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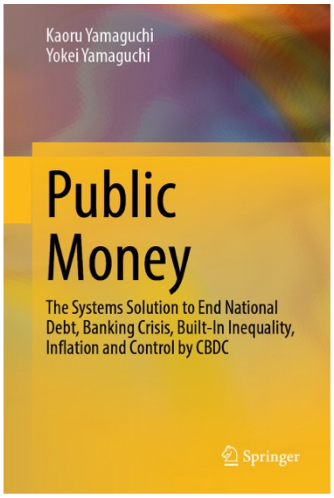

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Kaoru Yamaguchi and Yokei Yamaguchi

Public Money

The Systems Solution to End National Debt, Banking Crisis, Built-In Inequality, Inflation and Control by CBDC

- Provides in-depth analysis of endogenous money that reveals money stock equals total debts in Japan and the United States
- Provides a paradigm shift analysis of endogenous money IS-LM model that uniformly explains the Great Depression and Japan's Lost 30 Years
- Proposes Electronic Public Money (EPM) as money of the futures against Central Bank Digital Currency (CBDC)

About this Book

Public Money challenges the foundations of modern monetary systems and offers a bold alternative rooted in public control of currency issuance. The book traces the evolution of money—from interest-free public money to debt-based money—and demonstrates why the conventional theories, including neoclassical, Keynesian, and Modern Money Theory, have failed to resolve recurring economic maladies such as financial crises, mounting national debt, and widening inequality. Drawing on historical case studies such as the Great Depression and Japan's Lost 30 Years, the authors utilize systems thinking, mathematical modeling, and causal loop analysis to elucidate systemic flaws inherent in the current monetary system, and offer an alternative to the dominant economic paradigm.

Organized into three parts, the book first introduces definitions and classifications of money, and reviews its historical transformation. It then critically deconstructs mainstream economic doctrines, demonstrating their inadequacies in addressing persistent challenges. Finally, the authors present innovative policy alternatives including a detailed transition roadmap to the public money system, innovative digital currencies called Electronic Public Money (EPM), and Uniform Tax System. It culminates in the visionary MuRatopia economy, a holistic model designed to restore democratic governance, foster sustainable growth, and harmonize Eastern and Western civilizations. *Public Money* is a timely call to reconsider the traditional debt-based economic policies and for charting a course toward a more equitable, resilient, and sustainable global economic future.

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Chapter Abstracts

Chapter 1. Introduction

The first chapter serves as an introduction to the conceptual framework of *Public Money*, setting the stage for the entire book that challenges conventional monetary paradigms. This chapter contrasts the present debt money system—characterized by fractional reserve banking and interest-based issuance—with the idea of public money system, rooted in the Irvign Fisher's *100% Money* proposal. By revisiting historical episodes, such as the issuance of Greenbacks Dollar during the Civil War and subsequent developments in monetary policy, the chapter discusses how the evolution of money has been shaped by both institutional design and political forces. This narrative not only highlights the deficiencies of the current debt-based system but also lays the groundwork for a paradigm shift toward a system that prioritizes public control over currency issuance. This chapter also outlines the structure of the book, guiding readers through the progressive exploration of these themes. It invites readers to reexamine accepted economic doctrines and prepares them for a deeper exploration of how a reimagined monetary system—anchored in public money—can address modern global economic challenges and restore democratic control over our society.

Part I Evidence

Chapter 2. In the Beginning was Definition of Money

This book begins with a precise definition and classification of money. First, an obverse definition is presented in terms of who issues money, according to which money is classified as either *public money* (issued without interest) or *debt money* (issued with interest). Next, a reverse definition is introduced in terms of legal status, classifying money as either *legal tender* (currency enacted by law) or *functional money* that serves as means of payment only under normal economic conditions. The chapter subsequently provides historical examples of public money from both Eastern and Western societies, illustrating how debt-based money has only recently come to dominate worldwide in the long history of civilizations. This historical context help readers comprehend the shifts that have occurred in monetary theory and policy, laying the groundwork for understanding the inherent limitations and systemic challenges of the present debt-based money and economic systems discussed in later chapters.

Chapter 3. 99% of Your Money is Someone's Debt

The world economy is currently operating under the debt money system. This chapter first analyzes contemporary monetary data from Japan and the U.S., showing that the total money stock in both economies closely match the total debts owed by non-banking sectors—including households, businesses, and governments. Remarkably, approximately 99% of money in circulation is, in fact, debt owed to banks. To elucidate this structure, the chapter examines the legal mechanisms behind fractional reserve banking, revealing how money is created through borrowing (debt). Detailed monetary decomposition analyses highlight surprising patterns: private debts ultimately result in time deposits (savings), while government debts account for money stock M1. By illustrating these relationships, the chapter reveals the inherent dependency of our economies on perpetual borrowing, underscoring the systemic fragility.

Chapter 4. Debt Money System is Design Failure – Lessons of Japan's Lost 30 Years

Chapter 4 investigates how the inherent design flaws of the debt money system triggered Japan's prolonged economic stagnation, known as *the Lost 30 Years*. The chapter begins by revisiting Japan's postwar economic miracle—characterized by rapid growth driven by coordinated public-private efforts, state-led industrial policies, and unique corporate structures. However, the same model that powered postwar success became vulnerable when the Bank of Japan's flawed policies led to the financial bubble and unsustainable debt accumulation. The chapter details the policy responses that followed the collapse of the bubble, including aggressive fiscal stimulus, structural reforms, and trade adjustments amid escalating US-Japan economic conflicts. Rather than restoring growth, these policies further exposed the system's endless reliance on debt. Empirical observations and detailed historical analyses challenge conventional views, arguing that Japan's stagnation is less about external shocks or demographic trends and more a direct consequence of a flawed monetary system and the misguided policy responses. By dissecting the interplay between economic policies and the debt money system, the authors lay the groundwork for exploring alternative monetary frameworks discussed in later chapters.

Part II Analysis

Chapter 5. Collapse of the Mainstream Economics

Chapter 5 examines why mainstream economic policies have failed to revive Japan's economy since the burst of the bubble in the early 1990s, marking the onset of the Lost 30 Years. Despite aggressive fiscal stimulus and unconventional monetary interventions, Japan's GDP remained stagnant around 500 trillion yen. The chapter contends that misguided prescriptions rooted in flawed economic theories are to blame. It critically evaluates two dominant schools: neoclassical economics—with its unrealistic assumptions of perfect competition, elastic prices, and self-correcting markets—and Keynesian economics, which posits an exogenously controlled money supply and advocates fiscal measures to close a presumed GDP gap. Empirical evidence reveals a strong correlation between private debt and GDP growth, while government debt has minimal impact. Moreover, the collapse of the money multiplier and velocity of money rendered traditional policies ineffective, leaving Japan stuck in prolonged stagnation. Importantly, for economies currently on a robust growth path or emerging from post-bubble recessions, the Japanese case offers a crucial lesson on the risks of uncritically applying mainstream economic prescriptions.

Chapter 6. Debt Money System is Debt End!

Chapter 6 reveals the unsustainable trajectory of Japan's national debt and its ramifications. Drawing on Ministry of Finance data, the authors show that government debt has ballooned to over 1,100 trillion yen—twice the average annual income per capita. Despite consumption tax hikes and aggressive quantitative easing by the Bank of Japan, government debt continues to escalate, with refinancing bonds far exceeding annual budgets. Simulation projections suggest that by 2036, Japan's debt-to-GDP ratio will exceed 300%, and by 2050, total debt could reach 2,193 trillion yen with a ratio around 400%. This chapter outlines three catastrophic scenarios if current trends persist: a financial meltdown driven by rising interest rates and collapsing bond prices; hyperinflation triggered by rampant money creation and eroding confidence in the yen; and government default, where spiraling deficits force a collapse in debt servicing. Similar debt crises are emerging in the U.S. and other OECD countries, making this a global issue. The chapter contends that conventional fiscal and monetary policies are futile against the design flaws of the debt money system and calls for a paradigm shift to avert impending economic catastrophe.

Chapter 7. Paradigm Shift in Macroeconomics

Chapter 7 reexamines the dominant IS-LM model, which remains a staple in introductory macroeconomics worldwide, and challenges its continued use in explaining real-world recessions. The chapter contrasts two long-debated hypotheses regarding the Great Depression: Keynes's theory of deficient effective demand versus Friedman's monetary contraction. It demonstrates that the conventional IS-LM model, premised on an exogenously controlled money supply, fails to capture the endogenous creation and destruction of money under the debt money system. Revisiting Fisher's debt-deflation theory, the authors argue that Mankiw's (2016) support for Keynes's spending hypothesis is based on a misconceptualization of Fisher's original insights that led him to propose *100% Money*. In contrast, they show that an endogenous money IS-LM model can consistently explain both the Great Depression and Japan's Lost 30 Years. Moreover, the model indicates that Japan's recovery from prolonged stagnation hinges on transitioning to the public money system and implementing policies that stimulate private investment rather than increasing government expenditures through public debt. These insights not only expose the shortcomings of mainstream Keynesian macroeconomics—as represented by the conventional IS-LM model—but also pave the way for a paradigm shift toward dynamic, accounting-based analysis, forming the basis of comprehensive policy recommendations in Part III.

Chapter 8. Mathematical Analysis of the Paradigm Shift

This chapter mathematically formalizes the paradigm shift model introduced in Chapter 7 and develops corresponding System Dynamics (SD) and Accounting System Dynamics (ASD) models. Simulations under the exogenous money IS-LM model reveal that neither the spending nor the money hypothesis can adequately explain the Great Depression. This finding prompted a reexamination of Fisher's *Debt-Deflation* and *100% Money* theories (Fisher, 1932, 1933, 1935) and led to the development of the endogenous money IS-LM model based on Fisher's inherently feedback loop analysis. The resulting model accounts for both the Great Depression and Japan's Lost 30 Years in a manner consistent with empirical data. Moreover, its robustness in capturing these historical cases underscores its suitability as a foundation for a paradigm shift in macroeconomic analysis.

Chapter 9. There Exist Only Four Monetary Theories

Monetary theories appear diverse and complex. This chapter distills the vast and often convoluted literatures on money into four distinct categories. Drawing on the classification introduced in Chapter 2, the authors distinguish: (1) public money theory, (2) moneyless price and commodity money theory (the mainstream neoclassical approach), (3) exogenous debt money theory (representing mainstream Keynesian views), and (4) endogenous debt money theory, which underpins proposals for 100% reserve banking. The chapter examines the historical evolution of these theories and their assumptions about money's creation, function, and role in the economy. It highlights that while neoclassical economics treats money as a mere veil, Keynesian theory views money as an exogenous variable controlled by central banks. In contrast, endogenous debt money theory recognizes the active role of banks in creating and allocating new purchasing power. Through this framework, the chapter elucidates inherent contradictions and the practical limitations of prevailing monetary doctrines. By clarifying these four theoretical strands, the chapter provides a robust foundation for questioning established views on banking and monetary policy, paving the way for a reformed perspective that re-centers public control over currency issuance. Of the four theories examined, only two have withstood scrutiny. Which one would readers support?

Chapter 10. Debt Money As a Means of Control

Chapter 10 explores the often-overlooked fourth function of money—a means of control—and its profound implications for the global economy. While traditional economics emphasizes money's roles as a medium of exchange, unit of account, and store of value, this chapter analyzes how the debt money system leverages the exponential growth of compound interest to exert control. Numerical examples illustrate the law of doubling time, showing how compound interest creates a self-reinforcing mechanism that drives debt accumulation. By applying systems thinking, the chapter identifies two distinct feedback loops: an outer loop driven by compound interest under the debt money system, and an inner loop operating through equity ownership within the capitalist system. Drawing on empirical findings from Vitali et al. (2011) regarding the *Network of Global Corporate Control*, the authors detail that a small cadre of international banks wields disproportionate influence through interconnected equity ownerships and interlocking directorates. Their analysis elucidates how corporate and state power converge, fuels Globalism, and hints at the existence of a supranational controlling entity. Ultimately, this chapter argues that without reforming these dual control mechanisms, persistent economic imbalances and crises will endure—a critical insight forming the foundation for the transformative solution in Part III.

Chapter 11. MMT Hides System Design Failures of Debt Money

In the wake of the Global Financial Crisis, mainstream monetary theories were discredited as fiscal expansion increased debts and forced governments into austerity, worsening inequality. Modern Money Theory (MMT) has gained popularity as an alternative framework, claiming that sovereign governments issuing their own currencies can never default and that inflation is controllable through tax hikes. This chapter critically examines MMT's core assertions and exposes its fundamental logical contradictions. The authors argue that MMT's assertion that "government issuing its own currency" merely redefines money as IOUs (debts), while its reliance on a "consolidated government" that merges central banking and treasury operations ignores the historical and legal distinction between public and debt money. Empirical evidence shows that 99.7% of circulating medium is debt money, predominantly created by private banks, which transfers net assets from non-banking private sector to banks, thereby widening income inequality. By categorizing MMT's fallacies into seven themes, the analysis reveals MMT serves as convenient propaganda for international banking interests by obscuring the fundamental design failures of the debt money system. Detailed macroeconomic simulation analysis show that the public money system based on interest-free currency offers a more stable and equitable economic foundation.

Part III Solution

Chapter 12. Transition to Public Money System

The debt money system suffers from structural flaws, resulting in persistent national debt, banking crises, income inequality, and inflation (devaluation of purchasing power) unless reformed. Transitioning to the public money system offers a fundamental remedy. Chapter 12 outlines a comprehensive roadmap for this transition by outlining the key steps required to shift from the current debt money system. It begins by explaining the three primary objectives of the transition and then details a seven-step process—illustrated using the macroeconomic balance sheet of the Japanese economy as a case study. Key policies include exchanging existing central bank notes for newly issued public money with a premium; redeeming government bonds held by the central banks, banks, and the non-banking private sector with newly issued public money; and establishing 100% reserves for banks through a public money lending facility. Finally, the chapter describes the new economic landscapes that will emerge post-transition, demonstrating how this approach could immediately reduce national debt to zero while stabilizing the money supply and promoting sustainable economic growth. Moreover, any nation with the capability to issue its own currency could adopt the framework outlined in this chapter.

Chapter 13. Electronic Public Money and Uniform Tax System

Chapter 13 introduces Electronic Public Money (EPM) and a Uniform Tax System as innovative remedies to the limitations of the debt money system. The chapter begins by tracing the evolution of money from physical forms to modern digital currencies, then briefly discussing the inherent limitations of crypto assets such as Bitcoin, setting the stage for a critical comparison between EPM and Central Bank Digital Currency (CBDC). It then outlines the design requirements for EPM—as a form of peer-to-peer cash—including low latency, robust security, and superior usability. These features enable EPM to address issues of government overreach and intrusive surveillance typically associated with CBDC, thereby safeguarding privacy and individual freedom while offering faster processing and reduced costs. In parallel, the chapter presents a Uniform Tax System that applies a single, flat rate on every EPM transaction. The estimated uniform tax rate, remarkably low and consistent, simplifies the current complex tax structure, reduces administrative costs, and minimizes evasion. Overall, the chapter provides a comprehensive framework for transitioning from the traditional debt money system to one based on public money—ensuring greater fairness, transparency, and efficiency in monetary policy and taxation.

Chapter 14. Public Money Initiative

What can be achieved with public money? Chapter 14 introduces the Public Money Initiative—a comprehensive economic policy designed to rescue Japan from its Lost 30 Years. Recognizing that Japan’s stagnation stems from systemic issues such as falling birthrates, shrinking workforce, and erosion of Japanese management practices, the Initiative proposes five key programs: basic health recovery to restore the economy’s vital functions; physical fitness enhancement; long-term human potential improvement; wholesome and cultured living; and international friendship diplomacy. Using systems thinking, the chapter explains how targeted subsidies and allowances can reactivate four key positive feedback loops—regular employment, living environment, growth engine, and participatory workplace—that are essential for sustainable growth. Causal loop analysis reveals that Japan’s prolonged stagnation is driven by a balancing feedback loop created by the rise of non-regular employment following the structural reforms since the 1980s. Reactivating these growth-driving loops is expected to reverse the decline in birthrates and labor force, reduce reliance on immigrant labor, and alleviate cultural friction and social fragmentation. The Public Money Initiative offers a transformative policy framework to restore national prosperity and ensure long-term socioeconomic sustainability—a framework with insights that extend well beyond Japan to other nations facing similar austerity-driven challenges.

Chapter 15. MuRatopia Economy

This final chapter presents the MuRatopia Economy as a new socioeconomic system that transcends the limitations and failures of capitalism, socialism, communism, and globalism. While earlier chapters focused on dismantling the outer control loop through transitioning to the public money system, this chapter emphasizes eliminating the inner control loop of equity ownership system. By replacing conventional shareholder control with genuine *equity possession*, the MuRatopia model promotes democratic, self-managed business practices and fosters a market free from labor exploitation. MuRatopia Economy rests upon four interdependent pillars: public money system that ends the debt bondage, self-managed enterprises that restore workplace democracy, a free and laborless market eliminating exploitation, and a commitment to sustainability ensuring physical, social, and ecological resilience. Using systems thinking, the chapter demonstrates how shifting internal dynamics from equity ownership to genuine equity possession can activate new reinforcing cycles—supporting stable employment, enhancing workplace democracy, stimulating organic growth, and encouraging sustainable market practices. Finally, by unifying Eastern concepts of "Mu" (emptiness) with Western notions of "Ra" (nakedness), MuRatopia envisions interconnected, self-sufficient green villages, providing a transformative, globally applicable vision for achieving long-term socioeconomic sustainability.