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**NARROW BANKING, FINANCIAL FRAGILITY
AND DOLLARIZATION**

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Narrow Banking, Financial Fragility and Dollarization

Emilio Ocampo

Abstract

In the United States proposals to separate money creation from credit intermediation regularly resurface as remedies for financial instability. In Argentina, they also feature in arguments that dollarization requires full-reserve banking. This paper reviews the historical and modern versions of these proposals and highlights the structural disadvantages that make them inadvisable. Restrictions on specific monetary liabilities encourage substitution outside the regulated perimeter, while separating payments from lending sacrifices informational and contractual complementarities. Recent crises demonstrate that full backing of transaction deposits alone cannot resolve fragility arising from excessive leverage, asset losses, and unstable funding. The paper concludes that dollarization does not require full-reserve banking and outlines an alternative prudential framework based on stronger capital, external liquidity protected from domestic political appropriation, limits on balance-sheet mismatches, and explicit arrangements for emergency liquidity and bank resolution.

Keywords: narrow banking; 100 percent reserves; Chicago Plan; financial fragility; lender of last resort; dollarization; Argentina.

JEL Codes: B22; E42; E44; E58; G21; G28; N23; N26.

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Resumen

En Estados Unidos las propuestas de separar la creación de dinero de la intermediación crediticia resurgen regularmente como remedios para la inestabilidad financiera. En la Argentina, también forman parte de los argumentos según los cuales la dolarización requiere un sistema bancario con encajes del 100 por ciento. Este trabajo examina las versiones históricas y modernas de estas propuestas y destaca las desventajas estructurales que las hacen desaconsejables. Las restricciones sobre determinados pasivos monetarios incentivan su sustitución por instrumentos fuera del perímetro regulatorio, mientras que separar los pagos del crédito sacrifica complementariedades informativas y contractuales. Las crisis recientes demuestran que el respaldo íntegro de los depósitos transaccionales no basta para resolver la fragilidad derivada del apalancamiento excesivo, las pérdidas en los activos y la inestabilidad del fondeo. El trabajo concluye que la dolarización no requiere encajes del 100 por ciento y esboza un marco prudencial alternativo basado en una mayor capitalización, activos externos líquidos protegidos de la apropiación por parte del gobierno, límites a los descalses de balance y mecanismos explícitos de liquidez de emergencia y resolución bancaria.

Palabras clave: banca Simons; encaje del 100 por ciento; Plan Chicago; fragilidad financiera; prestamista de última instancia; dolarización; Argentina.

1 Introduction

The proposal to require banks to hold reserves equal to 100 percent of their transactional deposits has an unusual capacity for survival. It returns after major financial crises in the United States as the supposed remedy that will prevent their repetition. In Argentina it returns for a different reason. Whenever dollarization or another hard-money regime is proposed, critics argue that a banking system cannot operate safely without a central bank able to create the currency in which deposits are denominated. Full-reserve or narrow banking then appears to offer an escape: if every transaction deposit is backed one for one by cash or safe liquid assets, there can be no run and hence no need for a conventional lender of last resort.

The intuition is powerful but incomplete. As three hundred years of evidence suggest, a banking crisis is not produced by fractional reserves alone. It results from the interaction of the two sides of a balance sheet: the losses a bank can suffer on its assets and the liquidity demands generated by its liabilities. A bank that finances long-duration assets with concentrated, uninsured, immediately withdrawable deposits is fragile even if the assets carry little credit risk. As the cases of Bear Stearns and Lehman Brothers show, a highly leveraged broker-dealer financed through overnight repos may be equally fragile without accepting a single retail deposit. Conversely, a bank with ample equity, liquid assets, stable funding, access to private liquidity lines, and limited maturity mismatch can safely perform liquidity transformation without holding idle cash equal to every deposit.

This paper develops three arguments. First, attempts to draw a legally enforceable boundary between money and credit have repeatedly failed because no clear dividing line exists between them. Financial instruments vary continuously in their liquidity and capacity to serve as money. Once regulation immobilizes the instruments on one side of the boundary, markets create substitutes on the other. The Currency School encountered this problem after the Bank Charter Act of 1844 restricted banknotes but left deposits and other credit instruments untouched. Henry Simons encountered it when he tried to complete Peel's design by extending full reserves to demand deposits. Its contemporary advocates face the same problem with money-market funds, repos, commercial paper, negotiable deposits, offshore accounts, and digital liabilities.

Second, even if such a boundary could be enforced, separating payments from credit would not be costless. Banks do more than transform maturities. They produce information, monitor borrowers, enforce contracts, and combine transaction data with credit decisions. Payment accounts provide a continuous record of borrowers'

cash flows; the ability to withdraw demandable debt may also discipline bank managers. An institutional arrangement that severs these activities can displace credit risk without eliminating the information and incentive problems involved in originating, funding, and monitoring loans.

Third, these conclusions have direct implications for dollarization. The choice is not between a domestic lender of last resort with unlimited issuing capacity and a 100 percent reserve requirement. This is a false dichotomy. The relevant question is how to design bank balance sheets and crisis procedures so that emergency liquidity is rarely needed, is available only to solvent institutions against sound collateral, cannot become a permanent subsidy to leverage or maturity transformation and does not create moral hazard. For Argentina, the answer lies in simple and observable restrictions on capital, liquidity, maturity and duration mismatch, and the stability and concentration of funding, supplemented by private liquidity markets, a prefunded systemic facility, and rapid resolution.

A theoretical discussion without an understanding of history is of little value to understand the issues and find a solution. Peel's reform, Simons's attempt to complete it, the Argentine nationalization of deposits in 1946, the shadow-banking run of 2008, and the failure of Silicon Valley Bank in 2023 reveal a common pattern. Regulation directed at a particular instrument often moves fragility rather than abolishing it. Sound reform must therefore target the sources of fragility across the balance sheet rather than the legal name attached to one class of liabilities.

Section 2 traces the distinction between deposit banking and discount banking and examines the Bank Charter Act of 1844. Section 3 explains Simons's proposal, the problem he recognized but could not solve, and the modern contributions of Benes and Kumhof. Section 4 compares the principal modern versions of narrow banking. Section 5 reviews the Argentine experience and the recurrent appeal of full reserves in the dollarization debate. Sections 6 and 7 evaluate modern narrow banking proposals based on recent experience and the theory of financial intermediation. Section 8 presents an alternative prudential architecture for a dollarized banking system. Section 9 concludes.

2 From Deposit Banking to the Bank Charter Act

2.1 Deposit banks and discount banks

The Bank of Amsterdam, founded in 1609, is the earliest modern institutional precedent for what would now be called narrow banking. Jean-Baptiste Say distinguished deposit banks such as this from discount banks. A deposit bank held its customers' money in custody and earned income from exchange services and fees. Because it did not lend the deposited funds, an increase in deposits did not directly produce an increase in credit. A discount bank operated differently. It purchased short-term commercial bills and issued its own notes in exchange. If it discounted a bill with a face value of £100, it acquired an asset payable at maturity and simultaneously issued a liability that the seller could use immediately for payment. Credit and money were created together. The bank held only the metallic reserve it judged necessary to meet ordinary redemption requests. As old bills matured and new ones were discounted, the bank's assets and liabilities turned over continuously (Say, 1841, 301-302).

The balance-sheet mechanism is simple. If experience suggested that £20 in specie was sufficient to support £100 of notes, the bank could use the remaining £80 of funding to acquire earning assets. Every operation created two credit relations. The bank became creditor to the party whose bill it discounted and debtor to the holder of its notes. This double relation explains why banking historically linked money and credit. A 100 percent reserve requirement breaks that link by forcing the institution to back its monetary liabilities in full and to finance loans from some other source.

The early controversy concerned whether banks could issue too many notes, extend too much credit, and thereby raise prices. Smith's discussion of Scottish banking emphasized three checks on overissue: competition among note-issuing banks, the discount of genuine short-term commercial bills, and regular interbank clearing. Notes issued beyond the public's desired holdings returned for redemption through the clearing mechanism (Smith 1776). The English system differed. The Bank of England possessed a privileged position around London, country banks issued notes elsewhere, and convertibility was suspended between 1797 and 1821. These institutional differences shaped the controversy that followed the crises of 1825 and 1837.

Smith's analysis identified a different approach to financial stability: restricting the lending financed by banks' redeemable liabilities. Banks could accommodate traders' temporary liquidity needs, but should not finance most of their circulating capital, and still less their fixed capital. Long-term investment required equity or borrowing from investors willing to commit their funds for several years. Bordo and Rockoff (2023, 63–64) interpret these prescriptions as prudential safeguards against bank failure, distinguishing them from the later real-bills doctrine concerning monetary stability. The distinction matters for the narrow-banking debate: Smith sought to discipline the assets financed by redeemable bank liabilities without requiring their full backing by reserves.

Smith's prescription offers an alternative to full-reserve, limited-purpose, and narrow banking: banks retain their role in credit creation but confine their lending to short-term commercial finance, while fixed investment is financed through equity or long-term debt placed with investors willing to commit their funds for longer periods. The transfer of long-term financing to other institutions is the intended division of functions. The problem reappears if those institutions finance illiquid assets with readily redeemable claims—including open-end fund shares—or short-term borrowing requiring continuous renewal. The relevant distinction is therefore between the migration of credit provision and the migration of maturity mismatches.

Say developed a similar argument (1841, 305–312). A mortgage could provide sound collateral without supplying the liquidity needed to redeem banknotes on demand. The portion of a bank's note issue not covered by cash therefore had to be backed by sound claims approaching maturity. Crucially, a short contractual maturity was insufficient if repayment depended on successive renewals: such lending amounted to a permanent advance. Say nevertheless explicitly allowed banks to finance long-term productive investments with shareholders' capital. His prescription thus concerned the relationship between assets and their funding, without requiring full reserves or the institutional separation of payments from lending. He also identified an essential political condition: prudent banking practices offered little protection if an unchecked government could override those safeguards.

As Section 8.3 explains, over time banks switched from financing short-term working capital to extending long term loans. The extent to which the development of central banking encouraged and/or supported this shift remains an open question. What is beyond dispute is that financing longer-term assets with short-term liabilities increased liquidity and refinancing risks.

2.2 The Currency School and the Banking School

By the early 1840s two positions confronted each other. The Currency School argued that excessive note issue generated speculative credit expansion and recurrent crises. Its leading public advocate, Samuel Jones Loyd, later Lord Overstone, defined currency narrowly as metallic money and banknotes payable on demand. Deposits, checks, bills of exchange, and other forms of credit remained outside that definition. The proposed remedy was to make the note circulation behave as it would under a purely metallic standard: the Bank of England's note issue should rise and fall with its bullion holdings, while the note issue of other banks should be capped.

The Banking School rejected the narrow definition of money and reversed the alleged line of causation. Credit expanded in response to commercial activity, and the public's use of deposits, bills, and checks could offset restrictions imposed on banknotes. John Stuart Mill argued that a borrower who possessed credit and intended to purchase goods would not be prevented from doing so merely because one particular method of granting that credit was prohibited (Mill 1844). Lord Monteagle made the same institutional point during the parliamentary debate: limiting notes and specie would create a void that other credit instruments would tend to fill (Hansard 1844).

The warning went to the heart of the proposal. Financial claims differ by degree rather than by kind. A banknote payable to bearer on demand, a transferable deposit, a bank post bill, and a bill accepted by a reputable institution all can settle transactions, although with different convenience, risk, and velocity. Restricting one instrument may change the composition of liquidity without controlling its total supply.

2.3 Peel's experiment

The Currency School prevailed. The Bank Charter Act of 1844 divided the Bank of England into an Issue Department and a Banking Department. The Issue Department could place £14 million of fiduciary notes into circulation against securities; every note above that amount had to be backed by an equivalent amount of bullion. The Banking Department could accept deposits, discount bills, and conduct the ordinary business of commercial banking. Existing country-bank issues were capped, and no new private note issuers were admitted.

The reform was expected to make overissue impossible and thereby prevent another crisis. It failed its first important test. Deposits and credit expanded rapidly while the note circulation changed little. When the crisis of

1847 intensified, the government authorized a temporary suspension of the statutory limit. The authorization itself calmed the panic, and the Bank of England did not need to exceed the statutory limit. The same procedure was repeated during the crises of 1857 and 1866.

The suspensions exposed the rigidity of a statutory restriction on note issue during a scramble for liquidity. An increase in the demand for notes did not itself permit the Issue Department to expand its unbacked issue. This restriction was distinct from the obligation to maintain convertibility at a fixed parity. The growth of deposits and checks revealed a separate weakness: restricting banknotes did not prevent credit from expanding through instruments excluded from the Currency School's definition of money.

The distinction between Ricardo's proposal and Peel's legislation is also important. Ricardo's posthumous Plan for the Establishment of a National Bank tied the issue mechanism to the market price of gold. Peel instead fixed a fiduciary quantity and required marginal notes to be backed by bullion (Ricardo 1824). The former was closer to a price rule; the latter was a quantity rule. The two are often treated as identical, but the difference matters when evaluating later claims that the Act simply implemented Ricardo's plan.

3 The Chicago Plan and Its Modern Updates

3.1 Simons's attempt to complete Peel

Nearly a century later, in 1933 Henry C. Simons sought to extend the principle behind Peel's Act from banknotes to demand deposits. He proposed that institutions providing transaction accounts hold reserves equal to those liabilities. Banks could continue to lend, but they could no longer finance loans by creating demand deposits. The payments function would be separated from the credit function (Simons 1934).

The proposal formed the core of what became known as the Chicago Plan. It emerged from the trauma of the Great Depression and the collapse of thousands of U.S. banks. Its objective was broader than the elimination of ordinary retail runs. Simons wanted a monetary constitution that would prevent abrupt changes in the quantity of money and reduce both private and public discretion. Full reserves would convert transaction deposits into claims backed by base money, while credit would be funded with equity or liabilities that could not be redeemed at par on demand.

Simons conceived his proposal as completing Peel's reform. The Bank Charter Act had isolated note issue but had left deposits untouched; the Chicago Plan would close that gap. Yet Simons also recognized that closing one gap could open another. In correspondence with Irving Fisher and Paul Douglas, he worried that savings institutions or other intermediaries could issue liabilities that customers treated as liquid reserves even if those liabilities were not legally classified as demand deposits. Goodhart and Jensen (2015) show that he never found a satisfactory boundary that would prevent this process without subjecting a widening range of financial contracts to the same restriction.

That difficulty is not incidental. It exposed the core weakness of the narrow banking project. Suppose demand deposits are subject to a 100 percent reserve requirement. Banks can then offer seven-day deposits, transferable certificates, sweep accounts, or shares redeemable at a stable net asset value. If seven-day deposits are included, the market moves to eight or more days. If negotiable certificates are included, repos, money-market funds, commercial paper, offshore deposits, or new digital instruments perform similar functions. Liquidity has many dimensions: contractual maturity, price risk, convertibility, collateral, market depth, settlement technology, and remuneration. No single legal category can capture all possible substitutes because some don't even exist *ex ante*.

Also, in an economy open to capital movements, institutions in foreign jurisdictions can offer close substitutes to residents. In a closed economy, domestic nonbanks can do the same. Retail platforms, securities dealers, finance companies, and large commercial firms may issue short-term claims or maintain customer balances. Each extension of the regulatory perimeter changes the incentives to innovate just beyond it. A rule originally directed at bank deposits can therefore become either ineffective or universal. If ineffective, liquidity creation migrates. If universal, the proposal ceases to be a banking reform and becomes a comprehensive prohibition of debt-financed financial intermediation.

In the end, the Roosevelt administration chose a different response to the banking crisis. It introduced federal deposit insurance and separated commercial from investment banking. The Glass-Steagall restrictions were gradually weakened and largely removed in 1999, while deposit insurance survived. That settlement created its own problems, especially moral hazard, but it avoided the need to define every liquid claim as money and immobilize the assets behind it.

3.2 Benes and Kumhof's reassessment of the Chicago Plan

Benes and Kumhof (2012) revisit and adapt the Chicago Plan, evaluating its implementation in the United States with a calibrated DSGE model. Their contribution is a modern quantitative reassessment of the plan, with a specified transition mechanism, rather than a separate institutional blueprint comparable to the proposals reviewed in Section 4. Their transition would require banks to hold reserves equal to 100 percent of deposits. The consolidated Treasury and central bank would create the reserves and lend them to banks, acquiring an offsetting asset called treasury credit. Banks would retain the credit function, but deposit creation would no longer finance their loans.

The resulting stock of treasury credit would generate a one-time public seigniorage gain. In their illustrative balance sheets, the government uses that gain first to net out public debt and then, through a citizen dividend, to reduce private debt. The authors embed this transition in a model designed to test four claims made by Irving Fisher: better control of credit-driven fluctuations, elimination of bank runs, a large reduction in net public debt, and a large reduction in private debt. They find support for all four and estimate a long-run output gain approaching 10 percent, together with the possibility of zero steady-state inflation.

The exercise is valuable because it shows that a full-reserve transition need not imply an automatic contraction of money or credit. It does not, however, resolve the institutional objections examined here. Its results depend on the model's assumptions about public money creation, taxation, credit spreads, monitoring costs, and the treatment of debt. Nor does the model establish that regulators can prevent money substitutes from emerging or that separating transaction accounts from lending preserves the information produced by their joint provision.

4 Contemporary Versions of Narrow Banking

The proposals associated with Huerta de Soto, Kotlikoff, Kay, Bulow and Klemperer, Cochrane and Wolf share an interest in separating protected transaction balances from risky credit. Alongside the contribution discussed in Section 3, they illustrate substantial differences in scope, funding contracts, public guarantees, and the treatment of financial institutions outside the protected payments system.

Cecchetti and Schoenholtz (2014) identify Kotlikoff, Bulow and Klemperer, Kay, Cochrane, and Wolf as prominent participants in the post-crisis revival; Cohen-Setton (2014) reviews the broader debate. Their common concern does not make their institutional designs interchangeable. In particular, narrow banking backed by government securities, cash-only full reserves, sovereign money, and contingent conversion of debt into equity impose different restrictions and leave different residual risks.

Proposal	Transaction money	Credit finance	Institutional scope	Role of the state
Bulow and Klemperer	Government securities as long-run backing	Equity recourse notes	Banks and systemic intermediaries	Protect deposits; private loss absorption
Cochrane	Short-term Treasury backing	Mainly equity; non-runnable debt	Runnable funding across finance	Tax runnable debt
Huerta de Soto	Full reserve against demand deposits and equivalents	Time liabilities and genuine saving	Banks plus any equivalent monetary liabilities	Enforce custody principle abolish central banking restore gold
Kay	Guaranteed deposits in safe securities	Specialist lenders and funds	Separate or ring-fenced narrow banks	Guarantee protected deposits
Kotlikoff	Cash-only payment funds in the 2012 formulation	Equity-financed mutual funds whose values fluctuate	Nearly all limited-liability financial intermediaries	Single regulator verifies disclosure custody and asset valuation
Wolf	Transaction balances backed by central-bank money	Funds explicitly placed at risk	Banks and monetary substitutes within a sovereign-money regime	State monopolizes creation of transaction money

4.1 Huerta de Soto and the legal argument

Following Murray Rothbard, Huerta de Soto proposes a 100 percent reserve requirement for demand deposits and equivalent bank liabilities, the abolition of central banking, and restoration of a gold standard (Huerta de Soto 2009). His case is partly economic and partly juridical. A demand deposit, he argues, is a custody contract. If the bank lends the deposited money, two parties appear to possess a simultaneous right to dispose of the same property. Fractional-reserve banking is therefore not merely unstable but legally illegitimate.

The argument faces a practical and a contractual objection. The practical problem is the boundary already identified by Simons. At what maturity does a deposit cease to require full backing: one day, one week, one month? Any line is arbitrary. A bank prohibited from intermediating seven-day deposits can offer an eight-day instrument that is renewable, transferable, or supported by a secondary market.

The contractual objection is more fundamental. When a bank lends money for five years, the borrower does not promise to leave the same currency units untouched in a vault. Ownership of the funds passes to the borrower,

who owes an equivalent sum at maturity. The same structure can operate in reverse. A customer can transfer ownership of money to a bank, authorize its use, and acquire a debt claim payable on demand. The claim is the customer's asset and the bank's liability. Immediate enforceability does not by itself convert a debt into a custody contract.

There is no reason custody and intermediation cannot coexist. A customer who wants exclusive ownership and continuous availability can pay for custody, as customers pay for safe-deposit boxes or segregated securities accounts. Another customer can knowingly accept a demandable debt claim issued by an intermediary. Prohibiting the second contract does not defend freedom of contract; it restricts it. The paradox is that the proposal intended to eliminate central banking requires the state to suppress each new privately issued short-term liquid instrument that threatens the prescribed separation between money and credit.

4.2 Kotlikoff's Limited Purpose Banking

Laurence Kotlikoff's Limited Purpose Banking (LPB) is far more radical, and in one respect more internally consistent, than a 100% reserve on transactional deposits. Developed in a series of proposals after the global financial crisis, it would transform commercial banks, investment banks, brokers, insurers, hedge funds, private-equity firms, and other limited-liability financial intermediaries into companies that market mutual funds (Chamley and Kotlikoff 2009; Kotlikoff and Leamer 2009; Kotlikoff 2010; Chamley, Kotlikoff, and Polemarchakis 2012). Regulation would follow function rather than institutional name.

Under the mature version of LPB, mutual funds could not borrow, explicitly or implicitly. Cash mutual funds would provide the payments system and would be the only funds redeemable at par. Other open- or closed-end funds would hold loans, securities, insurance exposures, or derivatives, and their investors would bear all gains and losses. The 2009 formulation allowed payment deposits to be backed by cash or short-term Treasury securities; the 2012 formulation restricted cash mutual funds to cash. Leveraged intermediation would remain legal only for firms whose owners accepted unlimited liability.

A new Federal Financial Authority would hire independent firms to verify, appraise, rate, take custody of, and disclose in real time every security held by the funds. Loans and securities processed by the authority would trade at auction. The proposal also replaces conventional insurance guarantees with tontine-type funds for

idiosyncratic risks and pari-mutuel funds for aggregate risks and derivatives. Financial companies would continue to originate loans and maintain borrower relationships, but they would not retain leveraged claims on their own balance sheets.

The breadth of LPB is its analytical strength. It attempts to prevent fragility from migrating from banks to brokers, insurers, money funds, or other leveraged vehicles. Applied before 2008, it would have prevented investment banks from financing large inventories of mortgage-related assets through overnight repos in the same form. Losses would have reduced the net asset value of equity-funded vehicles rather than triggering a run by short-term creditors. Kotlikoff's claim is not that risk disappears, but that it is borne transparently by investors rather than transformed into fixed-value promises whose failure threatens the payments system and the taxpayer.

Its breadth is also its central weakness. LPB is not a reform of banks; it is a reorganization of the financial system. Preventing leverage and liquidity transformation from reappearing elsewhere requires the regulator to cover every limited-liability entity capable of issuing debt or guarantees against risky assets. The transition would rewrite contracts, ownership structures, insurance arrangements, and business models accumulated over decades. A proposal that works only if almost the entire financial system is transformed at once sets an exceptionally high political and institutional threshold.

The model also creates agency and adverse-selection problems. The shareholders of the firm that originates and manages loans are not the investors who bear the credit losses. Standardization, independent verification, transparency, auctions, and regulatory oversight can reduce fraud and information asymmetry. They cannot eliminate the divergence between the party earning fees from originating and managing assets and the investors absorbing their economic consequences. The originate-to-distribute model before 2008 demonstrated the importance of that distinction.

4.3 Kay and the protection of essential banking services

Kay's proposal, introduced in 2009 and developed in Kay (2010), treats payments as an essential service whose continuity should survive the failure of a financial conglomerate. Narrow banks could operate independently or as separately capitalized, ring-fenced subsidiaries. Protected deposits would be invested in regulator-approved

safe assets, potentially restricted to government securities. Kay retains explicit government guarantees and permits some maturity or currency mismatch, covered by capital; his scheme is not a cash-only reserve rule.

Credit would be supplied through specialist lenders and investment funds outside that guarantee. Kay recognizes the possibility of shifts between protected and unprotected savings but expects yield spreads to help equilibrate them. The question for this paper is whether that price adjustment can prevent a disruptive contraction of credit during a flight to safety. Protecting payment continuity does not by itself establish that the wider intermediation system can withstand such a shock without public support.

4.4 Bulow and Klemperer and equity recourse notes

Bulow and Klemperer (2013) combine a long-run goal of backing government-guaranteed deposits with government-guaranteed securities with a redesign of bank debt. During transition, deposits would be ring-fenced and collateralized with haircuts. Nondeposit unsecured debt would become equity recourse notes: individual principal or interest payments convert into shares when the share price falls below a contractual threshold. Conversion occurs payment by payment, rather than converting the entire bond at once; subsequent payments can resume in cash if the price recovers.

Their central innovation is contractual loss absorption, not universal equity funding. Investment trusts could hold these notes and issue shorter-term claims, leaving losses with their investors while insulating the underlying banks. This acknowledges a continuing demand for liquid claims outside protected deposits. The relevant question is whether that insulation would contain the consequences of distressed sales and make the refusal of public assistance credible. Full backing of deposits is only one element of the proposal, and the authors regard it as a distant objective.

4.5 Wolf and sovereign money

Martin Wolf endorsed the maximum version of monetary reform in Wolf (2014a, 2014b). The state would create all transaction money, as it already creates currency. Customers would own the balances in their transaction accounts and pay banks a fee to administer them. Banks could offer separate investment accounts to fund loans, but those balances could not be transferred as means of payment and their holders would bear the associated

losses. An independent committee would determine the amount of new money consistent with noninflationary growth.

Wolf envisaged several channels for introducing new money: financing public expenditure in place of taxes or borrowing, making direct payments to citizens, retiring public or private debt, or lending through financial intermediaries. The reform would transfer seigniorage to the public sector and, in his view, permit the money supply to grow without requiring households and firms to assume additional debt. Unlike Kotlikoff, Wolf would not convert almost the entire financial system into equity-financed mutual funds. He would nationalize the creation of transaction money while leaving credit allocation in private hands.

Wolf's proposal has a distant connection to Argentina, where the nationalization of deposits in 1946 –discussed in more detail in the next section– also took away the capacity of private banks to create money through credit: deposits became the property of the central bank, commercial banks acted as its agents, and credit was financed with resources supplied or authorized by the monetary authority. The resemblance ends there. Wolf would monopolize money creation while preserving private, market-based credit allocation. The 1946 reform placed both functions under state control and turned credit allocation into an instrument of government policy.

The Argentine experience exposes the vulnerability in Wolf's proposal. Once the state controls transaction money, pressure will arise to use that power to cheapen or direct credit toward favored sectors. That outcome may seem remote in advanced economies but likely in EMDEs with weak institutions and chronic fiscal dominance. In 1946 the state ended up controlling both the creation of money and its allocation through the financial system.

Wolf also acknowledges that finance would tend to create money substitutes outside the regulated boundary. This concession is decisive. If the substitutes remain legal, monetary liabilities reappear beyond the full-reserve sector. If they are prohibited, the state must repeatedly expand the definition of money and the scope of regulation.

4.6 Cochrane's proposal for a system without runs

Cochrane (2014) updates the narrow-banking tradition by targeting runnable funding throughout finance. Fixed-value deposits, money-market funds, and overnight debt would have full backing in short-term Treasuries. Risky

lending would rely mainly on equity, while permitting long-term and other non-runnable debt. Banks could continue originating and monitoring loans and providing payments. Technology would also permit payments through sales of floating-value fund shares, reducing the need to hold fixed-value balances.

His proposed tax on runnable debt explicitly addresses migration to shadow banks, while allowing uses whose benefits justify the tax. He also envisages downstream vehicles that tranche bank equity and can fail without interrupting bank operations. The objection therefore cannot be that he overlooks regulatory arbitrage. It is whether the tax can capture economically equivalent claims and whether the promised insulation of core intermediaries makes nonintervention credible. Section 6 examines the related redemption problem; Section 7 considers the costs of separating deposit funding from lending.

5 Narrow banking in Argentina

5.1 The nationalization of deposits in 1946

Argentina's 1946 banking reform transferred ownership of bank deposits to the central bank. Commercial banks operated as its agents, and credit was funded with resources supplied or authorized by the monetary authority. Rafael Olarra Jimenez (1968) therefore described the arrangement as essentially similar to the Chicago Plan: deposits were formally backed at 100 percent and private banks could no longer create transaction money by expanding credit.

The common instrument concealed opposite regimes. Simons sought a monetary rule that would constrain discretion, a flexible exchange rate, and the absence of state direction of credit. The Argentine reform concentrated monetary discretion and credit allocation in the government. It did not merely nationalize money creation, as Wolf proposes; it nationalized the direction of finance. The similarity ended with the reserve ratio.

This distinction matters because balance-sheet forms do not determine the political use of an institution. A 100 percent reserve requirement can support a liberal monetary constitution, a sovereign-money regime, or centralized credit allocation. The rule's consequences depend on who controls the backing assets, who determines the volume and price of credit, and whether those powers are protected from fiscal and political demands.

5.2 Narrow Banking Proposals in Argentina

Simons's ideas reappeared during Argentina's 1989 hyperinflation. Almansi and Rodriguez (1990) proposed a financial and monetary reform explicitly inspired by the Chicago tradition as part of a broader program that also included a currency-board arrangement.

Fernández and Schumacher (1997) advocated narrow banking under Argentina's convertibility regime, arguing that backing deposits with safe, liquid assets would protect the payments system despite constraints on the central bank's lender-of-last-resort capacity. Risky lending would migrate to capital markets, whose development they regarded as a prerequisite for the transition. Their expectation that nonbank failures would not generate contagion or require official support anticipates a central objection examined in Section 6: protecting transaction deposits does not eliminate systemic fragility outside deposit-taking banks.

In 2019, Gerardo della Paolera proposed dollarization together with the transformation of banks into publicly traded mutual funds (Universidad Torcuato Di Tella 2019). Although the proposal did not rely explicitly on Simons or Kotlikoff, it followed the same logic: payment balances would be separated from credit instruments whose market value fluctuated with their underlying assets.

Javier Milei publicly advocated a Simons-style banking system before becoming president. When he announced his presidential candidacy in March 2022, he paired dollarization with a move from fractional-reserve banking to a 100 percent reserve system. Customers seeking safety would pay for a vault-like transaction account; those seeking a return would invest in funds and bear the losses (La Nación 2022; El Cronista 2022). The proposal correctly distinguished safe custody from risk-bearing investment, but it treated the boundary between the two as stable and assumed that bank runs would disappear once demand deposits were fully backed.

A more recent proposal by Horacio Liendo would give the dollar legal-tender status while retaining the peso and impose a 100 percent reserve requirement on dollar deposits. Banks would hold the deposited dollars in institutions within the Federal Reserve system and, except for limited cases, could not lend them domestically. Peso deposits, by contrast, would continue to finance credit through conventional fractional-reserve banking (Meaños 2026). This is an asymmetric version of narrow banking. It does not merely allow currency competition; it prevents the dollar from competing with the peso in one of banking's essential functions. Peso deposits could

finance loans, while dollar deposits could not. The regulation would give the peso an artificial advantage precisely where Argentine savers have expressed the least confidence in it.

The cost would be especially high in a country where residents hold a large stock of dollar assets outside the domestic financial system. A central objective of monetary reform should be to bring part of those savings into domestic intermediation. Under the asymmetric proposal, Argentines would deposit dollars in Argentine banks, which would redeposit them abroad and ultimately finance credit and investment outside Argentina. The local banking system would capture fees but not the main intermediation benefit.

Foreign custody alone does not eliminate political risk. During the final phase of convertibility, Argentine authorities sharply reduced the share of liquidity requirements that banks could hold at Deutsche Bank's New York branch, forcing their repatriation (BCRA, 2001). The episode showed that location is not the same as jurisdiction. Assets abroad remain vulnerable to domestic orders when the legal owner or regulated intermediary remains subject to Argentine jurisdiction. The BAR structure discussed in Section 8.2 was designed specifically to address this vulnerability.

Argentina's Civil and Commercial Code also rejects the premise that an ordinary money deposit is necessarily custody. Article 1.390 states that the depositor transfers ownership to the bank, which must return an equivalent sum in the same currency on demand or at the agreed maturity (Argentina 2014). Custody and bank debt are separate contracts in Argentine law. Applying full reserves to existing remunerated deposits would therefore do more than modify a prudential ratio. It would alter the economic and legal substance of outstanding contracts.

6 What Recent Crises in the U.S. Reveal

6.1 The migration of fragility

The global financial crisis of 2008 did not begin with a traditional run by insured retail depositors but instead with a wholesale run on the shadow-banking system that created liquid claims outside ordinary commercial-bank balance sheets and relied heavily on short-term wholesale funding. Investment banks and structured vehicles financed long-duration or hard-to-value assets through repos, commercial paper, and other liabilities

that had to be continuously rolled over. When collateral values became doubtful, creditors refused to renew funding, haircuts rose and forced asset sales amplified the decline (Gorton and Metrick 2012).

Long-Term Capital Management had already sounded a warning in 1998. It accepted no deposits and issued no bank money, yet its leverage, derivative positions, and exposures to major dealers made a disorderly liquidation sufficiently dangerous that the Federal Reserve Bank of New York coordinated a private recapitalization. Bear Stearns and Lehman Brothers later also demonstrated how high leverage and dependence on short-term funding could destabilize institutions outside ordinary deposit banking.

This history supports Kotlikoff's criticism of a narrow reform limited to bank deposits, but it also demonstrates the scale of regulation required to make full-reserve logic effective. Prohibiting demand deposits from financing credit does not prevent another institution from funding risky assets with short-term debt. The regulator must either accept migration or restrict liquidity transformation wherever it appears.

Cecchetti and Schoenholtz (2014) press the argument further. Narrow banking may protect transaction balances, but it does not necessarily eliminate runs. Funds that replace banks in holding illiquid loans would remain vulnerable to redemptions after poor performance or a loss of confidence. Collective withdrawals could force asset sales, depress prices, and validate the initial panic. Once the resulting contraction threatened the supply of credit, the government would face pressure to support the supposedly risk-bearing intermediaries. The commitment not to rescue them would therefore lack credibility. Narrow banking can relocate run risk without removing the conditions that produce it.

The underlying mechanism deserves emphasis. The relevant vehicles are open-end funds that offer redemption while holding illiquid loans, not closed-end funds whose shares merely fluctuate in market value. Because the trading costs generated by redemptions are not immediately incorporated into the net asset value received by departing investors, early redeemers can shift part of those costs onto those who remain. This creates a first-mover advantage and makes each investor's incentive to withdraw depend on the withdrawals expected from others. Chen, Goldstein, and Jiang (2010) find that outflows respond more strongly to poor performance in funds holding illiquid assets, providing empirical evidence of precisely this strategic complementarity. Narrow banking therefore eliminates run risk only if the credit vehicles issue genuinely non-runnable claims; it cannot

simultaneously promise investors ready redemption at net asset value and eliminate the fragility generated by illiquid underlying assets.

These objections must be applied to the contracts each proposal actually permits. Kay's separation seeks continuity of essential services, while Bulow and Klemperer and Cochrane seek to insulate core institutions from losses in downstream vehicles. A fall in the market price of a closed-end vehicle is not equivalent to a run on a redeemable fund. The unresolved issue is whether the financial arrangements outside the protected sector can transmit distress back to credit supply and recreate pressure for intervention.

6.2 Silicon Valley Bank

Silicon Valley Bank (SVB) revealed a different configuration. The bank held a large portfolio of long-duration securities financed by immediately withdrawable deposits, most of them above the deposit-insurance limit and concentrated among technology and venture-capital firms. The sharp increase in interest rates reduced the market value of its securities and cast doubt on its ability to meet withdrawals without realizing large losses. On 9 March 2023 customers attempted to withdraw \$42 billion; the bank informed supervisors that it expected requests exceeding another \$100 billion the next day (Board of Governors 2023).

The episode shows why neither asset risk nor liability risk can be evaluated alone. Long-term government securities financed by equity or long-term debt create a different institution from the same securities financed by concentrated, uninsured, demandable deposits. The asset determines how much can be lost; the liability determines how quickly the loss must be recognized and funded.

Deposit insurance reduced the probability of conventional retail runs but increased moral hazard and did little to stabilize SVB's dominant funding base. Basel I and II concentrated heavily on risk-weighted capital. The 2008 crisis led Basel III to add explicit liquidity and stable-funding requirements, including the Liquidity Coverage Ratio and the Net Stable Funding Ratio (BCBS 2013, 2014). SVB nevertheless demonstrated that interest-rate risk, duration mismatch, and deposit concentration can interact faster than standard supervisory responses.

The contrast with 2008 is instructive. In 2008, extreme leverage and runnable wholesale funding outside traditional commercial banks were central. At SVB, the decisive combination was unhedged duration exposure and a homogeneous base of large uninsured deposits. Neither case can be reduced to fractional reserves on

ordinary transaction accounts. Financial fragility changes form with the asset structure, funding technology, regulation, and information network of each institution.

7 The Economic Cost of Separating Payments and Credit

7.1 Information and delegated monitoring

Banks exist for reasons that go beyond a regulatory permission to lend depositors' money. Diamond (1984) showed that financial intermediaries economize on monitoring costs. Instead of each saver separately evaluating and monitoring each borrower, the bank acts as a delegated monitor. This function is especially valuable for small firms and households whose credit quality is costly to observe and whose loans do not trade in liquid secondary markets.

Goodfriend (1988) provides the strongest direct objection to narrow banking. His argument begins with the evolution of the payments system. Banks jointly provide payments and information-intensive credit because the same systems used to evaluate borrowers, monitor and enforce loan agreements, manage interbank balances, and extend credit on short notice are productive in both activities. A finance company specializing in nontraded loans already possesses much of the network, expertise, and credit-management capacity required to accept deposits and process payments. Separating a pure payments company from a lending institution therefore destroys a joint-product efficiency; it does not merely rearrange balance sheets.

The argument is not confined to the information contained in transaction records. Nonfinancial credit lines require long-term relationships and a credible commitment by the lender to supply funds on short notice. An institution that provides such lines can offer checkable deposits more efficiently because depositors can rely on information already generated about its reliability. A payments-only institution, by contrast, must demonstrate its safety by holding easily valued market securities, whose lower yield is passed through to depositors. Goodfriend therefore explains both why payments and information-intensive lending developed within the same institutions and why banks specializing in nontraded loans issue par-valued deposits rather than mutual-fund claims.

Goodfriend did not deny that a narrow bank could protect transaction balances with little monitoring and enforcement. His point was that this safety would be purchased by eliminating an efficient form of intermediation and reducing the return on checkable deposits. The protection would also be incomplete. Transaction accounts were only part of total bank liabilities, and activity would migrate toward other deposits. Unless the government could credibly refuse to protect those liabilities in a crisis, narrow banking would offer only marginal protection and might strengthen expectations of a wider guarantee. Nor would it improve the diversification of nontraded loans. Goodfriend preferred a tough exclusion rule that removed weak or mismanaged institutions from deposit insurance while allowing sound banks to continue funding information-intensive loans with deposits.

Goodfriend and King (1988) reinforce this argument at the level of the customer relationship. Efficient lending requires the costly accumulation of information to classify borrowers, design covenants, and monitor compliance. They observed that the fee on a line of credit was often paid through a compensating balance at the lending bank. The balance both compensated the bank and allowed it to observe the borrower's transactions, reducing monitoring costs. Payment activity, the continuing credit relationship, covenants, and the option to draw funds quickly formed an integrated contract.

Subsequent empirical evidence reinforces the argument. Mester, Nakamura, and Renault (2007) found that transaction accounts provide information useful for monitoring small-business borrowers. Norden and Weber (2010) showed that credit-line use, limit violations, and checking-account cash flows display abnormal patterns well before default. Using more than one million loans from 296 German banks, Puri, Rocholl, and Steffen (2017) found that a prior deposit relationship conveyed information relevant to subsequent default risk. Payment services and credit assessment do not become informationally separable merely because regulation places them in different legal entities.

Data portability and specialized analytics may reduce part of this advantage, but they do not eliminate Goodfriend's objection or the mechanism emphasized by Goodfriend and King. The relevant asset is not simply a file of transaction records. It includes the lender's accumulated knowledge of the borrower, the interpretation of payment behavior, the design and enforcement of covenants, and the obligation to supply credit promptly under previously agreed terms. A proposal to separate payments from credit must show how that bundle will be reproduced, not assume that a transfer of raw data makes the two functions independent.

7.2 Liquidity creation and discipline

Liquidity transformation also produces a service. Diamond and Dybvig (1983) formalized how banks can provide claims that meet uncertain consumption needs while financing illiquid investment. Their model also produced a self-fulfilling run equilibrium, but it does not follow that every form of fractional-reserve banking is intrinsically unstable. The result depends on the assumed contract, information structure, and absence of alternative liquidity arrangements. One may reject the strongest sunspot interpretation and still recognize the value of converting less-liquid assets into more-liquid liabilities.

Demandability can also discipline intermediaries. Calomiris and Kahn (1991) showed that demandable debt gives creditors a mechanism to withdraw from a bank whose managers may be diverting resources. Diamond and Rajan (2001) argued that a fragile liability structure can commit bankers to pass through the value they extract from borrowers and thereby facilitate liquidity creation. Immediate withdrawal is not simply a defect that can be removed without cost; under some conditions it is part of the mechanism that makes intermediation credible.

This point should not be confused with a defense of unlimited maturity transformation. Commercial banking in the England of 1844 centered on short-term bills, often maturing within roughly ninety days. Banks issued immediately redeemable liabilities against assets that were not payable on demand, but the Currency School was not confronting the modern practice of financing twenty- or thirty-year mortgages with transaction deposits. The connection between money and credit long predates the large duration gaps of contemporary banking.

The objection to narrow banking is therefore double. First, it cannot prevent liquidity creation from moving into instruments outside the full-reserve perimeter unless regulation extends across the financial system. Second, if the separation is enforced comprehensively, it may eliminate or raise the cost of monitoring, contractual discipline, and liquidity production that explain why payments and credit developed together.

7.3 The agency problem in originate-to-distribute systems

Kotlikoff and his coauthors explicitly recognize that separating payments from credit does not eliminate the need to screen, originate, and monitor loans. Under LPB, financial firms would continue to perform those tasks and place the resulting claims in funds whose investors receive the gains and bear the losses. The Federal Financial

Authority would verify and disclose standardized information, while auctions would determine prices. Fund managers could still specialize in particular issuers and acquire relationship-specific knowledge before bidding for their paper.

That answer does not remove the agency problem. The originator's shareholders earn fees from creating and managing assets, while investors in the funds absorb credit losses. The originator has information about borrower quality that outside investors lack, producing the adverse-selection problem identified by Akerlof (1970). Requiring the originator to retain exposure can align incentives, but it reintroduces balance-sheet risk and raises the question of how the retained position is financed.

Verification, standardization, disclosure, and auctions can reduce fraud and information asymmetry. They cannot fully reproduce the incentive created when the institution that makes the credit decision keeps the loan on its balance sheet and places its shareholders' capital at risk. Nor do they answer Goodfriend's central point, reinforced by Goodfriend and King: the networks, information, and contractual relationships used to provide payments are also productive in originating and monitoring credit. Integrating the originator and fund manager within the same holding company does not restore that unity if the assets and losses remain legally separated from the fee-earning entity.

8 A Prudential Framework for Banking under Dollarization

The purpose of this section is to identify the prudential and institutional conditions under which dollarization can preserve ordinary banking without requiring full reserves against transaction deposits. It does not attempt to calibrate an optimal regulatory regime for Argentine banks. That requires bank-level information and an assessment of transition costs. The distinction matters: establishing that full-reserve banking is unnecessary does not require specifying every parameter of the alternative framework.

The objection most often directed at dollarization is that Argentina would lose a lender of last resort able to create the currency in which bank deposits are denominated. There are several responses. First, Argentina does not really have a lender of last resort today even under a peso regime. A central bank with no credibility cannot provide liquidity without triggering inflation. Also, given that Central Bank liabilities and public debt in the last twenty five years have represented between 40% and 60% of bank assets, the main risk of insolvency originates

in the public sector (BCRA, 2026). The proper answer would not be to impose a Simons style banking system but to design one that makes emergency lending exceptional and separates liquidity assistance from the rescue of insolvent institutions.

This requires identifying the sources of fragility directly. A practical framework should rest on four balance-sheet restrictions: capital, liquidity, maturity and duration mismatch, and the stability and concentration of funding. These restrictions should be simple enough to observe and difficult to manipulate through internal models or shifting risk weights.

Source of fragility	Ex ante rule	Market complement	Crisis treatment
Excess leverage	High common equity relative to total unweighted assets	Credible loss absorption by shareholders	Equity absorbs losses resolution if insolvent
Liquidity shortfall	High quality short-term external assets against runnable liabilities	Committed domestic and international liquidity lines	Use liquid assets then secured borrowing
Maturity and duration mismatch	Explicit limits rising with asset maturity illiquidity and rate sensitivity	Term funding and hedging markets	No public refinancing of a permanent mismatch
Unstable or concentrated funding	Concentration limits and higher liquidity charges for runnable uninsured funding	Diversified retail and wholesale funding	Early restrictions and resolution when outflows reveal insolvency

8.1 Capital as the first line of defense

Banks should operate with substantially more common equity than conventional regulatory minima require. Admati and Hellwig (2013) propose equity in the range of 20 to 30 percent of total assets. This provides a benchmark for discussing substantially lower leverage, rather than a calibrated requirement for Argentina. The appropriate minimum and the timetable for reaching it require an assessment of existing bank balance sheets and transition costs. The governing principle is that a simple leverage ratio based on total assets should complement, and constrain, risk-weighted measures.

Capital is not cash locked in a vault. It is a source of funding. A bank financed 20 percent by equity is leveraged roughly five times; at 30 percent, slightly more than three times. It can absorb much larger asset losses before threatening depositors or requiring outside support. Unlike a 100 percent reserve requirement, higher equity does not dictate which assets a bank may hold or prevent it from accepting deposits and making loans. It changes who bears losses first.

Risk-weighted ratios remain useful, but they should not be the sole binding constraint. Risk weights can be politically influenced, model-dependent, and procyclical. The treatment of sovereign bonds and highly rated structured products before earlier crises shows how assets deemed safe by regulation can concentrate risk. A high, unweighted equity floor is easier for supervisors, creditors, and depositors to understand.

8.2 External liquidity and legal insulation

Banks should hold a substantial stock of high-quality liquid assets against deposits and other short-term claims. These assets need not be idle dollar currency or noninterest-bearing balances at a state institution. They can include very short-term U.S. Treasury securities and equivalent external assets that can be sold or pledged quickly.

For Argentina, the legal control of bank reserves is as important as their liquidity. The 2001 episode discussed in Section 5 illustrates why placing assets abroad is insufficient when domestic banks retain control over them and remain subject to government orders. My 2023 dollarization proposal explicitly addressed this vulnerability through a newly created entity called Banco Argentino de Reservas (BAR). Both the BAR and the trust holding its shares would be established in a safe foreign jurisdiction, with an independent international trustee separate from the BAR's administrator. Participating banks would be beneficiaries of the trust but would have no authority over the investment or disbursement of its reserves. This structure was designed to place the reserves beyond the reach of the Argentine government and prevent their forceful repatriation. The safeguard thus rested on foreign jurisdiction, ownership, and independent governance, rather than foreign custody alone (Ocampo, Eppens Echague, and Serrano Redonnet 2025, 38–40).

The distinction between the existing stock of reserves and future contributions is essential. Under the proposed structure, a change in Argentine legislation directing domestic banks to repatriate reserves would not give those banks control over assets already held by the BAR. A future government could discontinue contributions, change domestic reserve requirements, or redirect future reserve flows toward an institution under its control. It could not thereby compel the repatriation of the accumulated stock. The structure protects reserves already contributed; it cannot prevent a future government from abandoning the arrangement for subsequent contributions.

The liquidity stock should be linked to the run risk of the liabilities it protects. A diversified base of insured retail deposits is not equivalent to a small number of uninsured corporate or financial deposits. The latter should carry higher liquidity requirements and tighter concentration limits.

8.3 Limits on maturity and duration mismatch

Long-term lending is not an invariant feature of commercial banking. Collins and Baker (2003, 190–198) show that English commercial banks before 1914 primarily financed working capital through advances with short contractual maturities, although renewals often extended their effective duration. Knott et al. (2014, 5–6) report that business loans with maturities exceeding one year represented less than 10 percent in 1910–1914, compared with approximately half in 2013, and document the expansion of British banks into mortgage lending from the late 1970s and early 1980s.¹ In the United States, Jacoby and Saulnier (1942, 1–2) document the rapid growth of business term lending during the 1930s, identifying broader access to Federal Reserve credit and deposit insurance among the contributing factors. These accounts establish that banks' lending practices changed substantially; they do not establish that central banking caused the lengthening of loan maturities. Their relevance here is that the extent of maturity transformation is a variable feature of banking, making the relationship between asset maturities and their funding a central prudential choice.

Farhi and Tirole (2012) provide a theoretical mechanism connecting anticipated public support to banks' funding choices: expectations of collective bailouts can encourage correlated maturity mismatch. Their analysis does not establish that central banking caused the historical lengthening of bank loans, but it explains how anticipated intervention can weaken incentives to limit liquidity risk. The extent of maturity transformation should therefore be treated as responsive to the institutional framework, rather than as an immutable characteristic of banking.

In the absence of a central bank with unlimited dollar-issuing capacity, regulation must explicitly constrain maturity and duration gaps. A bank should not finance a large portfolio of very long-duration or illiquid assets with liabilities withdrawable on demand. Perfect matching is neither necessary nor desirable, but the rule should

¹ See Knott et al. (2014, 5, Chart 5). Successive renewals could also make the effective duration of historical advances substantially longer than their stated contractual maturity, as Collins and Baker (2003, 194–198) explain.

be monotonic: the longer the maturity, lower the market liquidity, and greater the interest-rate sensitivity of an asset, the larger the share that must be funded with equity or long-term liabilities.

This approach distinguishes liquidity transformation from an open-ended subsidy to duration risk. It allows banks to create useful liquid claims while preventing a business model that can survive only if an official institution repeatedly refinances long assets during stress. Interest-rate hedging should be recognized when it is enforceable and robust, but supervisors should test the combined behavior of securities, derivatives, collateral calls, and deposit outflows under severe scenarios.

8.4 Stable and diversified funding

Two banks with identical assets can face radically different run risk. One may rely on millions of small insured accounts distributed across households and firms; another on a few dozen uninsured balances linked through a common industry and real-time communication network. SVB showed that liability concentration can turn a solvency concern into an almost instantaneous run.

Funding rules should therefore consider depositor size, insurance status, sectoral correlation, operational dependence, and historical stability. Concentration should not be measured only by the number of accounts. Deposits controlled by firms funded by the same venture-capital network, for example, can behave as a single block. A transparent funding-concentration measure would complement capital and liquidity ratios and trigger progressively stricter buffers.

8.5 Private liquidity markets and a systemic facility

A deep interbank market is essential. A solvent bank facing a temporary deposit outflow need not individually hold all the liquidity required to absorb it if other banks receiving the deposits can lend against sound collateral. Interbank markets redistribute liquidity and impose discipline because counterparties risk their own capital. Deterioration should first appear in higher borrowing rates, then reduced credit lines, and ultimately exclusion from the market.

That mechanism requires competition, transparency, and credible loss allocation. Implicit bailout guarantees weaken the incentive to discriminate among banks. Opacity creates the opposite danger: if participants cannot

distinguish solvent from insolvent institutions, the market may close to all of them. Regulation should provide timely information that supports private discrimination without replacing it.

These arrangements must distinguish an outflow from an individual bank from an outflow affecting the system as a whole. Domestic interbank lending can redistribute liquidity when deposits move between banks, but it cannot replenish liquidity leaving the domestic banking system. System-wide stress therefore requires external liquid assets, available external financing, or resources accumulated in the systemic facility. Committed credit lines should be evaluated for their contractual conditions, collateral requirements, and availability when several institutions need to draw simultaneously.

Banks should also maintain committed domestic and international credit lines. Cross-border parents, correspondent banks, private clearinghouses, and repo counterparties can supply liquidity when collateral and legal arrangements are established in advance. Full capital mobility allows funds to enter as well as leave and is therefore part of the liquidity architecture, not merely an external-sector policy.

A prefunded systemic liquidity facility can serve as the last line of defense. It should be financed ex ante by the banks, hold safe liquid assets abroad, and lend only to solvent institutions against good collateral at a penalty rate. Its capacity would be finite. That limitation is a feature: it forces ex ante balance-sheet discipline and prevents the facility from validating a permanent mismatch.

Its accumulated assets should receive the same protection against domestic appropriation described for the BAR, through independent control in a safe foreign jurisdiction. Foreign custody alone would not suffice. Eligibility for assistance should be established in advance and tied to participation in the facility, prudential compliance, solvency, and eligible collateral.

A related proposal for Argentina is developed by Bolzico and Lopetegui (2026), who combine reserve requirements, banks' own liquidity, and a dollar liquidity fund within a systemic liquidity program. Their proposal assumes a bimonetary regime and places the fund outside the BCRA's balance sheet but under its control. Although a step in the right direction, this arrangement leaves accumulated assets exposed to domestic political appropriation. The experience of SEDESA illustrates the danger: a fund established to protect depositors became a source of government financing as its investment safeguards were progressively relaxed. In 2015, Decree 1653/2015 expanded its permissible exposure to Argentine government securities from 50 percent to more than 90 percent of its portfolio, given the composition of bank deposits at the time. Separate legal status and placement outside the central bank's balance sheet are therefore insufficient to protect a liquidity fund from political capture.

8.6 From Liquidity Assistance to Bank Resolution

Prudential restrictions and emergency liquidity serve different purposes. Capital, liquid assets, mismatch limits, and stable funding reduce the probability of distress. Once a solvent institution faces a temporary outflow, the sequence should be clear.

First, the bank uses its own liquid assets. Second, it draws committed private lines and borrows in domestic or international interbank and repo markets. Third, it may access the systemic liquidity facility against eligible collateral. If the institution is insolvent, shareholders and other loss-absorbing creditors bear losses and the resolution mechanism transfers, restructures, or winds down the bank. The liquidity facility insures against temporary shocks; it does not refinance an insolvent balance sheet or a business model built on chronic maturity mismatch.

A limited, prefunded deposit-insurance scheme can protect small depositors and reduce incentives for retail runs. Coverage must remain credible and should not expand ex post to every creditor whenever a large institution fails. Unlimited guarantees destroy market discipline and convert private funding decisions into contingent public debt.

The framework preserves intermediation while addressing the risks that make an unlimited lender of last resort appear indispensable. Its effectiveness does not depend on classifying every liquid instrument as money, but it

does require monitoring leverage and liquidity transformation beyond commercial banks. Nonbanks offering economically similar funding contracts should face prudential requirements appropriate to the risks they assume. Moving long-term lending into vehicles financed by equity or genuinely long-term debt is consistent with the framework. Moving it into vehicles financed by readily redeemable claims or continuously renewed short-term borrowing recreates the vulnerability and requires a corresponding supervisory response.

Supervisory coverage and access to emergency liquidity are separate questions. Monitoring a nonbank's contribution to systemic risk does not imply guaranteeing its liabilities or granting it access to the systemic facility. The regulatory perimeter should follow risk-bearing activities, while eligibility for assistance should remain governed by explicit conditions. This does not eliminate regulatory arbitrage, but neither does arbitrage make higher equity or stronger liquidity protection within regulated institutions ineffective.

Implementation requires a transition plan based on bank-level evidence. The relevant information includes existing equity, the maturity and liquidity of assets, interest-rate exposure after hedging, the composition and concentration of deposits, and claims on the government and central bank. That evidence should determine the initial requirements, the timetable for meeting them, and the resources needed by the systemic facility. The permanent framework and the path toward it are distinct design problems: stronger balance sheets are the objective, while the transition must account for how banks can reach them through retained earnings, new equity, changes in funding, and adjustments to their assets.

9 Conclusion

Banks can create “runnable” liabilities, assume excessive leverage, and expand credit in ways that leave the public exposed to costly crises and rescues. Simons's solution, however, inherited the central weakness of the Currency School. It assumed that money could be isolated from credit by drawing a legal boundary around a particular set of instruments. The Bank Charter Act restricted notes and encouraged substitution toward deposits. Extending full reserves to deposits shifts the boundary toward short-term deposits, money funds, repos, commercial paper, offshore claims, or whatever instrument markets next treat as liquid. Simons recognized the problem but did not solve it. Benes and Kumhof demonstrate theoretically that a transition to full-reserve banking can be implemented without a collapse of money or credit, but their exercise assumes rather than establishes an

enforceable boundary. Contemporary variants address these problems differently: Kay protects essential services, Bulow and Klemperer redesign loss-absorbing contracts, Cochrane taxes runnable funding, and Kotlikoff reorganizes intermediation through LPB. These differences matter, but none makes protection of transaction balances alone a sufficient condition for systemic stability.

The separation also carries economic costs. As emphasized by Goodfriend, payments and information-intensive lending are joint products of the same networks, monitoring systems, and credit relationships. Goodfriend and King show how transaction accounts also allow banks to observe borrowers, enforce covenants, and stand ready to provide credit. Demandable liabilities can discipline managers and contribute to liquidity creation. Transferring loans to vehicles financed by non-redeemable equity removes redemption-driven run risk from those vehicles but does not eliminate agency, adverse-selection, or monitoring problems. It can separate the party earning origination and management fees from the investors bearing losses.

Recent crises confirm that the legal form of liquidity instruments does not prevent fragility. In 2008, leverage and runnable wholesale funding destabilized the shadow-banking system. In 2023, duration exposure interacted with concentrated uninsured deposits. The relevant variables were leverage, asset liquidity and duration, funding maturity, concentration, and the credibility of private and official backstops.

In the case of official dollarization, the absence of an unlimited domestic-currency lender of last resort is a constraint to be designed around, not a reason to abolish credit intermediation through banks. A safer system would require far more equity, a large stock of liquid external assets protected from domestic political appropriation, strict limits on maturity and duration mismatch, diversified funding, committed private liquidity lines, a prefunded systemic facility, and rapid resolution of insolvent banks. These measures address the sources of fragility directly.

The objective should not be a banking system that can never experience an outflow. No institutional design can eliminate uncertainty or bad judgment. It should be a system in which losses first fall on shareholders, temporary liquidity shocks can be met without monetary discretion, insolvent institutions can fail without destroying the payments system, and Argentine savings can finance Argentine credit rather than being immobilized or exported by regulation. That is both more realistic and more consistent with a market economy than attempting to legislate a permanent separation between money and credit.

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