (Y_{10}).

All monetary values are calculated and expressed in United States Dollars (USD) to ensure international comparability and neutralize fiat exchange rate noise except for the domestic Consumer Price Index (CPI) inflation rate which is reported in annual percentage changes.

The empirical objective of this transition model is to prove that an emerging economy trapped in chronic inflation, currency devaluation and financial speculation can systematically transition into a high-performance, self-balancing production economy. Every indicator has been modeled using macroeconomic flow-matching and stock-flow consistent (SFC) accounting methods to ensure that all national accounting identities clear with zero discrepancy across the public sector, the balance of payments and the private economy.

#	Macro Indicator	Unit	2026 (Y0)	2027 (Y1)	2028 (Y2)	2029 (Y3)	2030 (Y4)	2031 (Y5)
1	Nominal GDP	$B	1640.0	1665.0	1720.0	1805.0	1905.0	2010.0
2	Real GDP Growth Rate	%	3.4	1.0	2.5	4.0	4.6	4.5
3	Nominal GDP per Capita	$	18851	19029	19523	20350	21333	22358
4	Total Population	Millions	87.0	87.5	88.1	88.7	89.3	89.9
5	Working-Age Population	Millions	65.8	66.3	66.8	67.3	67.8	68.3
6	Old-Age Dependency Ratio	%	15.8	16.3	16.9	17.5	18.1	18.7
7	CPI Annual Inflation Rate	%	28.6	21.5	15.0	10.2	7.0	5.2
8	Total Factor Productivity (TFP) Growth	%	0.6	0.1	0.7	1.3	1.6	1.6
9	Real Prod. & Industrial Value Added / GDP	%	22.0	22.2	22.8	23.5	24.2	24.9
10	Domestic Investment Rate (I / GDP)	%	27.5	26.0	26.4	27.0	27.6	28.0
11	Domestic Savings Rate	%	25.67	24.86	25.7	26.72	27.7	28.45
12	Informal Economy Share / GDP	%	26.5	24.5	21.8	19.0	16.5	14.2
13	Required Reserve Ratio (RRR)	%	17.0	27.0	38.0	48.0	59.0	69.0
14	Money Multiplier	Ratio	4.2	3.3	2.55	2.05	1.68	1.44
15	Monetary Base	$B	150.0	200.0	270.0	355.0	460.0	575.0
16	Broad Money Supply	$B	630.0	660.0	688.5	727.8	772.8	828.0
17	Non-Budgetary Reserve Conversion Swap	$B	0.0	34.0	52.0	65.5	84.0	92.5
18	Velocity of Money	Ratio	2.6	2.52	2.5	2.48	2.47	2.43
19	Traditional Bank Real Lending Rate	%	8.5	9.5	8.2	7.0	6.2	5.6
20	Shareholder Banking Financing Share	%	0.0	1.54	4.46	9.48	16.02	23.36
21	Shareholder Bank. Matched Funds Vol.	$B	0.0	12.0	34.0	72.0	125.0	185.0
22	Sectoral Equity Pool Real Cost of Capital	%	-	7.0	6.4	5.9	5.4	5.0
23	BIST Market Capitalization	$B	380.0	400.0	455.0	535.0	640.0	760.0
24	Finance & Insur. Value Added Share / GDP	%	4.8	4.5	4.1	3.7	3.3	3.0
25	Household Interest-Bearing Debt / GDP	%	11.0	10.5	9.8	8.9	8.0	7.0
26	Corporate Interest-Bearing Debt / GDP	%	38.0	35.5	32.5	29.2	26.4	23.2
27	Funded Pension AUM in PTT	$B	0.0	10.0	25.0	46.0	74.0	108.0
28	Taxable Real Estate Base	$B	3000.0	2833.3	2800.0	2740.7	2764.7	2829.3
29	Effective Annual RET Rate	%/Yr	0.3	0.6	1.0	1.35	1.7	2.05
30	Taxable Motor Vehicle Base	$B	312.5	343.8	360.0	370.4	379.3	394.7
31	Effective Annual MVT Rate	%/Yr	0.8	1.6	2.5	2.7	2.9	3.04
32	Net Enterprise Value Base	$B	1550.0	1600.0	1818.2	2111.1	2449.0	2796.1
33	Effective Annual EVT Rate	%/Yr	0.0	1.25	2.2	2.7	2.94	3.04
34	Idle Financial/Liquid Asset Base	$B	-	-	-	-	-	-
35	Effective Financial Asset Tax Rate	%/Yr	0.0	0.0	0.0	0.0	0.0	0.0
36	Cumulative Idle Gold/FX Mobilization	$B	0.0	4.0	10.0	20.0	32.0	46.0
37	Total Government Revenue	$B	505.0	515.0	520.0	522.0	521.0	521.5

38	Government Revenue / GDP Ratio	%	30.79	30.93	30.23	28.92	27.35	25.95
39	Real Estate Tax Revenue	$B	9.0	17.0	28.0	37.0	47.0	58.0
40	Motor Vehicle Tax Revenue	$B	2.5	5.5	9.0	10.0	11.0	12.0
41	Enterprise Value Tax Revenue	$B	0.0	20.0	40.0	57.0	72.0	85.0
42	Financial/Liquid Asset Tax Revenue	$B	0.0	0.0	0.0	0.0	0.0	0.0
43	Seigniorage Transfer to Budget	$B	12.0	16.0	18.0	19.5	21.0	22.5
44	Ad Tax Revenue	$B	0.0	3.0	5.5	7.5	9.0	10.0
45	Sin Tax Revenue	$B	22.0	23.5	25.0	26.5	28.0	29.5
46	Flat Import Tax Revenue	$B	11.5	15.5	19.0	22.5	25.5	28.0
47	User-Pay Service Fees, Tolls & Leases	$B	65.0	70.0	75.5	81.0	87.0	93.0
48	Phased-Out Legacy Taxes	$B	383.0	344.5	300.0	261.0	220.5	183.5
49	Total Government Expenditure	$B	541.0	535.5	528.5	523.0	519.5	519.5
50	Government Expenditure / GDP Ratio	%	32.99	32.16	30.73	28.98	27.27	25.85
51	Total Negative Tax Transfer	$B	2.6	5.2	7.8	10.2	12.4	14.2
52	Rule-Based Social Support & Elderly Care	$B	26.4	29.3	28.2	26.8	25.6	24.8
53	Public Education System Spending	$B	58.0	58.5	59.5	60.5	61.5	63.0
54	Phased-Out Corporate/Energy Subsidies	$B	34.0	27.0	20.0	14.0	9.0	5.0
55	Legacy Unfunded Pension Payments	$B	116.0	113.0	110.0	106.5	103.0	99.5
56	Healthcare System Public Spending	$B	64.0	64.5	65.5	66.5	67.5	69.0
57	State Universities & Public R&D Spending	$B	6.0	8.0	10.5	13.5	16.5	19.5
58	Infrastructure Operations & Investment	$B	42.0	43.0	45.0	47.5	50.0	53.0
59	Central Gov. & Provincial Operations	$B	76.0	74.0	72.5	71.0	69.5	68.5
60	Defense, Aerospace & Security Spending	$B	42.0	42.5	43.0	44.0	45.0	46.0
61	Municipalities Expenditure	$B	42.0	42.0	42.0	42.0	42.0	42.0
62	Public Debt Interest Payments	$B	32.0	28.5	24.5	20.5	17.5	15.0
63	Government Budget Balance	$B	-36.0	-20.5	-8.5	-1.0	1.5	2.0
64	Total Government Debt Stock	$B	460.0	480.5	489.0	490.0	488.5	486.5
65	Government Debt to GDP Ratio	%	28.05	28.86	28.43	27.15	25.64	24.2
66	Labor Force Participation Rate	%	54.4	54.1	54.8	55.6	56.4	57.2
67	Total Employed Workforce	Millions	32.8	32.6	33.5	34.6	35.7	36.8
68	Headline Unemployment Rate	%	8.5	9.2	8.4	7.5	6.6	5.9
69	Youth Unemployment Rate	%	16.2	17.5	16.0	14.3	12.6	11.3
70	Average Monthly Net Wage	$	850	930	1040	1180	1350	1460
71	Median Monthly Net Wage	$	660	720	810	920	1060	1160
72	Employer Cost / Net Wage Multiplier	Ratio	1.68	1.5	1.34	1.19	1.06	1.05
73	Wage Labor Share of National Income	%	34.3	32.8	32.6	32.3	32.2	33.7
74	Disposable Income Gini Coefficient	0-1	0.43	0.43	0.42	0.4	0.39	0.38
75	Top 1% Wealth Share (Model A)	%	39.5	39.1	38.2	37.2	36.1	35.0
76	Top 0.1% Wealth Share (Model B)	%	18.5	18.2	17.6	16.9	16.1	15.4
77	National Real House Price Index	Base 100	100.0	94.0	86.0	79.0	74.0	71.0
78	Housing Affordability Index	Base 100	100.0	116.4	142.3	175.7	214.6	241.9
79	u-th Percentile Baseline House Price	$k	39.8	39.6	35.4	34.1	32.7	30.8
80	Unoccupied / Idle Housing Rate	%	8.5	7.8	7.0	6.1	5.3	4.6
81	Negative Tax per Capita	$/Year	29.9	59.4	88.5	115.0	138.9	158.0
82	Household Homeownership Rate	%	56.2	56.7	57.6	58.8	60.0	61.2
83	Active Registered Enterprises	Millions	3.5	3.4	3.55	3.75	3.95	4.15
84	Corporate R&D Spending	$B	12.0	13.0	15.5	19.0	23.5	28.5
85	Total R&D / GDP Ratio	%	1.1	1.26	1.51	1.8	2.1	2.39
86	Annual Domestic Patent Applications	Thousands	9.5	10.0	10.8	11.8	13.0	14.3
87	Total Goods Exports	$B	270.0	275.0	286.0	302.0	320.0	340.0
88	High-Tech Exports Share	%	4.5	4.8	5.3	6.0	6.8	7.7
89	Medium-High-Tech Exports Share	%	39.0	39.8	41.0	42.5	44.0	45.5
90	Total Goods Imports	$B	345.0	336.0	341.0	350.0	360.0	371.0
91	Energy Imports Bill	$B	65.0	62.0	58.5	55.0	51.5	48.0
92	Goods Trade Balance	$B	-75.0	-61.0	-55.0	-48.0	-40.0	-31.0
93	Net Services Balance (Tourism/Logistics/IT)	$B	60.0	58.0	60.0	62.0	63.0	64.0
94	Net Primary Income Balance	$B	-15.0	-16.0	-17.0	-19.0	-21.0	-24.0
95	Current Account Balance	$B	-30.0	-19.0	-12.0	-5.0	2.0	9.0
96	Net Foreign Direct Investment	$B	12.0	11.0	14.0	17.0	20.0	23.0
97	Central Bank Reserves (Gold & FX)	$B	155.0	157.0	161.0	167.0	175.0	184.0
98	Total Gross External Debt	$B	515.0	525.0	527.0	521.0	507.0	484.0

Table: Macro Indicators for the First 5 Years of the Transition

#	Macro Indicator	Unit	2032 (Y6)	2033 (Y7)	2034 (Y8)	2035 (Y9)	2036 (Y10)
1	Nominal GDP	$B	2115.0	2220.0	2325.0	2430.0	2540.0
2	Real GDP Growth Rate	%	4.3	4.1	3.9	3.8	3.8
3	Nominal GDP per Capita	$	23370	24396	25410	26413	27459
4	Total Population	Millions	90.5	91.0	91.5	92.0	92.5
5	Working-Age Population	Millions	68.8	69.3	69.8	70.2	70.6
6	Old-Age Dependency Ratio	%	19.4	20.1	20.8	21.5	22.2
7	CPI Annual Inflation Rate	%	4.0	3.0	2.2	1.5	1.0
8	Total Factor Productivity (TFP) Growth	%	1.5	1.5	1.4	1.4	1.4
9	Real Prod. & Industrial Value Added / GDP	%	25.5	26.0	26.5	26.9	27.2
10	Domestic Investment Rate (I / GDP)	%	28.4	28.6	28.8	29.0	29.0
11	Domestic Savings Rate	%	29.11	29.55	29.92	30.15	30.18
12	Informal Economy Share / GDP	%	12.5	11.0	10.0	9.2	8.5
13	Required Reserve Ratio (RRR)	%	79.0	90.0	100.0	100.0	100.0
14	Money Multiplier	Ratio	1.26	1.11	1.0	1.0	1.0
15	Monetary Base	$B	705.0	855.0	1020.0	1051.0	1083.0
16	Broad Money Supply	$B	888.3	949.1	1020.0	1051.0	1083.0
17	Non-Budgetary Reserve Conversion Swap	$B	106.0	124.5	138.0	0.0	0.0
18	Velocity of Money	Ratio	2.38	2.34	2.28	2.31	2.35
19	Traditional Bank Real Lending Rate	%	5.2	4.8	4.5	4.3	4.2
20	Shareholder Banking Financing Share	%	30.85	37.92	43.51	47.36	50.13
21	Shareholder Bank. Matched Funds Vol.	$B	250.0	320.0	385.0	435.0	480.0
22	Sectoral Equity Pool Real Cost of Capital	%	4.7	4.4	4.2	4.0	3.9
23	BIST Market Capitalization	$B	895.0	1040.0	1195.0	1355.0	1520.0
24	Finance & Insur. Value Added Share / GDP	%	2.7	2.5	2.3	2.2	2.1
25	Household Interest-Bearing Debt / GDP	%	6.0	5.1	4.3	3.7	3.2
26	Corporate Interest-Bearing Debt / GDP	%	20.5	18.5	17.2	16.2	15.6
27	Funded Pension AUM in PTT	$B	148.0	194.0	245.0	300.0	360.0
28	Taxable Real Estate Base	$B	2916.7	3000.0	3103.4	3233.3	3355.3
29	Effective Annual RET Rate	%/Yr	2.4	2.7	2.9	3.0	3.04
30	Taxable Motor Vehicle Base	$B	411.2	427.6	444.1	453.9	460.5
31	Effective Annual MVT Rate	%/Yr	3.04	3.04	3.04	3.04	3.04
32	Net Enterprise Value Base	$B	3125.0	3453.9	3782.9	4078.9	4342.1
33	Effective Annual EVT Rate	%/Yr	3.04	3.04	3.04	3.04	3.04
34	Idle Financial/Liquid Asset Base	$B	600.0	666.7	750.0	846.2	921.1
35	Effective Financial Asset Tax Rate	%/Yr	0.5	1.2	2.0	2.6	3.04
36	Cumulative Idle Gold/FX Mobilization	$B	62.0	80.0	98.0	116.0	135.0
37	Total Government Revenue	$B	524.0	528.5	532.5	538.0	520.0
38	Government Revenue / GDP Ratio	%	24.78	23.81	22.9	22.14	20.47
39	Real Estate Tax Revenue	$B	70.0	81.0	90.0	97.0	102.0
40	Motor Vehicle Tax Revenue	$B	12.5	13.0	13.5	13.8	14.0
41	Enterprise Value Tax Revenue	$B	95.0	105.0	115.0	124.0	132.0
42	Financial/Liquid Asset Tax Revenue	$B	3.0	8.0	15.0	22.0	28.0
43	Seigniorage Transfer to Budget	$B	24.0	25.5	27.0	31.0	32.0
44	Ad Tax Revenue	$B	10.8	11.5	12.0	12.5	13.0
45	Sin Tax Revenue	$B	31.0	32.5	34.0	35.0	36.0
46	Flat Import Tax Revenue	$B	30.5	32.5	34.5	36.5	38.0
47	User-Pay Service Fees, Tolls & Leases	$B	99.0	105.5	112.0	118.5	125.0
48	Phased-Out Legacy Taxes	$B	148.2	114.0	79.5	47.7	0.0
49	Total Government Expenditure	$B	522.0	526.5	530.5	536.0	518.0
50	Government Expenditure / GDP Ratio	%	24.68	23.72	22.82	22.06	20.39
51	Total Negative Tax Transfer	$B	15.6	16.8	17.6	18.2	18.5
52	Rule-Based Social Support & Elderly Care	$B	24.4	24.2	23.9	23.8	23.5
53	Public Education System Spending	$B	64.5	66.0	67.5	69.0	70.0
54	Phased-Out Corporate/Energy Subsidies	$B	2.5	1.0	0.0	0.0	0.0
55	Legacy Unfunded Pension Payments	$B	96.0	92.5	89.0	85.5	82.0
56	Healthcare System Public Spending	$B	70.5	72.0	73.5	75.0	76.0
57	State Universities & Public R&D Spending	$B	22.5	25.5	28.0	30.0	32.0
58	Infrastructure Operations & Investment	$B	56.0	59.0	62.5	66.0	78.0
59	Central Gov. & Provincial Operations	$B	68.0	68.0	68.0	68.0	80.0
60	Defense, Aerospace & Security Spending	$B	47.0	48.0	48.5	49.5	50.0
61	Municipalities Expenditure	$B	42.0	42.0	42.0	42.0	0.0
62	Public Debt Interest Payments	$B	13.0	11.5	10.0	9.0	8.0
63	Government Budget Balance	$B	2.0	2.0	2.0	2.0	2.0
64	Total Government Debt Stock	$B	484.5	482.5	480.5	478.5	476.5
65	Government Debt to GDP Ratio	%	22.91	21.73	20.67	19.69	18.76

66	Labor Force Participation Rate	%	57.9	58.5	59.0	59.5	60.0
67	Total Employed Workforce	Millions	37.7	38.5	39.3	39.9	40.5
68	Headline Unemployment Rate	%	5.4	5.0	4.7	4.5	4.4
69	Youth Unemployment Rate	%	10.4	9.6	9.0	8.7	8.5
70	Average Monthly Net Wage	$	1560	1660	1750	1830	1900
71	Median Monthly Net Wage	$	1250	1340	1420	1490	1550
72	Employer Cost / Net Wage Multiplier	Ratio	1.04	1.03	1.02	1.01	1.0
73	Wage Labor Share of National Income	%	34.7	35.6	36.2	36.4	36.4
74	Disposable Income Gini Coefficient	0-1	0.37	0.36	0.35	0.34	0.33
75	Top 1% Wealth Share (Model A)	%	34.0	33.1	32.3	31.4	30.5
76	Top 0.1% Wealth Share (Model B)	%	14.7	14.1	13.6	13.2	12.8
77	National Real House Price Index	Base 100	69.0	68.0	68.0	68.0	68.0
78	Housing Affordability Index	Base 100	266.0	287.2	302.8	316.6	328.7
79	u-th Percentile Baseline House Price	$k	28.7	27.4	26.5	26.4	26.3
80	Unoccupied / Idle Housing Rate	%	4.0	3.6	3.3	3.1	3.0
81	Negative Tax per Capita	$/Year	172.4	184.6	192.3	197.8	200.0
82	Household Homeownership Rate	%	62.3	63.3	64.2	64.9	65.5
83	Active Registered Enterprises	Millions	4.35	4.55	4.7	4.85	5.0
84	Corporate R&D Spending	$B	33.5	38.5	43.0	47.5	52.0
85	Total R&D / GDP Ratio	%	2.65	2.88	3.05	3.19	3.31
86	Annual Domestic Patent Applications	Thousands	15.7	17.2	18.8	20.4	22.0
87	Total Goods Exports	$B	360.0	380.0	400.0	419.0	438.0
88	High-Tech Exports Share	%	8.7	9.7	10.7	11.6	12.5
89	Medium-High-Tech Exports Share	%	47.0	48.5	50.0	51.3	52.5
90	Total Goods Imports	$B	382.0	393.0	404.0	417.0	430.0
91	Energy Imports Bill	$B	45.5	43.0	41.0	39.5	38.0
92	Goods Trade Balance	$B	-22.0	-13.0	-4.0	2.0	8.0
93	Net Services Balance (Tourism/Logistics/IT)	$B	65.0	66.0	67.0	68.0	69.0
94	Net Primary Income Balance	$B	-28.0	-32.0	-37.0	-42.0	-47.0
95	Current Account Balance	$B	15.0	21.0	26.0	28.0	30.0
96	Net Foreign Direct Investment	$B	26.0	29.0	31.0	33.0	35.0
97	Central Bank Reserves (Gold & FX)	$B	194.0	205.0	216.0	228.0	240.0
98	Total Gross External Debt	$B	453.0	414.0	368.0	319.0	266.0

Table: Macro Indicators for the Last 5 Years of the Transition

11.3.1. Core Modeling Assumptions

The simulation relies on specific structural rules and institutional timelines.

11.3.1.1. The Isomorphic Tax Constant

In the theoretical chapter, it was proven that to eliminate regulatory arbitrage and rent-seeking, the holding cost across all capital assets must be identical ($k = \pi_{fixed} = \tau_w$). For the Turkish economy, this isomorphic rate is set to 0.25% per month. When annualized, this produces a structural holding cost of:

$$(1 + 0.0025)^{12} - 1 \approx 3.04\% \, per \, year$$

Every asset class (real estate, motor vehicles, net corporate enterprise value, liquid and financial assets) gradually converges to this uniform annual rate of 3.04%.

11.3.1.2. Phased Asset Taxation

To prevent structural economic shocks, the tax reform is divided into calibrated phase-in and phase-out schedules.

- **Real Estate Tax:** Increases from a nominal starting level of 0.30% per year to the target isomorphic rate of 0.25% per month (3.04% annually) linearly over 10 years. Due to tax capitalization and the 32% real correction in housing prices, the taxable

real estate base initially contracts from $3,000.0B to $2,740.7B in Year 3 before expanding to $3,355.3B by Year 10 as idle land is developed into residential and industrial units, generating $102.0B in revenue. Property valuations are updated monthly via algorithmic machine learning models using real-time land registry, transaction history and geospatial satellite data.

- **Motor Vehicle Tax (MTV):** Transitions to the 3.04% annualized rate by Year 5, adjusting continuously via AI valuation as vehicles depreciate, yielding $14.0B on a $460.5B asset base by Year 10.
- **Net Corporate Enterprise Value (EV) Tax:** Phases in over 5 years to reach the 3.04% annualized rate. The tax base is the total enterprise valuation (debt plus equity) minus physical real estate and motor vehicles to prevent double taxation (reaching $4,342.1B in Year 10 and generating $132.0B in revenue). Because the collective labor and human capital of employees are already embedded within the enterprise value of the firm and equity shares are taxed at the corporate source, neither employees nor shareholders are subjected to personal income or dividend taxes. For non-listed SMEs and professional practices, a three-tier valuation architecture is deployed: (i) real-time AI valuation based on banking transaction flows, POS data, e-invoicing networks and supply-chain graphs for large and medium enterprises, (ii) a Harberger self-assessed valuation mechanism for innovative SMEs where under-declaration triggers automatic partial acquisition or audit rights and (iii) rule-based sector multiplier formulas for micro-enterprises.
- **Complete Abolition of Legacy Taxes and Payroll Deductions:** All traditional taxes on labor, corporate profits and transactions, specifically Personal Income Tax (PIT), Corporate Income Tax (CIT), Value-Added Tax (VAT), Special Consumption Tax (SCT/ÖTV) and Social Security (SGK) payroll deductions totaling $383.0B in Year 0, are systematically phased out and reach $0.0B in Year 10. To prevent the state from draining private liquidity, the budget balance is anchored to a near-zero structural surplus of +$2.0B (0.08%–0.10% of GDP) from Year 5 onward.
- **Ad Tax, Sin Tax, and Flat Import Tax:** A corrective tax on advertising expenditures ($13.0B) phases in to curb brand rent-seeking and redirect capital toward R&D. Corrective sin taxes on tobacco, alcohol and ultra-processed foods ($36.0B) internalize public healthcare externalities. A uniform flat tariff on imported goods ($38.0B) prevents foreign jurisdictions with zero corporate asset taxes from undercutting domestic producers.

11.3.1.3. Social Security (SGK) and Pension Restructuring

All social security (SGK) payroll deductions from workers and employers are gradually eliminated. Every citizen is provided an individual funded retirement savings account

within the sole remaining state bank PTT (reaching $360.0B AUM by Year 10). Contributions are voluntary and exempt from the financial asset tax up to a statutory ceiling.

Entrance into the legacy pay-as-you-go pension system is terminated while the state honors its constitutional obligations to existing retirees. Reflecting realistic demographic mortality and Turkey's relatively young retiree cohort, legacy unfunded pension payments decline gradually on an actuarial path from $116.0B in Year 0 to $82.0B in Year 10.

Because employers no longer pay payroll taxes or income tax withholdings, gross salaries convert directly into take-home net wages (the employer-cost-to-net-wage multiplier falls from 1.68 to 1.00). Crucially, this also eliminates the public sector tax self-loop. In the baseline system, roughly 40% of gross civil servant salaries (teachers, doctors, military personnel) and 20% of public procurement outlays returned to the Treasury as payroll, income and VAT taxes. By budgeting on a net-of-tax basis, the state expands real physical infrastructure, healthcare, education and net dollar salaries for public employees while nominal public expenditure falls from 32.99% of GDP ($541.0B) to 20.39% of GDP ($518.0B).

11.3.1.4. The Negative Tax Formulation

To shield low-income households from the incidence of the rising real estate tax, an automated negative tax transfer is deployed:

$$Negative\ Tax\ per\ Capita = \frac{P_{house}(u) * \tau_{RE}}{4}$$

- u: the unemployment rate
- $P_{house}(u)$: the market price of a residential housing unit situated at the exact u-th percentile of national housing values
- τ_{RE}: the active annualized real estate tax rate for that simulation year
- 4 is the standardized household size assumption

Alongside the housing negative tax ($18.5B), a dedicated rule-based social support, elderly and disability care floor ($26.4B in Y0, stabilizing at $23.5B in Y10) guarantees a dignified survival floor for vulnerable citizens unable to work.

11.3.1.5. Monetary Reform

The required reserve ratio of commercial banks is raised from 17.0% to 100.0% over 8 years, compressing the money multiplier from 4.20 to 1.00 and ending fractional-reserve credit creation. During Years 1–8, the expansion of the monetary base consists of non-budgetary reserve conversion swaps that replace private bank credit money and net budgetary seigniorage transfers.

Stock-based finance (Shareholder Banking) is introduced in Year 1 alongside traditional banking. As state deposit insurance is removed from interest-bearing banks, capital migrates naturally toward zero-fee equity-backed accounts, capturing 50.13% of total domestic financing ($480.0B matched volume) by Year 10.

At the conclusion of Year 8, the banking sector reaches a 100% reserve ratio and formally enters Phase Two. The central bank ceases interest-rate setting and expands base money ($M0 = M2$) at the constitutional rate of 0.25% per month (3.04% per year), transferring $32.0B annually to the budget. To avoid a sudden regulatory cliff in Year 9, the direct tax on financial and liquid assets (gold, uninvested FX, government bonds) phases in gradually starting in Year 6 at 0.50% once reserve ratios exceed 75%, converging smoothly to the 3.04% isomorphic rate in Year 10 ($28.0B).

11.3.1.6. Administrative Rationalization and University R&D Scaling

In Year 10, all 1,393 municipal governments are abolished, consolidating local administration under appointed provincial governors and transferring scale-intensive utilities (water, transit, roads) to central ministries. This consolidation reduces combined administrative and infrastructure spending from $176.0B in Year 9 ($66.0B Infrastructure + $68.0B Central Gov + $42.0B Municipalities) to $158.0B in Year 10 ($78.0B Infrastructure + $80.0B Central Gov), extracting $18.0B in net annual economies of scale. Simultaneously, corporate rent-seeking subsidies are eliminated, while public R&D funding through state universities is scaled more than fivefold from $6.0B to $32.0B.

11.3.2. Detailed Analysis of the Transition

The results of the 11-year simulation are presented across the two 5-year transition tables in this chapter. Below is the detailed explanation of the causal mechanisms driving these macroeconomic paths.

11.3.2.1. Economic Growth

Nominal GDP increases from $1,640.0B in 2026 to $2,540.0B in 2036 while GDP per capita rises from $18,851 to $27,459. Accounting for realistic transition frictions as fractional-reserve credit tightens and rent-seeking enterprises restructure, real GDP growth experiences a mild J-curve adjustment in Year 1 (1.0%) and Year 2 (2.5%). From Year 3 onward, the rapid elimination of payroll and transaction taxes shifts aggregate supply outward, accelerating real growth to 4.6% in Year 4 before settling at a sustainable long-run path of 3.8% - 4.3%. Consequently, the financial sector's extractive value-added share shrinks from 4.8% to 2.1% of GDP while real industrial and production value added expands from 22.0% to 27.2% of GDP.

11.3.2.2. Inflation

CPI inflation falls from 28.6% in 2026 to 2.2% in Year 8 and stabilizes at 1.0% by Year 10. Under the equation of exchange ($M * V = P * Y$), raising required reserves to 100% and

eliminating fiscal deficits break chronic inflation expectations during Phase One, gradually lowering M2 velocity from 2.60 to 2.28. In Years 9 and 10, the activation of the 3.04% carrying cost on liquid holdings re-accelerates velocity modestly to 2.35 as idle cash circulates into productive PTT retirement funds and Borsa Istanbul equities. With broad money growing at 3.04% and real output expanding at 3.8%, mild service-sector price stickiness yields a stable 1.0% headline inflation rate without triggering a Keynesian demand-collapse deflation.

11.3.2.3. Labor Market

Following a temporary uptick to 9.2% in Year 1 due to the credit J-curve, the headline unemployment rate falls steadily below the 5% threshold in Year 8 (4.7%) and reaches 4.4% in Year 10 which is the structural frictional boundary (NAIRU). Youth unemployment drops from 16.2% to 8.5%. In accordance with the capital valuation of labor, phasing out income taxes and SGK deductions reduces the employer-cost multiplier from 1.68 to 1.00. Average monthly net wages rise from $850 to $1,900 (and median net wages from $660 to $1,550), absorbing 7.7 million additional workers into formal employment (from 32.8M to 40.5M) and reducing the informal economy from 26.5% to 8.5% of GDP.

11.3.2.4. Real Estate Market and Wealth De-Concentration

The monthly 0.25% (3.04% annualized) real estate tax penalizes speculative hoarding, driving the unoccupied housing rate down from 8.5% to 3.0% and lowering the National Real House Price Index by 32% (from 100.0 to 68.0). Combined with rising net wages, the Housing Affordability Index surges from 100.0 to 328.7, lifting the homeownership rate from 56.2% to 65.5%.

The Negative Tax per capita scales strictly by formula. in Year 0, the baseline house price at the 8.5th percentile is $39,800 and the effective tax rate is 0.30%, yielding an annual tax of $119.4 and a per-capita transfer of $29.9/year ($2.6B total transfer). By Year 10, the baseline house price at the 4.4th percentile adjusts to $26,316 under the full 3.04% isomorphic tax, producing an annual tax of $\$26{,}316 * 0.0304 = \$800.0$ and a per-capita transfer of $200.0/year (totaling $18.5B across 92.5M citizens). Consistent with the empirical findings of Section 6.2, eliminating financial repression and taxing idle wealth reduces the Top 1% wealth share from 39.5% to 30.5% and the Top 0.1% wealth share from 18.5% to 12.8% while the disposable income Gini coefficient improves from 0.43 to 0.33.

11.3.2.5. Innovation, Positive Goods Trade Balance and External Debt Reduction

Driven by the expansion of state university R&D ($32.0B) and corporate R&D reallocations ($52.0B), total R&D spending rises from 1.10% to 3.31% of GDP while domestic patent applications more than double from 9.5 thousand to 22.0 thousand per year.

Consequently, strict ISIC high-tech exports climb from 4.5% to 12.5% of goods exports and medium-high-tech exports (automotive, electrical machinery, chemicals) expand from 39.0% to 52.5%.

Total goods exports grow from $270.0B to $438.0B while goods imports moderate at $430.0B in Year 10 due to three structural factors: (i) national infrastructure electrification reducing the energy import bill from $65.0B to $38.0B, (ii) the flat import tariff leveling the playing field for domestic intermediate input producers and (iii) funded PTT pension savings curbing debt-fueled luxury import consumption. As a result, Turkey's chronic goods trade deficit (-$75.0B in Y0) turns into a structural surplus of +$2.0B in Year 9 and +$8.0B in Year 10:

$$Goods\ Trade\ Balance = +\$8B$$

$$Net\ Services\ Balances\ (Tourism, Logistics\ and\ IT) = +\$69B$$

$$Net\ Primary\ Income\ (External\ Debt\ Interest\ \&FDI\ Profit\ Repatriation) = -\$47B$$

$$Current\ Account\ Balance = 8 + 69 - 47 = +\$30B\ (1.2\%\ of\ GDP)$$

Supported by $35.0B in annual net FDI inflows and sustained current account surpluses, gross external debt falls from $515.0B (31.4% of GDP) to $266.0B (10.5% of GDP) while Central Bank gold and FX reserves rise from $155.0B to $240.0B.

11.3.2.6. Public Finance and Sovereign Debt Sustainability

The government budget completely eliminates $383.0B in distortionary income, corporate profit, VAT, SCT and SGK payroll taxes ($0.0B in Y10), replacing them with isomorphic asset taxes ($276.0B), seigniorage ($32.0B), corrective taxes ($87.0B) and user-pay infrastructure revenues ($125.0B). The fiscal balance transitions from a -$36.0B deficit (-2.20% of GDP) in 2026 to a steady, near-zero balanced budget surplus of +$2.0B (0.08% of GDP) from Year 5 through Year 10, reducing the public debt-to-GDP ratio from 28.05% to 18.76% and cutting annual interest payments from $32.0B to $8.0B.

11.4. The Flexibility of the Reform

It is important to note that phase two is not mandatory**.** The majority of the benefits from this thesis, such as the wealth tax on real estate and motor vehicles, the removal of income tax, and the growth of stock-based finance, can all be achieved during phase one.

Even with a traditional fiat currency, the shift from rent-seeking to profit-seeking will make the economy much more efficient. The only part of the reform that requires the phase two is the indirect financial wealth tax. This specific tax is only possible when the money supply growth is fixed and deterministic.

If a country is not ready for a monetary revolution, it can stay in the phase one indefinitely. However, the phase two is the final step to completely remove the "second-hand smoke"

of inflation and to fully capture the exorbitant privilege of a stable, production-based currency.

12. Gerontocratic Social Contract

One of the most dangerous challenges for the modern economy is the aging population or the gerontocratic shift. In many developed and developing countries, the demographic pyramid is flipping. There are fewer young workers and more elderly people who have retired. This creates a deep intergenerational conflict that the current financial system cannot solve.

12.1. The Failure of the Current Contract

In our current debt-based and inflationary system, the social contract is effectively robbing the young to support the old. This happens through three main channels:

12.1.1. Housing Inflation

Elderly generations often own most of the real estate. Because interest rates have been low and inflation high, property prices have skyrocketed. Young people are forced to take massive, life-long debts just to buy a home from the older generation. They become rent slaves or debt slaves to pay for the assets of the past.

12.1.2. The Pension Burden

Most social security systems are pay-as-you-go. As the population ages, the tax burden on the shrinking young labor force increases to pay for the pensions of the growing elderly population. This reduces the profit-seeking potential of the young.

12.1.3. Inflationary Erosion

While the elderly often have their wealth protected in real estate or gold, the young see their purchasing power destroyed by inflation before they can even start to build assets.

12.2. The Solution

This thesis proposes a new social contract based on a circular flow of wealth. Instead of taxing the income of the young (labor), the assets of the economy (wealth) are taxed. This allows the elderly to be supported by the productivity of the system instead of being supported by the misery of the young.

12.2.1. Real Estate Tax

The monthly wealth tax on real estate acts as a natural limit on property bubbles. Because there is a carrying cost to owning property, real estate is no longer a perfect place to hoard wealth. This lowers the entry price for housing. Young people can afford homes earlier in life without taking years of debt. The wealth of the older generation is still there but it is forced to be productive (rented out or sold) rather than static.

12.2.2. The Constant-Growth Currency

The monthly growth in the money supply creates a transparent and automatic revenue stream as a financial asset tax. It funds a universal negative tax or a social floor. This floor provides a dignified life for the elderly. They are supported by the programmatic expansion of the currency and the wealth tax on large accumulations. Because the income tax is zero, the young keep 100% of their production. They have more capital to innovate, start families and drive the economy forward.

12.3. Balancing the Lifecycle

In this system, the relationship between the generations changes from extraction to harmony. The young enter an economy with low housing prices, no income tax, and high mobility. They are encouraged to be profit-seekers. The elderly live in a stable society where their basic needs are met by the circular flow of the system. They don't need to hope for a real estate bubble to survive their retirement. The fiscal weight of the aging population is handled by the asset-based wealth tax instead of increasing the tax on a shrinking labor pool.

By shifting the tax base from the activity of the young to the assets of the economy, the intergenerational conflict is solved. We ensure that the elderly are supported by the privilege of a stable, production-based system while the youth are given the freedom to reach their full potential. This is a viable way to maintain a stable social contract in a world where the population is no longer growing.

13. The Role of Government

For an economy to move from rent-seeking to production, the government must change its role. Instead of trying to do everything, the government should focus on providing a strong foundation while allowing the private sector to handle operations and innovation where efficiency is needed.

13.1. Healthcare and Education

Human-oriented sectors like healthcare and education are different from other markets. In these areas, the private sector often focuses on perceived value (marketing and profit) rather than real value (human health and learning). If we leave these solely to the private sector, there is a risk that citizens are treated as customers to be exploited rather than humans to be served.

Healthcare should be independent of the private sector to ensure a human-centered approach. While private clinics can exist, the state should not buy services from them. Buying services from private hospitals is not cost-efficient and makes it very difficult to inspect the quality of care.

The state should prioritize preventive healthcare. It is much cheaper and more ethical to prevent a disease than to treat it later.

A flat, equal, and constant payment should be taken from every citizen or constant rate of wealth tax should be increased to fund a national health insurance system. This ensures that everyone has basic security without the complexity of private insurance.

13.2. Labor Market

Minimum wages are often price floors that do not account for the different needs of different industries. In this new system, the minimum wage should be abolished.

To support the no income tax pillar, there should not be any deduction from a worker's labor income. This ensures that labor is not miserable and has the collective power to reach its best potential.

13.3. Infrastructure and Strategic Privatization

The state should be the owner of the hardware of the country but the private sector should run the software.

- **Nationalized Infrastructure:** Critical assets like electricity grids, water systems, roads, railroads, and airports should be nationalized. These are natural monopolies and private ownership often leads to rent-seeking.
- **Privatized Operation:** While the state owns the infrastructure, the operation should be privatized. For example, flag carrier airlines should be privatized. The government should focus on building the airport instead of running the airline.
- **Banking and Housing:** National companies like TOKİ (housing) and large state banks (Ziraat, Halkbank, etc.) should be privatized. These state companies are no longer needed because the real estate tax and negative tax solve the housing problem and stock-based finance solves the banking problem.
- **The Single State Bank:** Only one national bank (like PTT in Turkey) should be kept. Its goal is to provide basic logistics and banking services to every corner of the country at an affordable cost and to manage pension accounts.

13.4. Pension Reform

Current unfunded pension systems are built on an intergenerational contract that has failed. One generation has betrayed the next by using pensions for political populism. In these systems, people try to pay the minimum and get the maximum which creates a massive efficiency loss.

- **Funded Pension Systems:** We must switch to funded systems (like the 401k or IRA). People must pay for their own future directly. This tames excessive

consumerism and helps solve the trade deficit because people are saving for their own future instead of relying on the government.

- **Monetary Growth Integration:** Pension accounts should be protected. In a constant-growth money supply regime, the government should expand the money in each pension account by the same percentage as the general money supply up to a certain amount. This protects the real value of the pensioner's savings.
- **Wealth Tax Exemption:** To encourage long-term thinking, pension accounts up to a certain limit should be excluded from the financial wealth tax.

13.5. Research, Development, and Local Interaction

Direct government incentives to companies are often useless and lead to corruption or waste.

The government should provide incentives through universities. Universities should be given expanded budgets to be spent by academics in collaboration with private companies. This ensures that research is tied to real-world production.

Local government officers should act as connectors. They should initiate networking between academics, business owners, and local leaders. These meetings should focus on two things: collecting voluntary support for the poor and creating business collaborations. This improves the interaction and cooperation in the local economy, creating new business opportunities through trust and networking.

13.6. Centralization vs. Decentralization

In any governance system, the state must decide where to act as a single, central manager and where to act as a small supporter of many local actors. It is proposed that the choice between centralization and decentralization should be based on a simple rule: centralize for scale, decentralize for search.

13.6.1. The Case for Centralization (Scale)

Centralization is most efficient when the objective is clear and the primary goal is to reach maximum efficiency through size. This is true for infrastructure. For example, in building roads, water utilities, or electricity grids, we already know what needs to be done. The challenge is implementation at a massive scale rather than discovery.

By centralizing infrastructure investment, the state can ensure every citizen receives the same level of service. It will be possible to use the massive buying power of the state to get better prices on materials and technology. It will avoid the duplication of efforts that happens when many small local groups try to build separate and incompatible systems.

13.6.2. The Case for Decentralization (Search)

However, centralization is often a failure when the path forward is not obvious. In areas like scientific research, high-tech development, or local economic problems, we are in a search phase. We do not yet know which idea will be the most productive.

If the state centralizes search activities, a single mistake at the top can lead to a national failure. For example, each university and academic team should have the freedom to try different paths. This competition of ideas ensures that the best solutions are found faster. Another example is finding solutions to local problems. Local leaders and governors understand their specific city's needs better than a central bureaucrat. Decentralization allows for experimentation at the local level.

By following this logic, the government avoids the trap of trying to micro-manage innovation while ensuring that the macro-foundation (infrastructure) of the economy is strong and efficient. This balance allows the government to support a production-based economy without stopping the creative freedom necessary for growth.

13.7. Municipalities

In the current political system, municipalities are often defended as the closest government to the people. However, from the perspective of economic efficiency and systemic stability, municipalities have become a redundant bureaucratic layer. They create fragmentation in public services, increase the cost of operation, and often act as local centers for political rent-seeking.

To achieve a true production-based economy, we must minimize bureaucratic friction. Therefore, this thesis proposes that all municipal governments should be abolished and their duties must be transferred directly to the related central ministries and local state governors.

Municipalities are frequently the weakest link in the fight against corruption. Because local mayors and city councils need to finance their re-election campaigns, the municipal system naturally encourages favoritism. Local politicians use zoning laws, construction permits and city contracts to reward their political supporters. This creates a micro-level rent-seeking economy where businesses compete to win the favor of the mayor instead of competing to provide the best service.

By closing municipalities and handing their administrative duties to appointed local governors who act as direct representatives of the state, we remove the local political pressure. The governor does not need to distribute local tenders to win an election. This structural change cuts off the roots of local corruption and ensures that city management is based on technical merit.

As established in the Centralization vs. Decentralization section, the government should centralize when scale is more important than search. Almost all duties of a municipality

are pure scale problems such as water utilities, waste management, public transportation, road construction, etc.

When a country divides its water or road management into hundreds of independent municipalities, it loses massive efficiency. A single municipality buying asphalt or water pipes pays a high price. If the central ministry of infrastructure buys for the entire country, the economies of scale reduce the cost dramatically. Fragmented municipalities often build systems that do not work well with neighboring cities which creates a chaotic national map. A local municipality does not have the financial power to solve a massive structural crisis like a regional drought or a major earthquake preparation.

When infrastructure is elevated to the state scale, the central ministries have the financial and technical power to take decisive action against public problems.

Abolishing municipalities does not mean ignoring local problems. It means solving local problems with state-level power and efficiency. The local governor will act as the sensor who reports the needs of the city and the central ministries will act as the engine that delivers the solution.

By removing the municipal layer, we eliminate a massive source of wasted tax money and local corruption. The state becomes leaner, faster and much more capable of providing high-quality, standardized services to every citizen regardless of which city they live in.

14. Uncompromised Balance of Powers

Separation of powers is utilized in many modern democratic countries but the current implementation is far from perfect. In many systems, political parties allow the executive branch to dominate the legislature while politicians control the appointment of judges. Many of the radical economic policies suggested in this thesis such as the uniform wealth tax and the stock-based financial framework can theoretically be implemented by a powerful leader or government. However, they need an uncompromised separation and balance of powers to be maintained, protected and improved in a healthy way. Without this deep institutional shield, these rules can easily be reverted by populist leaders and opportunistic governments who seek short-term power at the absolute cost of the public good.

To protect the economic architecture from this political capture, this thesis proposes that the legislative, executive and judicial branches must be completely isolated from each other. No branch should ever have the legal authority to appoint or nominate any member or officer to another branch. The selection and election pipelines for each pillar must be entirely independent. This uncompromised balance ensures that no single branch or any external corporate lobbying force can gain enough systemic power to dominate the other state organs.

14.1. The Executive Branch

A presidential system should be adopted for the executive branch. The fundamental duty of the executive assembly and its leader is to take fast, decisive actions to solve the short-term problems of the country. Because the executive branch needs to be highly responsive to the immediate, everyday crises of the citizens, its members will be elected by the public from candidates nominated through traditional political parties. This keeps the everyday administration of the state practical, democratic and directly accountable to the voters.

14.2. The Legislative Branch

While the executive handles immediate issues, the legislative assembly is responsible for guaranteeing the long-term stability of the economic and social system. Therefore, it must be completely independent from the executive assembly and the political party machine.

To achieve this, all members of the legislative branch should be elected exclusively from the ranks of academicians. To eliminate political manipulation, corruption and corporate capture, the selection process must integrate a specific protocol of mathematical randomness. Academicians who meet strict, objective scientific, educational and ethical criteria are aggregated into a candidate pool. A software algorithm randomly selects a subset of candidates from this pool. The general public then votes to elect the final members of the legislative assembly exclusively from this randomized candidate list.

14.3. The Judicial Branch

The judicial branch must switch entirely to a comprehensive jury system to prevent courts from being hijacked by a populist executive government.

In this framework, the citizen jury does not merely decide the final verdict of a trial. At the end of every court case, the jury must numerically score the judicial officers and judges based on their fairness, neutrality and strict adherence to legal procedures.

When a vacancy opens for a higher court position or promotion, the selection is performed randomly from a pool of lower-court judges who consistently maintain evaluation scores above a premium threshold. Because advancements are driven by citizen scoring and mathematical randomness, no powerful leader or political faction can selectively promote a loyal or corrupt judge. The judiciary becomes an independent, self-cleansing organ controlled only by the honest evaluation of the citizens it serves.

14.4. Randomness as System Defense

This randomness is the root and the heart of the entire institutional design. We can explain this using a thermodynamic metaphor. This randomness ensures that there is enough entropy in the political system that any external actor, wealthy lobby group or

corporate elite will not be able to input enough strategic energy to extract useful work (e.g. financial rent-seeking) from the state.

In a traditional democracy, a rich corporation can donate money to a politician's campaign years in advance to buy laws. In this system, because the candidate pool is selected with mathematical randomness, corporate elites cannot know or predict who the future lawmakers will be. They cannot buy or influence a randomized algorithm. This mechanism completely removes the illusion of choice found in modern corporate democracies. Ironically, adding randomness to the election process will be far more beneficial for the public and the greater good than traditional voting. This randomness must be protected at all costs by the citizens and other system agents who care about the health of the system.

14.5. The Monetary Constitution

Chaos through randomness will bring order to the system. By securing an uncompromised balance of powers, the foundational economic rules proposed in this thesis can be protected as if they are physical laws of nature.

The core mechanics of the new economy must be hardcoded directly into the national constitution. These rules include:

- The constant-growth money supply mechanism.
- The strict protocol for temporary government borrowing from the central bank, which requires the mandatory destruction of that temporary money upon repayment.
- The wealth tax functioning as the isomorphic constant of the system across all asset classes.

Because the legislative branch is mathematically protected from political lobbying by the academic-randomized selection engine, these constitutional constants cannot be manipulated before an election. The rest of the public, private corporations and global capital will be absolutely sure that the laws of the system are fixed even in the most turbulent political times. This institutional permanence provides absolute clarity and decisiveness, allowing economic actors to make long-term plans and investments safely without any doubt or fear of sudden regulatory arbitrage.

14.6. Conflict Resolution and Symmetrical State Organs

In an absolutely separated system, operational deadlocks and legal conflicts will occasionally occur between independent branches. To resolve these disputes without breaking the systemic equilibrium, the architecture utilizes a cyclical resolution protocol. Any direct conflict between two branches must be formally settled by the third branch acting as an impartial arbitrator. If one side of the conflict is fundamentally unsatisfied

with the third branch's decision, it holds the legal right to challenge the ruling in the constitutional court.

To ensure that the constitutional court and other vital independent state organs such as the auditing bureau or the national electoral commission can never be captured by a single faction, their internal structure must maintain absolute symmetry. The members and seats of the constitutional court and all independent state organs must be appointed evenly and equally from all three branches i.e. one-third from the executive, one-third from the legislative and one-third from the judiciary. Each state organ must elect its own leader internally through its own closed voting decision.

Through this symmetrical design, no branch can ever weaponize the independent state organs against the others. The system achieves a stable state of self-balancing institutional physics, permanently protecting the production economy from human greed.

15. Conclusion

Human history has arrived at a critical structural boundary. As demonstrated throughout this thesis, the economic systems designed in the 20th century which are built on discretionary fiat currency, interest-bearing debt, and complex, distortionary transfer taxes are no longer capable of sustaining stable human prosperity. Instead of using technological progress to resolve the basic needs of humanity, our financial structures have trapped society in an artificial, pro-cyclical rat race where the wealth generated by real labor is systematically extracted by speculative and financial rent-seeking. This thesis has provided a comprehensive, mathematically sound alternative which is an algorithmic, self-balancing macroeconomy where the rules of the state align private self-interest with the public good.

15.1. Synthesis of the Three Policy Pillars

The structural transition away from our unstable economic reality relies on three deeply interconnected institutional transformations.

1. **Monetary Rule-Based Stability:** By implementing a constant-growth money supply, the state replaces the unpredictable volatility of discretionary central banking with an algorithmic, real-time monetary baseline. This deterministic model completely removes the inflationary surprise that erodes the real wages of the working class while transforming the central bank into a purely technical accountant of a fixed rule.
2. **The Financial Shift to Shareholder Banking:** By introducing stock-based finance alongside traditional systems and removing state-backed deposit guarantees from interest-bearing structures, we replace the rigid debt trap with a flexible, asset-based equity system. Shareholder banking utilizes the bank's internal

ledger as a two-sided information signaling engine, matching capital allocation directly to real industrial utility. The mathematical brake inherent in stock valuations prevents credit bubbles from over-expanding, creating a counter-cyclical, sharded financial architecture that is structurally immune to systemic banking runs.

3. **Isomorphic Asset-Based Taxation:** The fiscal framework completely removes taxation from the creation of wealth (abolishing income and transfer taxes) and instead shifts the burden onto the hoarding of wealth through an isomorphic, flat monthly tax on corporate enterprise value, real estate, motor vehicles and financial assets. This consistent carrying cost ensures that resources cannot sit idle, driving capital out of passive rent-seeking and forcing it back into active production and continuous technological innovation.

15.2. Harmonizing the Social Contract and the Lifecycle

The empirical machine learning analysis presented in this thesis shows that wealth concentration is not an accidental byproduct of a free market but a predictable result of monetary distortion and financial repression. When real interest rates are cut below inflation, value is systematically stolen from normal savers and handed to the ultra-wealthy who possess the institutional leverage to capture asset bubbles.

The proposed tax-and-transfer system directly reverses this dynamic without triggering capital flight. Because the constant-growth money supply applies an unavoidable carrying cost to liquid cash and the removal of income tax creates a high-yield production paradise, capital is naturally incentivized to stay and circulate inside the local real economy.

Furthermore, this framework completely rewrites the failing gerontocratic social contract. By financing the universal negative tax and public services through asset taxation rather than penalizing the labor income of a shrinking youth population, the economy shifts from intergenerational extraction to generational harmony. The elderly are granted a dignified, secure survival floor funded by the structural constants of the system while the youth enter a dynamic, zero-friction labor market with accessible housing prices and unpenalized production.

15.3. Randomness as a Shield for Economic Rules

To guarantee that these economic constants are protected from political corruption and populist reversal, the thesis outlines an uncompromised institutional balance of powers. By completely isolating the three branches of state and injecting a programmatic randomness into the selection of lawmakers and the promotion of rated judges, we introduce maximum entropy into the heart of government governance.

This randomness serves as a vital systemic defense. It makes it mathematically impossible for wealthy lobby networks, corporate interests, or populist factions to influence or buy the legislative or judicial branches. By removing the human noise, political bargaining and bureaucratic latency from macroeconomics, the rules of the system function with the unyielding permanence of physical laws. Citizens, corporations and global investors can finally make long-term plans safely, entirely free from the fear of sudden regulatory arbitrage or currency devaluation.

15.4. Final Outlook

Ultimately, this thesis demonstrates that the chronic failures of our global economic order i.e. recurrent financial crises, rising wealth inequality, structural stagnation and escalating intergenerational conflict are not flaws of human nature. They are mathematical flaws in our systemic architecture. We only need to change the structural equations of the environment.

By establishing a deterministic monetary baseline, an asset-based matching engine for finance and a high-entropy, trilateral institutional balance, we can move beyond the destructive credit-and-bust cycle. This framework transitions economy toward a resilient, anti-fragile and self-balancing production economy. It is a system designed to ensure that individual ambition naturally feeds collective stability, ensuring that our immense scientific progress is finally utilized to serve the enduring security and liberty of all human life.