

# BREAKING *the* TRAP

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of

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## DEBT, INFLATION, INTEREST AND POVERTY

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*Replacing Fractional-Reserve Banking  
with Full-Reserve Money*



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## Foreword

I have had the privilege of being invited by the authors of this book to review it and share my professional comments. In spite of my long banking experience, which runs over 45 years and covers both conventional and Islamic banking, most of which at senior executive levels, I found the contents of the book to be an eye-opener. Reading the book again and again was an absolute enjoyment, derived from learning about the concept of a “full-reserve money system” – as opposed to the prevailing banking practice – and its positive impact on the economy.

In my view, the book rightly argues that many of the economic challenges facing the world, and Pakistan in particular, such as persistent inflation, rising public debt, recurring fiscal pressures and repeated economic crises, cannot be explained solely by weak governance or policy mismanagement. Rather, these challenges are closely linked to the structure of the modern financial system itself, in which commercial banks create the majority of money in the economy through the expansion of credit.

While the current practice of debt-based money creation by commercial banks has been critically examined by several prominent economists across different countries and historical periods, the system nevertheless remains deeply entrenched in modern financial architecture and continues to be widely accepted. Many people regard it as

a given reality – efficient and stable – often without fully recognizing the imbalances and economic damage that result from a monetary system in which the creation of money is closely tied to the expansion of debt. Over time, this debt-driven mechanism of money creation results in recurring financial instability, rising indebtedness and persistent inflationary pressures within the broader economy.

One of the most remarkable contributions of this book lies in the clarity with which it presents a coherent and practical solution through a fundamental reform of the monetary system. By proposing a transition toward a full-reserve monetary framework, the authors demonstrate how separating money creation from private bank lending can reshape the functioning of the financial system in a more stable and disciplined manner. This is to be done by restoring a clear conceptual boundary between money as a medium of exchange and credit as a financial contract. Under contemporary banking arrangements, this boundary has become blurred; bank deposits simultaneously function as money for depositors and as loanable funds for banks. A full-reserve framework re-establishes this distinction by separating:

- funds held for payments and safekeeping, and
- funds deliberately placed at risk for investment.

This separation is not merely technical; it carries profound institutional implications. Such a framework confines risk-taking to activities where it is transparent and contractually acknowledged. Finance is thus reoriented

## FOREWORD

toward its proper economic role – as an intermediary between savers and productive investment – rather than as the primary engine of money creation. It has the potential to remove excessive debt, persistent inflation and growing interest burdens. In this way, the book offers a compelling perspective on how this comprehensive monetary reform can contribute to alleviating some of the most pressing economic challenges of our time.

The concept of full-reserve money system fully aligns with the principles and ideals of Islamic banking with respect to risk-sharing and asset-based financing. This system is also consistent with the Objectives of Shari'ah (Maqasid Al-Shari'ah), in respect of the prohibition of wealth creation outside real economic activities.

On a personal note, I would like to mention that one of the co-authors of the book, Mr. Sohaib Umar, is very well known to me through my professional association with him over the last 15 years. Mr. Umar is a renowned Islamic finance expert and practitioner, highly respected within the Islamic banking circle and well known to all Islamic banking executives and Shari'ah scholars in Bahrain.

In conclusion, this book represents a very important addition to the literature and the libraries of Islamic financial institutions, central banks, Islamic finance research centres, colleges and universities, as well as monetary policymakers in Pakistan and other countries around the world. The book deserves serious consideration and careful thought by the central banks and policy decision-makers with an eye to building a

stable, interest-free economy and avoiding persistent fiscal deficits.

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## Preface

When you are in a bookstore and come across a section with books on economics, finance or banking system, what is your reaction? Most people who don't have a background in these subjects would consider such books too technical and boring. We agree. Unfortunately, most books on banking, finance and economics are written for people who are already familiar with these fields and understand their technical jargon.

Lately, however, we have seen a number of books coming from the West discussing these topics in a non-technical, even humorous manner. This is a welcome change. Everyone, regardless of their academic and professional backgrounds, deserves to understand how money and banking work because they affect each one of us. Our ignorance can be costly for our personal finances. Even more importantly, we need to equip ourselves with this knowledge to understand what is wrong with the current system so that we can do something collectively to change it for the better.

It is with this perspective that this book has been written. It is not meant to be just another book for economics and finance experts. **This book is written for you. Whether you are a working professional, a student, a homemaker, an academic or a pensioner, you need to read this book.** It aims to explain, in a relatively non-technical way, how the prevailing fractional-reserve banking system is causing harm to us and the economy we are living in, and how a full-

reserve system<sup>1</sup> can change things for the better. We have intentionally focused on core concepts and their application, avoiding unnecessary technical and financial complexity to keep the content accessible and engaging. There may be instances where discussion becomes somewhat technical; however, such instances are minimal and will not affect the general understanding of the book.

This is our first book, and while we have a combined experience of over six decades – in finance, economics, central banking, accounting, tax and audit – we do not see ourselves as academics or professional authors. We are practitioners at heart. We believe in meaningful work that makes a tangible difference in people’s lives. We are interested in one thing and one thing only – making a positive change in the financial system of Pakistan, and thereby in the lives of all Pakistanis. This book is an attempt to do just that.

**Through this book, we are trying to convey our message to both the masses and the drivers of public policy in Pakistan.** An Urdu edition is planned soon to broaden the book’s reach in the country. It is our hope that people will read this book to understand the importance of the change from the fractional-reserve<sup>2</sup> to the full-reserve banking system. We hope that greater public understanding and awareness will create enough momentum to compel the decision-makers to seriously consider our recommendations

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<sup>1</sup> A banking model that obliges banks to keep 100% of their customers’ demand deposits (accounts having the facility to withdraw funds at will) in reserve and not lend these funds.

<sup>2</sup> A banking model that allows banks to keep a small portion – a fraction – of their customers’ demand deposits in reserve and lend out the rest.

in the book, which represent a win-win for everyone.

The debate of full-reserve and fractional-reserve banking systems is not new. A full-reserve banking system was first proposed some two hundred years ago by a famous British economist and member of Parliament, David Ricardo. It gained momentum after the Great Depression of 1929-33 when Irving Fisher, one of the greatest economists of all time, championed the idea and wrote a book on the topic. Interest in full-reserve banking resurfaced after the Global Financial Crisis of 2008, as repeated banking failures renewed demands for the scrutiny of the banking system. The concept has received ardent support from a number of leading economists (see Appendix 1), but despite the soundness of the idea and repeatedly witnessing the damage done by the fractional-reserve system, the case for full-reserve banking has not yet been widely understood or seriously considered in policy circles. Discussing the merits and demerits of each system is an important first step in this journey. We believe that rationality will eventually prevail and the better system will triumph.

For Pakistan, the benefits of this reform could be far-reaching. A shift to a full-reserve banking system can eliminate a large portion of government debt, significantly reduce the burden of interest payments and help control inflation. At the same time, it would strengthen financial stability, support sustainable economic growth, reduce poverty and advance Pakistan's constitutional, Islamic objective of moving in a practical and meaningful way towards an interest-free economic system. The constitution mandates the transformation of the country's financial and

economic system in accordance with Islamic principles by the first of January, 2028. Full-reserve banking offers a practical and coherent pathway towards this objective.

In writing this book we have enormously benefited from the works of Andrew Jackson & Ben Dyson (*Modernising Money*), Irving Fisher (*100% Money*), Milton Friedman (*A Program for Monetary Stability*) and Michael Kumhof & Jaromir Benes (*The Chicago Plan Revisited*), among others.

The book is organized into five chapters followed by appendices. It starts with an overview that summarizes the key messages in a few pages. If you are too busy to read the full book, the overview will provide you with a good idea of the main themes discussed. Chapters 1 and 2 respectively explain how the fractional-reserve and full-reserve systems work and what the main features of each system are. Chapter 3 applies the full-reserve model to Pakistan and lays out its benefits for the government, banking system and the general public. It is the core of this book. Chapter 4 compares the characteristics of the full-reserve model with the Islamic ideals and explains the similarities between both. Chapter 5 addresses the most common questions that may arise in a reader's mind while going through this book. Lastly, there are several appendices, each covering a different aspect. Some of the appendices are technical in nature, while others are not. We have also given a glossary at the end, in addition to defining technical terms in footnotes the first time they appear in the book.

Our reviewers include prominent economists, bankers, Shari'ah scholars, accountants and finance experts. Equally importantly, there were others with no background in

## PREFACE

finance or economics but their feedback helped us make the book more readable. We have tried our best to incorporate the comments received from everyone. However, the responsibility for the views expressed in the book and any flaws that remain, lies with the co-authors.

We present our case for your reading, reflection, analysis, scrutiny and conclusion. If you like it, please inform your friends, family and colleagues about it. Whether you agree or disagree with our arguments, let us know your views and suggestions. We value your feedback and look forward to hearing from you.

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## Did you know?

- The fractional-reserve banking system creates money when banks issue loans; more money creation inevitably means more debt.
- Around 90% of total money in most countries is bank-created money, leading to high levels of indebtedness.
- 47% of Pakistan's annual budget goes into interest payments – by far the largest budget item. The next biggest expense item, defense, is only 15%. Spending on education, health and infrastructure, unfortunately, is even lower.
- 88% of the total interest payment goes to domestic creditors (predominantly commercial banks in Pakistan) and only 12% to international creditors (e.g. IMF, World Bank, Asian Development Bank, etc.).
- Every one percentage point increase in the State Bank of Pakistan's policy interest rate adds Rs. 550 billion (~US\$ 2 billion) to the government's gross interest cost per annum.
- Full-reserve banking offers a solution to separate money from debt, eliminate or greatly reduce the government's domestic debt, eliminate bank runs<sup>3</sup>, control inflation and moderate business cycle booms and busts.
- By adopting full-reserve banking, Pakistan can eliminate its interest payments on domestic debt, create a large fiscal

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<sup>3</sup> A situation when many customers simultaneously demand their money back from a bank for fear of its failure.

saving of Rs. 5.8 trillion (US\$ 20 billion) per annum and spend more money on education, health, infrastructure and job creation.

- Prominent economists, including Nobel Laureates, over the last hundred years, have consistently endorsed full-reserve banking and recognized its advantages over the fractional-reserve system.

## An Overview of the Book

Money and banking are often viewed as technical subjects, understood only by specialists. Yet money shapes everyday life – prices, wages, savings, employment and public services – and therefore cannot be treated as a purely academic concern. Few forces influence the modern world as deeply as the monetary system, even though its workings remain largely opaque.

This book reflects our long-standing engagement with questions of money, banking and public finance, particularly in the context of Pakistan’s recurring crises of debt, inflation, fiscal deficit and financial instability. It argues that the contemporary fractional-reserve banking system lies at the root of many persistent economic problems. Under this system, commercial banks create money when they issue loans. These loans generate new deposits and since deposits are used for payments, they function as money in the same way as currency notes.<sup>4</sup> In effect, a core sovereign function – the creation of money – has been delegated to private, profit-driven institutions.

If a private individual were to create money, it would be treated as counterfeiting. Yet, ironically, commercial banks – which are also private entities – are allowed to create money through lending. While this arrangement is legally sanctioned and widely accepted, it raises some

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<sup>4</sup> Bank deposits perform all the three core functions of money: serving as a medium of exchange, a store of value and a unit of account (i.e. a standard unit for quoting prices of goods and services).

fundamental economic and ethical concerns that deserve serious scrutiny.

The book is organized into four closely connected parts. Together, they explain how the existing monetary system works, why it produces instability and injustice, and how a coherent alternative – full-reserve banking – can address these problems.

## **1. What is the fractional-reserve banking system and how does it affect us?**

Under the fractional-reserve banking system, banks create new money when they give out loans. They keep only a small part of people’s deposits in reserves and lend out the rest. When a loan is issued, the borrower receives a new bank deposit, which can be used to make payments just like cash. In this way, new money is created in digital numbers.

Historically, people used gold and silver as currency with intrinsic value and deposited them with goldsmiths for safekeeping. Goldsmiths issued paper receipts, which gradually began circulating as money – a medium of exchange. Problems arose when some unscrupulous goldsmiths issued more receipts than the gold they actually held, earning interest on money that did not exist. This practice led to inflation, financial panic, bank runs and widespread instability. To stop these abuses, the UK passed the Bank Charter Act of 1844, giving only the Bank of England the right to create banknotes. Other countries copied this model. However, during the last 200 years, the dominant form of money has shifted from

physical cash to bank deposits. Today, around 90% of money is just numbers in bank accounts and because of this, commercial banks have acquired the power to create money out of nothing, simply by issuing loans. It is the same goldsmith model, but on a national scale. What was once considered a fraudulent practice has now become the core mechanism of modern banking.

Crucially, this money is created as debt. Every expansion of the money supply is accompanied by a corresponding increase in indebtedness. Banks are incentivized to expand lending in order to earn profits, leading to continuous credit expansion. As money supply grows faster than real economic output, persistent inflation becomes inevitable. Inflation erodes purchasing power and disproportionately harms wage earners, pensioners and small savers, while benefiting asset holders. At the same time, debt accumulates continuously alongside money creation, shifting an increasing burden onto future generations.

The existing fractional-reserve banking system also reshapes the economy through financialization, where wealth is increasingly created through rising asset prices rather than through productive economic activity. Because banks prioritize collateralized lending<sup>5</sup> and low-risk returns, a large share of credit flows into real estate and financial assets instead of productive enterprises. Asset prices rise faster than wages and productivity, leading to concentration of wealth and widening inequality.

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<sup>5</sup> A lending practice in which assets are taken or used as security.

When inflation intensifies, central banks typically respond by raising policy interest rates to slow bank lending and the consequential money creation. While this may restrain inflation temporarily, it also suppresses investment and economic activity, leading to slower growth and higher unemployment. Inflation and economic slowdown thus alternate, reinforcing economic instability.

The system is inherently prone to extreme boom-bust cycles and financial crises. During periods of optimism, banks expand credit aggressively, fueling economic booms and asset bubbles. As risks accumulate, lending is curtailed, money creation slows or reverses, and sharp economic contractions follow, leading to job losses. Because banks operate with low equity and high levels of borrowed funds, and only partial reserves of sovereign currency, loss of confidence can trigger bank runs and repeated crises, requiring state intervention. Over time, this process leads to a loss of monetary sovereignty for the country. Instead of guiding money creation towards public objectives such as price stability, employment and long-term development, governments and central banks become reactive – focused on managing crises caused by private credit expansion.

Inflation, excessive debt, wealth concentration, economic and financial instability, recurring crises and loss of monetary control are, therefore, structural outcomes of the fractional-reserve banking system itself, not isolated policy failures, with far-reaching social and environmental consequences.

## **2. Full-reserve banking: How does it work and what are the benefits?**

The case for full-reserve banking is not theoretical speculation. The model has been strongly supported by several world-leading economists, including Irving Fisher and Nobel Laureate Milton Friedman. There are two ways to stop commercial banks from creating money. One is to allow only the central bank to create all digital money, with individuals holding their accounts directly at the central bank. This approach gives full control to the central bank on money creation but would require very large and complex systems and could reduce innovation in payment services.

The other option is full-reserve banking, under which people continue to use commercial banks, but banks are required to keep 100% reserves – equal to depositors' money – at the central bank. As a result, banks can no longer create money through lending. Instead, they would finance businesses using investment funds. Full-reserve banking is the preferred option because it eliminates private creation of money while keeping the existing banking infrastructure intact.

Full-reserve banking offers a fundamental alternative to the existing fractional-reserve system by addressing its core flaw: the private creation of money along with debt. The central principle of full-reserve banking is a clear separation between money held for payments and money placed for investment. Transaction deposits used for daily payments and safekeeping are fully backed by sovereign currency reserves and are never lent out. These

deposits remain completely safe and available on demand. Funds intended for investment, by contrast, are explicitly placed at risk to earn a profit and used by banks to finance businesses and productive economic activity. The money allocated for investment is transferred from an investor's account to the bank's pool account for financing, rather than being created by banks in the process of providing financing. This separation restores transparency and honesty to banking; money meant for payments is kept safe, and money meant to earn a return is subject to risk.

This structure directly benefits depositors. Under the current system, depositors often earn negative real returns, as nominal interest rate fails to keep pace with inflation. Full-reserve banking restores the original purpose of deposits: security, liquidity and certainty. With deposits fully backed and inflation structurally constrained, depositors gain real protection of both the quantity and purchasing power of their money, instead of chasing nominal<sup>6</sup> returns that are ultimately eroded by inflation. Depositors who, on the other hand, wish to earn a return must invest their funds for a specified period and accept an element of risk. In exchange, they earn a real return linked to the overall performance of the bank's investment activities.

For the banking industry, full-reserve banking removes a fundamental source of fragility. The existing system requires banks to promise full liquidity while simultaneously using a major portion of funds for

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<sup>6</sup> Nominal return is the gain on an investment without considering inflation while real return is the return after adjusting for inflation.

lending. This inherent contradiction is eliminated under full-reserve banking. Bank runs on transaction deposits become structurally impossible, the risk to the financial system declines sharply and banking regulations no longer need to be too complex. Banks would continue to operate profitably, but profits arise from genuine financial intermediation and investment expertise instead of money creation.

Under a full-reserve system, the power to create money is returned to the state. New money is issued by the central bank and enters the economy free of debt, rather than through bank lending. Money creation must be aligned with real economic growth, avoiding inflationary pressures. As a result, the policy interest rate loses its central role, since the central bank exercises direct control over the total money supply, including both physical cash and bank deposits.

Under the current system, much of the economic benefit of money creation goes to private banks in the form of interest income. Under full-reserve banking, this benefit is captured by the state, which can be used to reduce public debt, lower the tax burden or finance public goods and social priorities, without causing inflation or resorting to borrowing.

Full-reserve banking also benefits the wider economy by reversing financialization (i.e. dominance of financial markets over real economy). Capital is redirected away from financial speculation towards productive investment, employment and innovation.

### **3. Applying the full-reserve banking model to Pakistan**

Pakistan's long-standing crisis of rising public debt, soaring interest payments and persistent inflation is not simply the result of weak fiscal discipline. It is the natural outcome of a debt-based monetary system in which money is created through bank lending. These issues represent an ongoing policy failure that we believe can no longer be addressed through incremental adjustments or short-term stabilization measures.

Over time, this debt-based monetary system has pushed public finances into a vicious cycle. Nearly half of the government's budget is now eaten up by interest payments alone, leaving limited fiscal space for development, social welfare or long-term investment. 88% of these interest payments belong to domestic debt, predominantly held by commercial banks. Each one-percentage-point increase in the policy interest rate adds roughly Rs. 550 billion to government expenditure, forcing further borrowing simply to meet routine obligations. Debt thus feeds on itself while inflation continues to erode real incomes and savings.

Full-reserve banking offers a decisive break from this cycle by fundamentally addressing the problem. Pakistan's chronic inflation – structurally rooted in debt-driven monetary expansion – would be addressed at its source. Money creation tied with real GDP<sup>7</sup> growth would stabilize the value of the Rupee and restore purchasing

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<sup>7</sup> Gross Domestic Product or GDP is a measurement of the market value of all the final goods and services produced by an economy during a period, typically one year.

power, particularly for wage earners and middle-income households.

The transition to full reserve banking is technically simple and can be implemented quickly. The State Bank of Pakistan (SBP) would raise the reserve requirement from 5% to 100%, and to meet this requirement, commercial banks would transfer government debt / securities held on their balance sheets to the SBP. While the mechanics may appear technical, the underlying idea is straightforward; in exchange for government securities, banks would receive sovereign, non-interest-bearing reserves held at the central bank, used exclusively for deposit backing and interbank settlement. The SBP would cancel the acquired securities, thereby extinguishing domestic government debt held by banks. Since domestic debt accounts for the majority of interest payments, this step alone would eliminate an estimated Rs. 5.8 trillion in annual interest costs, immediately removing the fiscal deficit and the need for continued borrowing that fuels inflation. Based on the 2025-26 budget, the interest savings would equal nearly one-third of total federal expenditure – more than twice defense spending and several times development and social protection allocations.

The broader economic effects would be substantial. With banks no longer incentivized to lend predominantly to the government, financial resources would be redirected towards productive private sector investment. Fiscal policy would shift away from debt servicing towards infrastructure development, employment generation and social welfare.

Adopting full-reserve banking is therefore not merely a financial reform; it is a national transformation strategy. It envisions a Pakistan free from huge domestic debt and inflationary money creation and offers a credible path towards a sustainable and resilient economic future.

#### **4. Full-reserve banking and the Islamic financial system – a natural match**

Full-reserve banking is not just compatible with Islamic finance; its foundations align closely with core Islamic principles, including the requirement that profit be linked to real economic activity and risk-bearing, the protection of wealth and the prevention of injustice and exploitation.

In Islamic economic thought, money is a medium of exchange, not a commodity that can itself generate a guaranteed return. Legitimate profit must be accompanied by risk and liability. Full-reserve banking operationalizes this principle by clearly separating money held for safekeeping from funds placed for investment. Transaction deposits remain fully protected and risk-free, while investment funds are explicitly subject to risk. This structure restores clarity and honesty to finance; safety is not confused with return and profit arises only from genuine participation in productive economic activity.

Despite its high ethical aspirations, contemporary Islamic banking continues to operate within the fractional-reserve system, which permits banks – Islamic and conventional alike – to create money through financing. The deeper issue therefore lies in money creation itself.

The outcome of fractional-reserve banking directly contradicts the Qur’anic principle that wealth should not circulate only among the rich. The higher objectives of Islamic law (Maqasid Al-Shari’ah<sup>8</sup>) require finance to be fair, rooted in the real economy and exhibiting distributive justice – standards that debt-based monetary systems consistently fail to meet.

Reliance on policy interest rates in Islamic banking is not accidental, but systemic. Operating within an interest-governed monetary framework makes escape from interest-based benchmarks practically impossible. Full-reserve banking resolves these contradictions at their source. By eliminating private money creation and restoring money as a public trust, it removes the drivers of inflation, excessive debt and financial instability. Monetary expansion becomes aligned with real economic output, and finance is anchored in real savings and genuine risk-sharing.

Viewed through the lens of the objectives of Islamic law, full-reserve banking advances the preservation of wealth, prevention of exploitation, promotion of justice and broad circulation of economic benefits. Under such a framework, partnership-based modes of finance become structurally viable. Debt ceases to be the engine of money creation and finance supports productive activity. Full-reserve banking therefore aligns financial practice

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<sup>8</sup> The higher objectives, purposes and wisdom behind Islamic law or Shari’ah. While different scholars have defined these differently, the majority opinion is that these include the safeguarding of five essential elements – religion, life, intellect, lineage and wealth – for all of mankind.

with Islamic ethics in both form and substance, offering a credible path towards a just and stable, debt-free economic order.

## **Conclusion**

Full-reserve banking offers clear and substantial benefits to all the stakeholders: the public, the state and the banking sector. By separating money from debt and restoring monetary sovereignty, it delivers greater financial stability, protects depositors, reduces systemic risk and aligns finance with the real economy. It is a fundamental realignment in which the gains are broadly shared.

Repeated financial crises, rising debt burdens and persistent inflation are not temporary distortions or regulatory failures; they are the predictable outcomes of a system in which private institutions are granted the power to create debt-based money. In this context, it is both reasonable and necessary to give serious consideration to the alternative presented by full-reserve banking. While the idea may appear radical when viewed against current practice, it is firmly grounded in sound economic reasoning, supported by rigorous academic work and endorsed by leading economists across generations, from David Ricardo and Irving Fisher to Milton Friedman and Martin Wolf.

For Pakistan, the case is particularly compelling. Pakistan today is caught in a trap of debt, inflation, interest and poverty, where each problem reinforces the other. Full-reserve banking offers a practical way

to break this trap by stopping the creation of money through debt. By doing so, it helps control inflation, reduces the government's dependence on borrowing and interest payments, and stabilizes the financial system. As fiscal pressure eases, resources can be redirected towards productive investment, employment and social development, allowing the economy to move away from debt-driven growth and towards lasting prosperity.

Ultimately, the question is not whether full-reserve banking is workable. The historical record, theoretical foundations and contemporary institutional capacity all indicate that it is both viable and desirable. The real question, however, is whether the system is sufficiently understood by the public, policymakers and institutions to generate the political will required for implementation. Meaningful reform begins with understanding. Only when the mechanics and consequences of the existing system are clearly recognized can a serious transition to a more stable, just and sustainable monetary order be demanded and achieved.

*“The study of money, above all other fields in economics, is one in which complexity is used to disguise truth... The process by which banks create money is so simple that the mind is repelled.”*

— John Kenneth Galbraith, a renowned economist and Harvard professor

Money: Whence It Came, Where It Went (1975)

## **Chapter 1:**

# **What is the Fractional-Reserve Banking System and How Does it Affect Us?**

## **Overview**

Banks don't just take your deposits or finance your purchases; they create money out of thin air through a process called the fractional-reserve system. They keep a fraction of their customers' deposits and lend out the rest. This lending creates more deposits which in turn create more loans. Since these deposits can be used for payments, they are effectively equivalent to currency notes, i.e. money. And this money is debt-based as it is being created as a consequence of lending.

Banks create more money than the central bank because deposit-money accounts for around 90% of

total money in an economy. This uncontrolled private creation of money is the major cause of persistent and high inflation, extreme boom-bust cycles and rising government debt (because governments across the world are the largest borrowers of banks).

The fractional-reserve system originated as an unethical practice of goldsmiths in medieval times who would safekeep other people's gold and issue more receipts than actual gold in storage to earn additional income. What was once considered a fraudulent practice has ironically become the core institutional mechanism of modern banking.

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This chapter proceeds in two steps. First, it explains how money is created under fractional-reserve banking and how this system emerged historically. Second, it examines the structural economic outcomes that follow from this design, including rising debt, inflation, inequality, financial instability and recurring crises.

### **How do banks function?**

*“[This erratic banking-monetary system] is the most important subject intelligent persons can investigate and reflect upon. It is so important that our present civilization may collapse unless it is widely understood and the defects remedied very soon. It is your problem and mine.”* These are the words of Robert H. Hemphill, Former Credit Manager of the Federal Reserve Bank of Atlanta, in his foreword to the book *“100% Money”* by Irving Fisher.

A common person has limited interaction with banks. You go to a bank branch or use an ATM to deposit your savings, receive your salary or withdraw cash. Occasionally, you may visit a bank to obtain a credit card or apply for financing. Increasingly, banks are also present in our daily lives through online payments and mobile banking applications. The reality is that the banking system has a deeper and more profound impact on our lives than we realize.

Let's start with something most people know: because banks lend to businesses, entire economic sectors depend on them to effectively function. The free flow of funds can keep a business alive for a long time despite a faulty business model. Banks also lend to governments which often rely on bank borrowing to cover the gap between their tax collections and public expenditures. One can say that bankers' decisions to finance or not to finance weigh heavily on the future of businesses and the economy of a country.

Here comes the bit that most people do not know. **Banks create money** (we will shortly explain how). In an economy, any individual or business that has the power to create money wields enormous influence. Traditionally, it has been the prerogative of governments to issue money – both coins and paper currency. For instance, in England, until the late 17<sup>th</sup> century, money issuance was almost entirely a government prerogative. Coins were issued exclusively by the Crown and private minting was punishable as an act of treason. However, since the advent of modern banking, the definition of **money**

has expanded; it **not only includes currency notes and coins** (let's call it **physical cash or state money**) **but also checking deposits at banks** that can be withdrawn or used for payments at any time (let's call it **bank money or electronic money**). When you need to pay someone money, you can give it in cash (currency notes) or write a cheque. These days various forms of digital payments are also in vogue, all of which enable you to pay using your bank account (current account or savings account with checking facility). Since cash notes and cheques/digital payments are being used interchangeably and serving the same purpose, both are classified as money.<sup>9</sup>

To understand the banks' role, let's take an example. Imagine that your next-door neighbor is allowed by the government to print money. Additionally, he is granted monopoly status so it is only he and the government that can print money in the country. You would surely not just feel jealous but would be concerned as well that if he prints too much money, it will devalue the currency, create inflation and make you poorer in real terms. Since he is a private party working in his own interest, it is a legitimate concern that he will seek to maximize his profits, whereas safeguarding public interest will not be a priority for him. What if he suddenly stops or slows down the printing of money? It would seriously

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<sup>9</sup> In technical terminology it is called M1 – money you can use immediately for transactions. A broader category is M2 which includes M1 plus savings deposits, small time deposits and retail money market mutual funds (i.e. near-liquid assets that can be easily converted into cash). In modern economies, most money is not physical cash but bank deposits, which function as money because they are widely accepted for payments.

jeopardize economic activity in the country and thrust it into uncertainty.

If you are shocked at the possibility of a private party running a currency mint for their interest, you have every right to be. Now just replace banks with your next-door neighbor in this example. All the above concerns are equally valid regarding banks; they are private for-profit entities, having exclusive privilege over money creation, yet no incentive or obligation to look after public interest. There is little functional difference between permitting banks to issue loans, which create money through bank deposits, and permitting them to issue paper currency. In both cases, new purchasing power is brought into existence. And yet, the police would arrest you if you tried to print money, but a private bank is helped and facilitated by the central bank to do just that.

### **Creating money out of thin air – the origins and mechanics of fractional-reserve banking**

The banking system that we see being practiced the world over is called the “fractional-reserve” banking system. The way it works is that banks are required to keep a small portion, a fraction of their customers’ deposits, as reserves while the rest can be given out as loans or invested by banks. It is interesting to know the origins of the practice of fractional-reserve banking. In medieval Europe, people would deposit their gold with goldsmiths for safekeeping. The receipts of this gold, issued by the goldsmiths, began to be used as a convenient form of payment (an early form of paper money). Realizing that only a few people came to withdraw their gold at

any given time, goldsmiths started lending out some of the gold entrusted to them, or issuing additional paper receipts as loans, earning extra income in the form of interest. This practice of lending something that did not belong to them (which some people might call unethical or even fraudulent) became institutionalized from the 17<sup>th</sup> century onwards when central banks were established in the Netherlands (1609), Sweden (1668) and the UK (1694) and adopted this practice.

The Bank of Amsterdam (Netherlands) was one of the earliest and most influential institutions. It was created to stabilize the chaotic money supply and to provide reliable deposit and transfer services. Unlike goldsmiths, the Bank of Amsterdam initially held 100% reserves, backing every deposit fully with metal. However, over time, pressures emerged to deviate from full-reserve practices, marking the shift toward a fractional-reserve model even within public banks.

A major step in the evolution of fractional-reserve banking came with the establishment of the Bank of England. Founded in 1694 to help finance the government's war debts, it accepted deposits from the public and issued banknotes that circulated as money without being fully backed by gold. Instead, it held a fraction in reserve while lending the rest to the Crown or private borrowers. The apparent success of this arrangement encouraged its wider adoption for financing government expenditure and commercial activity, despite the systemic risks it introduced into the monetary and financial system and the overall economy.

## **The UK Bank Charter Act of 1844: Restricting private money creation**

The UK Bank Charter Act of 1844 marked an important turning point in the history of money creation. The Act largely ended the issuance of new banknotes by private banks and centralized the creation of paper currency under the Bank of England. Existing private banks were allowed to continue issuing notes only up to fixed limits, while no new note-issuing rights were granted. Over time, as banks merged or closed, private note issuance disappeared.

As banknotes constituted the principal form of money in circulation at that time, **the Act effectively abolished the private creation of money.** However, this did not totally eliminate the underlying capacity of banks to create money. While the issuance of banknotes was brought under public control, commercial banks retained the ability to create money through lending, as loans generated bank deposits. With the passage of time, deposits replaced notes as the dominant means of payment, resulting in private money creation re-emerging in the form of deposit money.

During the last 200 years, money has shifted from physical cash to bank deposits. Today, around 90% of transactions worldwide are carried out using money that exists only as numbers in bank accounts. Because of this, commercial banks have acquired the power to create money out of nothing, simply by issuing loans through digital accounting entries. It is the same goldsmith model, now operating on a national scale. What was

once considered a fraudulent practice has now become institutionalized as the core of modern banking. This shift transferred the power of money creation from the public realm to private institutions, with far-reaching economic and social consequences.

### **How money is created under fractional-reserve banking – a practical example**

An example will be helpful to understand how the fractional-reserve system works:

1. A customer deposits Rs. 100,000 in a bank.
2. The bank is required to keep 10% (Rs. 10,000) as reserves and is allowed to lend out the remaining Rs. 90,000.
3. The borrower spends this Rs. 90,000 and the recipient of this money deposits it in the same or any other bank.<sup>10</sup>
4. The second bank also keeps 10% (Rs. 9,000) as reserves and lends out the remaining Rs. 81,000.
5. This process continues across the banking system, with each bank keeping 10% as reserves and lending out the rest.
6. As a result, the original Rs. 100,000 deposit leads to the creation of multiple deposits and loans, expanding

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<sup>10</sup> In fact, all that the first bank would do is credit in its books the customer's account with Rs. 90,000. Eventually the customer may withdraw some or all of this money and use it either for investment or for consumption purposes but that does not affect the money cycle as whoever he/she pays will deposit the money received in their respective bank account and so on.

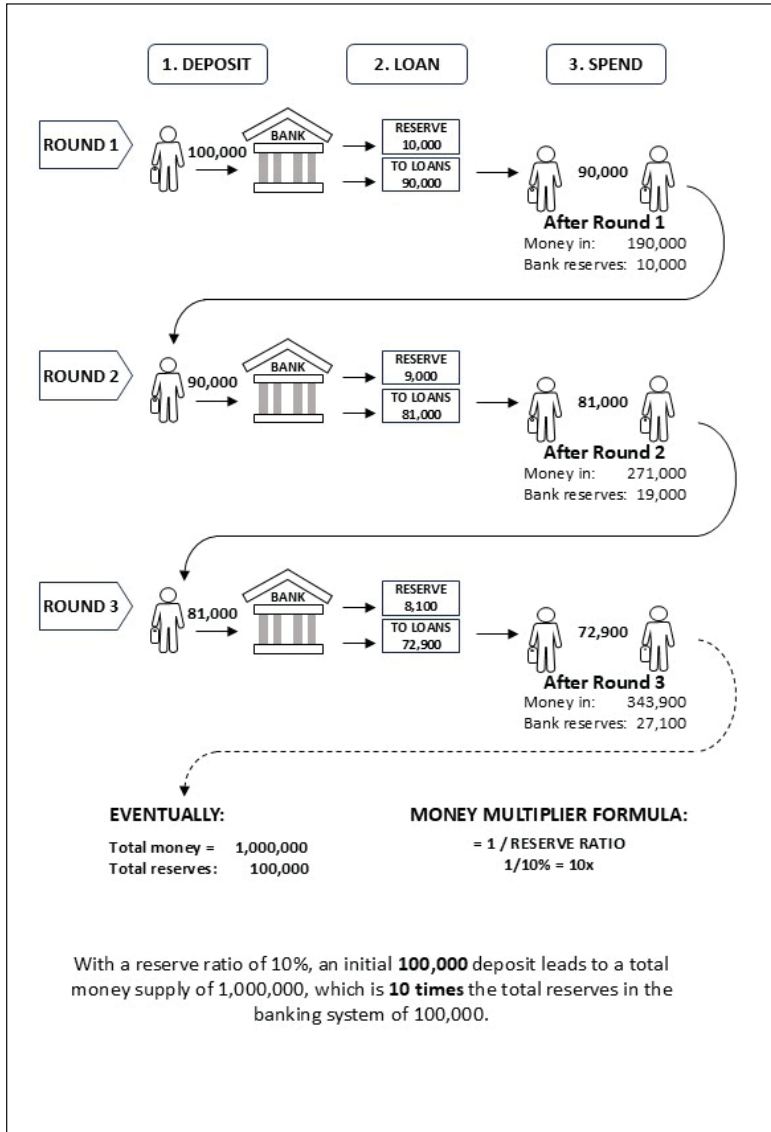
the total money in the economy to several times the initial amount. In this way, the total loans can approach Rs. 1,000,000 (Rs. 100,000 / 10%).<sup>11</sup>

This means that banks have lent out Rs. 900,000 more than the state money they had in their vaults as deposits, thus **literally creating money out of thin air**. The banks did not need to first acquire this money from savers/investors to lend it onward. **It only exists in the banks' accounting ledgers**. Also, the increase in the borrower's bank account as a result of bank lending happened without any corresponding decrease in anyone else's account. The net result is that inflation sets in, as new money is created without corresponding economic activity.

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<sup>11</sup> This is called the money-multiplier model. There is another theory called the endogenous money theory which suggests that banks do not have to wait for a depositor to place their funds with the bank for the bank to lend them onwards. Instead, the bank can lend the money as they like and, in the process, they create deposits (which means increase in money supply). The end result of both the money multiplier model and the endogenous money theory is the same, i.e. banks create new money through lending.

**Figure 1: Money creation in a fractional-reserve banking system – example in pictures**



Let's look at this from another angle. The position of the initial Rs. 100,000 deposited in the bank is very clear. It is the depositor's money that the bank is safekeeping on his behalf. The depositor can correctly claim this to be his money. Whenever he demands this money, the bank can furnish it. However, what about the other Rs. 900,000? What is the exact status of this money? Well, it is simply the bank's **promise to give money** to the depositors when requested. What if all the depositors come asking for their money? The bank will not be able to fulfill its promise without borrowing from external parties (e.g. other banks or the central bank). It is for this reason that elaborate risk management models are developed by banks, and central banks actively ensure liquidity in the system so that bank runs are avoided and public trust in the system remains intact. However, as the above example shows, the building has been built on very narrow foundations, like an inverted pyramid.

The notion that banks create money when making loans is well known within the economic and financial circles. Bank of England acknowledges it in the following words: *“When a bank makes a loan, for example, to someone taking out a mortgage to buy a house, it does not typically do so by giving them thousands of pounds worth of banknotes. Instead, it credits their bank account with a bank deposit of the size of the mortgage. At that moment, new money is created.”*<sup>12</sup>

At the time a loan is issued, a bank makes an electronic accounting entry through which new money

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<sup>12</sup> Bank of England Quarterly Bulletin, Q1 2014.

is created in the form of a new deposit. For example, if a bank issues a loan of Rs. 100,000, it simultaneously creates a new deposit of this amount in the borrower's account and allows the borrower to withdraw funds or make payments.

	Assets	Liabilities
Loan to borrower	+100,000	
Deposits (borrower account)		+100,000

**No one deposited this Rs. 100,000; the loan itself creates a deposit. It is new electronic money created by the bank.**

You may refer to Appendix 6 for the complete sequence of bank accounting entries under the fractional-reserve and full-reserve banking systems.

When loans are repaid using bank deposits, the process is reversed and the money effectively disappears from the system. The Bank of England explains: *“Just as taking out a loan creates new money, the repayment of bank loans destroys money. ... Banks making loans and consumers repaying them are the most significant ways in which bank deposits are created and destroyed in the modern economy.”*<sup>13</sup>

The excerpts above from a leading central bank's document explain that under the fractional-reserve system, banks create new money when they give loans. However, banks cannot always lend freely. When their cash is limited and they are operating close to the required reserve levels, their ability to make further loans

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<sup>13</sup> Ibid.

becomes restricted. Today, a significant share of new money creation occurs through government borrowing to finance budget deficits. This phenomenon is not confined to developing countries and public debt levels are, in fact, even higher in advanced economies. Banks prefer lending to governments because government bonds can easily be turned into cash or reserves with the help of the central bank. Much of this government spending, such as salaries and interest payments, remains within the banking system. While this makes banking easier, it increases the money supply without increasing real production. Over time, this leads to inflation and a growing debt burden for future generations who never voted for the government responsible.

#### **Types of modern money**

- **Currency notes and coins** – physical cash printed by the government.
- **Commercial bank deposits** – created by commercial banks in the process of lending, these are the predominant form of money in the modern economy.
- **Central bank reserves** – a type of electronic money created by the central bank for the purpose of interbank payments. Since these are only used by commercial banks (which have accounts at the central bank) and are not available to businesses or the public, the reserves are not considered to be part of the money supply in the economy.

*Source: Adapted from “Modernising Money” by Andrew Jackson & Ben Dyson, page 49*

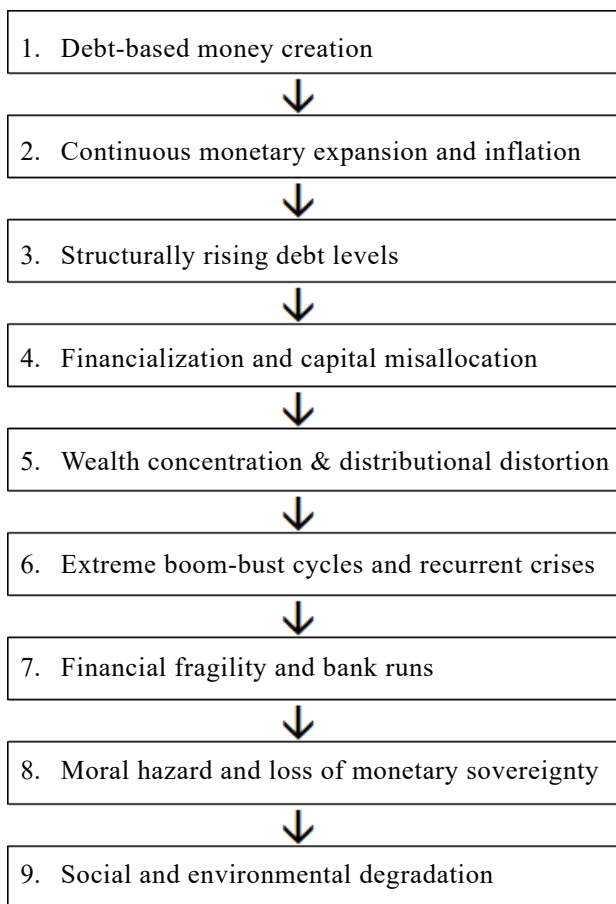
## **The structural outcomes of fractional-reserve banking**

Before examining each outcome or consequence of the fractional-reserve system in detail, it is important to keep one central point in mind: what follows is not a list of isolated or unrelated problems; rather, each outcome flows from the previous ones, forming a clear chain of cause and effect. The modern banking system behaves less like a collection of independent institutions and more like a single machine. Once this machine is set into motion, it produces predictable results. These results do not depend on the intentions of policymakers, bankers or borrowers. They arise from how the system is designed and how money is created within it.

Because of this, many of today's economic problems appear repeatedly across countries and over time. They show up in different forms, but the underlying pattern remains the same. Understanding this structure helps explain why reforms at the margins often fail, and why the same crises return despite new regulations and safeguards.

Each outcome mentioned in Figure 2 is explained later in simple terms, showing how the design of fractional-reserve banking leads to the results we observe in the real economy.

**Figure 2: Structural outcomes of fractional-reserve banking**



**1. Debt-based money creation – how does new money enter the economy when someone borrows from a bank?**

In the example of the fractional-reserve system given above, you might have noticed that **the increase in money has been hand-in-hand with the increase in debt**. Unlike the printing of physical notes by the

government, the increase in deposits (which are another form of money) in our example happens along with a corresponding increase in loans. The additional deposits beyond the original Rs. 100,000 were created because of the loans given by the banks. In fact, a large proportion (around 90%) of money in circulation today is in the form of deposits created by private banks when they issue loans.<sup>14</sup> This means that **if you want money, someone must be in debt.**

This has deep consequences. It means that the economy depends on continuous borrowing just to keep money circulating. If households, businesses and governments stop borrowing, new money would stop entering the system, slowing down economic activity because the money required for transactions would no longer be available (without borrowing).

Unlike state-issued money, which can exist without anyone being indebted, bank-created money carries a corresponding liability; interest-bearing obligations with fixed repayment timelines and pressure to service

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<sup>14</sup> In advanced countries with robust banking and digital payments infrastructure and culture it is correct to say that around 90% of all money is created by private banks and sovereign money share is less than 10% (UK: 3%, China: 6%, Singapore: 7.5%, US: 10.7%). As Pakistan is an emerging economy with low levels of documentation and a large proportion of grey or black economy existing side by side, the use of hard currency in payments is much more prevalent (~24% of M2).

*Sources:*

*Bank of England (2014), People's Bank of China (PBoC) Statistics; Monetary Authority of Singapore (MAS) Monetary Survey; Federal Reserve; SBP Weekly Data (Broad Money M2 Archive).*

the debt. This design quietly shifts enormous power to private banks. They decide **who gets money first, who waits and who never receives it at all**. More than the central bank, it is the private commercial banks that have the power to shape the economy through the money supply.

## **2. Continuous monetary expansion and inflation – why does the money supply keep growing even when it causes harm?**

Money creation through lending gives banks a powerful incentive. They keep lending and creating more and more money in order to earn interest income. Every loan enlarges banks' balance sheets. **This makes continuous money expansion through lending not just attractive but necessary for the system to keep running.**

Now, consider the real economy in which real output actually grows slowly. It depends on population growth, education, skills, infrastructure, technology and natural resources which are factors that cannot exponentially grow overnight. Money, on the other hand, is created through accounting entries, giving it the ability to expand much faster than real production. Over long periods, this results in an ever-increasing gap between money and output with grave economic and social consequences.

**Global data presented by the IMF and the World Bank show a clear and persistent gap between money creation and real economic growth.** Between 2000 and 2025, world real GDP grew at an average rate of about

3.2% per year. This means that the total real output roughly doubled in 25 years. Over the same period, broad money (M2) grew by about 7% per year, causing the global money supply to expand by more than five times. In simple terms, while the real economy merely doubled, the amount of money in the system multiplied several times faster, highlighting a fundamental imbalance at the core of the modern monetary system. When money grows much faster than the goods, prices must rise. This rise is called inflation.

Inflation does not affect everyone equally. As prices rise, people who own assets such as property or shares often benefit, because asset values tend to rise as well. Those who depend mainly on wages or fixed incomes face a different outcome. Their incomes adjust slowly, while everyday costs continue to increase. Over time, this steadily erodes their purchasing power. In this way, inflation operates like a hidden and regressive tax on the poor, quietly shifting wealth from wage earners to asset owners.

The effects of inflation do not appear uniformly across economies either. In developing and import-dependent countries such as Pakistan, excess money creation quickly spills into higher prices for food, fuel and basic necessities. Consequently, living standards fall and poverty increases. In advanced economies, the same surplus liquidity follows a different path: it flows into real estate and financial markets, causing asset prices to rise. This form of inflation is less visible in consumer price indices, but it is no less real or distortionary.

### **Post-COVID inflation and wealth inequality**

A relatively recent example of this is the period of high inflation in the United States and many advanced economies following the COVID-19 pandemic. Post-pandemic inflation caused consumer prices – particularly for essentials such as food, rent, and energy – to rise rapidly, while real incomes rose much more slowly, and in many cases declined. By contrast, asset owners and stockholders were largely protected as house prices surged and stock markets recovered quickly after the initial COVID shock. As a result, those who owned real estate or shares saw their wealth rise alongside inflation while wage earners struggled and faced increasing economic pressure.

*Sources:*

- [https://www.allianz-trade.com/en\\_global/news-insights/economic-insights/High\\_prices\\_thin\\_buffers\\_America\\_affordability\\_crisis\\_persists.html?%20e](https://www.allianz-trade.com/en_global/news-insights/economic-insights/High_prices_thin_buffers_America_affordability_crisis_persists.html?%20e)
- <https://www.federalreserve.gov/econres/notes/feds-notes/house-price-growth-and-inflation-during-covid-19-20221117.html>

**Inflation is** therefore not merely the result of policy mistakes or temporary shocks; it is a **natural outcome of persistent monetary expansion** driven by debt-based money creation.

### **3. Rising debt levels – why does debt keep increasing in both good times and bad?**

Rising debt is not driven by necessity alone. It is also encouraged by continuous inflation of money and easy access to credit. When people expect the value of money

to decline over time, saving appears less rewarding. Spending today appears sensible, even if it requires borrowing. Debt feels easier to accept when future repayments are expected to be made with money that is going to have less worth. For governments, taxing voters is politically difficult and unpopular, while borrowing allows the burden to be shifted onto future generations.

At the same time, credit is widely available. This is not because banks hold large savings, but because they can create new money when they lend. Since lending is not constrained by existing money, debt can expand rapidly. Together, political expediency, inflation expectations and easy credit push governments, households, and businesses towards ever-higher borrowing, making rising debt an automatic outcome rather than a matter of choice.

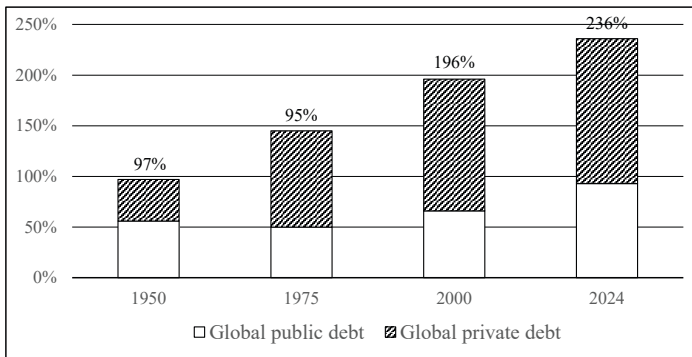
This means that **debt growth is not optional**. During good times, borrowing feels natural and manageable. Households borrow to buy cars and homes; businesses borrow to expand operations; governments borrow to cover large expenditures and budget deficits. Banks accommodate this borrowing by creating new money. The economy appears healthy. But what happens during bad times?

When incomes fall, existing debts remain fixed and unchanged; however, borrowers have to repay the same amounts with their reduced incomes. This situation forces spending cuts and asset sales, and in extreme cases may lead to bankruptcies. When asset values fall as a result of fire sales while debts remain unchanged, the burden of debt becomes heavier and financial stress increases.

This process, known as debt-deflation, explains why recessions often become deeper and longer than expected.

Debt has increased – both in good and bad economic times – over decades, and this is a global phenomenon. **Global public and private debt has risen to around 236% of world GDP today**, according to the IMF, compared to about 100% in 1950. This phenomenal increase is not an anomaly under the current system; it is exactly what one would expect when money can only be created through borrowing.

**Figure 3: Global public and private debt as a percentage of global GDP – 1950 to 2024**



*Source: IMF Global Debt Database, IMF Global Debt Monitor*

#### **4. Financialization of economy – why does money flow into rising asset prices instead of jobs and production?**

Financialization means that money increasingly flows into financial assets and speculative activities rather than into factories, workers and productive activity.

Once debt and money expand together, the question is, where does the money flow? The answer lies in **how**

**banks decide where to lend.**

Banks face a basic constraint: depositors can demand their money at any time, but loans often last for years, and sometimes decades. To protect themselves, banks prefer to give loans that feel safe and are easy to recover.

**As a result, most credit flows towards:**

- Governments (whose securities are liquid and easy to sell)
- Real estate (because property provides strong collateral)
- Financial markets (liquid and easy to sell)
- Large corporations with strong balance sheets.

By contrast, small businesses, startups and long-term productive projects face much greater difficulty accessing credit. Empirical evidence confirms this pattern:

- **80-85% of new credit in advanced economies flows into real estate and financial assets**
- **In Pakistan**, over the past three years, more than **90% of bank lending has gone to the government**, largely to pay interest on existing debt

Companies adapt to this environment; instead of investing in factories or workers, they increasingly use debt for mergers and acquisitions – which typically result in job losses – or to buy back their own shares from the open market to boost their share prices without increasing real output.

**1. Wealth concentration as a monetary outcome – why does inequality rise even when economies grow?**

When credit flows into assets such as property, shares and other financial investments, it is asset owners who benefit foremost. Rising asset prices increase their wealth and strengthen their collateral. This allows them to borrow even more, reinforcing their advantage. This creates a self-reinforcing feedback loop in which **wealth brings easier access to credit and access to credit creates more wealth.**

On the other hand, those without assets face rising living costs and stagnant wages. Inflation worsens this divide. Wages adjust slowly while asset prices rise with monetary expansion. As a result, wealth is quietly but steadily redistributed upward over time.

Interest rate policy used to control private money creation actually deepens this divide further. When interest rates remain low for extended periods, savings earn little and returns on pensions and fixed-income assets fall. Households that rely on savings lose purchasing power while asset owners benefit. When interest rates rise, the burden again falls unevenly. Borrowers, especially households, small businesses and governments, face higher repayments. Higher interest rates discourage economic activity and investment, leading to job losses that disproportionately affect vulnerable people while creditors benefit from higher returns. Whether rates are low or high, the system consistently favors asset owners over wage earners and savers. The problem is not the level of interest rates; it is the debt-based structure of the monetary system itself.

### **Japan's low interest rate policy and its effects**

This is demonstrated by Japan's decades-long low interest rate policy from the 1990s to the 2020s. After the asset bubble burst in the early 1990s, the Bank of Japan cut interest rates close to 0% and kept them there for decades. During this time, savers and retirees lost because bank deposits earned virtually nothing, pension funds struggled to meet obligations and fixed incomes slowly lost purchasing power. By contrast, the prolonged period of extremely low interest rates benefited asset owners and large corporations, as cheap borrowing allowed firms to refinance repeatedly and supported stock and real estate values.

On the other hand, Japan recently shifted towards slightly higher interest rates due to inflation, which caused borrowers and the state to lose, as highly indebted households and firms faced higher costs and government debt servicing became more expensive, while creditors and financial institutions benefited.

Japan's case shows that prolonged low interest rates create long-term distortions, harming savers while supporting asset owners, whereas subsequent rate increases shift the burden to borrowers, triggering short-term pain and reinforcing inequality regardless of the direction of interest rates. This endorses the view that there is no optimum or 'just right' level of interest rates (also called the "Goldilocks" interest rate).

*Sources:*

- <https://www.ft.com/content/67f51286-4e3f-465e-a780-2fe8ea0f4246>
- <https://www.theguardian.com/world/2024/mar/19/bank-of-japan-raises-interest-rates-negative-scrapped-borrowing-costs>

According to the World Inequality Report 2026:

- **Top 10% own 75% of global wealth**
- **Bottom 50% own about 2%**

Within the top tier itself, wealth is highly concentrated. A small number of ultra-wealthy individuals control resources comparable to those of billions of people combined. **The 12 richest billionaires own more wealth than the poorest half of humanity – around four billion people.**

**The extreme concentration of wealth** under this system is not accidental or temporary. It arises naturally from the way money is created and credit is allocated. Because access to credit favors those who already own assets, wealth accumulates at the top while the majority face rising living costs. **It is therefore embedded in the monetary structure itself.**

## **2. Extreme boom-bust cycles and recurrent crises – why do financial crises keep returning?**

When wealth is concentrated, overall demand weakens because the wealthy spend only a small share of their incomes and the poor do not have money to spend. Economic activity slows due to lower demand for goods and services. As demand weakens, businesses cut back on production and hiring, leading to rising unemployment. Rather than addressing the root cause, policymakers often attempt to offset weak demand by promoting borrowing through lower interest rates. This temporarily boosts spending, but it is driven by debt, not real incomes. The result is a short-lived boom followed by inflation and instability.

Credit expansion fuels the boom. When banks lend more, money becomes easy to obtain. Borrowing feels safe and attractive. Growth appears strong and widespread. During these periods, people and businesses respond naturally. Households take larger mortgages because monthly payments seem manageable. Property prices rise, reinforcing the belief that borrowing is safe. Businesses expand quickly. Governments also borrow more to spend on social welfare and big projects to keep the voters happy.

However, this apparent growth is often built on distorted signals. The underlying demand and real savings are insufficient to sustain the spending. Eventually, reality catches up. Debt grows faster than incomes. Rising costs and tighter conditions expose weak projects, resulting in higher default rates and bankruptcies. Banks respond by cutting back lending, which means money creation slows as well.

As banks pull back to reduce risk and loans are repaid, money begins to disappear from the system. Asset prices fall as borrowers are forced into distressed sale of their assets to repay loans. As spending comes down, what looked like strong growth quickly turns into a recession.

These cycles repeat across time and countries. From the Great Depression of 1929-33 to the global financial crisis of 2008, the pattern is remarkably consistent. Periods of rapid credit growth are followed by painful corrections. Extreme boom-bust cycles are, therefore, the **normal and predictable outcomes** of a system where money is created through debt, expanding and

contracting with bank lending. These outcomes may be delayed or softened through regulation, but they cannot be eliminated under a debt-based monetary framework.

### **3. Financial fragility and bank runs – why are banking crises unavoidable?**

Fractional-reserve banking is inherently risky and fragile by design. This fragility does not arise from poor management or bad behavior alone. It is built into how the system operates. Banks promise depositors immediate access to their money. At the same time, they lend most of that money for long periods. Mortgages, personal and business loans often last for years or even decades. This creates a basic imbalance between what banks promise and what they can actually deliver at short notice.

Because of this imbalance, even a well-run and profitable bank can fail. If too many depositors ask for their money at the same time, the bank cannot meet their demands. Its assets may be valuable on paper, but they cannot be turned into cash quickly enough. This is why bank runs are not irrational panics; they are a rational response to a known weakness. Depositors understand, often instinctively, that the bank does not hold enough cash for everyone. Acting early becomes a matter of self-protection. History repeatedly confirms this fragility; since the 1970s, the world has experienced around **150 systemic banking crises**.<sup>15</sup> These include major episodes such as the global financial crisis of 2008 which

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<sup>15</sup> According to the global database compiled by Luc Laeven and Fabian Valencia, widely used by IMF, World Bank and others.

threatened the stability of the entire financial system.

**Under the fractional-reserve system, how safe are your bank deposits anyway?**

The first large-scale modern example of systemic bank runs occurred during the early 1930s in the United States, following the stock market crash of 1929. As the Great Depression deepened, public confidence in banks collapsed. Since banks held only a small fraction of deposits as cash, they were unable to meet mass withdrawal demands. Between 1930 and 1933, more than 9,000 U.S. banks failed, wiping out the savings of millions of households. This episode revealed a fundamental weakness of the system: deposits remain safe only as long as confidence holds.

Bank runs have continued to recur. In 2007, Northern Rock in the UK collapsed after its request for emergency funds signaled weakness to depositors who queued to withdraw their savings. In 2023, US Silicon Valley Bank experienced a rapid bank run when losses on government bonds triggered depositor panic, forcing regulators to intervene within days.

In other cases, bank runs are managed through withdrawal restrictions rather than outright closures. During the 2015 crisis in Greece, capital controls limited ATM withdrawals and blocked international transfers, effectively trapping deposits for several years.

An even more severe situation unfolded in Lebanon after 2019, where banks imposed informal withdrawal limits that left depositors unable to access their savings despite full account balances.

*Sources:*

- <https://www.fdic.gov/news/press-releases/2023/pr23016.html>
- <http://news.bbc.co.uk/2/hi/business/6997765.stm>
- <https://www.nbcnews.com/business/business-news/greece-crisis-banks-shut-week-restrictions-imposed-atms-n383606>

To prevent collapse, governments step in. Deposit insurance, emergency liquidity and bank bailouts become unavoidable. These are not optional policy tools. They are a **necessary support for a system that cannot function safely on its own.**

#### **4. Moral hazard and the loss of monetary sovereignty – why do governments lose control over the system?**

Because banks sit at the center of the payments system, their failure threatens the entire economy. When large banks face trouble, governments and central banks have little choice but to step in. Losses are absorbed through public taxes while profits earned during good times remain private. This creates a clear moral hazard.

### **Moral hazard and the Citigroup bailout**

During the 2008 global financial crisis, Citigroup faced potential insolvency, posing a serious threat to the entire US financial system. In November 2008, the US government stepped in with a US\$45 billion capital injection along with guarantees of US\$306 billion for bad assets. As a result, Citigroup remained in private hands and shareholders were largely protected. Executives' bonuses and salaries were still paid, despite the bailout.

Why is this a moral hazard? Because profits from high-risk lending had been privatized during good times. When losses occurred, taxpayers absorbed the risk. This created a precedent that "too big to fail" banks would be rescued with public money.

*Source:*

<https://www.reuters.com/article/breakingviews/breakingviews-review-citigroups-2008-bailout-wont-be-its-last-idUSKCN1L91W7/>

Over time, this dynamic weakens government control. Policymakers become constrained by the fear of triggering financial instability. Raising interest rates risks defaults, bank failures and recession. Allowing debt to shrink risks a shortage of money and economic contraction. As a result, policy becomes reactive, focused on crisis management instead of long-term public welfare.

Gradually, money stops serving the public interest and becomes a tool for maintaining the stability of the banking industry at any cost. Governments lose effective control over the monetary system, even though they remain formally responsible for its outcomes. In this way, the

state's monetary sovereignty erodes, not through a single decision, but through dependence on a fragile system.

### **5. Social and environmental degradation – why do monetary instability and debt dependence erode society and nature?**

When money keeps losing value because of inflation, it slowly changes how people live and think. Saving money no longer feels sensible, while borrowing becomes necessary just to manage daily life. Families fall into debt, while speculation and property hoarding are rewarded more than honest work. This creates constant financial stress, affects family life, weakens community ties and turns many human relationships into money-based transactions. An ironic feature of the modern banking system is that it has generated poverty amid economic abundance.

#### **Poverty in a rich country: The US example**

The latest data show that in 2023, around 47.4 million people – about 14% of the US population, or roughly one in seven – lived in food-insecure households in one of the world's most advanced economies. This means that they struggled at times to access enough food for an active, healthy life. The situation was even worse for children: around 13.8 million children, nearly one in five, lived in food-insecure households. This shows that severe deprivation is no longer confined to poor countries.

*Source:*

[https://ers.usda.gov/sites/default/files/\\_laserfiche/publications/109903/AP-124.pdf](https://ers.usda.gov/sites/default/files/_laserfiche/publications/109903/AP-124.pdf)

The same phenomenon also harms the environment. When money is created through loans that must be paid back with extra money, the economy is pushed to keep growing all the time – even when people’s real needs are already met. To keep this growth going, natural resources are used up faster, factories overproduce and pollution increases. Environmental limits are treated as obstacles to overcome rather than boundaries to be respected, making genuine sustainability difficult to achieve under the current system.

This growth-at-all-cost philosophy encourages short-term thinking. Decisions are made for quick returns, while future damage is ignored. In this way, environmental destruction becomes an accepted cost of a debt-driven economy.

The consequences are now clearly visible. Atmospheric CO<sub>2</sub> has risen to dangerous levels within a single century, driving global warming, ecological damage and biodiversity loss, with growing impacts on human health, food security, livelihoods and social stability. This makes clear how a debt-driven growth model ultimately translates into environmental and human breakdown.<sup>16</sup>

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<sup>16</sup> Intergovernmental Panel for Climate Change (IPCC), Sixth Assessment Report, Working Group II: Impacts, Adaptation and Vulnerability (2023), Chapter 2.

**Conclusion: Fractional-reserve banking is a system that cannot deliver a stable outcome**

In this chapter, we have tried to demonstrate that today's problems – rising debt, inflation, inequality, financial instability, recurring economic crises, social and environmental challenges – are not merely isolated failures or policy mistakes. They are predictable outcomes of how the modern money and banking system is designed. Even with good regulation and capable policymakers, a system built on debt-based private money creation naturally produces fragility and repeated crises. This is why reforms at the margins have repeatedly failed to deliver lasting stability.

Crucially, this diagnosis is not limited to critics outside the system. **Lord Mervyn King, the former Governor of the Bank of England**, reached a similar conclusion after leading one of the world's most important central banks during the global financial crisis of 2008: *“Of all the many ways of organizing banking, the worst is the one that we have today...Change is, I believe, inevitable. The question is only whether we can think our way through to a better outcome before the next generation is damaged by a future and bigger crisis. This crisis has already left a legacy of debt to the next generation. We must not leave them the legacy of a fragile banking system too.”*<sup>17</sup>

When even those entrusted with safeguarding the system openly acknowledge its weaknesses, the

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<sup>17</sup> Lord Mervyn King's speech in New York on 25<sup>th</sup> October 2010: “Banking: from Bagehot to Basel, and back again” <https://www.bis.org/review/r101028a.pdf>

debate can no longer revolve around whether reform is necessary. The only remaining question is, what kind of monetary system should replace the one that repeatedly generates inflation, instability and inequality? This chapter has presented the diagnosis. The task ahead is not incremental reform, but systemic redesign. Proposing full-reserve banking as the answer to existing problems, the next chapter examines how it offers a viable path towards stability, justice and monetary sovereignty.

## **Chapter 2:**

# **Full-Reserve Banking – How Does it Work and What are the Benefits?**

## **Overview**

Fractional-reserve banking is not the only possible banking model. An alternative is full-reserve banking, also known as the 100% reserve model, under which lending activity is strictly limited to funds that have been explicitly placed with banks for investment purposes. Banks are not permitted to lend demand or checking deposits, which are held solely for safekeeping and payment transactions. As a result, banks cannot create money through lending or use current account deposits to extend loans.

The full-reserve model has been strongly supported by several world-leading economists including Irving

Fisher and Milton Friedman. It has numerous important benefits: no more bank runs, removal of domestic government debt created through bank borrowing and elimination of monetary inflation. Banking regulations would also become much simpler.

To avoid inflation, it is essential that the state creates money only in line with real economic growth under the full-reserve model. Because this money would be issued without debt, it would carry no interest burden for the government. Banks would continue to provide financing to the economy using investor funds (provided with full knowledge of associated risks) while depositors would be much safer under the 100% reserve policy. The role of interest rates in influencing the money supply would be greatly diminished.

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### **An alternative to the fractional-reserve system**

The origins of 100% sovereign money or full-reserve banking can be traced back to the earliest and purest forms of deposit keeping. In ancient Mesopotamia, Greece and Rome, there were people and institutions (e.g. temples) that would keep coins, jewelry or other valuables for safekeeping. They would charge a fee for this service. The coins and other valuables would be kept safe (much like in a bank locker) and there would be no lending to earn a profit or interest. The fractional-reserve system started much later, during the Middle Ages, as a deviation from the full-reserve system when some custodians began lending depositors' money to earn profits for themselves.

Please refer to Appendix 3 for a brief history of the evolution of money.

**Debt-free money: Historical precedents**

- Medieval England's tally sticks functioned for centuries as interest-free, state-issued money accepted for tax payments and circulation. Simple pieces of wood circulated as a trusted medium of exchange for over 500 years, outlasting many modern banking systems. This shows that a payments system can operate without money being created through bank debt.
- Commodity money such as gold and silver existed independently of lending and interest. While rigid and imperfect, it illustrates the separation of money from credit creation that full-reserve banking seeks to restore.
- US President Abraham Lincoln's greenbacks were fiat currency issued directly by the U.S. Treasury during the Civil War without borrowing from banks or paying interest. Although temporary, they demonstrate that governments can issue money without creating interest-bearing debt.
- WIR Bank (Switzerland) operates a long-standing mutual credit system that enables trade without compounding interest or fractional-reserve money creation, showing that liquidity and exchange do not require debt-based money.

- Local currencies, such as the Bristol Pound (started in 2012, withdrawn in 2021), are designed primarily as media of exchange rather than vehicles for debt expansion, reinforcing the concept of money separated from credit growth.

*Sources:*

- <https://collection.sciencemuseumgroup.org.uk/objects/co60506/medieval-exchequer-tally-sticks>
- [https://www.moaf.org/exhibits/checks\\_balances/abraham-lincoln/greenback](https://www.moaf.org/exhibits/checks_balances/abraham-lincoln/greenback)
- <https://www.cгаа.org/article/wir-bank>
- <https://www.motransports.co.uk/bristol-pound/>

The full-reserve banking model is championed by some very prominent and respectable economists, including Irving Fisher (1867-1947), who wrote a book on the model titled *100% Money*. Other names who supported the idea include renowned economists David Ricardo (1772-1823), Henry Simons (1899-1946), Paul Douglas (1892-1976), Frank Knight (1885-1972), Milton Friedman (1912-2006), Maurice Allais (1911-2010), James Tobin (1918-2002) and many others (see Appendix 1).

After the Great Depression of 1929-33, some economists from the University of Chicago proposed the “Chicago Plan” as a comprehensive attempt to reform the monetary and banking system of the US, which included the elimination of private bank money creation through fractional-reserve lending. After the global financial crisis of 2008, the plan was updated in a 2012 International Monetary Fund working paper by two economists,

Jaromir Benes and Michael Kumhof.<sup>18</sup> In summary, the criticism of the fractional-reserve banking model has been pervasive and many economists have proposed the full-reserve banking model, so the academic rigor of the latter is not questionable. What is lacking is the political will to implement it in a world that has been dominated by the fractional-reserve system, shaped by vested interests and constrained by the natural inertia that resists major changes to the status quo.<sup>19</sup>

### **Two options: Sovereign money or full-reserve banking**

There are two main ways to end the private creation of money under the fractional-reserve banking system, in which commercial banks create electronic money by issuing loans while holding only a small fraction of state-issued money as reserves.

#### **Option 1: Sovereign or central bank money**

Under the sovereign money model, all electronic money would be created and issued exclusively by the central bank, just like physical cash. Every citizen and business will hold transaction accounts directly with the central bank and use them to store money and make payments to one another. This could take the form of a **Central Bank Digital Currency (CBDC)**.<sup>20</sup>

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<sup>18</sup> <https://www.imf.org/external/pubs/ft/wp/2012/wp12202.PDF>

<sup>19</sup> The Bank of England attempted to regulate currency issuance in 1844 by requiring that all banknotes be backed by gold. However, it left the demand deposits unregulated which, over a period of time, became the dominant form of money.

<sup>20</sup> Digital form of a country's currency, issued and regulated by the central bank.

While this approach gives the state complete control over money creation, it requires an elaborate technological infrastructure, including massive data storage capacity and nationwide payment systems operated by the central bank. There is also a concern that private sector innovation in fast, efficient and user-friendly payment services could slow down, as most payment activity would be centralized within a single public institution rather than distributed across competing commercial banks. An additional concern is that every CBDC transaction could potentially be monitored. Money could even be programmable – designed to expire or restricted to certain uses. A system intended to reduce dependence on private banks could, if poorly designed, shift excessive power to the state.

Even under a centralized money system, commercial banks could provide investment and financing services. Banks would no longer create and store money, but they would still collect funds that people willingly set aside for investment and manage these funds on their behalf. Using pooled investment funds, investment banks would finance businesses and projects, assess risks and allocate capital efficiently. In this way, banks would function as investment managers and financial intermediaries, while money creation, storage and payments remain firmly in the public domain.

## **Option 2: Full-reserve banking**

Under the full-reserve banking model, citizens continue to hold their transaction accounts with commercial banks, just as they do today. Commercial banks also continue to maintain reserve accounts with the central bank. The

key difference is that, unlike the current system, where banks keep only a small fraction of deposits as reserves and are therefore able to create money through lending, each bank must hold central bank reserves equal to 100% of its customers' transaction deposits.

For example, if a bank has total customer transaction deposits of Rs. 1 trillion, it must hold Rs. 1 trillion in its reserve account with the central bank, instead of only a small fraction (currently 5% required in Pakistan). If a transaction takes place between two customers of the same bank, there is no net change in that bank's total deposits, and no adjustment is needed in its reserve account. However, when a customer transfers money to a customer of another bank, the sending bank's reserve balance at the central bank decreases by the same amount, while the receiving bank's reserve balance increases correspondingly.

If a customer wishes to earn a return, the funds must be committed for a specified investment period. The money is transferred from the customer's transaction account into an investment fund, where it is no longer treated as money available for payments. Funds from investors are pooled together into an investment fund managed by the bank. These pooled funds are then invested across selected businesses and projects. Profits and losses from the overall investment portfolio are shared proportionately among investors, according to their participation in the pool. However, the investment pool may be categorized into low, medium or high-risk segments.

Under this system, banks can only transfer existing money between accounts. Since each bank must maintain central bank reserves equal to the full value of its customers' transaction deposits, not a single rupee can be created by commercial banks. Total electronic money therefore remains under the control of the state, while commercial banks continue to operate payment systems and provide financial services.

To avoid large-scale disruption, full-reserve banking is the preferred option. It removes the money-creation power of commercial banks in a seamless manner, while preserving the existing banking system and private sector innovation. Since money transfers among account holders would remain within the domain of commercial banks, it would also help address concerns about excessive state surveillance associated with CBDCs. At the same time, it restores full control over money creation to the state – the central bank – where this sovereign function properly belongs.

Below are the functional and technical details of full-reserve banking.

### **Separation of transaction deposits and investment funds**

One of the most fundamental changes under a full-reserve banking system is the separation of two very different and inherently conflicting banking roles. Today, banks both keep people's money safe and use that same money to give out loans for profit. This mixing of roles creates confusion and risk, because money that people believe is safely stored is actually being used elsewhere.

A full-reserve system fixes this by keeping money used for payments completely safe, separating it from investment activities that involve risk. This makes the banking system simpler, safer and more transparent for everyone.

Under a full-reserve system, the distinction between transaction deposits (money deposited for payments and everyday use) and investment funds is the foundation upon which the entire full-reserve framework rests. Transaction deposits represent a custodial relationship, where the bank acts as a safekeeper of the depositors' money, while investment funds represent a risk-bearing contractual relationship, where funds are knowingly placed for financing and investment purposes.

At present, savings accounts have a checking facility (i.e. the ability to withdraw money at will), blurring the line between money and investment. The full-reserve system would restrict the checking facility to current accounts only, where no interest is paid to depositors. This means that all existing savings accounts – which are part of the money supply – will be converted into current accounts. Banks would be required to hold central bank reserves equal to 100% of these money balances. Consequently, the **quantity of money – both cash and electronic – would remain fixed** at that level, thereby **stabilizing the general price level against monetary inflation.**

If a depositor wants to earn a return on their money, they have to place their money in an investment fund, which would be locked in for a considerable period

(for example, at least six months) and would not be available for payments/withdrawal. The invested funds are transferred in real terms to the businesses, like cash, and can therefore be used as money by those businesses, not by the depositor who has set aside these funds for investment. There is no duplication of purchasing power: at any given time, a unit of money can be used either by the depositor or by the business, but not by both. As a result, the total quantity of money in circulation remains unchanged; only its ownership and use are transferred.

**Thus, under the 100% reserve system, an account will either be a checking account or an investment fund, but not both.**<sup>21</sup> While this may seem like a small difference between the two systems, in reality, it is very significant and fundamental. It changes the nature of the banking model; instead of creating new money through lending, banks will simply act as intermediaries to transfer pre-existing money from savers to investment activities.

The investment funds will be illiquid and risk-bearing. They carry investment risk and are intended solely for financing productive economic activities, which in itself discourages their use for everyday transactions. They will have no cheque, debit or instant withdrawal facility. Only fully backed sovereign money, whether held in physical or

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<sup>21</sup> Checking accounts are those accounts which provide easy cash deposit and withdrawal facility for everyday transactions and do not usually offer any interest/profit. Savings/investment accounts are those that provide a return. Originally, savings accounts did not offer checking facility, but this changed over time and now almost all types of savings accounts are remunerative as well as let depositors withdraw their funds at will.

digital form as transaction deposits, will qualify as legal tender and will be used for payments. This clear legal and functional separation ensures that money used in daily exchange remains safe and stable, while investment funds remain risk-bearing and return-seeking.

In the words of senior IMF economists Benes and Kumhof (2012), *“By contrast, under the Chicago Plan [i.e. a full-reserve banking model] the quantity of money and the quantity of credit would become completely independent of each other. This would enable policy to control these two aggregates independently and therefore more effectively.”* (brackets added)

### **The blurring of checking and savings accounts**

It is important to note that well into the twentieth century, transaction (checking) accounts and savings accounts were functionally separate. Checking accounts were used for payments and settlement, while savings accounts were often subject to withdrawal or transfer restrictions.

Only in the late twentieth century – particularly from the 1970s and 1980s onward – was this distinction gradually and systematically weakened. As savings and other interest-bearing accounts were increasingly permitted to be used for payments, private credit creation expanded sharply and bank-created deposit money came to dominate modern monetary systems.

Source: <https://www.federalreservehistory.org/essays/regulation-q>

### An illustrative example

Continuing with the example explaining the fractional-reserve system in chapter 1, Bank A receives Rs. 100,000 in deposits. It has to be clarified upfront if this is for transactions or for investment (to earn a return). If it is the former, Bank A accepts the deposit and does not do anything with it. In this case, Bank A is like a warehouse or storage facility for money on behalf of its customer. The bank can charge a service fee for safeguarding the money or it may do so for free in the hope that the same customer would also invest in an investment fund, which the bank can use to generate a return. Let's assume that Bank A receives Rs. 900,000 from various customers for investment, so the total asset base of Bank A amounts to Rs. 1,000,000, the same as in the fractional-reserve example above. We can understand the difference between the two models with the help of the table below.

**Table 1: How the two systems work – different approaches to creating new money**

No.	Fractional-reserve banking system	Full-reserve banking system
1	Total asset base of Bank A: Rs. 1,000,000	Total asset base of Bank A: Rs. 1,000,000
2	Deposits subject to checking AND investment (considered money): Rs. 1,000,000	Deposits subject to checking (considered money): Rs. 100,000; deposits subject to investment (not considered money): Rs. 900,000

CHAPTER 2: THE FULL-RESERVE BANKING MODEL

No.	Fractional-reserve banking system	Full-reserve banking system
3	Amount available with the bank to fulfill cash withdrawal requests: Rs. 100,000 (vs. possible / theoretical cash withdrawal requests of Rs. 1,000,000)	Amount available with the bank to fulfill cash withdrawal requests: Rs. 100,000 (vs. possible / theoretical cash withdrawal requests of Rs. 100,000)
4	Risk of bank run: Very high (90% cash does not exist)	Risk of bank run: Zero (100% cash exists)
5	Initial deposit of Rs. 100,000 creates future deposits of Rs. 900,000 AND simultaneously creates loans of Rs. 900,000. Hence growth in money is linked inextricably to growth in indebtedness	Initial deposit of Rs. 100,000 creates no future deposits. Creation of Rs. 900,000 loan/financing is a separate transaction not linked to deposit creation; money can be created (by the state) without increasing indebtedness
6	Banks create new money every time they issue a loan	Bank do not create new money when they issue a loan; they raise investment funds to use them for issuing loans (from existing money)

## Summarized comparison of the two banking systems

The following table summarizes the key characteristics of fractional-reserve and full-reserve banking systems:

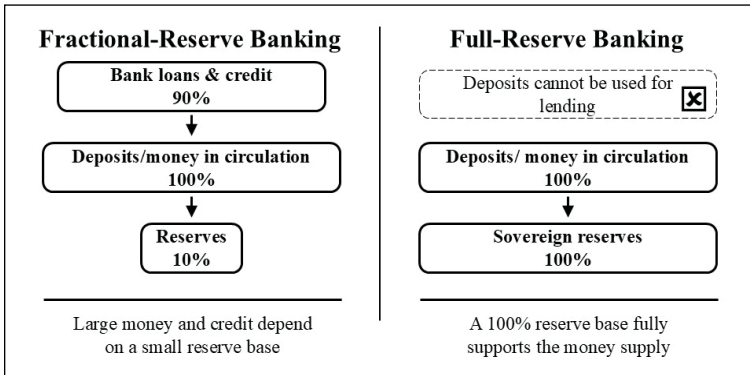
**Table 2: Key characteristics of fractional-reserve and full-reserve banking systems**

No.	Characteristics of the fractional-reserve banking system	Characteristics of the full-reserve banking system
1	Money and purchasing power are created by banks when they make loans	Money and purchasing power are created by the state (i.e. sovereign money)
2	Loans increase purchasing power and expand the money supply	Loans simply transfer purchasing power between savers and borrowers; there is no impact on money supply
3	Loan repayments decrease the money supply	Loan repayments (like loan issuance) have no impact on the money supply
4	New money is created in tandem with an equal amount of debt	New money is created free of any corresponding debt (similar to currency notes)
5	An increase in bank investment in one part of the economy does not require a reduction in spending elsewhere	An increase in bank lending in one part of the economy requires a reduction (or deferment) of spending elsewhere in the economy; purchasing power is transferred from a saver to a borrower

No.	Characteristics of the fractional-reserve banking system	Characteristics of the full-reserve banking system
6	Banks can lend as and when they find a creditworthy borrower, and can find any necessary central bank reserves after the loan has been made	Banks must first raise funds from investment account holders and other investors before they can make a loan

Source: *Modernising Money* by Andrew Jackson & Ben Dyson, page 243 (with minor changes)

**Figure 4: Structural stability of the fractional-reserve and full-reserve systems**



**Key advantages of the full-reserve system**

Once the mechanics of full-reserve banking are understood, its economic consequences follow directly. The benefits below arise naturally from separating money creation from lending, instead of policy choices.

▪ **Financial stability – no more bank runs:** Since 100% of the depositors' money will always be with the banks in cash and reserves with the central bank, there will be no question of banks' inability to fulfill cash withdrawal requests from their depositors at any time. There will be no need for deposit insurance, nor will the central bank or the government need to bail out banks in order to protect the financial system. A corollary to this is that bank failures will be greatly diminished as well.<sup>22</sup> This means that even if a bank makes bad investments and fails, people's transaction accounts can be smoothly transferred to another bank, with no loss to account holders or taxpayers.

▪ **Monetary sovereignty – elimination of domestic government debt held by banks:** In full-reserve banking, state or sovereign money will be created directly by the government once it reclaims its monetary sovereignty. This money will be issued without debt and tied to real GDP growth to prevent inflation. During the transition, the central bank will provide sovereign, interest-free reserves to commercial banks so they can meet the 100% reserve requirement on the transaction deposits they hold. In return, it will take over the government securities currently held by banks. This process will effectively eliminate the government's outstanding domestic debt held by the banking sector. Going forward, the government will be able to create money in line

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<sup>22</sup> Bank failure can be caused by two main factors; bad credit (i.e. customers do not pay back the loans advanced by the bank) and bank runs (inability of the bank to honor the depositors' request for cash withdrawal). Full-reserve model will eliminate the second factor.

with GDP growth without simultaneously increasing its indebtedness. This is the most significant advantage of the full-reserve system, especially for highly indebted and emerging economies. However, it is worth noting that the full-reserve framework does not relax fiscal discipline, as it does not encourage excessive government spending through uncontrolled money creation; it simply removes the automatic link between money creation and public/private debt.

▪ **Economic stability – business cycle booms and busts will be significantly reduced:** When the power to create (and destroy) money is taken away from banks, it will have a very significant dampening effect on the severity of business cycle booms and busts. When banks create excess money, it triggers inflation, exacerbates an economic boom and eventually creates a bubble. By contrast, during an economic downturn, banks call back loans or withhold new lending which can intensify a deflationary trend and turn it into a severe depression. An analogy for the constant instability caused by money creation under the fractional-reserve system is a machine that requires continuous lubrication – sometimes it overheats because of excessive lubrication (easy credit) and at other times it slows down because lubrication is cut off (tight credit). This will no longer be a problem in a full-reserve system.

▪ **Inflation control:** There are two main types of inflation – cost-push and demand-pull. Cost-push inflation arises from an increase in costs of production, e.g. increase in commodity prices caused by a bad

crop and resultant shortage. Demand-pull inflation is primarily due to increased demand for goods/services by the consumers, more than the economy's ability to produce them. Often, the major factor behind demand-pull inflation is excess money creation or easy credit availability, which enhances the public's purchasing power, leading to rising prices. Since full-reserve banking takes away banks' power to create money for profit and restores money creation to the state – explicitly aligned with real GDP growth – it will largely eliminate inflation arising from excessive credit-driven money creation.<sup>23</sup> In this sense, full-reserve banking addresses inflation at its core rather than relying on the indirect and often blunt interest rate policy tool.

▪ **Debt-free money as a tool for economic development:** Sovereign money creation eliminates the need for debt-financed money issuance. It may be used as a powerful tool for economic development. Since economic growth and increase in money stock should go hand-in-hand to avoid inflation or deflation, the government may identify short-gestation, productivity-enhancing projects with clearly measurable output effects. If these projects are completed on time and start generating output within a year, there will be no inflationary pressure, as the output would match the increased money stock. In this way, the government will be able to fund economic growth on its own, without increasing taxes and without borrowing

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<sup>23</sup> According to Milton Friedman, “Inflation is always and everywhere a monetary phenomenon.” – *The Counter-Revolution in Monetary Theory* (London: Institute of Economic Affairs, 1970).

from local banks.<sup>24</sup> Unlike credit booms driven by private money creation, this financing is inherently self-limiting and economically grounded.

### The US “Greenbacks” in 1862

During the American Civil War in 1862, the US federal government required substantial funds to finance the war effort, but private banks were either unable or unwilling to provide sufficient credit on acceptable terms. In response, Congress authorized the issuance of ‘United States Notes,’ commonly known as greenbacks (so named for the distinctive green ink on the reverse side). This was interest-free fiat currency issued directly by the government, rather than borrowed from banks. Although this monetary expansion contributed to inflationary pressures during the war, it demonstrated that governments could create money without simultaneously creating interest-bearing debt. This principle underlies modern proposals for sovereign money and full-reserve banking.

*Source:*

<https://uslawexplained.com/greenbacks>

- **More equitable wealth distribution:** By removing the banks’ ability to create money through credit expansion, full-reserve banking reduces the systemic advantages enjoyed by those with early or preferential access to newly created money. When new money no longer flows primarily into land, property and financial

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<sup>24</sup> For longer gestation projects, however, which take many years to complete, the government cannot simply print money to fund them as it would cause inflation (more money chasing the same economic output).

assets, asset prices rise more slowly, weakening the built-in advantage of existing asset owners. At the same time, money creation aligned with real economic growth helps protect wages and small savings from being eroded by inflation. With lower levels of debt and fewer interest payments, wealth is less likely to be transferred upward to asset owners and creditors, and economic rewards become more closely linked to productive activity and genuine risk-taking. Together, these effects support a fairer distribution of wealth over time without compromising financial stability or access to credit.

A research paper by two IMF economists, Benes & Kumhof (2012), re-examined the Chicago Plan which proposed full-reserve banking. Using a macroeconomic model for forecasting, they tested the claims of the Chicago Plan about better control of business cycles, elimination of bank runs and large reduction in public and private debt.<sup>25</sup> The model endorsed the original claims of the Chicago Plan. We reproduce the abstract of the research paper below:

*“At the height of the Great Depression a number of leading U.S. economists advanced a proposal for*

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<sup>25</sup> The paper uses a large-scale DSGE (Dynamic Stochastic General Equilibrium) model of the US economy, encompassing four sectors – banks, households, manufacturers and government. It is a macroeconomic model that describes the entire economy as a whole by analyzing the microeconomic decisions of rational agents (like households and firms) over time. Banks are supposed to lend only using time deposits or equity. The data from 1990 to 2006 was used to calibrate the model.

*monetary reform that became known as the Chicago Plan. It envisaged the separation of the monetary and credit functions of the banking system, by requiring 100% reserve backing for deposits. Irving Fisher (1936) claimed the following advantages for this plan:*

- 1. Much better control of a major source of business cycle fluctuations, sudden increases and contractions of bank credit and of the supply of bank-created money.*
- 2. Complete elimination of bank runs.*
- 3. Dramatic reduction of the (net) public debt.*
- 4. Dramatic reduction of private debt, as money creation no longer requires simultaneous debt creation.*

*We study these claims by embedding a comprehensive and carefully calibrated model of the banking system in a DSGE model of the U.S. economy. **We find support for all four of Fisher's claims. Furthermore, output gains approach 10 percent, and steady state inflation can drop to zero without posing problems for the conduct of monetary policy.***

### **Functional restructuring of banks**

As discussed earlier, one of the key reforms under a full-reserve system is the separation of conflicting banking functions into two distinct departments: deposit section and investment section. The deposit section will be responsible for managing demand deposits and providing payment services. The investment section will be responsible for providing credit and investment

services. It will raise funds from the public in the form of investment funds with the explicit understanding that these funds will be used in financing or investment activities and will therefore be subject to the relevant risks.

The deposit section will earn income by providing payment services to its accountholders and by facilitating payments to businesses and other customers. It may also charge a nominal fee on deposits for the custody and safekeeping of funds, to ensure its commercial viability. This explicit deposit fee will replace implicit and far larger costs currently borne by society through inflation, crises and public bailouts of banks. The investment section will earn profit/commission by acting as a true intermediary between the savers/investors and businesses/consumers, which is the real work of banking. Banks will undertake financing and investment transactions after receiving money from savers without creating any new money in the process. This means that banks will return to their original role of financial intermediaries.

The banks' investment section may still fail due to poor credit decisions in their investment activities (i.e. customers default on the financing and are therefore unable to provide a return to the banks). However, under full-reserve banking, such failures do not threaten the wider financial system, because investment losses are borne by investors who knowingly assumed the risk, while the payments system remains fully secure. Therefore, a single bank's investment failure does not trigger systemic collapse, as is often the case under fractional-reserve banking.

This means that no bank will be too important to fail, deserving of a bailout from taxpayers' money. Logic dictates that this should make banks more prudent in taking on and managing their risks, resulting in a more solid banking system for everyone's benefit.

In a full-reserve banking framework, the risks of insolvency and of failing to meet cash withdrawals on demand will no longer be relevant. Consequently, the complex banking regulations designed to mitigate these risks will be largely unnecessary, as most such requirements stem from risks that will be eliminated by the maintenance of 100% reserves. This will significantly reduce regulatory and compliance burden and related costs for both the commercial banks and the central bank.

### **Money creation mechanism under full-reserve banking**

Under the full-reserve system, the central bank will create money in proportion to the GDP growth of the country (i.e. the production of real goods and services) to match the needs of the economy and to avoid inflation or deflation. This approach will ensure that the right amount of money is created to achieve overall price stability in the economy. The right amount of money is one that is not in excess to create bubbles and/or a financial crisis, and not so little that it causes deflation and, ultimately, a recession. In other words, money will be backed by the total economic output as reflected in the gross domestic product, rather than by fiat currency, which has no physical backing, or by gold or any other physical commodity. It is arguably much more logical, fair and sustainable to have the money backed by an economy's

total productive capacity than by partial reliance on the value of a single metal extracted from the ground.

For illustration, if the projected real GDP growth lies in the range of 3-4%, money supply growth should broadly align with this range over the medium term. A disciplined and transparent framework for money creation allows the monetary authority to accommodate genuine economic needs while preventing the excesses and instability associated with unchecked monetary expansion.

Under a full-reserve system, the central bank will create new digital money in a simple accounting way. It will add money to the reserve accounts that commercial banks hold at the central bank. These reserves will be used only by banks to settle payments with one another or with the central bank and will not be used for lending. Commercial banks will record these reserves as assets on their balance sheets, while the corresponding amount will be credited to the government's account, allowing the government to receive new funds without increasing its debt.

As former US Federal Reserve Chairman Ben Bernanke once pointed out, modern money is created by typing numbers into a computer. The critical issue is not the technical process of money creation, but how much money is created and who is creating it. Creating too much money leads to inflation, while creating too little may hinder economic growth. Only careful creation of money in the right quantity helps keep prices stable.

## **Institutional safeguards – the Money Creation Committee**

To prevent political misuse of monetary authority, money creation must be overseen by an independent Money Creation Committee (MCC), established through legislation or constitutional provision. The MCC's mandate should be to determine the appropriate quantity of new money in accordance with the rule-based framework governing sovereign money creation (see Appendix 2).

Members of the MCC should be appointed for fixed terms, protected from arbitrary removal and subject to strict conflict-of-interest rules. All decisions should be publicly disclosed and the committee's operations should be audited annually by an independent body. Any deviation from the established framework should require formal justification and be subject to parliamentary oversight.

In exceptional circumstances – such as a war or severe economic disruption – the MCC may authorize temporary deviations from the framework, provided such actions are clearly justified, transparently documented and strictly time-bound.

The existing Monetary Policy Committee of a central bank could also be transformed into the MCC, enabling it to perform its intended role directly, rather than indirectly controlling the money supply through interest rate manipulation.

## **Democratic accountability and transparency**

Because the power to create money is a core attribute

of economic sovereignty, it must ultimately remain subject to democratic oversight. While operational independence is essential to protect money creation from short-term political pressures, such independence must be balanced by strong transparency and accountability mechanisms to ensure public trust.

Under a full-reserve system, democratic control is exercised through clearly defined rules rather than discretionary political intervention. The legislature establishes the legal framework governing money creation, including the objectives and operating principles of the MCC. Within this framework, the MCC operates independently but remains fully accountable for its decisions.

Parliamentary oversight should focus on compliance with the established process rather than policy micromanagement. The role of elected bodies is to ensure that governing rules are followed, deviations are properly justified and exceptional powers are not misused. This way, monetary sovereignty is restored to the public domain while operational integrity and institutional independence are preserved.

### **Implications for the banking industry**

Typically, any change in the status quo is most vehemently opposed by those benefiting from the system. It is no surprise, therefore, that the biggest opposition for full-reserve system comes from the bankers. The privilege of minting money is too great for private banks to let go of easily. However, there are also distinct advantages that a full-reserve system offers to banks which are not

available in a fractional-reserve system.

The most important benefit for banks is that full-reserve banking replaces the current high-risk model with a systemically safer one. By separating transaction deposits from investment funds, the system eliminates bank runs. Funding long term assets with long term liabilities sharply reduces another type of risk which is called maturity mismatch.

It is true that under the new system, commercial banks will no longer be able to earn risk-free income from government securities. However, investing in government securities is not real banking anyway and is an aberration of the original banking model. Real banking entails intermediation between savers/investors and businesses to facilitate and enable economic growth. Under the full-reserve system, the banking model will return to its core function. Over time, this is likely to foster a more resilient, trust-based banking sector, focused on service quality rather than balance sheet expansion through money and debt creation.

**Would full-reserve banking reduce the availability of money for productive activities?**

This is perhaps the most important concern raised by certain quarters against full-reserve banking. It is based on incorrect assumptions. Current bank lending is mostly unproductive. Less than 20% of bank financing goes to real productive sectors. In advanced economies, property (mortgages) is a preferred category for bank financing. In Pakistan, over 90% of new financing went

to the government in recent years merely to pay interest, creating inflation now and debt for future generations.

Banks expand financing excessively in good times, often for non-productive uses, creating artificial booms. When people become over-indebted, spending drops and defaults rise, causing banks to cut financing sharply. This cycle itself limits productive activity. Under full-reserve banking, financing would adjust through market incentives. If investment institutions need more funds, they would simply offer a higher share of profit on investment funds, attracting more savings. Funds naturally flow towards activities offering higher returns. However, all financing will have to be based on real savings, not on artificial money creation by commercial banks.

Institutions with surplus funds can transfer them to those with a shortage and/or businesses that need financing. If the entire system needs more liquidity for real-sector activities, the central bank can issue new money and allocate it specifically for productive financing.

Investment funds allow continuous recycling of funds. Money invested by investment funds in the real economy does not disappear. When recipients spend it, the funds move to someone else's account, and that person may reinvest them. The same money can finance multiple productive ventures as it circulates. In this way, a fixed stock of money can support a growing volume of real economic activity. Therefore, full-reserve banking does not reduce financing – it channels it more efficiently into

real, productive and desirable economic activities.

Please refer to Appendix 5 for a detailed discussion on the availability of money for productive investment under a full-reserve banking system. Please also refer to Appendix 6 for an overview of investment operations under a full-reserve banking system.

### **Monetary policy in a full-reserve system**

In a full-reserve banking model, the central bank controls the money supply directly and is not dependent on commercial banks because the money-creation opportunity would no longer be available to banks. The MCC of the central bank decides what the total amount of money in circulation should be, in line with GDP growth, and it can alter this amount by printing money or creating new reserves with banks. The role of interest rate (central bank's policy rate) will be greatly diminished, because, unlike in a fractional-reserve system where the interest rate influences commercial banks to lend more or less, thus influencing money supply, the central bank in a full-reserve system can simply manage the money supply directly and transparently.

In an Islamic financial framework, this shift is particularly significant, as it removes interest not only as a policy tool but also as a driver of money creation, allowing finance to be organized around risk-sharing and real economic activity rather than debt expansion.

## Conclusion

Money creation is a core sovereign function of the state. Full-reserve banking reassigns this monetary function to the public domain while preserving the private banking function of financial intermediation. Put differently, the full-reserve system is meant to nationalize the monetary function (of creating money) but not the banking function (of providing credit). In the words of Irving Fisher (1936), *“If our bankers wish to retain the strictly banking function – loaning – which they can perform better than the government, they should be ready to give back the strictly monetary function [i.e. money creation] which they cannot perform as well as the government.”* (brackets added)

By restructuring money creation, clearly separating risk-bearing investment from the safekeeping of money and restoring monetary sovereignty to the public domain, full-reserve banking establishes a more stable and disciplined financial architecture.

The next chapter applies this framework to Pakistan, examining how full-reserve banking can be implemented within its existing institutional and economic structure and what benefits it will bring to the economy, the government and the public at large.

## **Chapter 3:**

# **Applying the Full-Reserve Banking Model to Pakistan**

## **Overview**

Full-reserve banking can be a great blessing for Pakistan. Interest cost consumes half of Pakistan's annual budget, 88% of which belongs to domestic debt, predominantly held by banks. Full-reserve banking will enable the government to extinguish domestic debt, thereby eliminating the huge fiscal deficit. It will result in an interest cost saving of Rs. 5.8 trillion per annum, ushering in a new era of economic stability and fiscal prudence.

As money creation returns to the state, it should be strictly in line with real GDP growth in order to prevent inflation. Pakistan's persistent, long-run inflation is

fundamentally rooted in debt-driven monetary expansion, which will no longer exist after adopting full-reserve banking. This will stabilize the value of the rupee and restore its purchasing power, especially benefiting the middle and lower middle classes which are currently burdened by crippling inflation.

Adopting full-reserve banking will result in a national transformation; it is not just a financial reform plan. It envisions a Pakistan free from domestic government debt and inflationary money creation. It addresses the urgent need for economic stability and presents a credible path towards a sustainable future.

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Let's see how the full-reserve banking model can be implemented, using Pakistan as a test case. In order to do this, first we must gain an understanding of what afflicts Pakistan's economy in order to appreciate the impact full-reserve banking will have if it is adopted.

Since its establishment in 1947, Pakistan's economy has had bouts of high and low growth. The decades of 1960s and 1980s witnessed 6.5%+ growth while the 1970s, 1990s and later years have seen more subdued growth rates of 3-4% per annum. More recently, the growth rate has fallen below 3%. The economy's deep-seated weaknesses lie at the heart of this volatile long-term performance and recent stagnation, resulting in inflation, rupee devaluation, unemployment and other adverse consequences. Some of the more important factors for Pakistan's weak economic performance are:

- Political instability and resultant lack of political will to take tough decisions
- Weak governance – inadequate structures and absence of merit
- Lack of vision for the economy and its long-term development
- Low productivity of the labor force (due to lack of education and training)
- Concentration on one sector (textiles) for exports
- Unhealthy dependence on imports / low level of indigenization

The list is long; inadequate physical infrastructure, high cost of energy, a weak legal system and large-scale corruption may also be included. These weaknesses and shortcomings manifest themselves in two key imbalances: the current account deficit and the fiscal deficit. Current account deals with international trade (exports and imports) and unilateral transfers such as workers' remittances. Fiscal account is simply about the domestic revenues and expenses. In case of a current account deficit, the government has to borrow in foreign exchange from international lenders to balance its books. A fiscal deficit, on the other hand, compels the government to borrow from local commercial banks or print money.

It is the twin deficits that we will discuss in some detail next.

## **Twin deficits**

From a foreign trade perspective, the economy of a country is not very different from the economy of a household. If your income is consistently less than your expenses, then you will continue to incur deficits. To cover the gap, you can borrow from friends and family, but only up to a point, and eventually, you may be forced to sell your assets. Ultimately, the only real long-term sustainable solution is to increase your income and/or reduce your expenses.

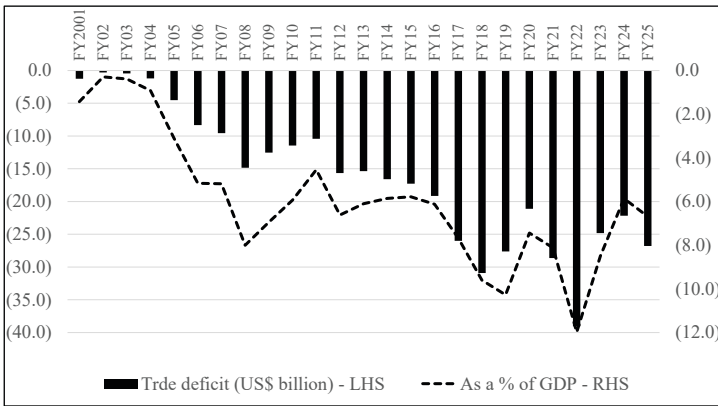
Applying the above example to Pakistan, we see that both on the external account (i.e. exports and imports) and the domestic front (local rupee income and expenses), we have been running large deficits for years, even decades. When these deficits become too large, especially on the external account, we go to the IMF for a bailout. We try to make amends, but these half-hearted short-term measures only manage to improve things for a few years and then the old pattern repeats itself. This is the reason Pakistan has gone to the IMF 23 times in the last six decades. Pakistan holds the unenviable record of the highest number of times any country in the world has gone to the IMF since 1958 (when Pakistan first sought IMF support).

## **Trade / current account deficit**

As you can see from the graph below, Pakistan has been incurring massive trade deficits of US\$ 20 billion or more every year for the last ten years. It is typical for growing economies to run trade deficits; however,

in the case of Pakistan, there are some fundamental issues. Pakistan has never focused adequately on import substitution, basic industries and diversification of its export base. Whenever the economy starts to grow at more than 4% per annum, the import bill balloons while exports remain stagnant or grow at a much lower rate, resulting in a large trade deficit.

**Figure 5: Pakistan’s trade deficit 2001-2025 (US\$ billion and as a % of GDP)**



*Source: State Bank of Pakistan, Pakistan Bureau of Statistics*

Fortunately, the presence of over 10 million expatriate Pakistanis around the world comes to our rescue – with their remittances largely cushioning the impact of the trade deficit. This means that the current account balance (which includes the positive effect of remittances) is much better than trade account balance. However, the only sustainable solution is to have a balanced trade and current account is to have a long-term policy encouraging local production and employment, import substitution where possible and diversification of exports by focusing on

Pakistan's natural competitive advantage and investing in it (e.g. agriculture, IT services, tourism).

Pakistan's situation can be compared to that of a household whose primary income earner, representing exports, earns Rs. 100,000 per month, while a family member working abroad contributes an additional Rs. 100,000 in support. However, total monthly expenditure reaches Rs. 300,000, with the shortfall financed through external borrowing of Rs. 100,000. If Pakistan's people and its government act together by supporting locally manufactured goods and expanding exports to keep imports broadly aligned with exports and balance the trade account, Pakistan can use its annual remittances of US\$ 38-40 billion from overseas Pakistanis to repay its foreign debt of around US\$ 100 billion in less than three years.

This approach could also generate large-scale employment, particularly for Pakistan's young population, reduce fiscal and external pressures, eliminate chronic vulnerability and restore economic sovereignty by returning national policy and governance into Pakistani hands rather than the IMF's.

### **Unsustainable fiscal deficit rooted in soaring interest costs**

As evident from the FY2025-26 budget summary below, a staggering 47% of the federal budget is now consumed by interest payments alone.<sup>26</sup> Interest

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<sup>26</sup> While the Rs. 8.2 trillion is shown in the budget document as debt servicing cost (which includes interest payment plus principal repayment), in reality it only includes interest payment.

expenditure is many times greater than allocations for defense, development, social protection and other government functions. It has risen from less than Rs. 400 billion in FY2003-04 to approximately Rs. 8.2 trillion in FY2025-26.

**Table 3: Pakistan 2025-26 federal budget inflows and outflows**

Inflows			Outflows		
Description	Rs in billion	% of total	Description	Rs in billion	% of total
Direct taxes	6,902	39.3	Debt servicing	8,207	46.7
Indirect taxes*	7,229	41.1	Defense	2,550	14.5
Non-tax revenue**	5,147	29.3	Federal govt. expenditure	971	5.5
Total revenue	19,278	109.7	Pension payments	1,055	6.0
Less: Provincial share	(8,206)	(46.7)	Social protection (BISP)***	734	4.2
Net federal revenue	11,072	63.0	Other grants and transfers	1,194	6.8
New loans	6,501	37.0	Subsidies (mainly power)	1,186	6.7
			Development expenditure	1,287	7.3
			Provision for emergencies	389	2.2
<b>Total receipts including loans</b>	<b>17,573</b>	<b>100.0</b>	<b>Total payments</b>	<b>17,573</b>	<b>100.0</b>

\* Includes sales tax (Rs. 4.8 trillion), excise duty (Rs. 1.6 trillion), and federal excise duty (Rs. 0.9 trillion).

\*\* Most notably includes the petroleum levy of Rs. 1.5 trillion.

\*\*\* Benazir Income Support Programme (BISP).

Source: Pakistan Federal Budget FY2025-26

[https://finance.gov.pk/budget/budget\\_2025\\_26/budget\\_in\\_brief\\_10062025.pdf](https://finance.gov.pk/budget/budget_2025_26/budget_in_brief_10062025.pdf)

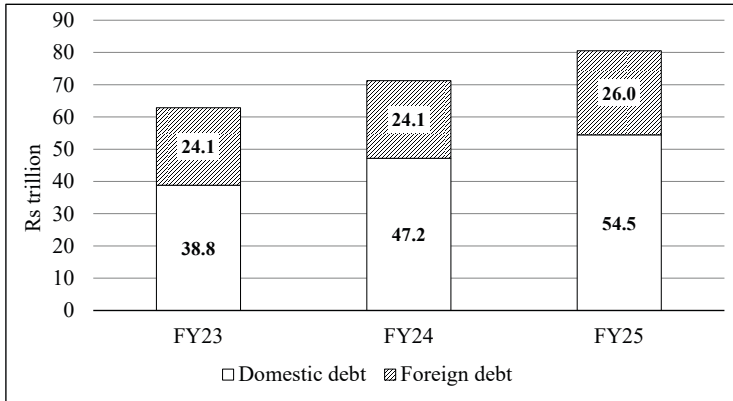
Contrary to popular perception, the primary source of this crushing burden is not the interest cost from external debt, but the interest paid on domestic debt owed to commercial banks, which now poses a greater threat to the government's fiscal sustainability. The graph below, showing the interest cost on domestic and external debt, makes this reality unmistakably clear.

To meet this escalating interest cost, the federal government is forced to borrow even more, pushing the

economy deeper into a debt trap. This cycle of borrowing fuels monetary expansion and persistent inflation, the burden of which falls disproportionately on the poor and fixed-income households. What emerges is a self-reinforcing system where high interest cost, rising debt and inflation feed into one another, undermining fiscal stability, eroding purchasing power and systematically transferring wealth away from the most vulnerable segments of society.

### **Composition of Pakistan's public debt**

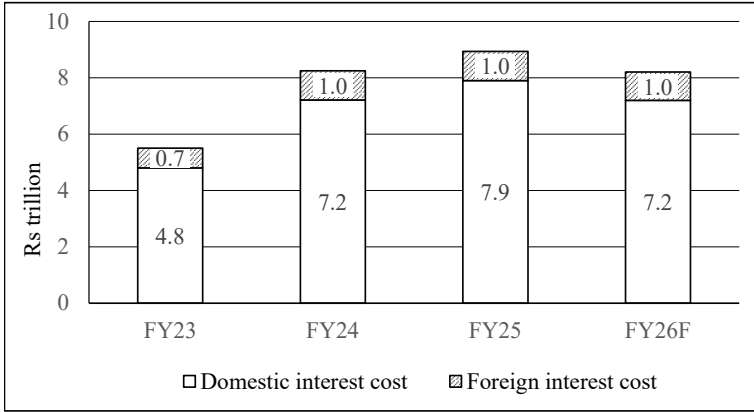
Pakistan's total public debt reached Rs. 80.6 trillion (US\$ 284 billion) as of June 2025, of which domestic debt accounted for Rs. 54.5 trillion (equivalent to US\$ 192 billion), while external debt stood at Rs. 26 trillion (US\$ 92 billion). The share of domestic debt in total public debt has continued to rise, increasing from 62% in June 2022 to approximately 68% by June 2025. In the last two years alone, domestic debt has increased by around 40%. In contrast, external debt grew by only about 8% over the same period, while the US\$/Rs exchange rate remained broadly stable.

**Figure 6: Increase in domestic and external debt – FY23 to FY25**

Source: Annual Debt Review FY25 - Ministry of Finance  
[https://www.finance.gov.pk/dpco/annual\\_debt\\_review\\_2025.pdf](https://www.finance.gov.pk/dpco/annual_debt_review_2025.pdf)

Of the total interest payments of Rs. 8.9 trillion in FY2024-25, approximately 88% was paid to domestic creditors, while only 12% went to external lenders such as the IMF, World Bank, Asian Development Bank, Paris Club members and other international creditors. This pattern is further confirmed in the FY2025-26 federal budget, where interest payments on domestic debt again account for around 88% of total interest costs.

**Figure 7: Interest cost on domestic and external debt**



*Source: Annual Debt Review FY25 - Ministry of Finance  
Federal budget documents FY24, 25, 26*

It is worth noting that while domestic debt is 68% of Pakistan’s total debt, interest cost on domestic debt is 88% of total interest cost. This is primarily because external borrowing carries much lower interest rates than domestic debt issued to commercial banks and priced in line with the SBP’s policy rate. In other words, it is expensive domestic debt that is currently draining the government’s finances. One percentage point increase in the SBP policy interest rate adds around Rs. 550 billion (~US\$ 2 billion) to the government’s annual gross interest burden.<sup>27</sup> Addressing this issue would allow the government to balance the budget or redirect the savings

<sup>27</sup> As of June 2025, only about 20% of Pakistan’s government debt was fixed rate, while the rest was short-term or linked to changing / floating interest rates. This means that most of the domestic debt is sensitive to interest-rate changes. For simplicity, the impact of a 1 percentage point change in interest rates has been estimated without separating fixed-rate and floating-rate debt.

towards critical development priorities such as education, healthcare, farm-to-market roads, infrastructure and job creation.

Even though interest on foreign debt makes up a smaller share of total interest payments due to its lower interest rate, a sharp fall in the rupee can still cause serious problems. When the rupee loses value, both the rupee cost of interest payments and the rupee value of Pakistan's foreign debt increase sharply. This puts pressure on government finances, makes future repayments more difficult and increases the risk of a debt crisis or default.

**Table 4: Composition of domestic government debt**

(Rs trillion)	FY23	%	FY24	%	FY25	%	Increase since FY23
Total domestic debt	38.8	100%	47.2	100%	54.5	100%	40%
I. Tradable government securities	34.5	89%	43.0	91%	52.3	96%	52%
- Held by banks	20.6	53%	29.2	62%	36.8	68%	78%
- Held by SBP	5.9	15%	5.6	12%	5.7	11%	(2%)
Total held by banking sector	26.5	68%	34.7	74%	42.5	78%	61%
- Held by non-banks	8.0	21%	8.3	18%	9.8	18%	22%
II. Others	4.3	11%	4.1	9%	2.2	4%	(50%)

NOTE: SBP provides loans to commercial banks specifically for the purchase of tradable government securities. Outstanding amounts as of 30 June 2023, 2024 and 2025 were Rs. 8.4 trillion, Rs. 11.8 trillion and Rs. 12.5 trillion respectively as per the SBP financial statements.

Source: Annual Debt Review FY24 - Ministry of Finance

[https://www.finance.gov.pk/dpco/Annual\\_Debt\\_Review\\_FY24.pdf](https://www.finance.gov.pk/dpco/Annual_Debt_Review_FY24.pdf)

Banks & non-banks holdings of government marketable securities – 30 June 2025 – SBP

<https://www.sbp.org.pk/ecodata/BankNon-BankHoldingGoP.pdf>

As the table above illustrates, the bulk of government domestic debt consists of tradable government securities that are primarily held by commercial banks in Pakistan. Consequently, domestic government debt is predominantly

owned by the banking sector (approximately 80% of the total vs. 20% for non-banks). This debt is expanding at an alarming pace, simultaneously fueling inflation today while also imposing a rapidly growing burden on future generations. Over the past two years, banking sector debt has surged by a massive 78%, whereas non-bank debt has grown much more slowly. The estimated proportional interest cost on the 80% share of government debt held by the banking sector is Rs. 6.3 trillion in FY 2025 and Rs. 5.8 trillion in FY 2026, out of the total domestic debt interest costs of Rs. 7.9 trillion and Rs. 7.2 trillion in these two years respectively, as shown in Figure 7.

### **Monetary expansion due to debt leads to inflation**

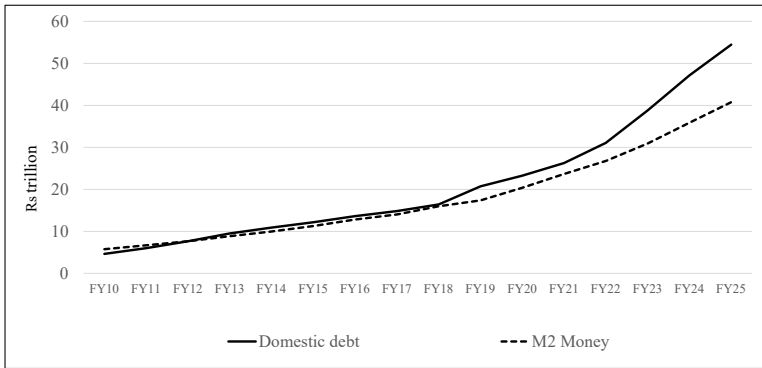
As explained in the previous chapters, commercial banks create new money in a fractional-reserve banking system in the form of bank deposits whenever they issue loans.<sup>28</sup> While supply shocks (such as a bad crop) affect short-term price movements, **Pakistan's persistent, long-run inflation is structurally rooted in debt-driven monetary expansion.** The government increasingly relies on large loans from banks to meet its expenses. As a result, both government debt and the stock of bank-created deposit money have expanded rapidly. This excessive monetary expansion has severely eroded the value of the rupee, reduced its purchasing power and triggered crippling inflation that disproportionately harms the poor and the vulnerable.

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<sup>28</sup> The Bank of England endorses this view: "Whenever a bank makes a loan, it simultaneously creates a matching deposit, thereby creating new money." (Bank of England, 2014 Quarterly Bulletin)

Inflation in Pakistan has been persistent and deeply rooted, driven primarily by debt-financed government interest payments, sustained growth in money supply and continuous depreciation of the rupee. Over the past 15 years, government debt has increased from Rs. 4.7 trillion to Rs. 54.5 trillion while the money supply (M2) has increased from Rs. 5.6 trillion to Rs. 40.8 trillion. Until 2018 the two had grown almost in tandem but in recent years, domestic debt has risen much faster. This shows how debt accumulation and monetary expansion have moved hand-in-hand, creating inflation.

**Figure 8: Domestic debt and broad money growth trends**



*Source: SBP archive for broad money data, Economic Survey of Pakistan FY2025*

Looking back over 50 years, the growth of broad money (banknotes and bank deposits, or M2) in Pakistan has exceeded 1200 times – at a rate of more than 15% per annum. This explosive increase is largely the result of the government’s heavy dependence on borrowing from banks, which fuels continuous money creation. By comparison, real GDP has grown by only about nine

times, averaging around 4.5% per annum during the last 50 years. This gap between money growth and economic growth resulted in a consistent rise in prices of goods and assets – by more than 100 times! (see the table below). The exorbitant increase in prices has been continuously eroding the purchasing power of the working class.

**Table 5: Prices – then and now**

No.	Item (per kg unless otherwise specified)	Average price in 1975 (Rs)	Average price in 2025 (Rs)	Increase (times)	Increase (annual %)
1	Sugar*	4.00	134.8	34	7.3%
2	Potato	1.98	116.9	59	8.5%
3	Eggs (dozen)	5.17	344.5	67	8.8%
4	Vegetable ghee	8.44	568	67	8.8%
5	Wheat flour	1.29	90.3	70	8.9%
6	Tomato	2.32	178.5	77	9.1%
7	Milk – fresh (liter)	2.40	197	82	9.2%
8	Rice Basmati – broken	1.84	203.9	111	9.9%
9	Pulse (Moong)	3.36	387.3	115	10.0%
10	Rock salt – powder	0.70	89.3	128	10.2%
11	Onion	1.00	141.9	142	10.4%
12	Tea (standard pack, 250 gm)	4.61	716	155	10.6%
13	Mutton	11.39	1960.5	172	10.8%
14	Beef (with bone)	5.88	1022	174	10.9%
15	Petrol (liter)	1.20	252.1	210	11.3%
16	Kerosene oil (liter)	0.67	161.7	241	11.6%
17	Gold (tola, 24K)	714.00	271158	380	12.6%

Source: Average retail prices of essential items, Finance Division - Government of Pakistan

<https://finance.gov.pk/survey/chapters/07-inf.pdf>

The Pakistan Annual Plan 1975-76, Pakistan Development Review

Pakistan Bureau of Statistics <https://www.pbs.gov.pk/price-statistics/>

\*Sugar price was controlled in 1975

An additional point is that some of the monetary expansion has flowed into asset markets such as real estate, driving housing prices far beyond what ordinary people can afford. Consequently, owning a home – a basic necessity and a foundation for family security –

has become increasingly out of the common man's reach. These dynamics reveal how excessive money creation has been a central cause of the long-term devaluation of the rupee.

It is deeply ironic that, despite holding the legal authority to create sovereign money, the state repeatedly borrows from private banks simply to pay interest on existing debt. This sets off a self-reinforcing cycle; the government borrows to pay interest which increases total debt, while interest payments inject additional deposit money into the banking system, further expanding the money supply. The result is a vicious and unsustainable cycle of rising debt, accelerated money creation and persistent inflation.

**How do inflation and high interest costs deepen poverty, concentrate wealth and drive unemployment?**

Inflation does not affect all Pakistanis equally. It hits the poor and the middle class the hardest, deepening poverty on a massive scale, while the wealthy, who own property and other assets, often see their wealth grow. The situation becomes even worse because the government, under constant pressure to pay huge interest on its debts, relies heavily on indirect taxes such as general sales tax (GST), fuel levy, electricity surcharges and other consumption-based taxes. These taxes do not differentiate between rich and poor, falling disproportionately on low-income households and pushing millions into further hardship.

Rising debt levels associated with the fractional-reserve banking system, together with a heavy reliance on indirect taxes, have exacerbated poverty in Pakistan. Indirect taxes raise the price of almost every essential item the poor purchase, adding 18% to their expenses (the prevailing GST rate), while inflation further erodes the value of every rupee they earn. As interest payments keep rising, the government comes under increasing financial pressure and is forced to borrow even more. This burden is eventually passed on to future generations, who must pay higher taxes for debts they did not create. Over time, this system benefits those at the top, while ordinary people suffer from rising prices, lower purchasing power and fewer public services. Instead of reducing poverty, it traps the country in a cycle that keeps people poor.

According to a World Bank report<sup>29</sup> published in June 2025, more than 40% of Pakistan's population lives below the poverty line. In addition, Pakistan's official Multidimensional Poverty Index, published by the Ministry of Planning, Development & Special Initiatives, reported that **around one-third of Pakistanis live in multidimensional poverty**, facing simultaneous deprivations in education, health and living standards. Together, these indicators show that an estimated 100 million Pakistanis are enduring extremely difficult conditions marked by hunger, unsafe drinking water, inadequate healthcare, poor sanitation and overcrowded housing. Millions of children are denied even basic

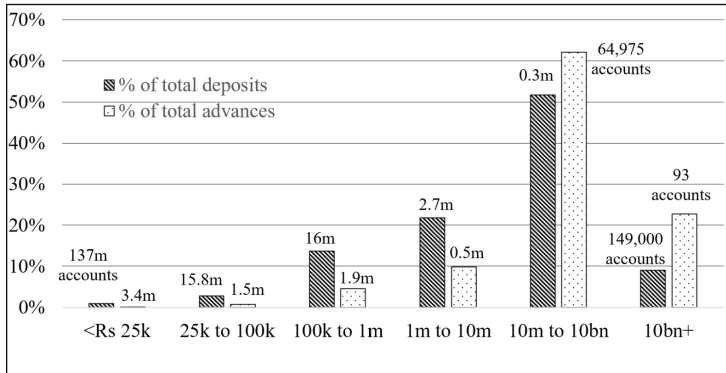
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<sup>29</sup><https://www.worldbank.org/en/news/feature/2025/10/17/fragile-gains-enduring-challenges-charting-pakistan-s-path-out-of-poverty>

education and are pushed into child labor, trapping them in a cycle of poverty with little hope of upward social mobility. This is not merely an economic problem; it is a profound moral and humanitarian crisis rooted in a fundamentally distorted money and taxation system.

The fractional-reserve banking system exacerbates inequality by systematically collecting surplus funds from the entire society and giving them to a few. The chart below reflects this reality in Pakistan. It shows that small deposit holders provide most of the funds to the banking system – largely through current accounts that earn no return or even a negative real return due to inflationary money creation – while the main beneficiaries are a small number of individuals and companies (not to mention the government, which is the largest borrower of the banking system) that receive most of the loans/advances. This means that the elite few are the real beneficiaries of the current banking system while all others are systematically excluded from access to capital and opportunity.

**Figure 9: Banks’ deposits and advances by size of accounts (percentage of total)**



Source: State Bank of Pakistan - Monthly Statistical Bulletin – Oct 2025  
[https://www.sbp.org.pk/reports/stat\\_reviews/Bulletin/2025/Oct/Chap-3.pdf](https://www.sbp.org.pk/reports/stat_reviews/Bulletin/2025/Oct/Chap-3.pdf)

This is an eye-opening chart which delivers many important insights:

- Less than 1% of borrowers – mainly large companies– receive 85% of total loans/advances of the banking system.
- Even within the top 1 percent of borrowers, there is a high degree of concentration: Only 93 accounts (mainly large companies), or 0.001% of total borrowers, account for 23% of total loans/advances.

This reveals that the vast majority of depositors are essentially feeding into a system that benefits only a small borrower base. It is no surprise, therefore, that wealth and income continue to concentrate in fewer hands. According to the 2026 World Inequality report, *“In Pakistan, inequality remains high and shows limited*

*progress over the past decade. The top 10% of earners capture 42% of total income, whereas the bottom 50% receive only 19%. Wealth inequality is even more concentrated, with the richest 10% holding 59% of total wealth and the top 1% accounting for 24%.”<sup>30</sup>*

New employment opportunities depend on GDP growth, which in turn depends heavily on domestic consumption. But when more than 40% Pakistanis live below the poverty line, household spending and overall demand for goods and services remain extremely weak. With demand so low, businesses have little reason to expand production, invest or hire, which directly fuels rising unemployment.

According to the latest Labor Force Survey (2024-25),<sup>31</sup> Pakistan’s unemployment rate has climbed to 7.1%, the highest in over two decades, and youth unemployment is even higher at 12.8%. Most new jobs are appearing in low-productivity sectors like construction and informal services, which offer neither stability nor skill development. Meanwhile, Pakistan invests far too little in high-productivity sectors – e.g. manufacturing, technology, agri-processing, renewable energy – limiting its ability to create sustainable long-term high-quality jobs.

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<sup>30</sup> [https://wir2026.wid.world/www-site/uploads/2026/01/World\\_Inequality\\_Report\\_2026.pdf](https://wir2026.wid.world/www-site/uploads/2026/01/World_Inequality_Report_2026.pdf)

Globally, the situation isn’t any better. The wealthiest 0.001% control three times more wealth than half of the humanity combined. Their share has increased steadily from ~4% in 1995 to over 6% today. The bottom 50% own just 2% of total wealth.

<sup>31</sup> <https://www.pbs.gov.pk/wp-content/uploads/2020/07/LFS-2024-25-Annual-Report.pdf>

High interest rates from 2022 to 2024, imposed to control inflation, actually weakened the economy. Costly borrowing forced private businesses to cut production and lay off workers – especially in large-scale manufacturing, one of the hardest-hit sectors, which contracted by 10.3% in FY2023 and remained stagnant for the next two years. Private borrowing fell because loans became too expensive, but the government, being the biggest borrower, was forced to take even more loans just to pay rising interest costs. This additional borrowing created more money in the system, rendering the interest rate policy relatively ineffective from a monetary perspective.

While millions of people remain unemployed or underemployed in Pakistan, thousands of essential tasks wait to be completed. The existing financial and monetary system has failed to channel real resources to real work. It is obvious that something is fundamentally wrong somewhere. Based on our analysis, the root of the problem lies in the debt-based fractional-reserve system.

### **Adopting full-reserve banking in Pakistan**

A credible and transformative economic reform option for Pakistan's grave problems is the adoption of the full-reserve banking system. This directly addresses the root causes of Pakistan's economic crisis – the massive government debt burden, crippling interest costs and persistent inflation – by restructuring how money is created and how banks operate. As explained in the previous chapter, full-reserve banking requires banks to hold 100% of demand deposits in sovereign money, while financing is carried out only through investment or

equity-based funds. This complete separation of deposit-taking from financing shifts the power of money creation – including digital money – entirely to the SBP, preventing private banks from expanding the money supply.

### **Seamless transition to a full-reserve banking system**

Milton Friedman, one of the most influential monetary economists and a Nobel Laureate, saw no major difficulty in transitioning to a full-reserve system. He stated in his influential 1960 book, *A Program for Monetary Stability*: “*There is no technical problem in achieving a transition from our present system to 100% reserves easily, fairly speedily and without any serious repercussions on financial or economic markets.*”

In view of the above analysis, the transition to full reserve banking could be completed rapidly without any major disruption. Under existing laws and procedures in Pakistan, the SBP would need to raise the reserve requirement on demand deposits to 100%. In simple terms, the SBP would create and issue sovereign money or reserves to provide full backing for demand deposits. This sovereign money would replace the interest-bearing government debt and Sukuk<sup>32</sup> currently held by banks. Importantly, **these newly created reserves would not generate inflation**, because they would remain within the banking system for interbank settlements rather than entering circulation in the general economy.

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<sup>32</sup> Sukuk are Shari’ah-compliant financial certificates representing partial ownership in an asset or project. They are used by governments and companies to raise money.

From a technical standpoint, the transition to full-reserve banking along with the elimination of the government's domestic debt held by the banking industry should be a straightforward and seamless process.

### **Step-by-step process for implementing full-reserve banking in Pakistan**

The key steps necessary to implement full-reserve banking in Pakistan are outlined below:

#### **Step 1: Raise reserve requirement from 5% to 100%**

The SBP will raise the reserve requirement from the current 5% to 100%, using the legal authority it possesses. At present, banks hold about Rs. 1.7 trillion in reserves against Rs. 30.1 trillion in demand deposits (which form part of the broad money). In order to reach full-reserve backing, banks will need to increase their reserve balances at the SBP by Rs. 28.4 trillion.

#### **Step 2: Transfer of government debt from banks to the SBP**

To obtain the required reserves, which would simultaneously retire government debt, the banks will transfer approximately Rs. 37.5 trillion in government securities currently held by them to the SBP. Since the required reserves of Rs. 28.4 trillion are less than the total value of government securities held by banks, the remaining Rs. 9.1 trillion will reduce the banks' liabilities to the SBP that were incurred specifically for government bond purchases.<sup>33</sup>

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<sup>33</sup> As mentioned earlier, the SBP provides loans to commercial banks specifically for the purchase of government securities.

While the mechanics may appear technical, the underlying transaction is simple: in exchange for interest-bearing government securities, banks would receive sovereign, non-interest-bearing reserves held at the central bank, used exclusively for deposit backing and interbank settlement.

### **Step 3: Cancellation of interest-bearing government bonds**

Once the SBP, acting as a state organ, takes ownership of these government securities, it will convert them into non-interest, non-payable, equity-like instruments. Just as cash issued by the SBP represents a non-interest-bearing, irredeemable liability of the state, the same status will now apply to demand deposits backed by 100% reserves. These deposits will become a form of sovereign money, rather than an interest-bearing liability of the banking sector.

The above process will effectively eliminate almost 80% of the government's domestic debt, which is currently held by the banking sector. Irving Fisher (1936) described this process in his book:<sup>34</sup> *“One way would be to provide the banks with the needed 100% reserve, not by lending it to them ... but by buying back the government bonds they hold in exchange for the new reserve money ... In that way most of the government debt could be paid almost overnight. This would be one of the main immediate advantages of introducing the 100% system.”*

After addressing the problem of banking debt, we turn

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<sup>34</sup> 100% Money and the Public Debt, page 19

to the remaining 20% of the debt held by the non-banking sector. Although this portion of the debt was raised without creating inflationary money, it is still desirable to achieve a debt-free government balance sheet for future generations. There are several ways to address this smaller portion of government debt. The remaining SBP receivables could significantly reduce the outstanding liability. The debt may be converted into public-private partnership arrangements. Even if retained as debt, its cost to the government will be significantly lower in a non-inflationary economy.

For clarity, **the pre- and post-transition balance sheets of the aggregate banking sector and the SBP are presented in Appendix 7** to illustrate the changes under the full-reserve system.

### **Profitability of the banking sector: Earnings from deposit fees and investment funds**

As discussed earlier, the full-reserve banking system would remove the inherent conflict of accepting deposits and lending most of the money while assuring depositors that their money is safe. The separation of core functions - payment services and financing / investment - would allow specialized institutions or separate departments within the same institution to focus on one without worrying about the other. This separation ensures that financing is provided only from real savings and not from newly created bank credit.

The deposit section would provide transaction services to its customers. The banks' significant control

over payment function would offer ample opportunities to earn commission income from retail customers. To sustain deposit operations under full-reserve banking, banks may also charge a small service fee on deposit accounts. For instance, a 1% annual fee on deposits totaling Rs. 30 trillion would generate Rs. 300 billion in revenue – almost half of Pakistan banking sector profits. This would ensure that banks remain commercially viable even without using deposits for credit creation.

As depositors seek returns, many would voluntarily move funds from deposit accounts into investment funds. In the absence of government securities, this migration would significantly increase the pool of funds available for business financing, industrial expansion and economic development. If just 25% of demand deposits shift to investment funds, the total volume of financing available to businesses could increase by more than 50% – from Rs. 13 trillion to Rs. 20 trillion – providing a major boost to productive investment in the economy.

Pakistani banks, in aggregate, earned Rs. 7.6 trillion in interest income in 2024, of which an estimated Rs. 5.8 trillion – nearly three-quarters – came from government securities. Under a full-reserve banking system, this source of income would disappear. However, banks would also no longer need to pay roughly Rs. 4.2 trillion in interest or return on demand deposits. This saving would significantly offset the loss of returns on government securities.

The investment divisions of banks would offset the loss of interest-based income by earning through

intermediation services that connect savers with businesses and investment opportunities. Banks would be able to generate income through management fees, service commissions and profit share in partnerships for channeling real savings into productive, asset-backed investments. In advanced markets, non-interest income accounts for a significant share – around 30 to 40% – of total banking revenue, whereas in Pakistan it is less than 10%. This demonstrates that a fee and commission-based model can sustainably support bank profitability even without traditional interest margins.

Ultimately, banks must be prepared to forego abnormal profits that arise not from genuine business activity but from a privileged structural position within the monetary system. At present, a large share of banking profits is generated by channeling depositors' money into government securities, enabling banks to earn risk-free returns while contributing little to real economic production or GDP growth. Such earnings do not reflect true entrepreneurship, innovation or value creation; they represent rent extraction made possible by a debt-based monetary framework. A reformed system requires banks to realign their role from exploiting monetary privilege to engaging in genuine financial intermediation, accepting more modest yet sustainable profits in service of long-term economic stability and the broader public good.

### **How will the State Bank function?**

The full-reserve banking system will also simplify the SBP's functions and regulations, and some requirements will no longer be needed, as discussed below:

▪ **Elimination of monetary/interest rate policy:**

With full control over money supply and the elimination of money creation by private banks, conventional monetary policy especially interest rate manipulation will become unnecessary. Banks and businesses will be free to agree on financing and investment arrangements through mutual consent.

▪ **No need for the lender-of-the-last-resort function:**

Since all deposits will be fully backed by sovereign money, the risk of bank runs would be eliminated altogether. This means that the SBP will no longer need to inject emergency liquidity to save a bank from failure due to bank run.

▪ **Elimination of extensive liquidity regulations:**

The extensive regulatory framework designed to ensure bank liquidity under the fractional-reserve system will no longer be required once full-reserve banking is implemented. Irving Fisher (1936) stated: *“Almost all of our complicated and vexatious banking laws could be repealed if once we made this separation between money creation and money lending. The insurance of bank deposits would become unnecessary, because there would be no reason for runs on banks.”*

**Seigniorage profit and the impact on the rupee**

Under a full-reserve banking system, the rupee will function as sound money. This is because money creation will be strictly linked to real economic activity and real GDP growth. However, if the state acts irresponsibly about money creation, there would be a risk of excessive

issuance of money and consequent inflation. Even so, unlike debt-based money creation, sovereign money issuance does not impose interest-bearing liabilities on future generations. By strictly aligning money creation with real GDP growth, the system can preserve price stability while eliminating the structural dependence on debt.

The reform of sovereign money creation would also allow the state to capture seigniorage profit, which is the gain earned from issuing money at a cost far lower than its face value. For example, when a Rs. 1,000 note is printed, the real cost (including the costs of paper, ink, printing, etc.) may be only Rs. 10. The difference between face value and the cost ( $\text{Rs. } 1,000 - \text{Rs. } 10 = \text{Rs. } 990$ ) is known as seigniorage profit. In case of digital money creation, the cost is negligible; therefore, the entire face value of the money created constitutes seigniorage profit.

Under the current fractional-reserve system, where most money is created by commercial banks, this benefit largely bypasses the public treasury. In a full-reserve, sound-money framework, the authority to create money would shift to the SBP, enabling seigniorage to accrue to the state as a non-debt source of public revenue.

### **Benefits of full-reserve banking for depositors**

Under the current fractional-reserve system, depositors earn interest/profit from their banks without parting with their money or bearing real risk. However, this comes at the cost of systemic instability. Deposit returns are usually lower than inflation, causing the real

value of savings to shrink every year. Approximately 50% of Pakistani depositors keep their funds in non-remunerative current accounts, steadily losing purchasing power. Moreover, only Rs. 1 million per depositor is insured in the event of a bank failure, leaving all higher-value deposits significantly exposed.

In a full-reserve banking system, there will be no interest on deposits; however, depositors' money will be fully protected. Not only will the deposits be secure – backed by 100% reserves – but they will also retain their purchasing power. This is because private banks will no longer be allowed to create money; hence the inflationary erosion caused by artificial money expansion would not happen.

Even with nominal account maintenance fees, depositors would still prefer keeping their money in banks rather than holding cash. This behavior is well-documented in countries like Japan and the Scandinavian economies, where households have maintained large bank balances for decades despite near-zero interest rates and routine banking fees.

Depositors seeking returns could easily move part of their funds into investment funds, which channel savings into real economic activity through profit-and-loss-based financing or investment. This reflects how most people naturally manage wealth – keeping some savings liquid and risk-free, while investing another portion for higher returns.

A full-reserve system in Pakistan will offer genuine, 100% protection of depositors' money both in quantity and in value while providing clear, transparent and risk-appropriate investment options for earning real and sustainable profits.

### **Economic gains from implementing full-reserve banking**

Currently, private banks extend large loans to finance government deficits driven by interest payments, a process that expands the money supply, depreciates the rupee and fuels persistent inflation. Under a full-reserve banking system, this inflationary cycle would come to an end, ensuring financial and economic stability and supporting long-term sustainable growth.

As demonstrated earlier, implementing full-reserve banking would eliminate nearly 80% of the government's domestic debt of Rs. 54.5 trillion and save around Rs. 5.8 trillion in annual interest payments. The saving would eliminate almost 90% of the Rs. 6.5 trillion deficit in the current budget, substantially easing fiscal pressures on the government. This would reduce the need for additional borrowing and remove inflationary pressures arising from debt-financed spending. Over time, it would also strengthen fiscal sustainability and restore confidence in public finances.

There is an ongoing and heated debate within political and government circles regarding the 18<sup>th</sup> amendment of the constitution, under which the provinces receive around 60% of total tax revenues, while the federal government receives the remaining share and is compelled

to borrow heavily to meet its expenditure requirements. This fiscal stress is largely driven by the heavy burden of interest payments on public debt. Under a full-reserve banking system, where money creation by commercial banks is eliminated and the federal government is freed from chronic interest-based borrowing, debt-servicing costs would fall sharply. Once interest payments are substantially removed, the federal-provincial revenue-sharing issue can be resolved amicably and without conflict: a 40% share for the federal government would be sufficient to meet its responsibilities for defense, administration and national-level infrastructure, while the 60% provincial share would adequately cover law and order, social protection, health and education needs of the population, and provincial and local infrastructure, in line with their constitutional responsibilities.

Additionally, the state would regain the ability to create sovereign money in line with real GDP growth without causing inflation. A 5% annual increase in money supply, aligned with GDP growth, would generate approximately Rs. 2 trillion (5% of Rs. 40.8 trillion broad money) in new non-debt financing to supplement tax revenues. This sovereign, non-inflationary money creation would largely offset the loss of income from government securities held by the SBP, which would no longer be available as non-tax revenue after the elimination of public debt held by the banking sector.<sup>35</sup> Hence, the net saving from adopting full-reserve banking would still be Rs. 5.8 trillion.

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<sup>35</sup> The SBP earned an estimated Rs. 2.2 trillion in FY25 from interest on direct and indirect holding of government securities.

Let the last point sink in. **As a result of adopting full-reserve banking, the government of Pakistan will save ~Rs. 480 billion (US\$ 1.7 billion) per month or Rs. 5.8 trillion (~US\$ 20 billion) per annum.** To put this into perspective, based on the FY2025-26 budget figures, this interest saving would be equivalent to nearly one-third of total budgeted expenditure, more than twice defense spending, about 4.5 times total development expenditure, 6 times the federal government's total operating expenditure and nearly 8 times the (currently insufficient) allocation for social protection for around 10 million poor Pakistani families. Rs. 5.8 trillion would be sufficient, as an example, to provide Rs. 50,000 per month to these families living below the poverty line.

### **International evidence of significant economic benefits of full-reserve banking**

Global interest in full-reserve banking intensified after a **landmark working paper by two IMF economists**, Benes & Kumhof, was published in 2012, which used a dynamic model calibrated to the actual US economy. Their findings confirmed Irving Fisher's claims that full-reserve banking would stabilize the business cycle and reduce economic volatility, eliminate bank runs and reduce public and private debt (without restricting credit availability). In addition, the paper concluded that post-transition, the economy would experience an output increase approaching 10% of GDP.

Given that these results are based on an advanced economy like the US, the potential growth gains for Pakistan, as a developing economy marked by weak

demand, idle capacity, unemployment, financial constraints and underinvestment, could be even larger.

Irving Fisher, advocating for full-reserve banking, writes in his book, *“I have come to believe that the [full-reserve banking] plan, properly worked out and applied, is incomparably the best proposal ever offered for speedily and permanently solving the problem of depressions.... Most important of all, the government would recapture its lost franchise and regain its sovereign power over money as granted to it by the constitution.”*<sup>36</sup>

Fisher’s insights are strikingly relevant to Pakistan today, where private banks create money, government debt spirals, interest costs consume nearly half of federal budget and inflation keeps the nation trapped in poverty.

### **Tax revenue implications of eliminating government debt**

Even after considering the enormous economic gains discussed above, a common concern remains: whether eliminating interest payments on government securities would weaken the government’s tax revenues derived from interest income.

As mentioned earlier, the government paid an estimated Rs 5.8 trillion as interest on domestic debt held by the banking sector in 2024. A portion of this amount returns to the exchequer – mainly through taxes on bank profits and on interest income earned by depositors. According to the Federal Bureau of Revenue’s Annual Tax Review, approximately Rs. 475 billion was collected

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<sup>36</sup> 100% Money and the Public Debt, pages 8 and 24

as withholding tax on bank interest and government securities in FY 2025. In the same year, income tax on the banking sector's profits amounted to Rs. 850 billion, as reported by the SBP's Mid-Year Performance Review of the Banking Sector (Jan-June 2025). It is reasonable to attribute around 80% of withholding tax and 75% of tax on bank profits to government securities held by the banking sector. Under this assumption, the potential tax revenue loss to the government would be approximately Rs. 1 trillion. Therefore, even after accounting for this apparent loss, the government would still save around Rs. 4.8 trillion in interest payments.

Further, as discussed earlier, under a full-reserve system, the banking sector would undergo a fundamental shift in its business model, redirecting resources away from lending to the government to financing real economic activity. This transition would significantly compensate – in the form of higher tax revenue from businesses – for the loss of interest income from government securities.

Another important point that is hardly ever debated is the fact that the **existing tax system itself creates a strong structural bias in favor of debt-based financing**, encouraging debt over equity investment. Because interest payments are tax-deductible (i.e. the taxable income is reduced by the amount of interest payment), firms receive a substantial tax advantage when they finance their activities through borrowing rather than equity. This distortion encourages excessive borrowing, increases financial fragility and steadily erodes the tax base.

When interest deductions are removed, taxable profits would rise significantly and the tax base would automatically expand. Firms would rely more on equity and real investment rather than borrowing. As a result, any short-term reduction in tax revenue from interest income would be largely offset by higher tax receipts from genuine economic activity. Growth driven by equity investment is also more stable and sustainable than growth fueled by debt.

In summary, eliminating interest on government debt strengthens rather than weakens the fiscal position, while correcting deep distortions in the tax system.

### **Conclusion**

At present, a large portion of Pakistan's public finances is being consumed by interest payments, leaving very little room for development or welfare spending for millions of citizens living in hardship. The government continues to borrow heavily from commercial banks merely to pay interest to those same banks, creating a vicious cycle in which debt keeps rising and the money supply keeps expanding. This dual burden fuels persistent inflation and financial instability, hurting the poor and middle class the most. Implementing a full-reserve banking system offers a direct, effective and transformative solution.

The full-reserve proposal envisions a Pakistan free from the huge burden of domestic government debt and inflationary money creation, both of which are causing severe harm to the economy and the public at large. It

addresses the urgent need for economic stability while restoring ethical and principled banking aligned with justice and public welfare. More than a technical proposal, full-reserve banking represents a credible path towards a future where Pakistan's financial system will be stable, inclusive, sovereign and morally grounded.

The next chapter discusses how full-reserve banking aligns with and helps in achieving the core ideals of an Islamic financial system.

## **Chapter 4:**

# **Full-Reserve Banking and the Islamic Financial System – A Natural Match**

## **Overview**

Despite its high ethical aspirations, contemporary Islamic banking continues to operate within the fractional-reserve system, which allows banks – Islamic and conventional alike – to create money through financing and lending. Consequently, Islamic banks are structurally compelled to benchmark their contracts to the policy interest rate. Even when interest is avoided at the contractual level, pricing remains anchored to the policy rate. Consequently, the broader economic, social and moral effects of Islamic banking cannot differ from those of conventional banking.

Full-reserve banking, as a concept, is very close to the

essence of the Islamic financial system. Instead of risk-free returns (such as Riba or interest), Islam encourages trade and risk-taking as a means of earning income. Full-reserve banking requires banks to invest only those funds that have been raised with the explicit understanding that they are subject to the risks inherent in commercial activity.

Full-reserve banking would provide a great opportunity to Islamic banks to come out of conventional frameworks and move closer to the Islamic ideal, such as adopting partnership-based modes of financing. The managements and boards of Islamic banks should be strong supporters of full-reserve banking as it advances their cause of a just and fair financial system.

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The full-reserve banking model aligns closely with the objectives and ethical foundations of the Islamic financial system, especially the requirement that financial activity be firmly linked to the real economy. It also facilitates protection of wealth by controlling inflation and promotes overall financial stability. There is no concept of risk-free return in Islam, that is why Riba is prohibited and calculated risk-taking is encouraged as the basis for earning profit. Full-reserve banking requires banks to mobilize resources through investment funds on the explicit understanding that these investments will earn returns by taking necessary risks.

The fundamental principle is clear. If you want to safeguard your money and use it for payments and day-

to-day transactions, then place it in a current account and expect no return. On the other hand, if you have surplus funds that you won't be needing for payments in the foreseeable future, invest them where bearing risk is a prerequisite for earning a profit. This reflects a well-established Islamic legal maxim: "*Benefit (profit or yield) belongs to the one who bears the liability / risk.*"<sup>37</sup>

### **Islamic banking: principles vs contemporary practice**

There are several ways to define Islamic banking in its authentic form. Perhaps the simplest and most reasonable definition is that it is the type of banking that is compliant with the Islamic Shari'ah principles and rules. It means abstaining from things prohibited in Islam. These include:

- Riba (interest charged in lending transactions)
- Gharar (extreme uncertainty or lack of transparency, which is likely to lead to disputes between contracting parties)
- Qimar (gambling e.g. lottery schemes, games of chance)
- Investing in or financing prohibited businesses (e.g. pornography, liquor production or distribution, etc.)

Beyond avoiding prohibited activities, Islamic finance and banking are defined by a few core characteristics, including:

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<sup>37</sup> Sunan Al Tirmidhi, hadith no. 1285, also reported in Sunan Abu Dawood (no. 3508) and Sunan Ibn Majah (no. 2240). It is also a well-established Islamic legal maxim.

- Risk-sharing, which is a requirement for fairness in transactions; profit must involve risk, and earning money without bearing any risk is not acceptable in Islam.
- A direct link to real economic activity, where finance supports trade, production and productive enterprise, and returns arise from effort and genuine economic contribution rather than from lending money alone.

These principles help distinguish genuine Islamic banking from systems that merely change terminology while retaining the same underlying logic.

In Islam, money is exclusively regarded as a medium of exchange. Lending is, therefore, not a commercial or profit-generating activity in Shari'ah. To earn a return, a person has to enter into a trade (buy/sell) transaction, or lease an asset for rent, or be a partner in a business venture or activity, etc. This means that the underlying contract defines the nature of the transaction and the transacting parties, whether they are buyers/sellers or business managers or partners or lessors/lessees. In each case there is a **one-to-one correlation with real economic activity**, and the parties have to assume a liability or take some risk in order to generate a return.

Conventional banking, on the other hand, allows earning money on money and therefore, the predominant way to earn a return is to lend money on interest. The contracting parties, therefore, are simply lenders and borrowers. Contractually, the borrower is obligated to return the loaned amount with interest, regardless of

whether he is able to generate a profit from the borrowed amount.

Contemporary Islamic banking seeks to move away from explicit interest by employing Shari'ah-compliant contractual forms such as Murabaha,<sup>38</sup> Ijarah<sup>39</sup> and Diminishing Musharaka.<sup>40</sup> While these instruments avoid explicit interest and are typically structured as asset-backed transactions, they often replicate the economic outcomes of conventional debt-based finance in practice. These outcomes are characterized by fixed or near-fixed returns and the absence of genuine risk-sharing, within a fractional-reserve banking system.

### **Fractional-reserve banking as a facilitator of Riba and full-reserve's alignment with Islamic ideals**

This chapter advances two fundamental claims. First, fractional-reserve banking as practiced in modern economies replicates, at a systemic level, what the Qur'an and the Sunnah prohibit under the concept of Riba. This form of banking turns the money itself into an object of trade for a guaranteed gain, and it imposes unjust burdens

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<sup>38</sup> A type of sale in which both the cost and the profit are declared. Typically, a bank would purchase an asset that its customer needs and then resell that asset to the customer after adding a profit. The customer pays back in agreed installments. Both the cost price and the profit are declared.

<sup>39</sup> A type of rental arrangement whereby an Islamic bank purchases an asset or a property and gives it to a customer on rent.

<sup>40</sup> A declining partnership arrangement where two parties (e.g. an Islamic bank and its customer) jointly own a property or an asset. The customer gradually buys out the bank's share over time and also pays rent for using the bank's portion all the while until obtaining 100% ownership.

on debtors, workers and future generations.

Second, a full-reserve monetary and banking system aligns with the ethical and legal ideals of Islam. The full-reserve system restores money to its proper function as a means of exchange, safeguards property rights in deposits, eliminates the need of an interest rate policy<sup>41</sup> and re-anchors finance in risk sharing and real economic activity.

We start with a definition of Riba in Islam – as per Qur’an and authentic Ahadith – and the logic behind its prohibition.

### **Riba in Islam – definitions and purpose behind the prohibition**

The prohibition of Riba is among the most emphatic in the Qur’an. It is accompanied by stern warnings, moral censure and an explicit instruction to give up outstanding claims. Classical jurists identified two primary forms of Riba:

- 1. Riba Al Nasi’ah:** This refers to extra money charged in a loan simply because time has passed. It happens when someone lends money and demands more in return. In simple terms, it is the interest charged on a loan.
- 2. Riba Al Fadhl:** An excess in barter of certain homogeneous commodities, such as gold for gold or silver for silver, when exchanged in unequal amounts

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<sup>41</sup> The central bank’s interest rate (called policy rate) is an essential tool for regulating the money creation by commercial banks under the fractional-reserve banking system.

or with delay. The reason is to prevent interest entering from the backdoor disguised as trade.

### **From medieval moneylending to modern banking**

A medieval moneylender extended a loan at a certain interest rate. In case of non-payment, he would provide additional time and increase the rate of interest. A modern commercial bank does the same. In both arrangements the lender's gain is guaranteed by contract. In the case of banks, they have the added protection of the system: laws, central bank regulations and even government support in case a bailout is needed to protect the banking system from collapse. Ultimately, the loss is transferred to the borrowers (or the taxpayers / general public in case of bailout). The principal difference is scale and institutional dress. What used to be a bilateral contract is now a core function of the monetary order. Institutionalization does not change the underlying logic; it only magnifies it.

### **Money creation under fractional-reserve system: An institutional form of Riba and exploitation**

One of the most fundamental flaws of the modern banking system lies in how new money is created. A commercial bank does not need to possess prior savings before it issues a loan. Instead, it simply credits the borrower's account with money while simultaneously recording the amount as a loan. In that moment, new purchasing power is brought into existence – not from actual wealth, not from accumulated savings, not from productive assets but from a mere accounting entry. Since new money is created systemically together with debt

or financing in order to earn an excess, this mechanism facilitates a modern, institutional form of Riba.

This newly created money is not neutral. It carries with it a binding obligation: the borrower must repay not only the principal but also an additional surplus in the form of interest. This surplus is demanded regardless of the success or failure of the borrower's use of funds. In Islamic jurisprudence, this is identical to Riba Al Nasi'ah, an increase to the loan amount linked to the mere passage of time. The bank's only contribution to the project/venture is the provision of money. It could deserve a return if it were subject to risk and engaged in genuine trade. In reality, however, there is a contractually guaranteed return promised by the borrower. Since there is no concept of risk-free return in Islam, it is akin to Riba.

This arrangement turns the very act of money creation by commercial banks into a mechanism of exploitation. Rather than money serving as a neutral medium of exchange, it becomes a commodity sold at a price. The bank effectively "sells" purchasing power that it created at no cost, and then demands to be compensated with a real surplus extracted from the labor and assets of the borrower. The injustice becomes even clearer when compared to legitimate Islamic contracts. In Mudaraba<sup>42</sup> or Musharaka,<sup>43</sup> the financier contributes real capital that

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<sup>42</sup> A type of partnership in which one party contributes capital and the other party contributes managerial skills/labor. Profits can be shared in any pre-agreed ratio while losses are borne solely by the capital provider.

<sup>43</sup> A partnership where both parties contribute capital and labor.

could be lost, and the entrepreneur contributes time and effort that could prove fruitless. Both sides face risk, and both share in potential reward.

Moreover, the fractional-reserve system creates a systemic trap for society. The economy must perpetually expand its credit base. New loans must constantly be issued to supply the money required to service old loans. Because money creation and debt creation go hand-in-hand, money growth directly results in high levels of debt. This sets in motion a cycle of indebtedness that can never be fully discharged. Defaults, foreclosures and periodic crises are not accidents but built-in consequences of this model.

From the perspective of an Islamic financial system, such money creation is doubly harmful. It is harmful spiritually, because it comes into existence as a result of lending, leading to high levels of indebtedness in society, not a preferred situation as per Shari'ah. It is also harmful materially, because it creates injustice (guaranteed return for the creditor, uncertainty and risk for the debtor), concentrates wealth and results in an unstable economic system. A system that allows money to be created out of nothing and sold with an attached increment is the opposite of the Qur'anic call for trade, risk-sharing and the circulation of wealth among all members of society.

## **Why do Islamic banking profit rates remain anchored to the SBP's policy interest rate?**

Under the fractional-reserve system, all commercial banks – including Islamic banks – are part of a single, integrated money-creation and credit-distribution mechanism. As discussed above, whenever a bank issues financing, it does not lend pre-existing savings; it creates new money through accounting entry or balance sheet expansion. Because this banking process leads to an expansion of the money supply and, ultimately, general price inflation, the central bank influences banking activity through its policy rate. Consequently, contracts across the entire banking sector, including those of Islamic banks, become directly or indirectly linked to the policy interest rate, which serves as the benchmark regulating the cost of liquidity and the overall pace of money creation in the economy.

Although Islamic banks avoid explicit interest, they operate within the same monetary ecosystem where the cost of money is determined by the policy rate. Central bank tools – such as open market operations, reserve requirements and standing facilities – determine the availability and price of liquidity for all banks. Since Islamic banks are prohibited from using interest-bearing instruments directly, they benchmark their contracts (Murabaha, Ijarah, Sukuk, etc.) to the policy rate because it reflects the market price of liquidity created by the banking system.

In short, the policy rate becomes a common benchmark because the entire financial system is built around bank-

created money. Islamic banks cannot determine financing prices or profit-sharing arrangements independently, because the money they create still circulates within a system governed by the central bank's policy interest rate.

The reliance on interest rate as the master lever of economic policy reveals the deep entrenchment of Riba in the contemporary financial system. Islam does not legitimize a prohibited increment simply because it has been elevated to the level of state policy. Injustice does not become permissible through custom or authority.

The Maqasid Al-Shari'ah (the objectives of Islamic law) framework requires us to ask: Does it anchor finance in real trade and genuine economic activity? Is it fair and not exploitative? Does it concentrate wealth and opportunity in a few hands? Interest rate policy fails all three tests.

First, the policy interest rate system does not anchor finance in real trade. Instead of money being used as a medium of exchange and being tied to goods, services and risk-sharing, monetary policy turns into a tool that mainly pushes up or down borrowing costs and asset prices in financial markets.

Second, it is unfair and creates exploitation. By design, the system taxes the poor and vulnerable through persistent inflation and rewards those who already possess wealth. In practice, ordinary families and small businesses pay high rates of interest to service their debts while rich people, financial institutions and large corporations with

easier access to credit profit disproportionately.

Third, it leads to a concentration of wealth and opportunity in a few selected hands. as discussed below.

### **Wealth concentration and upward redistribution**

One of the most damaging outcomes of fractional-reserve banking is the way credit creation channels wealth upward in society. Newly created credit does not flow evenly to all citizens. It goes first and most easily to those who already hold collateral and financial strength, i.e. large corporations, wealthy households and governments with the ability to issue bonds or Sukuk.

Commercial banks prefer to lend against assets such as real estate and fixed income instruments, since these are considered safe. This preference causes asset markets to inflate. In contrast, wages and the incomes of ordinary workers do not keep pace with this inflation. The result is a growing gap – savers who hold cash or deposits lose purchasing power over time, while asset owners see their wealth multiply.

The dynamic is self-reinforcing. Rising asset prices allow existing asset holders to borrow even more against their inflated wealth, while those without assets are left behind. Renters face higher housing costs. Young families increasingly struggle to afford a house. Pensioners relying on savings accounts find their returns eroded by inflation and low policy rates. Meanwhile, those at the top accumulate unearned gains simply by holding assets during a cycle of credit-driven inflation.

The Qur'an explicitly warns against such concentration: "...so that wealth does not circulate only among your rich" (59:7). This verse establishes a distributive ethic at the heart of Islamic economic system where wealth is meant to move through society – via trade, Zakat, charitable spending and fair contracts – rather than being trapped in the hands of the elite.

Riba is condemned not only because it represents a technical increase on a loan, but because it institutionalizes this upward redistribution. In modern financial systems, Riba is not an occasional injustice but the central logic. It extracts from the weak to enrich the strong, magnifying inequality with every cycle of credit expansion and asset inflation.

### **Fractional-reserve banking: A barrier to profit-and-loss sharing**

Islamic banks, in theory, are expected to embody the spirit of Shari'ah by operating on profit-and-loss sharing basis as opposed to interest-based lending by conventional banks. However, within the framework of a fractional-reserve system, they face a fundamental limitation; they receive most of their funds as short-term, risk-free deposits, which depositors can withdraw at any time. Because these deposits must be available on demand, Islamic banks cannot use them to finance long-term, illiquid and risky investments required for genuine profit-and-loss sharing (PLS) partnerships. They are, therefore, unable to honor the core principle of risk-sharing while simultaneously guaranteeing liquidity for depositors.

PLS contracts, by definition, require longer horizons, exposure to business risks, variable returns and the possibility of capital loss. Yet Islamic banks operate within a system that requires them to maintain liquidity and satisfy withdrawal demands instantly. If they commit depositor funds to long-term ventures – partnership in real businesses, infrastructure, agriculture, etc. – they risk liquidity shortfalls, solvency issues and possible bank runs. Consequently, Islamic banks cannot practically engage in genuine Mudaraba or Musharaka financing at any significant scale. Instead, they are pushed towards debt-like instruments such as Murabaha or Sukuk. While these are legitimate Islamic contracts, their predominant use, particularly when pricing and returns are not determined by market conditions but are instead linked to the policy interest rate, fails to reflect the essence of Islamic finance. Their systematic use to the exclusion of genuine risk-sharing modes such as Mudaraba and Musharaka is neither in line with the spirit of Islamic finance nor advances the cause of distributive justice.

### **Debt and the moral psychology of Islam**

Because money in modern economies is predominantly created through lending, debt is not a peripheral feature of the system but its primary organizing principle. The warnings of Prophet Muhammad (SAW) about debt are profound and deeply reflective. He taught that debt burdens the conscience, restrains a person's freedom and exposes them to humiliation and temptation. He is reported to have said: *“The soul of the believer remains suspended by*

*his debt until it is paid off*".<sup>44</sup> On a separate occasion, he explained why debt is such a big issue: "*When a man gets into debt, he tells lies and makes a promise and breaks it.*"<sup>45</sup> The Prophet (SAW) even refused to lead the funeral prayer for a man who had died indebted,<sup>46</sup> underscoring the spiritual weight of debt in Islam.

These teachings highlight debt as more than a financial contract. It is a moral liability that can enslave the mind, corrupt intentions and erode accountability. A person trapped in debt lives under constant pressure, tempted to delay, evade or prioritize repayment above other duties. Islam, therefore, insists that debt should be taken only in necessity, for a legitimate cause, kept limited in scope and discharged with urgency.

Modern economies have inverted this ethic. Debt has been normalized, even glorified, as the entry ticket to participation in society. One borrows to own a home, to afford higher education, to start a business, to purchase a vehicle and often simply to meet household expenses (e.g. through credit card). Debt-based money creation ensures that borrowing is not exceptional but systemic; new money enters circulation primarily through loans. To live in such an economy is to be perpetually entangled in debt contracts, whether directly or indirectly.

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<sup>44</sup> Sunan At-Tirmidhi, Book of Funerals, Hadith 1078

<sup>45</sup> Sahih Al-Bukhari, Hadith 2397 and Sahih Muslim, Hadith 589

<sup>46</sup> Sahih Al-Bukhari, Hadith 2289 and 2295

## **Full-reserve banking: Deeper alignment with Islamic finance principles**

A full-reserve banking model can reverse this dynamic and eliminate the system-induced injustice caused by the fractional-reserve system. It would offer investments based on real savings and productive risk-sharing, not artificial money creation. Profit would be earned only through risk-sharing partnerships not through passive asset inflation.

Classical Islamic scholars consistently emphasized that money must be issued and regulated under public authority to preserve trust, prevent fraud and protect society from injustice. They supported the use of a state stamp on coins as a means of certifying weight, purity and authenticity, thereby ensuring that money functioned reliably as a medium of exchange rather than as a tool of deception. This reflects an early and sophisticated understanding that money is a public institution, not a private commodity, and that its integrity must be safeguarded in the public interest.

The distinguished Muslim historian Ibn Khaldun (1332 to 1406) clearly recognized coinage as a sovereign function: *“The stamp on coins belongs to the ruler alone, because it guarantees their weight and fineness, and people’s dealings depend upon it.”*<sup>47</sup> He warned that debasement of currency leads to loss of confidence, price instability and economic decline – a remarkably modern diagnosis.

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<sup>47</sup> Muqaddimah, Book 5

In today's digital economy, where money exists primarily as electronic records rather than physical coins, the same principle applies with even greater force. Just as classical jurists insisted that coinage must remain under sovereign oversight, control over money creation in the modern system must remain a public responsibility, rather than being delegated to private institutions whose incentives are driven by profit and debt expansion.

In full-reserve banking, money creation is without any debt and its expansion is tied to the growth of goods and services – i.e. real economic output (GDP) – for which money is needed as a medium of exchange. In such a system, finance would support equity and justice rather than amplify inequality. Only under such a banking system can Islamic banks genuinely fulfill their mandate of equitable, productive and risk-shared finance, as envisioned in the Qur'an and Sunnah.

In a full-reserve system, money is no longer born as interest-bearing debt but issued by the public authority as sovereign money. The result is a financial system where borrowing is no longer compulsory for basic participation in economic life. Governments would not be compelled into a vicious cycle of borrowing just to service interest, preventing the systematic transfer of debt burdens to future generations. Families would not be forced into lifelong debt simply because easy credit has driven house prices far beyond their real value. Students would not be trapped in long-term obligations just to access education. Small business owners could turn to equity-based finance instead of being crushed by loan repayment schedules.

The remaining borrowing would be more transparent, more limited and more consistent with the Prophetic ethic that debt should be taken only when necessary and discharged as swiftly as possible.

### **Maqasid Al-Shari'ah and the case for full-reserve banking**

The higher objectives of Islamic law (Maqasid Al-Shari'ah) – the protection of one's religion, life, intellect, lineage and wealth – extend directly into the design of economic institutions. In the financial sphere, these objectives require the preservation of wealth through stability and justice, the prevention of exploitation, the broad circulation of economic benefits and the anchoring of finance in real, productive activity rather than speculation. A full-reserve, sovereign-money framework fulfills these aims whereas the modern fractional-reserve system systematically undermines them. By eliminating private money creation and inflationary distortions, full-reserve banking becomes a natural institutional expression of the ethical and distributive vision of Shari'ah.

- **Preservation of wealth and prevention of exploitation** – is directly served by full-reserve banking because money is issued by a sovereign public authority without being tied to private debt. Because the expansion of money supply is aligned with real GDP and productive capacity, the currency retains its value and inflationary erosion is eliminated. This protects savers, wage earners, pensioners and the poor from the silent confiscation of wealth caused by inflation.

- **Risk-sharing via trade and partnership vs. risk transfer via debt and interest** – is achieved under a full-reserve system by genuine risk-sharing. Investors willing to take risk provide funds for financing/ investment to banks without any guarantee of the outcome. Those who cannot afford to risk their money have the option to keep their cash in a current account without earning a return.
- **Broad circulation of wealth** – is achieved best in a system where money is created debt free and spent in the real economy. Instead of channeling new money created by banks primarily through collateral-based loans that enrich asset owners, sovereign issuance under a full-reserve system could be directed towards the development of public goods, infrastructure, education, healthcare, rural development and social programs. This ensures that the benefits of newly created money are distributed widely across society.

## Conclusion

The reliance on the policy interest rate as the master lever of economic policy reveals the deep entrenchment of Riba in modern governance. Fractional-reserve banking creates money as debt with an attached claim to an increase without countervalue. It treats money as a commodity to be rented. It normalizes gain without risk for the privileged and imposes risks and costs on the poor. It concentrates wealth and imposes debt burden on future generations. These outcomes are not incidental deviations but the intrinsic core of the prevailing system.

A full-reserve system fits the ideals of Islam. It restores ownership rights in deposits. It issues money as a public trust without interest. It channels savings into risk sharing contracts that tie profit to contribution and loss to capital. It anchors finance in real trade and productive assets. It advances the higher objectives of Shari'ah by preserving wealth justly, preventing exploitation and circulating benefits broadly.

In fact, any society must choose what it demands of itself. If we demand only technical convenience, we will live with ethical failures masked as financial sophistication. If we demand justice in form and substance, we can build systems that make justice normal. Islam asks for the latter. Full-reserve banking is a practical way to answer that call. The remaining question is no longer whether such a system is ethically superior, but whether societies possess the institutional courage and political resolve to adopt it.

## **Chapter 5:**

# **Answers to Frequently Asked Questions**

### **1. Has full-reserve or sovereign money ever been applied anywhere in the world?**

Yes. Historically, sovereign money was the normal and widely practiced monetary framework. Across civilizations, the creation of money was treated as a public and sovereign function. States issued metallic coins as legal tender, controlled their quantity and prohibited private minting. This principle also extended beyond metallic money. China introduced state-issued paper currency centuries before modern banking, demonstrating that money could function effectively by sovereign authority alone, without reliance on commodity backing.

In seventeenth-century England, when goldsmiths began issuing receipts in excess of the gold they held –

an early form of fractional-reserve banking – this practice was regarded as a breach of trust, issuing claims without backing, and was widely seen as fraudulent rather than as legitimate financial innovation.

The UK Bank Charter Act of 1844 prohibited private banknote issuance and centralized the creation of paper currency under the Bank of England. Since banknotes were the main form of money at the time, the Act effectively abolished private money creation in practice. However, over time, bank deposits replaced notes as the dominant means of payment, allowing private money creation to re-emerge in the form of deposit money.

Historically, therefore, sovereign money and full-reserve principles are neither novel nor untested. They reflect the long-standing monetary norm in which money creation belonged to public authority. By contrast, the dominance of privately created deposit money is a relatively recent outcome, not a timeless or inevitable feature of monetary systems, and remains open to reassessment.

## **2. In a full-reserve model why would people want to keep their money in banks without interest/profit?**

Experience shows that people do not place money in banks solely to earn a return. Even today, nearly 50% of total deposits in Pakistan’s banking system are held in current accounts that earn zero return. This is despite the availability of savings accounts that offer returns. People keep money in banks for multiple reasons, including safety, convenience, liquidity and reliability. Individuals

and businesses will always hold a portion of their money for day-to-day transactions and payments.

International experience confirms this behavior. Over the past couple of decades in Japan and Scandinavian countries, despite near zero interest rates (and negative real interest rates) people kept their money in banks and there was no widespread withdrawal of funds.

People naturally diversify their wealth into two categories:

- Risk-free funds for safety, liquidity and everyday transactions
- Risk-bearing investments for potential returns

Under a full-reserve banking system, deposit accounts become completely safe, fully backed by central bank money and protected from inflation caused by private banks creating money through lending. Security, stability and preservation of value are themselves major economic benefits – often more important to depositors than small profits on savings.

### **3. What is the single most important economic issue facing Pakistan? Can full-reserve banking do anything to solve it?**

Interest cost will consume nearly half of the total budget outlay of Pakistan in 2025-26, as revealed by the budget documents. This includes interest paid to both domestic and international creditors. Of this, 88% belongs to domestic creditors (primarily banks). After the payment of interest and the provincial share, there is

nothing left to spend on anything.

Full-reserve banking would eliminate 80% of Pakistan's domestic government debt in one go by raising the reserve requirement from 5% to 100%. In this transition, the SBP would create interest-free reserves and provide them to commercial banks to meet the new reserve requirement. In return, the SBP would take over the interest-bearing government securities currently held by the banking sector. These securities would then be converted into perpetual, zero-interest instruments, effectively removing the government's domestic debt and interest burden.<sup>48</sup>

Full-reserve banking also breaks the link between debt and money creation. Money is created by the central bank without corresponding debt. As a result, future increase in public debt, if any, is likely to be much less.

Since inflation is structurally linked to debt-based money creation, the adoption of a full-reserve system would not only reform money creation but also control inflation at the same time.

#### **4. If the full-reserve system is really so beneficial, why is it that no country in the world has adopted it?**

It is indeed striking that no serious attempt to adopt the full-reserve system has been made over the last hundred years despite rigorous academic support from leading economists (see Appendix 1). One can attribute

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<sup>48</sup> Around 20% of domestic debt is owed to non-bank entities which the government can eliminate over time as it gains fiscal space.

several factors, including the dominance of the incumbent fractional-reserve system, institutional and political inertia, limited economic understanding among political leaders and the influence of the banking sector which (incorrectly) perceives full-reserve banking as against its commercial interests.

Most of the criticism expressed by those opposed to the full-reserve system reflects either the fear of the unknown or an exaggerated concern about banks and the commercial banking model rather than consideration of the broader public interest. In the words of renowned economist Milton Friedman: *“The vested political interests opposing it are too strong, and the citizens who would benefit both as taxpayers and as participants in economic activity are too unaware of its benefits and too disorganized to have any influence.”* (Friedman, 1960)

### **5. Do economic studies or models show that a full-reserve banking system can actually work and improve the economy?**

A research paper by two IMF economists Benes & Kumhof (2012) provides strong empirical support for the claims made by Irving Fisher and the Chicago Plan economists about the full-reserve system. In this research paper, which is available on the IMF website,<sup>49</sup> the authors set up a large-scale DSGE (Dynamic Stochastic General Equilibrium) model of the US economy, using real data encompassing four sectors; banks, households, manufacturers and government. According to the model

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<sup>49</sup> <https://www.imf.org/external/pubs/ft/wp/2012/wp12202.PDF>

results, full-reserve banking system would:

- Significantly reduce business cycle volatility;
- Eliminate bank runs;
- Lead to an immediate and large reduction in the levels of both government and private debt;
- Reduce steady state inflation to zero

Additionally, the results for the banking sector do not seem to indicate a restrictive credit supply.

The model shows that macroeconomic effects are impressive. The post-transition economy exhibits a very large output gain that approaches 10% of GDP.

## **6. What happens to the quantity of money when banks make loans under a full-reserve system?**

Unlike the fractional-reserve system where each new bank loan creates additional money, a full-reserve system prevents any increase in the money supply through lending or financing decisions. Under full-reserve banking:

- Transaction (checking) deposits are fully backed by central bank reserves and are only used for payments and safekeeping. Banks cannot lend or invest these funds under any circumstances.
- Customers who wish to earn a return must place their funds into investment funds, which are risk-bearing and do not provide checking or payment facilities.

When banks provide financing using investment funds or their own equity, they simply transfer existing money

from investors to borrowers. No new money is created. Therefore, bank lending under a full-reserve system does not increase the total quantity of money in circulation.

### **7. Why does fractional-reserve banking make banks fundamentally different from other businesses?**

Under a fractional-reserve banking system, banks differ from other sectors of the economy in two fundamental ways.

- First, they do not just make loans; they create new money when they make loans. Since bank-created money accounts for a large majority of total money in the system, their impact is huge.
- Second, banks' credit decisions determine which sectors of the economy and which businesses get funded with the newly created money and which don't.

This has obvious implications for the economy as the banks exercise disproportionate influence over the allocation of resources in the economy. Some sectors and businesses may get funded despite being harmful to the long-term future of the economy or society just because banks consider them to be credit-worthy, and vice versa. For example, even after the Paris Climate Agreement of 2015, major global banks continued to fund new coal mines, oil drilling projects and gas pipelines. Though many of these projects are highly profitable in the short term and legally permitted, they also accelerate climate change and impose long-term health and environmental costs, as well as crowd out renewable energy investment.

In *Modernising Money*, the authors criticize the special treatment granted to banks and banking in the following words, “*No other industry has the monopoly privilege of issuing the money that everyone else must use in order to trade and do business. No high-street shop or restaurant will be rescued by the government in the event of financial mismanagement or bad business practice. And in no other industry would the failure of one firm threaten to bring down the entire [UK] economy.*”<sup>50</sup>

### **8. Does full-reserve banking mean the end of commercial banks or their nationalization?**

No. Full-reserve banking does not abolish banks – it simply removes the conflict created by their dual role in the current system. Today, banks hold deposits for safekeeping and payments, using them simultaneously for financing and investment. This structure creates instability and mixes two activities that should remain separate. Under a full-reserve system, the deposit section will focus exclusively on safekeeping, payments and related services. It will not use customers’ transaction deposits for financing. It will still earn revenue through payment services, fees and other customer-focused offerings. The investment section will perform genuine intermediary functions – channeling real savings from investors to businesses. Its income will come from profit-sharing, management fees and commissions.

By separating payments from investment activity,

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<sup>50</sup> *Modernising Money – Why Our Monetary System is Broken and How it can be Fixed*, by Andrew Jackson & Ben Dyson (2012), page 280

the banking sector becomes safer, more transparent and more competitive, allowing each type of institution to specialize and innovate within its proper domain.

**9. Would the process of converting to a full-reserve banking system be very long or costly?**

No. Technically, the transition to full-reserve banking and the simultaneous elimination of domestic government debt are straightforward and can be completed quickly. Under existing laws, the State Bank of Pakistan would simply raise the reserve requirement on deposits from 5% to 100%. To meet this requirement, commercial banks would transfer their reserve-eligible assets – primarily government securities – to the SBP. In return, the SBP would provide the required reserves to fully back all deposit accounts.

Milton Friedman emphasized the simplicity of this reform: *“There is no technical problem in achieving a transition from our present system to 100% reserves easily, fairly speedily, and without any serious repercussions on financial or economic markets.”*

In light of this assessment, the transition to full-reserve banking could be completed rapidly without any major disruption.

**10. Should we expect the IMF to oppose a switchover to full-reserve banking?**

The IMF evaluates financial reforms primarily on whether they strengthen macroeconomic stability, financial soundness and the sustainability of a country’s

debt and banking system. A full-reserve system has the potential to:

- Enhance financial stability
- Eliminate domestic interest-bearing debt
- Reduce fiscal pressures
- Lower systemic risk, leading to improved country risk rating

If these benefits are clearly demonstrated, the IMF may view the reform favorably, even though it represents a major shift from the traditional fractional-reserve model.

Importantly, academic interest in full-reserve banking resurfaced after the influential working paper by two senior IMF economists Benes & Kumhof (2012), which analytically supports many of the claimed advantages of the full-reserve system. However, it will be essential for Pakistani authorities to present a strong, well-structured case demonstrating how full-reserve banking serves the country's stability and aligns with the IMF's core objectives.

## **11. Will the full-reserve banking system reduce efficiency and innovation by banks?**

No. It does not restrict innovation. Banks innovate because of competition, not because they create money. Under a full-reserve system, banks will continue to develop new payment technologies – such as mobile banking, digital wallets, faster transfers and customer-

friendly financial tools – just as they do today.

Historical experience shows us that banks introduced debit cards, credit cards, online banking and mobile payments not because of the fractional-reserve system, but because innovation attracts customers. The same competitive forces will continue under full-reserve, ensuring that payment services and financial technology remain dynamic and efficient.

Full-reserve banking only changes how money is created, not how banks innovate or serve their customers.

**12. Will lenders try to turn their liabilities into “near monies” (i.e. financial assets that can be converted into money but cannot be used directly for making payments) under full-reserve?**

Some lenders may try, but this risk is easy to control. Regulation can simply require that any investment product should clearly state that this is not guaranteed and cannot be used for payments. Lenders and investment funds would also be prohibited from offering cheque-writing or card-payment facilities against investment products. Under a full-reserve system, only transaction accounts can be used for payments. Because the rule is simple – no payment function without 100% reserves – enforcement is far easier than under the current complex system.

In short, attempts to create “near money” instruments can be prevented through straightforward disclosure and payment-restriction regulations.

**13. Will the government and/or the central bank be better than private banks at regulating the amount of money?**

Just as private companies are not allowed to print passports or make laws for profit, they should not be allowed to create money. Money should be created as a public responsibility, in the right amount, for the benefit of all people, not for private gain.

Private banks have repeatedly failed to manage money and credit in a stable manner – over-lending in booms, causing bubbles and sharply contracting credit in recessions. A full-reserve system places money creation under a transparent, rule-based public authority whose aim is stable prices and economic health, not profit.

**14. Does Islam favor a gold standard? Is fiat currency un-Islamic?**

Some people believe that since during the time of Prophet Muhammad (SAW) gold- and silver-based coins were used as currency (called Dinar and Dirham respectively), Islam only acknowledges gold and silver as legitimate currencies. Any other system, such as the contemporary fiat money system, is inherently against the tenets of Islam.

This is a misconception. There is nothing in the Qur'an or authentic Ahadith that mandates a gold- or silver-based currency system. It has been left to the collective wisdom of the Muslim rulers and their societies to adopt whatever currency system suits them and fulfills their needs. Many of the disadvantages of a fiat currency are also found in a gold-based currency system. For example,

historically, there have been large devaluations as coins lost their gold or silver content, and instead, copper or some other metal was mixed with them. The motivation behind these moves was the same as today's devaluation of paper currencies.

Although the gold standard operating within a fractional-reserve system remained in use until 1971, gold has not served as an actual circulating currency for many centuries. Even if we tried to return to it, the available quantity is far too small for a modern economy. In Pakistan, the money supply is around Rs. 41 trillion, while the total gold in the SBP's vaults is valued around Rs. 1.9 trillion as of 30 June 2025. This indicates a clear mismatch with the required money supply.

Today, around 90% of transactions are electronic, where money functions mainly as a record-keeping unit. This gives convenience but also creates instability because new money is predominantly created by commercial banks through lending.

Using gold or any other commodity as currency today would add massive complexity with no practical benefit. A full-reserve fiat system is simpler, more stable and far more suitable for a modern economy.

### **15. Can banks legitimately use customer deposits as risk-seeking investments?**

When banks use the depositors' money, it creates a basic problem of trust. People place money in bank accounts for safekeeping and easy access, not to invest it in the bank's business for profit-making. Treating

these deposits as investment funds goes against this understanding.

Supporters of fractional-reserve banking usually rely on two arguments. The first claims that deposits should be treated as investments, where the bank is free to use the funds for its own activities. The second argues that as long as banks follow regulations and act “prudently,” the system is acceptable. Neither explanation resolves the core issue. Depositors still believe that their money is being kept safe, while banks use it as if it were risk-bearing investment capital.

A deposit and an investment are fundamentally different. In an investment, the investor knowingly places funds at risk, shares in profits and losses, and gives the manager discretion to use the money in business activities. In a deposit, ownership remains with the depositor, and the bank’s role is limited to safekeeping and returning the money on demand. Most depositors do not intend to enter into a profit-and-loss-sharing arrangement; they simply want a secure place to keep their money.

This mismatch becomes obvious in practice. Depositors have no understanding of how their money is being used by the banks. Using depositors’ funds in this manner without clear and informed consent may be considered misuse under ordinary legal standards and Islamic law.

Regulation does not solve this problem. Rules about liquidity and prudence may reduce risks temporarily, but they do not change the basic contradiction that banks treat

deposits as investment capital, while depositors expect full safety and immediate access. Repeated bank runs and financial crises show that no amount of regulation can fully fix a system built on this mismatch of expectations.

### **16. Why is using interest rates to control prices considered a flawed approach?**

Economists generally caution against attempts by authorities to control prices, because prices function best when they emerge naturally from supply and demand. When interest rates are used to control inflation, they act as a blunt policy tool, affecting the entire economy regardless of where price pressures originate. Rather than addressing real economic problems – such as low production, supply constraints, or weak competition – authorities attempt to influence prices by making borrowing cheaper or more expensive. This often sends distorted signals to businesses and investors and leads to inefficient economic decisions.

In a well-functioning market, rising prices signal higher profitability, which encourages new producers to enter the market. Increased supply then helps bring prices down naturally. However, when prices are managed through interest-rate adjustments, this self-correcting mechanism is disrupted, delaying real economic responses and substituting them with artificial policy interventions.

Islamic teachings similarly discourage price interference except in cases of clear market distortion, such as hoarding, monopolistic behavior or manipulation. When prices rose in Madinah, people

asked the Prophet Muhammad (SAW) to fix them, but he refused, emphasizing that prices should be allowed to adjust naturally.<sup>51</sup> The Qur'an stresses trade based on mutual consent, and classical jurists have argued that price fixation undermines this principle by overriding voluntary exchange.

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<sup>51</sup> Sunan Abi Dawood, 3451; Sunan Ibn Majah, 2200.

## **Appendix 1 – What Leading Economists Say About Fractional-Reserve & Full-Reserve Banking Systems**

The following quotations reflect the views of prominent economists from diverse schools of thought, illustrating the breadth of concern regarding fractional-reserve banking and the case for full-reserve or 100% money system.

*“It should be clear that modern fractional reserve banking is a shell game, a Ponzi scheme, a fraud in which fake warehouse receipts are issued and circulate as equivalent to the cash supposedly represented by those receipts.”*

— Murray Rothbard(1926-1995), *The Mystery of Banking* (1983)

Prominent American economist of the Austrian School, economic historian and political theorist

*“...money vastly exceeding in amount the total national money can be, and is, created and destroyed by the money-lender with a stroke of the pen.”*

— Frederick Soddy (1877-1956), *Wealth, Virtual Wealth and Debt* (1926)

Nobel Laureate and polymath whose work spanned chemistry, statistical mechanics, finance and monetary economics

*“There is no technical problem in achieving a transition from our present system to 100% reserves easily, fairly speedily, and without any serious repercussions on financial or economic markets.”*

— Milton Friedman (1912-2006), Nobel Laureate and a leading advocate of monetarism, emphasizing the role of money supply in determining inflation and economic activity

*“Fractional reserve banking is a form of inflationary credit expansion that leads to economic cycles.”*

— Ludwig von Mises (1881-1973), *Human Action: A Treatise on Economics* (1949)

Austrian and American political economist and philosopher of the Austrian School

*“In a world where ‘the nature of money is a fiat of the law, an invention or creation of mankind,’ even in times of the gold standard, the authority to ‘create money’ should be the sole prerogative of a sovereign government.”*

— Stephen Zarlenga (1941-2017)

Researcher and author in the field of monetary theory and an advocate of monetary reform

*“The system of 100% money would be a great improvement over the present system of fractional reserve banking, which has been a cause of many of our economic ills.”*

— Irving Fisher (1867-1947), *100% Money* (1935)

American economist, statistician and inventor, considered one of the greatest economists of all time

*“Fractional reserve banking is fraudulent because it involves the creation of money without the backing of real savings.”*

— Jesús Huerta de Soto (1956), *Money, Bank Credit and Economic Cycles* (2006)  
Spanish economist of the Austrian School

*“Fractional reserve banking is a myth; banks do not lend out reserves but create credit when they make loans.”*

— Steve Keen (1953), *Debunking Economics* (2001)  
Australian economist and author

*“Fractional reserve banking is a form of counterfeiting that leads to economic instability and inequality.”*

— Michael Rowbotham (1965), *The Grip of Death: A Study of Modern Money, Debt Slavery, and Destructive Economics* (1998)  
UK-based political and economics writer and commentator

*“Printing counterfeit banknotes is illegal, but creating private money is not. The interdependence between the state and the businesses that can do this is the source of much of the instability of our economies. It could – and should – be terminated.”*

— Martin Wolf (1946), *Strip Private Banks of Their Power to Create Money* (2014)  
Chief economic commentator of the Financial Times

*“Of all the many ways of organising banking, the worst is the one we have today.”*

— Sir Mervyn King (1948), *Banking: from Bagehot to Basel, and back again*  
Governor of the Bank of England (2003-2013)

*“The financial crisis of 2007/08 occurred because we failed to constrain the private financial system’s creation of private credit and money.”*

— Adair Turner (1955), speech to the South African Reserve Bank (2012)  
Chairman, Financial Services Authority, UK (2008-2013)

## Appendix 2 – Accounting Entries Under Fractional-Reserve and Full-Reserve Systems

Below is a clear accounting presentation showing how money is created and recorded under fractional-reserve banking versus full-reserve banking.

### 1. Fractional-Reserve Banking (Money is created through lending)

Step 1: A customer deposits cash or transfers Rs. 100 into Bank A.

The accounting entry is as follows:

Bank A	Assets	Liabilities
Cash / reserves	+100	
Deposits		+100

- This is just custody. No money creation yet.
- Reserves are the money banks keep with the State Bank of Pakistan to settle payments with other banks.

Step 2: Bank issues a loan

Assume that the bank maintains Rs. 10 as reserves for liquidity and regulatory purposes and creates a loan of Rs. 90. Accounting entry upon loan creation is as follows:

Bank A	Assets	Liabilities
Loan to borrower	+90	
Deposits (borrower account)		+90

- No one deposited this Rs. 90.
- The loan creates a deposit. It is new electronic money, created by the bank.

Combined position after lending:

<b>Bank A</b>	<b>Assets</b>	<b>Liabilities</b>
Cash / reserves	+100	
Loans	+90	
Deposits (original+borrower)		+190

- Money supply increased from Rs. 100 to Rs. 190.
- This is fractional-reserve money creation.

Step 3: When the loan is repaid

If the borrower repays Rs. 90 (principal only):

<b>Bank A</b>	<b>Assets</b>	<b>Liabilities</b>
Loan	-90	
Deposits		-90

- Repayment shrinks the money supply from Rs. 190 to Rs. 100

## **2. Full-Reserve Banking** **(Banks DO NOT create money)**

In full-reserve banking:

- Deposits are 100% backed by reserves or cash.
- Banks cannot lend deposit money.
- Lending/financing/investment can only be done using investment funds, not current accounts.

## APPENDIX 2: ACCOUNTING ENTRIES IN BANKING

### A. Transaction (deposit) account

Step 1: A customer deposits cash or transfers Rs. 100 into Bank A.

<b>Bank A</b>	<b>Assets</b>	<b>Liabilities</b>
Cash / reserves at central bank	+100	
Customer transaction deposit		+100

This is the same as step 1 of the fractional-reserve system so far. However, the bank cannot lend this money.

### B. Investment fund

Step 2: Customer invests Rs. 100

Customer *voluntarily* moves money from deposit to investment fund.

<b>Bank A</b>	<b>Assets</b>	<b>Liabilities</b>
Customer investment fund		+100
Customer transaction deposit		-100

- Ownership and risk are reclassified.
- The funds are temporarily held in a pooled investment account pending deployment.

Step 3: Bank invests Rs. 100 in a business

A. *The business has an account in the same bank*

<b>Bank A</b>	<b>Assets</b>	<b>Liabilities</b>
Investment in business	+100	
Business transaction deposit		+100

- The funds are transferred to the business’s transaction account within the same bank.
- No money is created, as the funds originate from the customer’s existing deposit and therefore do not expand the money supply.
- No change is required in reserves, as the deposit money remains intact and is simply transferred from the customer to the business.

*B. The business has a transaction account in another bank*

<b>Bank A</b>	<b>Assets</b>	<b>Liabilities</b>
Investment in business	+100	
Reserves	-100	

- Bank A has already recorded a decrease in the transaction deposit when the funds were transferred from the customer’s transaction account to the investment fund (step 2). Now, reserves are transferred to the receiving Bank B on deployment of funds.
- The receiving bank (Bank B) records a corresponding increase in reserves and transaction deposit, as follows.

<b>Bank B</b>	<b>Assets</b>	<b>Liabilities</b>
Business transaction deposit		+100
Reserves	+100	

Step 3: When the investment returns

The business pays profit + principal to the bank

APPENDIX 2: ACCOUNTING ENTRIES IN BANKING

<b>Bank A</b>	<b>Assets</b>	<b>Liabilities</b>
Cash / reserves	+100 (+profit)	
Investment in business	-100 (+profit)	

Also, the bank pays the investor:

<b>Bank A</b>	<b>Assets</b>	<b>Liabilities</b>
Customer's investment fund		-100 (+profit)
Customer's transaction account		+100 (+profit)

- Money gets circulated, not destroyed and can be reinvested again.
- The profit shown here does not represent newly created money. It arises from the transfer of existing money paid by customers for goods and services produced by the business.

**Core differences (summary table)**

<b>Feature</b>	<b>Fractional-reserve</b>	<b>Full-reserve</b>
Deposit lending	Yes	No
Money creation	Yes, by commercial banks	No, only by the central bank
Loan creates deposit	Yes	No
Repayment effect	Destroys money	Money remains
Link to debt	Yes, by design	No
Investment financing	Debt-based	Savings-based

## Appendix 3 – A Brief History of Money

Money is widely regarded as one of the greatest inventions of mankind. The history of money is, in some ways, the history of human civilization. Money has been a key factor in humanity's socioeconomic progress and development over millennia. From simple barter trades to complex digital currencies, it is a fascinating story. We summarize below the journey of several thousand years in a few bullet points.<sup>52</sup>

**1. Barter:** The direct exchange of goods and services is the earliest form of trade in human societies and money emerged from there according to most historians and anthropologists. The problem was that barter required double coincidence of wants – one must need what the other has and vice versa. It was an inefficient system and lacked universal acceptance. In some early civilizations, money first emerged as a unit of account used to record debts and obligations, often administered by temples or governing authorities, before becoming a widely used medium of exchange.

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<sup>52</sup> This is based on information from various sources including Encyclopedia Britannica's "A Brief (and Fascinating) History of Money" <https://www.britannica.com/story/a-brief-and-fascinating-history-of-money>, James Robertson's "The History of Money: From Its Origins to Our Time" <http://www.jamesrobertson.com/book/historyofmoney.pdf> and Bank of England's "How has money changed over time?" <https://www.bankofengland.co.uk/explainers/how-has-money-changed-over-time>

**2. Early commodity money:** To address the inefficiency of barter people started using commodity money – objects valued for themselves. Different societies used different commodities as money, e.g. grain, rice, salt, livestock and cowrie shells.<sup>53</sup> The main advantage was that these commodities were widely accepted within these communities or regions. However, commodity money remained constrained by its physical limitations and could not easily support expanding trade networks.

**3. Gold and silver:** By around 3,000 BC the civilizations in Mesopotamia (modern day Iraq), Egypt, China and the Indus Valley (modern day Pakistan and India) started using precious metals (mostly gold and silver) as currency. Initially, these metals were used primarily by weight as a unit of account rather than as standardized coins. This offered several advantages; they are naturally valuable, storage is not an issue (non-perishable) and they can be divided and weighed precisely. Around 700 BC, starting from the Kingdom of Lydia (modern day Turkiye), the rulers started to stamp the metals to guarantee weight and purity, giving rise to coins. This was a revolutionary change as the public's trust was now in the issuing authority that guaranteed weight and purity, not merely in the metal itself. However, the risk of theft and loss was still there.<sup>54</sup>

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<sup>53</sup> The earliest use of cowrie shells as currency was documented in China 1300 years BC. These were popular in large parts of Asia, Africa, Oceania and some places in Europe.

<sup>54</sup> Around the 6<sup>th</sup> century BC leather and animal hide began to be used as currency. It was popular in ancient Rome and some parts of modern-day France and Russia.

**4. Paper money:** It is generally accepted that the Chinese government pioneered paper money in the 7<sup>th</sup> century. The main reason why it became popular was that it was easier to carry for long distances (than bags of coins) and it was also safer (early paper money essentially represented a claim on gold or silver stored somewhere). It is important to distinguish between state-issued paper money, as pioneered in China, and privately issued paper claims that emerged later in Europe. In Europe, receipts issued by goldsmiths for deposited precious metals gradually began circulating as a means of payment. Initially these receipts were fully backed by the underlying gold but soon the goldsmiths started issuing more receipts than the gold in their vaults to earn additional interest, marking the beginning of the fractional-reserve banking system. This practice contributed to inflation, financial panic, bank runs and recurring instability. To stop these abuses, the UK passed the Bank Charter Act of 1844, giving the Bank of England the exclusive right to create banknotes. Other countries followed this model.

**5. Gold-backed national currencies:** Nation-states gradually moved towards gold-backed paper currencies. UK adopted a formal gold standard in 1821, followed by Australia (1852), Canada (1854), Germany (1871), France (1878), United States (1879) and Japan (1897). As exchange rates between countries became stable it facilitated global trade which grew at an unprecedented rate. The one big limitation of this gold standard was that money supply became tied to the gold reserves which not only meant that gold-rich countries were at an advantage but the ability to mine gold also became an important

factor. Money creation was constrained by gold reserves, imposing discipline but also reducing flexibility during periods of crisis such as wars. Indeed, the two world wars affected the convertibility of paper money into gold.<sup>55</sup>

**6. Fiat money:** In 1971 when the US ended the dollar convertibility into gold, a new era of fiat currencies began with no gold backing. Fiat money derives its value from legal authority, public trust and the state's power to impose and collect taxes. There is no inherent value other than government decree and if the trust in the government falters the money loses its value. Fiat money provided flexibility to governments to expand the money supply as needed without worrying about their gold reserves. At the same time, it made it possible that unscrupulous governments could print money at will without regard to actual need and out of sync with economic growth, leading to high rates of monetary inflation.

**7. Electronic money – bank deposits:** The last hundred years have seen significant progress in banking and financial systems, technological innovation, communications infrastructure, computer systems and software. Around 90% of what we call money today is

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<sup>55</sup> After WW1 some countries suspended the free convertibility of gold. The US maintained convertibility but stopped gold exports. The gold link was re-established by 1929 but deflation and unemployment led countries into recession which forced many European nations to leave the gold standard by 1936. After WW2 the creation of IMF and World Bank provided a global monetary system with the US dollar serving as world reserve currency fixed at US\$ 35 per ounce of gold. This arrangement continued till 1971.

Earlier, during the wars with Napoleon, the UK had also suspended gold payments, and so did the US during its Civil War.

in digital form (bank deposits) and moved around using electronic funds transfer via online banking, mobile banking, digital wallets and debit cards. It is the banks that create money when they lend, essentially creating it out of thin air, as explained earlier in the book.

**8. Digital money – cryptocurrencies, CBDCs and stablecoins:** The advent of cryptocurrencies (e.g. bitcoin) adds another dimension to the definition of money as it is decentralized (private) as opposed to centralized (issued and controlled by the government or central bank). While cryptocurrencies offer decentralization and resistance to political control, their price volatility and limited use as a unit of account currently constrain their role as a stable monetary system. In response to bitcoin various governments are coming up with their own digital currencies called Central Bank Digital Currencies or CBDCs, while the private sector has developed regulated stablecoins designed to provide digital efficiency with relative price stability.

The evolution of money reflects continuous shifts in the locus of trust from social relationships to metals to governments to banks, and now potentially to algorithms and networks. At the core of this evolution lies a fundamental question that remains unresolved: who should have the authority to create money, and under what constraints? The answer to this question will shape economic stability, distribution of wealth and public welfare in the decades ahead.

## **Appendix 4 – Working of the Money Creation Committee**

The mandate of the Monetary Policy Committee of the State Bank of Pakistan should be reviewed and it should be renamed as the “Money Creation Committee” (MCC) to oversee the creation of new money. The MCC should be granted special powers and independence. Its composition may also be reviewed to ensure its effectiveness. It will be accountable to the Parliament for its decisions.

The MCC will be responsible to oversee the process of creating new money, as follows:

- At the start of every fiscal year, the government should use last year’s actual/provisional real GDP growth rate as the target for money creation. The average annual growth rate of the last ten years can also be used as a proxy.<sup>56</sup>
- Every quarter when provisional GDP growth numbers are received, the MCC should adjust the next quarter’s money creation target accordingly. This way at the end of the year the government will not be too off from the actual GDP growth figures, avoiding sharp inflationary or deflationary swings.

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<sup>56</sup> In theory the target GDP growth rate for the next 12 months can also be used but it opens the door to manipulation based on future forecasts. It is, therefore, prudent and conservative to benchmark money growth rate with the actual GDP growth rate achieved.

- The targets and periodic adjustments should both be disclosed publicly and there should be no room to maneuver or tweak the numbers. The composition of the MCC ensures that it can independently exercise its judgment without political influence from any quarter. There should be a yearly audit of the numbers.
- If a prior year adjustment needs to be made (e.g. because of a mistake discovered by the audit) it should also be disclosed along with the underlying reason.
- In genuine emergencies such as war the MCC can intervene to inject the money needed into the system, subject to approval from the Parliament.

## **Appendix 5 – Will Full-Reserve Banking Constrain Investment & Economic Growth in Pakistan?**

The central argument of this appendix is that Pakistan's investment weakness is not caused by insufficient money or lending, but by a debt-based monetary structure that diverts financial resources towards interest payments instead of financing businesses or agriculture. Full-reserve banking breaks this cycle and redirects existing financial resources towards productive investment.

### **Why must the debate shift from lending to investment?**

One of the most common criticisms raised against full-reserve banking is the claim that it would reduce the amount of credit available in the banking system, thereby constraining economic growth. This criticism is based on a misleading framing of the problem. Economic development does not depend on how rapidly banks issue loans; it depends on whether productive investment takes place. Investment refers to the creation of real economic capacity – factories, machinery, farms, transport networks, energy systems, skills and technology – that expands the economy's ability to produce goods and services over time.

Pakistan's own economic experience clearly shows that expanding bank lending does not automatically translate into higher investment. Over the past five decades, Pakistan's broad money supply has expanded at

persistently high rates, averaging around 15% per annum, yet private investment as a share of GDP has steadily declined from roughly one-fifth of national output to the low-teens. This divergence directly contradicts the assumption that more bank credit naturally produces more investment. What matters for growth is not just the quantity of credit, but **how financial resources are allocated within the economy**. If bank-created credit were the primary driver of investment, Pakistan should have experienced rising investment ratios during periods of rapid monetary expansion. The opposite has occurred.

Once the discussion is correctly shifted from lending to investment, the fear that full-reserve banking will starve the economy of finance loses much of the steam. The relevant question is whether Pakistan will have sufficient, stable and sustainable funds for productive investment.

### **How does investment actually take place?**

**In the real economy, businesses do not invest simply because loans are available.** They invest when they expect stable demand, manageable costs and reasonable predictability about the future. This helps explain why sustained monetary expansion in Pakistan has failed to generate consistent industrial growth.

Anecdotal evidence as well as research studies show that most productive investment is financed internally. Corporate sector accounts indicate that retained earnings are the primary source of capital formation. Small and medium enterprises, which employ the majority of the

workforce, rely even more heavily on reinvested profits, trade credit, partnerships and family capital. Although bank lending plays a secondary role, it is often constrained by high interest rates, collateral requirements and short maturities that are unsuitable for long-term productive investment.

This situation has continued even though banks have long been free to create money through lending. The fact that investment remains weak despite repeated increases in the money supply shows that the real obstacle to productive growth in Pakistan is not a shortage of bank-created money.

### **Why has bank-created lending failed to deliver investment?**

The failure of bank-created lending to deliver productive investment is not difficult to explain. Most newly created bank money has not been used to build productive capacity. Instead, it has been directed predominantly towards government borrowing. In the last three years, well over 90% of net new bank credit has been absorbed by the government, primarily through Treasury Bills and government bonds. While a portion of public spending is development related, the bulk of government borrowing for years has been used to roll-over existing debt and meet rising interest obligations, not to expand productive capacity. Public sector development expenditure has remained relatively modest, insufficient to explain the scale of borrowing. Instead, interest payments have been the dominant driver of new government borrowing and now absorb almost half of the federal budget, compelling the government to

borrow simply to meet past commitments.

Commercial banks find this arrangement attractive because lending to the government is virtually risk-free, highly liquid and offers predictable returns. As a result, bank money has been locked into a cycle of government debt roll-over rather than being available for productive private investment. This **crowding out of the private sector has occurred despite unrestricted money creation.**

### **Why will government borrowing not be required under full-reserve banking?**

Full-reserve banking fundamentally changes the relationship between money creation, government finance and investment. At the time of transition, nearly 80% of domestic debt servicing – which currently consumes a major portion of the federal budget – would be eliminated. Further, money would be created directly by the state and would enter the economy without being tied to interest-bearing loans. This removes the need for the government to borrow from banks merely to pay interest on domestic debt.

Interest-driven expansion of public debt comes to an end. Government borrowing, if it occurs, will be limited to genuine long-term investment needs and must be financed from real savings rather than newly created bank money. Consequently, the massive absorption of financial resources by government debt does not arise under full-reserve banking. This is not an austerity argument but a structural one. The system itself no longer produces the

conditions that make excessive government borrowing inevitable.

The central bank's role shifts from accommodating debt expansion to managing money issuance in line with real economic capacity and price stability.

**Where will investment funds come from under full-reserve banking?**

A common misconception is that investment depends on creating new money. In reality, investment uses real resources – labor, materials and capital – and is mainly financed from existing savings and financial resources. Once government borrowing no longer absorbs the bulk of available funds, existing savings naturally become available for productive investment without any need for additional money creation. As depositors seek higher returns, many will shift their funds from transaction-oriented deposit accounts into investment funds. Even a partial reallocation can have a powerful effect. For example, if only 25% of existing demand deposits migrate into investment funds, the pool of funds available for productive financing could increase dramatically, providing a substantial boost to industrial expansion and business investment.

In all likelihood, the transition would result in a substantial additional inflow of financing to the private sector as the funds previously diverted for government borrowing will now be available. Rather than facing a shortage of investment funds, the private sector is likely to experience a surplus of available finance following the transition.

## **How is the same money recycled again and again for investment?**

One of the most important ideas behind full-reserve banking is also one of the most misunderstood – **money used for investment is not “used up.”** It does not vanish after being invested. Instead, it keeps circulating and can support many rounds of productive activity.

When savings are invested in a business, that money is spent on real things – paying workers’ wages, buying machinery, purchasing raw materials and paying suppliers. The money immediately **becomes income for others in the economy.** Workers spend it on household needs or make investments, suppliers pay their employees and businesses save part of it for future use. At no point does the money disappear; it simply moves from one hand to another.

As production takes place and goods are sold, the business earns revenue. From this revenue, the original investment amount is gradually returned. **Under full-reserve banking, this return does not destroy money** unlike in fractional-reserve when debts are repaid. The same funds come back into the pool of available investment finance and can be used again for new productive projects.

For example, if Rs. 100 billion of savings are invested in a project, that money finances jobs and production today. As goods are sold, the same Rs. 100 billion returns as income and repayments. It can then be invested again in another project, and then another. Over time, the **same**

**Rs. 100 billion can support many rounds of investment,** creating far more economic activity than its original size might suggest.

This is how a fixed amount of money can support a growing economy. **Growth does not require endlessly creating new money or new debt; it requires continuous circulation of money through real production.** Full-reserve banking facilitates this outcome. What limits this recycling is not the availability of money but the availability of productive investment opportunities.

This is very different from the current banking system. Today, when loans are repaid, the money used for repayment disappears from the system. To prevent economic activity from shrinking, new loans must constantly be created. This makes the economy dependent on ever-rising debt.

### **Investment follows demand, not debt**

Economic history consistently shows that investment responds to demand rather than to the availability of debt. Periods of weak demand – caused by inflation, indirect taxation, energy shortages, policy uncertainty, etc. – have coincided with weak investment, even when credit was abundant.

Full-reserve banking strengthens investment indirectly by stabilizing the monetary environment. By reducing inflationary pressure and restoring predictability to purchasing power, it strengthens consumer demand. Businesses respond to this demand by investing, financed largely through profits, savings and recycled funds rather

than excessive borrowing.

Importantly, full-reserve banking does not imply a rigid or fixed money supply. When the real economy expands and genuine investment opportunities increase, new money can be introduced directly through public investment, strengthening demand without creating private debt.

### **From debt-led expansion to investment-led growth**

Pakistan's current monetary framework is based on a debt-led growth model, where economic activity increasingly relies on continuous borrowing. Full-reserve banking enables a shift towards investment-led growth, anchored in real productivity, real savings and stable demand. This shift does not depend on ever-expanding credit. It depends on correcting the misallocation of financial resources and dismantling the inherent distortions in debt-based money creation.

## **Appendix 6 – Investment Operations under Full-Reserve Banking: Risk and Maturity Alignment**

Under a full-reserve banking system, the investment section of the bank will operate as a pure risk-bearing intermediary, fully separated from the money safekeeping and payment function. It will not create money and will not rely on guaranteed or withdrawable deposits. Instead, it will mobilize real savings through investment funds and will channel them into productive economic activity.

### **Investment funds**

Funds for financing will be raised exclusively through investment funds, which will represent profit-and-loss-sharing arrangements rather than debt obligations. These funds will be contractually segregated from transaction deposits and will carry no guarantee of capital or return, except in cases of negligence or misconduct.

Key features will include:

- A minimum investment period of six months
- Variable returns linked to actual asset performance
- Full risk-bearing by investors

Accounting rules treat assets as money when they are safe and can be turned into cash within about three months. Investment funds under this system are intentionally structured otherwise, ensuring they remain investments and not hidden forms of money.

### **Notice period and withdrawal discipline**

Even after the minimum investment period of six months, investment funds will not be withdrawable on demand. Investors will be required to provide advance notice before exit. The recommended notice period is 30 days. This notice period will allow orderly liquidation or rollover of assets, prevent distressed sales and reinforce the non-monetary nature of investment funds.

### **Credit provision and investment activity**

The investment section will extend financing only after funds have been fully raised and committed. Financing can be undertaken through asset-backed, risk-sharing and ownership-based instruments. In an Islamic financial context, this naturally includes Shari'ah-compliant modes such as Murabaha, Ijarah, Mudaraba and Musharaka. Funds can also be invested in listed equities, providing investors with ownership exposure to productive enterprises through dividends and capital appreciation rather than fixed or guaranteed returns.

Crucially, financing will follow savings. Credit expansion will therefore remain anchored in real capital formation instead of money creation.

### **Classification by risk and maturity**

To ensure transparency and stability, investment funds will be explicitly classified by both risk and maturity. Investors will choose their preferred category in advance and cross-subsidization between pools will be prohibited.

- Risk classification: low, medium and high risk

- Maturity classification: short-term, medium-term and long-term

Funds raised for a given maturity will not be deployed into longer-dated assets. This will enforce maturity matching and will eliminate liquidity mismatch.

### Stability objectives

This framework will ensure that:

- Risk will be borne by investors, not banks or the state
- Losses will not be socialized through bailouts or inflation
- Banks will be insulated from liquidity runs
- Finance will remain tied to real economic activity

### Investment classification by risk and maturity (illustrative)

Risk level	Short-term (months 6-12)	Medium-term (months 12-36)	Long-term (36+ months)
Low risk	Trade finance, diversified short-term assets	Financing of established businesses	Held to maturity investments (e.g. housing finance, infrastructure finance)
Medium risk	Liquid equity exposure	Expansion of established firms	Strategic equity holdings
High risk	Rare / limited	Growth ventures	Start-ups, venture equity

Each cell represents a separate investment pool with its own return profile, loss-sharing rules and exit conditions. Returns will be expected but never guaranteed.

### **Capital at risk**

Bank owners will be required to keep a meaningful portion of their own capital at risk. In the event of losses from investment activities, these will be shared proportionately between investors and bank shareholders according to their capital participation. This does not guarantee investor funds but ensures proper incentives along with responsible risk-taking.

By clearly separating money from investment and enforcing classification by risk and maturity, full-reserve banking will promote transparency, enhance stability and strengthen the link between finance and the real economy.

## Appendix 7 – SBP’s and Banks’ Balance Sheets After Transitioning to Full-Reserve Banking

### Banking sector balance sheet – pre and post transition

	Before transition (as at 30 June 2025)	After transition (to full-reserve banking)	Change
(Rs trillion)			
<b>ASSETS</b>			
Investments (govt. bonds, Sukuk, etc)	37.5	0	(37.5)
Advances to private sector	13.2	13.2	-
Lending to Financial Institutions	1.1	1.1	-
Fixed assets	1.0	1.0	-
Statutory reserves with SBP	1.7	30.1	28.4
Other cash & bank	1.8	1.8	-
<i>Subtotal</i>	3.5		
Other assets	3.4	3.4	-
<b>Total assets</b>	<b>59.6</b>	<b>50.5</b>	<b>(9.1)</b>
<b>LIABILITIES &amp; EQUITY</b>			
Customer deposits (included in M2) - per SBP	30.1	30.1	-
Time deposits (not included in M2) /	5.3	5.3	-
<i>Subtotal</i>	35.4		
under REPO - per SBP	12.5	3.5	(9.1)
Financial Institutions	2.5	2.5	-
<i>Subtotal</i>	15.0		
Other liabilities	5.5	5.5	-
<b>Total liabilities</b>	<b>55.9</b>	<b>46.9</b>	<b>(9.0)</b>
Equity	3.7	3.7	-
<b>Total liabilities &amp; equity</b>	<b>59.6</b>	<b>50.5</b>	<b>(9.0)</b>

#### NOTE:

- Banks will hand over government bonds/Sukuk/T-Bills to the SBP against receiving reserves of equivalent amount
- Post-transition the following accounting entries will be made by the banks in their books:
  - Govt. securities (transferred to SBP): Credit – Rs. 37.5 trillion
  - Reserves: Debit – Rs. 28.4 trillion
  - Borrowing from SBP: Debit – Rs. 9.1 trillion

## State Bank of Pakistan balance sheet – pre and post transition

	Before transition (as at 30 June 2025)	After transition (to full-reserve banking)	Change
(Rs trillion)			
<b>ASSETS</b>			
Gold reserves	1.9	1.9	-
Foreign exchange balances	4.5	4.5	-
Loans to banking sector (REPO)	12.5	3.5	(9.1)
Investment - government bonds	5.3	42.8	37.5
Loans, advances and bills of exchange	1.9	1.9	-
Other assets	0.3	0.3	-
<b>Total assets</b>	<b>26.4</b>	<b>54.8</b>	<b>28.4</b>
<b>LIABILITIES &amp; EQUITY</b>			
Statutory reserves	1.7	30.1	28.4
Bank notes	11.3	11.3	-
Government current account	2.0	2.0	-
Payable under bilateral currency swap	1.2	1.2	-
Other deposits and accounts	1.3	1.3	-
Payable to IMF	2.7	2.7	-
Other liabilities	0.3	0.3	-
<b>Total liabilities</b>	<b>20.4</b>	<b>48.9</b>	<b>28.4</b>
Equity	5.9	5.9	-
<b>Total liabilities &amp; equity</b>	<b>26.4</b>	<b>54.8</b>	<b>28.4</b>

### NOTE:

*Post-transition as the banks hand over government bonds, T-bills and Sukuk to the SBP against issuance of reserves, the following accounting entries will be made in SBP books:*

- *Reserves against 100% deposits: Credit – Rs. 28.4 trillion*
- *Govt. securities: Debit – Rs. 37.5 trillion*
- *Liability to banking sector: Credit – Rs. 9.1 trillion*

*Sources: SBP Annual Report 2025, Mid-Year Performance Review of the Banking Sector Jan-June 2025 by SBP:*

- <https://www.sbp.org.pk/reports/annual/aarFY25/AFS-2024-25.pdf>
- <https://www.sbp.org.pk/publications/HPR/HICY25.pdf>

## Appendix 8 – Glossary

<b>Term</b>	<b>Meaning</b>
Bank run	A situation when many customers simultaneously demand their money back from a bank for fear of its failure
Bitcoin	The most popular cryptocurrency in the world that uses blockchain technology to support transactions between users on a decentralized network
Bond	A debt security whereby money is lent to an entity (e.g. a government) for a fixed period at an interest rate. The bond pays regular interest and at maturity, the face value of the bond is paid by the borrower
Central Bank Digital Currency (CBDC)	Digital form of a country's currency, issued and regulated by the central bank
Checking accounts	Those accounts that provide easy cash deposit and withdrawal facility for everyday transactions and do not usually offer any interest/profit
Collateralized lending	A lending practice in which assets are taken or used as security
Cryptocurrency	A digital currency in which transactions are verified and records maintained by a decentralized system, rather than by a centralized authority
Diminishing Musharaka	A declining partnership arrangement where two parties (e.g. an Islamic bank and its customer) jointly own a property or an asset. The customer gradually buys out the bank's share over time and also pays rent for using the bank's portion all the while until obtaining 100% ownership

<b>Term</b>	<b>Meaning</b>
Fractional-reserve banking	A banking model that allows banks to keep a small portion – a fraction – of their customers’ demand deposits in reserve and lend out the rest
Full-reserve banking	A banking model that obliges banks to keep 100% of their customers’ demand deposits (current account) in reserve and not lend these funds
GDP	Gross Domestic Product is a measurement of the market value of all the final goods and services produced by an economy during a period, typically one year
Gharar	Extreme uncertainty or lack of transparency, which is likely to lead to disputes between contracting parties
GST	Generalized Sales Tax
Ijarah	A type of rental arrangement whereby an Islamic bank purchases an asset or a property and gives it to a customer on rent
Investment funds	As opposed to current accounts, these are profit and loss sharing vehicles to be utilized by banks after adopting a full-reserve banking model. Similar to mutual funds, these will offer low, medium and high- risk investment opportunities to investors with the risk fully borne by them and no guarantee of either the principal or the profit
M1	The type of money that can be used immediately for transactions, such as currency notes & coins and highly liquid, checkable deposits

APPENDIX 8: GLOSSARY

<b>Term</b>	<b>Meaning</b>
M2	Includes M1 plus savings deposits, small time deposits and retail money market mutual funds (i.e. near-liquid assets that can be easily converted into cash)
Maqasid Al-Shari'ah	The higher objectives, purposes and wisdom behind Islamic law or Shari'ah. According to most scholars, these include the safeguarding of five essential elements – religion, life, intellect, lineage and wealth – for all of mankind
Mudaraba	A type of partnership in which one party contributes capital and the other party contributes managerial skills/labor. Profits can be shared in any pre-agreed ratio while losses are borne solely by the capital provider
Murabaha	A type of sale in which both the cost and the profit are declared. Typically, a bank would purchase an asset that its customer needs and then resell that asset to the customer after adding a profit. The customer pays back in agreed installments. Both the cost price and the profit are declared
Musharaka	A partnership where both parties contribute capital and labor and share profit and loss
Nominal return	The gain on an investment without considering inflation
Oligopoly	A market controlled or dominated by a few players. It is the opposite of a competitive market

<b>Term</b>	<b>Meaning</b>
Policy rate / policy interest rate	The central bank's interest rate which is an essential tool for regulating the money creation by commercial banks under the fractional-reserve banking system
Real return	The gain on an investment after adjusting for inflation
Riba	Interest (a pre-determined excess amount over and above the principal) charged in lending transactions
Savings/investment accounts	Those accounts that offer a return
SBP	State Bank of Pakistan
Seigniorage profit	The gain earned by the state/central bank from issuing money at a cost lower than its face value
Stablecoin	A type of cryptocurrency designed to maintain a stable value, typically pegged to a reserve asset like the U.S. dollar, gold or other fiat currencies
Sukuk	Shari'ah-compliant financial certificates representing partial ownership in an asset or project. Their return is linked to real economic activity. They are used by governments and companies to raise money
The Chicago Plan	An economic and banking reform plan proposed by the University of Chicago economists in 1933 during the Great Depression. It advocated for a 100% reserve requirement on bank deposits to stabilize the financial system and sought to separate money creation from bank lending

## Bibliography

1. Jackson, Andrew and Dyson, Ben (2012). *Modernising Money*. Positive Money.
2. Fisher, Irving (1936). *100% Money*. Adelphi Company.
3. Fisher, Irving (1936). *100% Money and the Public Debt*. Cornell University.
4. Huber, Joseph and Robertson, James (2000). *Creating New Money*. New Economics Foundation.
5. Benes, Jaromir and Kumhof, Michael (2012). *The Chicago Plan Revisited*. IMF Working Paper.
6. Friedman, Milton (1969). *A Program for Monetary Stability*. Fordham University Press.
7. Khalilullah, Qanit (2024). *Full Reserve Banking – Part I & II*. The News.
8. Levitin, Adam J. (2015). *Safe Banking: Finance and Democracy*. The University of Chicago Law Review.
9. Tikkanen, Amy (2025). *A Brief (and Fascinating) History of Money*. Encyclopedia Britannica.
10. Robertson, James (2007). *The History of Money: From Its Origins to Our Time*. Autrement.
11. *How has money changed over time?* (2018). Bank of England. <https://www.bankofengland.co.uk/explainers/how-has-money-changed-over-time>
12. Wolf, Martin (2014). *Strip Private Banks of Their Power to Create Money*. Financial Times. <https://www.ft.com/content/7f000b18-ca44-11e3-bb92-00144feabdc0>

“This book offers a compelling critique of fractional-reserve banking, arguing that it fuels unsustainable debt, persistent inflation and economic instability by allowing private banks to create money through lending. The authors propose a shift to full-reserve banking, where transaction deposits are fully backed and separated from risk-bearing investments, enabling debt-free money creation by the state rather than private banks and aligning finance with productive activities. Tailored to Pakistan’s context, the book highlights potential savings of trillions in interest payments on public debt and a path toward Islamic economic principles.”

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The modern banking system grants private banks the extraordinary power to create money which causes debt-fueling inflation, widening inequality and triggering recurring financial crises. As debt expands and prices rise, ordinary citizens struggle while asset owners grow wealthier. What appears to be financial progress conceals a profound structural imbalance.

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