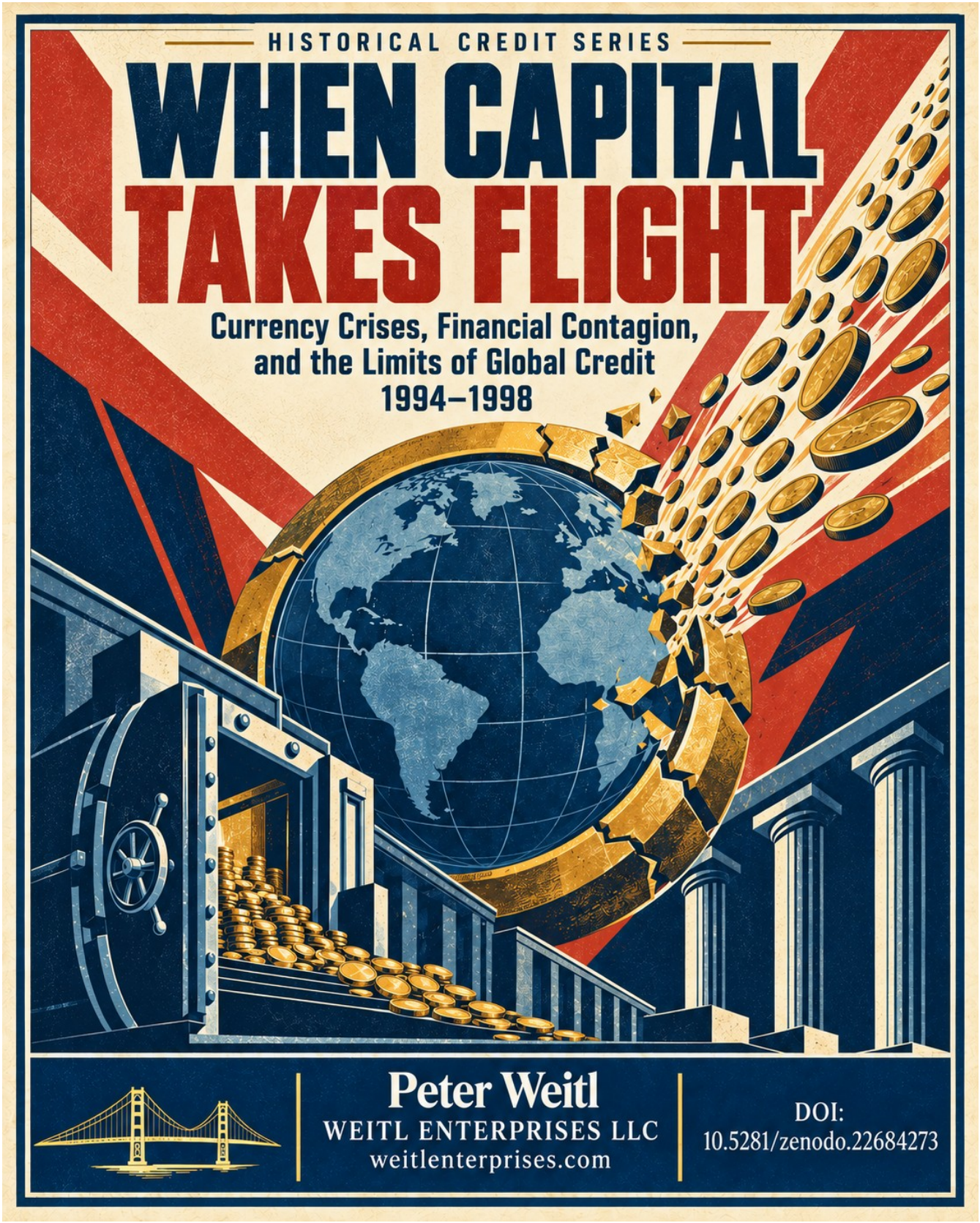

September 2026 • DOI: 10.5281/zenodo.22684273

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Executive perspective

The crises of 1994–1998 exposed a weakness that debt restructuring alone could not resolve. A borrower could regain access to international finance and still depend on creditors renewing obligations that came due well before its investments generated cash. If lenders withdrew together, the resulting demand for foreign exchange, collateral, and repayment could overwhelm resources that appeared adequate during normal markets. Creditworthiness therefore required an assessment of how a borrower would survive the interruption of financing as well as how it expected to repay over time.

This chapter continues The Price of Adjustment, which followed the movement from the 1982 debt emergency to the Brady exchanges. The historical focus now shifts to Mexico’s peso crisis, the Asian financial crises, Russia’s 1998 debt measures, and the near-collapse of Long-Term Capital Management. These episodes involved different institutions and obligations. Their connection lies in the interaction of financing arrangements with changes in confidence, rather than a claim that one crisis mechanically caused the next. [1]

The central argument is that the structure of a financial promise can amplify a shock to the resources behind it. Short maturities concentrate decisions about renewal. Foreign-currency borrowing exposes domestic cash flows to exchange-rate movements. Collateral agreements can accelerate cash demands as asset values fall. A portfolio spread across countries may remain concentrated in the same dependence on liquid markets and continued access to leverage.

Mexico supplies the bridge from the preceding chapter. Thailand, Indonesia, and South Korea show why banks and corporate borrowers belong inside an assessment of national vulnerability. Russia introduces the limits of expectations about official support. LTCM brings the analysis into the balance sheets of internationally active financial institutions, where the ability to close or hedge a position could disappear precisely when it was most needed.

The financial examples develop this argument in reproducible steps. A hypothetical company carries dollar debt against local-currency cash flow. A separate borrower faces an interruption of refinancing. A leveraged investment vehicle experiences a fall in collateral value and a higher financing haircut. None reconstructs an actual historical portfolio. Together they explain why apparently separate credit, currency, and liquidity risks must be examined as a connected financing problem.

The policy question is equally concrete. Emergency assistance can preserve productive activity and prevent destructive liquidation, but its effectiveness depends on who receives usable funds, when those funds arrive, and what happens to existing claims. A recovery should be judged by restored economic capacity and resilience, alongside the resumption of payments.

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Scope, evidence, and reading guide

The narrative runs from the Mexican crisis of December 1994 through the international market turmoil of 1998. Selected 1999 supervisory documents are used as an immediate retrospective on the lessons officials drew. They are identified by their historical dates and are not presented as current regulatory requirements. The chapter is a standalone white paper and a continuation of the Weitl Enterprises Historical Credit Series.

The source base combines original IMF program announcements, contemporary Federal Open Market Committee discussions, congressional testimony, supervisory analyses, and an academic critique published while the Asian crisis was unfolding. Later institutional history supplies chronology where appropriate. Official records reveal what particular institutions proposed, observed, and believed; they do not settle every question about causation or distribution. A program target is distinguished from an outcome, and an announced financing commitment from funds immediately available.

Sections	Focus	Central question
1–5	Market access and Mexico	How can renewed financing create fresh dependence?
6–11	Asian crises and policy sequence	Whose obligations require cash, and when?
12–15	Currency and refinancing examples	How do exchange rates and renewal alter capacity?
16–22	Russia, LTCM, and the wider system	How do local losses become a collective funding problem?

Table 1. Reading guide. Numbered sections and references support later incorporation into a collected book.

The analysis separates historical evidence from original financial explanation. Worked figures use stated assumptions and simple cash-flow or balance-sheet identities. They are not estimates of historical default probabilities, national welfare losses, or the market prices of specific securities. Monetary amounts in the examples are millions unless otherwise indicated; currencies are specified at each step.

“Capital flight” is used broadly in the title. In the analysis, resident purchases of foreign assets, foreign creditor withdrawal, securities sales, and the failure to renew maturing claims are distinguished. These transactions need not have the same accounting effects. Likewise, a currency crisis, a bank run, and a sovereign default are related possibilities rather than interchangeable descriptions.

Country coverage is selective. Mexico establishes continuity; Thailand, Indonesia, and Korea provide contrasting financing structures; Russia and LTCM show transmission into wider markets. This is not a complete history of every economy affected in 1994–1998. The explanatory figures and tables are original. The WPA-inspired cover is symbolic artwork, not a documentary image. Publication DOI: 10.5281/zenodo.22684273.

HISTORICAL CREDIT SERIES

1. Market access after the settlement

The preceding chapter ended at an important boundary. Negotiated exchanges had changed the terms of inherited commercial-bank claims, while tradable securities offered creditors a different way to hold and transfer sovereign exposure. A completed exchange could remove a serious obstacle to future financing. It did not determine the maturity, currency, or purpose of the debt a country would subsequently incur. [1]

That distinction changes the unit of analysis. The success of an old restructuring concerns a defined pool of obligations. The resilience of a new financing system concerns all relevant claims, the institutions carrying them, and the resources available when those claims are exercised. A sovereign can lengthen one category of debt while banks or companies expand short-term borrowing elsewhere. Looking only at the restructured bonds would miss the new dependence.

Roger Ferguson's 1999 assessment of Latin America described the expansion of direct investment and portfolio flows after the debt crisis, while recognizing their different degrees of volatility. His account also emphasized that low inflation and fiscal discipline did not eliminate vulnerability to financial disruption. This is a useful retrospective statement of the transition, although his favorable assessment of market-oriented reforms should be read as an institutional interpretation. [5]

The investor's exit and the borrower's cash

A sale of an outstanding bond normally transfers cash from the buyer to the seller. The issuer receives no new financing from that transaction and does not automatically repay principal because the investor exits. Nevertheless, secondary-market selling can affect the price at which the issuer can obtain new funds. If a maturing obligation requires replacement financing, falling prices and rising yields can make that replacement costly or unavailable.

The apparent contradiction is resolved by separating transactions through time. Today's bond sale is between investors. Tomorrow's primary issuance is between the borrower and new investors. The first can alter the terms or feasibility of the second. An economy with little debt maturing soon can have more time to adjust than one carrying the same face amount on a concentrated repayment calendar.

Bank lending also remained important. The market transition was uneven, and the Asian cases would demonstrate the continuing role of cross-border interbank credit. A historical sequence from loans to bonds should therefore be understood as an expansion of financing channels, with overlapping institutions and risks.

The chapter follows those connections. It asks how obligations were funded, how confidence affected their renewal, and how losses moved among balance sheets when the funding arrangement failed. The presence of a market price adds information, but the borrower still needs cash in the right currency on the required date.

HISTORICAL CREDIT SERIES

2. The constraints behind a financial promise

A sound asset can mature after the liability used to finance it. A profitable company can earn local currency while owing dollars. A lender can hold collateral whose quoted price cannot be realized quickly at scale. These situations involve distinct constraints, and each can become more serious when the others deteriorate. The useful starting point is a payment schedule and a map of the resources available to meet it.

Constraint	Core question	What can intensify it
Solvency	Do realistic resources cover obligations?	Asset losses or weaker future earnings
Funding liquidity	Can cash be obtained when payment is due?	Withdrawals and failed refinancing
Market liquidity	Can an asset be sold at an attainable price?	Crowded sales and disappearing bids
Currency access	Can the payer obtain the currency owed?	Depreciation and foreign-exchange scarcity

Table 2. Distinct constraints in a connected system. Definitions are analytical; a real institution may face several at once.

Solvency depends on realistic future resources relative to obligations. It requires assumptions about earnings, asset recoveries, costs, and the terms of payment. Funding liquidity concerns the ability to obtain cash when required. Market liquidity concerns the ability to transact without a prohibitive price concession. Currency access adds a further question: whether the cash can be obtained in the unit the contract requires.

These categories do not create permanent labels for institutions. A borrower that is initially solvent but illiquid may sell productive assets under pressure, lose customers, or incur expensive emergency financing. Its future earnings and net worth can then fall. Conversely, a lender may correctly identify a temporary mismatch and provide financing that preserves an otherwise viable enterprise. The distinction matters because the intervention changes the path of the balance sheet.

The limits of consolidation

A country’s export receipts are not automatically available to its government, and a central bank’s reserves are not automatically available to every private borrower. Consolidated national measures help identify external dependence, but the path from an asset to a payment passes through ownership, contracts, policy decisions, and operational arrangements. Aggregation can hide the institution that actually runs out of money.

The same problem occurs inside a financial group. Cash in one entity may not be transferable to another at the required time. The 1999 Federal Reserve counterparty guidance explicitly recognized legal distinctions and possible obstacles to moving funds among subsidiaries. Its historical importance lies in making those boundaries part of the assessment, alongside aggregate exposures. [22]

A practical analysis therefore uses two views together. The consolidated view asks whether resources and obligations are broadly compatible. The entity view asks who controls those resources and who must make the next payment. Neither can replace the other. A rescue arranged for the wrong institution, or payable after the critical maturity date, can leave the immediate default mechanism intact even when its headline amount appears sufficient.

HISTORICAL CREDIT SERIES

3. Mexico and the return of financing pressure

Mexico's December 1994 peso crisis reopened questions that the settlement of earlier bank debt had left unresolved. The financing structure had changed, and the new difficulty could not be understood simply by revisiting the old Brady exchange. The relevant obligations included short-term government securities, banking exposures, and investors' demand to convert peso proceeds into foreign exchange.

The US General Accounting Office's investigation placed the crisis within an interaction of exchange-rate policy, domestic policy choices, political shocks, and changing investor confidence. It described Mexico's exchange-rate band, the pressure following political disturbances, and the shift toward dollar-indexed government notes. Its account also found that US officials recognized vulnerabilities without anticipating the eventual scale of disruption. [2, pp. 5–6, 9–12]

The decision to defend an exchange-rate arrangement changes the way a financial reversal is absorbed. When private holders seek foreign currency and the central bank supplies it, reserve assets can fall. A country may preserve the quoted exchange rate for a time while reducing the buffer available for later demands. The observed stability of the exchange rate consequently does not reveal the full cost of maintaining it.

The opposite choice also carries costs. A currency adjustment changes the domestic value of foreign-currency obligations and imported inputs. Where debts have been indexed to foreign currency, depreciation can intensify the burden borne by the issuer. The policy choice must therefore be assessed against the balance sheets already in place, including positions accumulated while the exchange rate appeared dependable.

Warning is different from prediction

It is tempting to reconstruct a crisis as a sequence of obvious warnings that officials simply ignored. The more useful historical distinction is between identifying a vulnerability and knowing when the financing arrangement will break. A large short-term funding requirement establishes exposure to renewal decisions. It does not identify the exact announcement, auction, or withdrawal that will cause investors to change their behavior together.

This distinction also matters for accountability. Uncertainty about timing does not excuse a failure to examine maturity and currency risk. It does, however, limit claims that a particular outcome was inevitable or universally understood in advance. A careful narrative preserves both the observable vulnerability and the uncertainty facing the participants.

Mexico provides the chapter's first example of a broader problem: policy credibility can attract financing whose terms make the eventual defense of that credibility more demanding. Once expectations change, the authorities inherit both the original economic imbalance and the financing commitments used to postpone its adjustment. The resulting constraint is visible in the repayment calendar as much as in the exchange-rate chart.

HISTORICAL CREDIT SERIES

4. What dollar indexation transferred

Tesobonos made the allocation of currency risk unusually clear. These short-term Mexican government instruments were linked to the dollar. As the GAO explained, their peso redemption value protected the dollar value of the investor's claim. The arrangement shifted exchange-rate exposure toward the government. It should not be confused with a universal statement that every instrument was originally settled directly in dollars. [2, pp. 58–59]

Consider a simplified indexed obligation with a dollar reference principal of $100 million. If the exchange rate is 4 pesos per dollar, the corresponding principal is 400 million pesos. At 6 pesos per dollar, it is 600 million pesos. The dollar reference has remained unchanged; the domestic-currency amount required from the issuer has increased by 200 million pesos. This illustration isolates indexation and omits discounting, interest, taxes, and specific redemption conventions.

An investor protected against depreciation can still face default or settlement risk. Indexation changes what the issuer owes, not whether the issuer can pay it. Nor does payment in pesos settle the economy's foreign-exchange problem if recipients seek to convert those pesos into dollars. The pressure then depends on the exchange-rate regime, private counterparties willing to trade, and any official willingness to supply reserves.

A concession can preserve one auction and worsen the next

For a borrower confronting weak demand, currency protection may help sell a security that investors would otherwise reject. Its benefit is immediate funding. Its cost is a contingent increase in the domestic burden if the currency falls, combined with the need to return to the market at maturity. A short maturity and foreign-currency indexation can therefore place two sources of uncertainty on the issuer at once.

The January 13, 1995 FOMC conference call illustrates the limits of raising the offered return. Edwin Truman reported weak demand at a tesobono auction despite higher interest rates. Participants were considering financing arrangements while market conditions continued to change. The record demonstrates that a sufficiently attractive quoted yield cannot be assumed to produce unlimited demand when repayment itself is in doubt. [3, PDF pp. 4–5]

This is a recurring feature of credit rationing. A higher promised return compensates an investor only if the promise is credible. Beyond some point, a higher rate may increase the borrower's prospective burden and reinforce concern about repayment. The question then becomes the availability of financing, rather than its price alone.

The lesson is to evaluate the entire package of terms. A lower coupon obtained by accepting indexation or a shorter maturity is not necessarily cheaper financing across plausible adverse conditions. The relevant comparison includes the states of the world in which the borrower is already under pressure.

HISTORICAL CREDIT SERIES

5. Mexico and the construction of official support

Official support changes the funding source behind a payment. It can replace private financing that has disappeared, provide time to restructure maturities, or support a currency market under pressure. Its effectiveness depends on the distribution and timing of the funds, as well as their total amount. A headline commitment is an incomplete description of the transaction.

The January 1995 FOMC discussion recorded an evolving set of swaps, proposed guarantees, and efforts to make support credible to markets. It was a record of arrangements under construction. The eventual structure should therefore be traced through later evidence rather than read backward into every earlier proposal. [3]

The March 10 conference call offers a specific example. Peter Fisher described Mexico's planned repayment on short-term Federal Reserve and Treasury swaps alongside a drawing on a medium-term Treasury facility. He also cautioned against assuming that an improvement in the peso established a durable trend. Financing could be rearranged while uncertainty about banks and the wider program continued. [4, PDF pp. 3–4]

The GAO subsequently documented a US commitment of up to $20 billion and a separate IMF commitment of about $17.8 billion. These were commitments under defined arrangements, not a statement that the entire sum arrived immediately or was spent on a single class of claim. [2, p. 7]

Assistance shifts claims through time

Suppose official financing allows a private claim to be repaid at maturity. The private creditor's exposure ends, but the borrower now owes the official lender. The transaction may improve the maturity profile, reduce immediate pressure, and preserve economic activity. It also changes the identity of the creditor and potentially the conditions attached to financing. Reporting only the successful private repayment would omit the liability that made it possible.

This does not establish that assistance was a mistake. If an interruption would destroy productive capacity, a longer funding horizon can benefit the borrower and its new creditor. The evaluation requires an explicit alternative: disorderly default, a negotiated standstill, a different distribution of losses, or another financing package. The actual outcome alone cannot reveal what each alternative would have produced.

The social test is broader still. A stabilized exchange market does not itself restore a household's income or a small firm's working capital. These outcomes depend on the subsequent availability of credit, employment, prices, and public services. A financial agreement can be necessary to recovery without being sufficient.

Mexico consequently introduces a distinction that remains throughout the chapter. Closing a cash gap, restoring investor confidence, and rebuilding economic capacity are separate achievements. They can reinforce each other, but they should be evaluated on their own evidence and time horizons.

HISTORICAL CREDIT SERIES

6. Thailand and the limits of reserve defense

Thailand’s move to a managed float on July 2, 1997 marked the beginning of the regional crisis examined here. The IMF’s August program announcement described a weakening financial system, property-sector difficulties, and substantial short-term external borrowing. These vulnerabilities complicated the adjustment once exchange-market pressure intensified. [6]

The financing problem extended beyond the visible exchange rate. A central bank can commit foreign currency through forward transactions as well as immediate sales. A statement of gross reserves may therefore overstate the resources freely available for future intervention if associated commitments are ignored. The relevant analysis includes the dates and currencies of both assets and obligations.

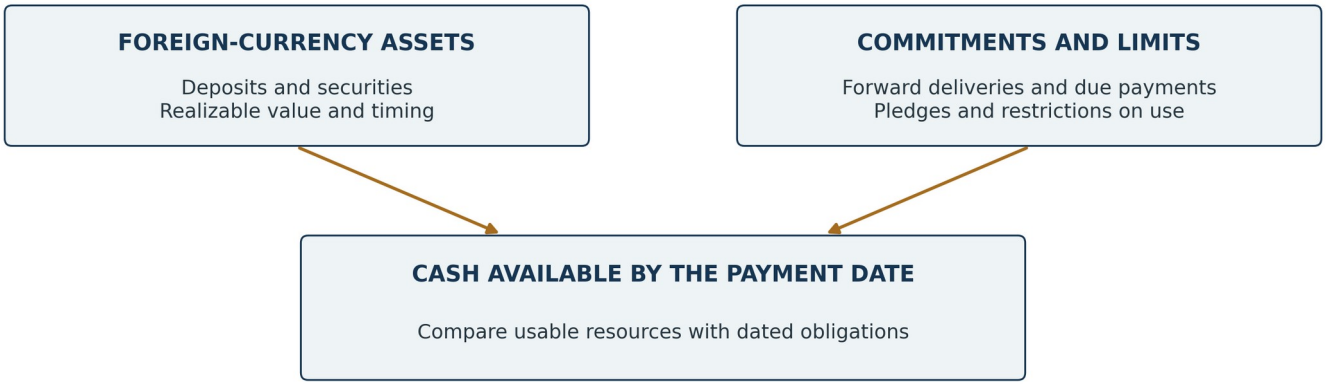

Figure 1. Usable foreign currency depends on commitments as well as assets. Original analytical diagram; the categories illustrate the issue raised in the August 1997 FOMC discussion, not a reconstruction of Thailand’s accounts. [7]

At the August 19 FOMC meeting, Truman explicitly compared Thailand’s financing needs with Mexico’s. He emphasized the Thai central bank’s forward position and the private-sector character of much short-term debt. In his assessment, the proposed support depended on creditors maintaining confidence because it could not finance a complete withdrawal of short-term lines. These were contemporary estimates and judgments, rather than final audited totals. [7, PDF pp. 14–15]

Gross resources can conceal a common claim

The analytical issue is double use. A reserve asset cannot simultaneously meet a binding forward delivery and remain fully available to defend the exchange rate. Likewise, a private bank’s offshore deposit cannot be counted as an independent national buffer if it has already been pledged or is needed to settle its own imminent liabilities. The same nominal asset may appear reassuring in several narratives while supporting only one payment.

Reserve defense also changes future choices. Spending a buffer to maintain an exchange rate may delay a disruptive adjustment and preserve time for reform. It may alternatively leave a smaller buffer when the adjustment finally occurs. The judgment depends on what is achieved during the delay and whether the financing structure becomes more resilient.

Thailand shows why the assessment of an exchange-rate regime belongs alongside an examination of the financial system it supports. The credibility of the currency arrangement influences borrowing decisions; those decisions determine the consequences of changing the arrangement. Currency policy and credit risk had become connected through the obligations already written into private and official balance sheets.

HISTORICAL CREDIT SERIES

7. Banks, foreign funding, and domestic assets

Banks transform the timing and form of finance. They may borrow for short periods while extending loans whose repayment depends on investments that take years to generate income. This can support productive development. It also creates a dependence on the continued availability of funding or a stock of assets that can be converted into cash without destroying value.

The Asian crises brought a currency dimension to that transformation. A bank could borrow abroad and lend domestically, while a company could borrow foreign currency directly. The Federal Reserve's historical account identifies short-maturity foreign borrowing and exchange-rate exposure as important vulnerabilities in both financial and corporate sectors. [12]

A bank's own currency position is only part of the exposure. If it lends dollars to a company earning local currency, the loan asset may appear to match the bank's dollar liability. Yet depreciation can weaken the customer's repayment capacity. The currency mismatch has moved into the borrower's balance sheet and can return to the bank as a credit loss. A matched currency accounting position is therefore different from a portfolio of borrowers able to pay under stress.

Productive assets do not mature on demand

Imagine a factory financed through a bank whose foreign borrowing is renewed every three months. The factory may have a credible five-year earnings outlook. If the bank's lenders refuse the next renewal, the factory cannot immediately convert its future production into dollars. The bank must obtain other financing, use liquid assets, collect loans early where possible, or reduce its balance sheet. Each choice has consequences for the customer.

If many banks respond by restricting credit, even firms with no direct foreign borrowing can be affected. Suppliers may lose receivables financing; exporters may lack funds to purchase imported inputs; otherwise viable projects may be interrupted. The external funding shock reaches domestic activity through the terms on which working capital is renewed.

Credit assessment must therefore examine the lender as well as the final borrower. A diversified loan portfolio financed by one unstable funding channel may be less resilient than its borrower count suggests. Equally, a long-term funding source cannot repair an asset portfolio whose cash flows are fundamentally inadequate. The two sides of the balance sheet have to be evaluated together.

This relationship explains why bank restructuring and liquidity support are complementary when properly designed. Liquidity can prevent unnecessary liquidation, while recognition of losses and additional capital can restore the institution's capacity to absorb risk. Providing one without examining the need for the other can postpone the same problem or accelerate the destruction of viable activity.

HISTORICAL CREDIT SERIES

8. Indonesia and the credibility of bank protection

Indonesia's crisis placed corporate foreign borrowing and the treatment of bank liabilities at the center of the analysis. The IMF's November 5, 1997 announcement identified largely unhedged foreign borrowing by private companies and weaknesses in financial intermediation. It also recorded the closure of sixteen banks and a policy of compensating small depositors while excluding protection for private shareholders and creditors. The program did not promise a government guarantee of private nonfinancial companies' liabilities. [8]

Those distinctions were consequential. A promise to protect some depositors requires the public to understand the boundary of protection and believe that it will be honored. If that boundary is unclear, a depositor may prefer to withdraw while payment remains possible, even from a bank that is stronger than the institutions being closed. The behavior can be individually understandable while making the banking system less stable.

Steven Radelet and Jeffrey Sachs argued in their 1998 analysis that Indonesia's initial bank-closure approach intensified panic. Their critique concerned the sequencing of reform and the absence of sufficiently credible protection during a run. It was an interpretation of events, not proof that weak banks should have remained open indefinitely. [11, pp. 62–63]

A guarantee needs an implementable boundary

The policy problem cannot be solved by the word "guarantee" alone. A useful design identifies the liabilities covered, the responsible institution, the currency and timing of payment, and the resources available to honor the commitment. Protecting a domestic deposit does not automatically provide foreign currency to a corporation whose offshore debt is maturing. These are different claims on different institutions.

The credibility of bank restructuring also depends on consistent treatment. Closing one institution while protecting another can be justified by differences in viability or systemic importance. It can also be perceived as favoritism if the criteria are unclear. That perception matters financially when depositors cannot independently assess bank assets and instead infer their safety from political connections or official behavior.

Corporate restructuring introduces another coordination problem. A company may need agreements with several lenders, suppliers, and shareholders while its operating cash flow deteriorates. Official reserves cannot by themselves reconcile those claims. A viable solution must identify which businesses can continue, which debts need new terms, and how losses will be recognized.

The country's experience therefore expands the meaning of confidence. Confidence includes beliefs about repayment, but also beliefs about the consistency of institutions and the treatment of similarly situated claimants. A financing package is more credible when its rules can be implemented under pressure. Its size alone cannot compensate for uncertainty about which obligations it actually supports.

HISTORICAL CREDIT SERIES

9. Korea and the coordination of bank creditors

South Korea combined substantial industrial capacity with vulnerable financing arrangements. The IMF's December 4, 1997 program announcement described corporate failures, weakened banks, and a sharp tightening of external finance. The approved IMF arrangement was approximately $21 billion over three years, with about $5.56 billion immediately available. That difference between total access and current cash is essential to understanding an acute refinancing problem. [9]

The later Federal Reserve historical account describes the effort to maintain foreign banks' exposure to Korean banks. Following a December 24 meeting at the New York Fed, major US lenders committed to roll over short-term claims; parallel efforts involved other countries. A restructuring into medium-term loans followed, with completion in April 1998. The mechanism combined time, creditor coordination, and official involvement. [12]

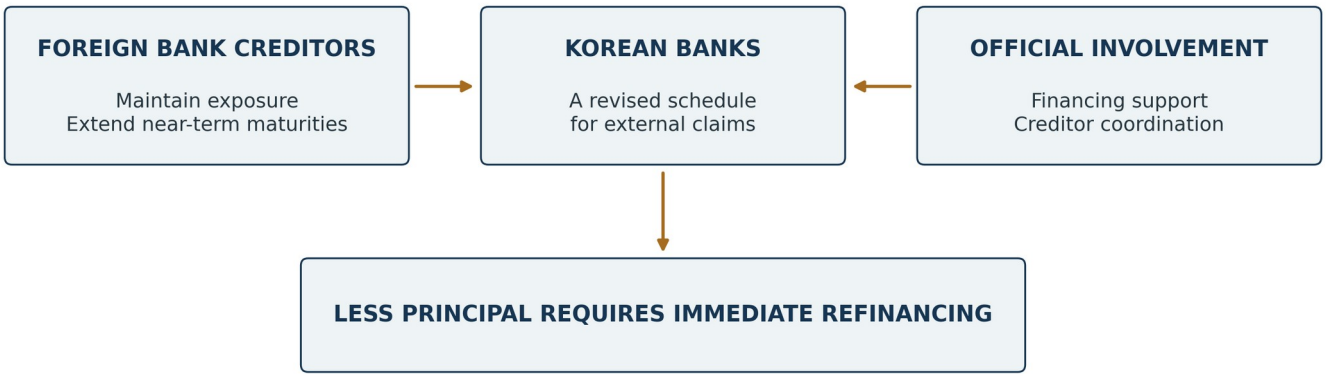

Figure 2. Coordination changes the repayment calendar. Original conceptual illustration of the Korean rollover mechanism. The diagram is not a complete legal structure or a statement that all creditors participated on identical terms. [12]

The economic logic is straightforward. A lender deciding alone may prefer to withdraw before others do. If enough other lenders remain, the borrower may be able to continue operating and repay more over time. An agreement to maintain exposure changes the expectation on which each individual decision rests. Its value comes partly from making the behavior of other creditors more predictable.

Official financing and private renewal are complements

Official money can be consumed quickly if it simply allows private creditors to exit. A rollover agreement can preserve the usefulness of that money by reducing near-term repayments. Conversely, an agreement to roll over may be less credible without a source of liquidity that keeps the borrower functioning during the transition. Neither component should be evaluated as if the other were absent.

A maturity extension still leaves an obligation outstanding. Whether the new schedule is workable depends on the borrower's assets, earnings, and the condition of the institutions through which repayment will occur. Coordination addresses the destructive timing of withdrawal; it does not establish that every bank or corporate borrower has an adequate balance sheet.

Korea is therefore a useful comparison with Mexico and Indonesia. The relevant question is where obligations are concentrated and which parties can be brought into a workable agreement. Bank creditors, holders of government securities, and creditors of numerous private companies offer different opportunities for coordination. The same headline amount of official assistance can have different effects depending on that institutional structure.

HISTORICAL CREDIT SERIES

10. Competing explanations of the Asian crises

The debate over Asia concerned both the vulnerabilities that existed before the crisis and the mechanisms that made the contraction so severe. These are separate causal questions. An economy may contain weak loans and poor incentives while also experiencing a withdrawal of financing that damages businesses capable of surviving under less disruptive conditions.

Stanley Fischer's January 1998 defense of the IMF approach emphasized weak supervision, exchange-rate arrangements, and unhedged borrowing. He also acknowledged imprudent behavior by international investors and currency movements that he regarded as excessive. Radelet and Sachs placed greater emphasis on creditor panic and criticized the initial sequencing of stabilization programs. Their disagreement concerned the relative importance of mechanisms and the appropriate response, rather than the existence of every underlying weakness. [10, 11]

The distinction changes what evidence is required. Demonstrating that a bank held bad loans does not establish how much of a national contraction those loans explain. Demonstrating that lenders withdrew abruptly does not prove the borrower would have remained solvent if financing had continued indefinitely. A convincing account needs the timing of withdrawals, the condition of assets, and a plausible path under an alternative financing arrangement.

Vulnerability and amplification

An initial weakness can be modest relative to the eventual damage. A decline in expected export earnings may reduce repayment capacity, while a simultaneous withdrawal of financing forces asset sales and cuts production further. The second stage can make the original pessimism appear fully justified after the fact. Observed losses at the end of the process cannot simply be treated as the losses already embedded at its beginning.

There is also a selection problem. Researchers observe the policies actually implemented during a crisis, often after conditions have already worsened. A contraction that follows a rate increase may reflect the original shock, the rate increase, or both. A recovery after a program revision may reflect the revision, creditor coordination, changing external conditions, or accumulated adjustments. Sequence is necessary evidence, but sequence alone is not causal identification.

For this chapter, the most useful synthesis is conditional. Weak balance sheets determine how much stress borrowers can absorb. Financing arrangements determine how quickly that stress arrives and whether individually defensive actions magnify it. Policy must address both. A strategy confined to long-term reform can miss tomorrow's cash deadline; a strategy confined to liquidity can leave losses unresolved.

This interpretation avoids an unnecessary choice between treating every crisis as punishment for domestic mistakes and treating every withdrawal as irrational panic. It follows the actual claims and resources, asking how the initial shock was transmitted and which intervention could interrupt the damaging part of that transmission.

HISTORICAL CREDIT SERIES

11. Interest rates and the order of intervention

Raising interest rates during a currency crisis can make domestic assets more attractive and reduce pressure to exchange them for foreign currency. It can also increase debt service, weaken bank assets, and discourage investment. The balance depends on the existing contracts and on whether higher rates change expectations enough to stabilize funding.

Fischer argued in January 1998 for a sharp but temporary tightening to support currencies, coupled with financial restructuring. He recognized the costs to weak banks and companies but considered prolonged depreciation potentially more damaging to foreign-currency debtors. Radelet and Sachs questioned whether the initial programs could restore confidence through restrictive policy and rapid institutional closures while creditors were already withdrawing. [10, 11]

The relevant counterfactual is specific. If a rate increase prevents a much larger depreciation, it may improve some borrowers' position despite raising local financing costs. If it fails to stabilize the currency, the economy can experience both higher domestic rates and a larger foreign-currency burden. The expected benefit should therefore be tied to a credible transmission mechanism rather than assumed from the direction of the policy move.

An announcement is not a cash balance

The initial IMF arrangements illustrate why program size must be read alongside timing. Thailand's approved arrangement was about $3.9 billion, with $1.6 billion immediately available. Indonesia's was about $10.14 billion, with $3.04 billion immediately available. Korea's was about $21 billion, with $5.56 billion immediately available. These figures describe IMF arrangements at approval, excluding other announced sources and subsequent revisions. [6, 8, 9]

Country / approval	Total arrangement	Immediately available	Original term
Thailand / Aug. 20, 1997	≈ $3.90bn	≈ $1.60bn	34 months
Indonesia / Nov. 5, 1997	≈ $10.14bn	≈ $3.04bn	3 years
Korea / Dec. 4, 1997	≈ $21.00bn	≈ $5.56bn	3 years

Table 3. Initial IMF arrangements, US$ billions as reported at approval. Dollar equivalents reflect the announcements' exchange rates. Availability is distinct from actual disbursement; later amounts depended on conditions and reviews. [6, 8, 9]

The timing matters because a borrower can fail before the next scheduled installment. Similarly, proposed supplementary support may depend on conditions that are not yet satisfied. A financing plan should separate cash on hand, unconditional access, conditional access, and hoped-for market renewal. Adding all four without qualification can create an appearance of completeness that the payment calendar does not support.

The order of intervention matters for the same reason. Closing an insolvent institution, protecting its payment functions, communicating depositor treatment, and supplying liquidity to viable institutions may all be necessary. If the steps are poorly sequenced, one can undermine another. Policy credibility is demonstrated through the ability to carry out the whole arrangement while essential payments continue.

HISTORICAL CREDIT SERIES

12. Dollar debt against local operating cash

Consider a hypothetical company with $100 million of dollar debt, an annual interest rate of 8 percent, and 80 million local-currency units of annual operating cash available before this interest payment. Assume principal is not due during the operating year shown here. The company has no hedge, no dollar revenue, and no other debt service. These simplifying assumptions isolate the effect of the exchange rate.

At 4 local units per dollar, the principal translates to 400 million local units. Annual interest is $8 million, requiring 32 million local units. The company's operating cash covers interest 2.50 times. If the exchange rate moves to 6, the same dollar principal translates to 600 million local units and interest requires 48 million. Coverage falls to 1.67 times even though local operating cash has not changed.

Measure	4 local / US$	6 local / US$	8 local / US$
Dollar principal (US$ millions)	100	100	100
Principal in local currency	400	600	800
Annual interest in local currency	32	48	64
Operating cash in local currency	80	80	80
Interest coverage	2.50×	1.67×	1.25×

Table 4. Hypothetical currency mismatch. Local amounts are millions of local-currency units; dollar debt is US$100 million. Coverage is operating cash divided by interest only, not total debt-service coverage. Rounded to two decimals.

At 8 local units per dollar, interest requires 64 million and coverage falls to 1.25 times. The dollar face amount is unchanged throughout. The deterioration comes from the number of local units needed to obtain the currency of payment. A stable nominal debt balance can therefore coexist with a sharply weaker ability to service it.

The exchange-rate percentage needs a denominator

A move from 4 to 6 local units per dollar is a 50 percent increase in the local price of a dollar. It is a one-third fall in the dollar value of the local currency, which moves from $0.25 to approximately $0.1667 per unit. These descriptions refer to the same exchange-rate change. Confusing them would misstate the size of the shock.

The example keeps operating cash fixed to show one mechanism clearly. In a real business, depreciation can also change selling prices, imported input costs, customer demand, and working-capital requirements. An exporter may gain domestic-currency revenue from dollar sales, while an import-dependent firm may suffer higher costs. The net effect requires the whole cash-flow structure.

The remaining cash after interest is not automatically free for repayment of principal. Taxes, maintenance, investment, distributions, and other commitments would have to be specified if they were not already deducted from the operating-cash measure. The 80 million used here is explicitly the amount available before the illustrated interest payment.

The comparison establishes a limited but important result. A company can become a materially weaker credit without increasing its foreign-currency borrowing. The lender must examine the currency of cash generation, rather than relying on the stability of the loan's reported dollar balance.

HISTORICAL CREDIT SERIES

13. Currency exposure and the equity cushion

The cash-flow example can be extended to a simplified balance sheet. Assume the same company has assets worth 600 million local units and owes no liabilities other than the $100 million debt. Hold that local asset value constant across the scenarios. At 4 local units per dollar, debt is 400 million and the residual equity cushion is 200 million. At 6, debt equals the assumed asset value. At 8, debt exceeds it by 200 million.

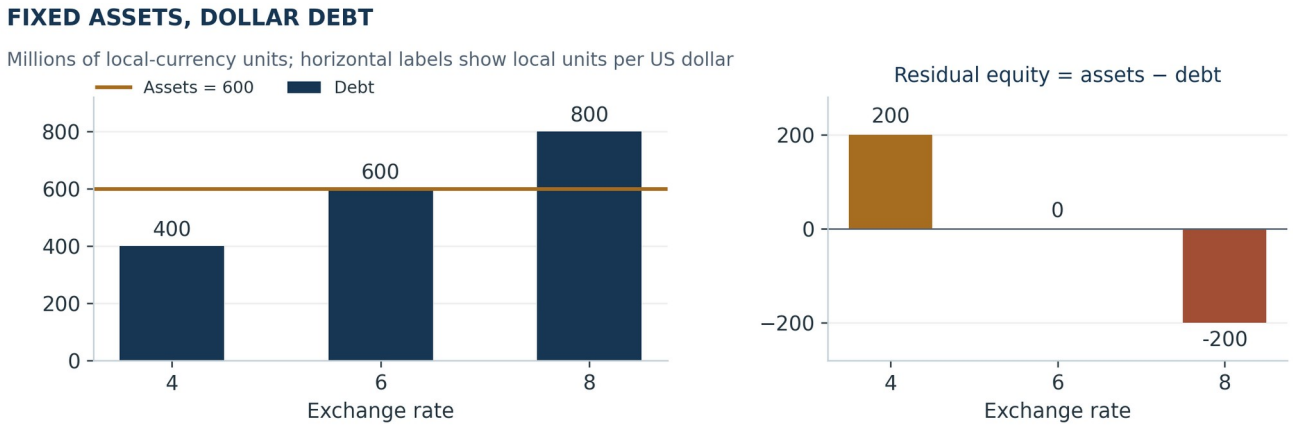

Figure 3. A currency shock can exhaust an equity cushion. Original calculation using assets fixed at 600 million local units and debt fixed at US$100 million. This is a simplified economic balance sheet, not a forecast or an accounting restatement of a historical company.

This result follows from the assumed currency mismatch and asset value. It is not a universal exchange-rate threshold for default. Asset values may change, some businesses have foreign-currency assets, and contractual obligations differ. The purpose is to show how a funding concern can become an economic solvency concern as exchange rates alter the relationship between assets and liabilities.

A hedge changes the exposure it actually covers

A natural hedge exists when reliably timed foreign-currency receipts offset foreign-currency payments. A contractual hedge can also reduce exposure, but its amount, maturity, settlement terms, and counterparty must match the risk being managed. A hedge of next month’s interest does not protect a large principal payment several years later.

Suppose, for illustration, a forward contract fixes the local-currency cost of $50 million of principal at 4 units per dollar. If the remaining $50 million is purchased at 6, total local funding for principal is 500 million, compared with 600 million unhedged. This calculation assumes the contract performs as written and excludes its pricing, transaction costs, and any interim collateral requirements. The assumed forward rate is a scenario input, not a market quotation.

Protection at final settlement also does not guarantee liquidity beforehand. A hedge may require collateral as its value changes, and a counterparty may itself face pressure. The question is whether the borrower can maintain the protection until it is needed. The 1997 FOMC discussion of Asian corporate balance sheets is revealing: Peter Fisher described an overhang of exposures still being hedged in already thin currency markets. Attempts to obtain protection after the shock could add to market pressure. [13, PDF p. 5]

Borrowing costs should therefore include the protection and liquidity needed to survive adverse conditions. Those arrangements are easier to establish before the currency shock arrives.

HISTORICAL CREDIT SERIES

14. A borrower meets its refinancing date

Now consider a separate hypothetical borrower with $100 million of principal and $8 million of interest due at the end of one year. It begins with $15 million of unrestricted cash and generates another $25 million available for debt service before that date. All amounts are US dollars. Assume no other inflows, outflows, or earlier maturities, and treat refinancing proceeds as available before payment is required.

The borrower needs $108 million and has $40 million before new borrowing. Its funding gap is $68 million. If lenders refinance 80 percent of principal, the additional $80 million leaves a $12 million cash cushion after payment. At 50 percent refinancing, available funds are $90 million and the shortfall is $18 million. With no refinancing, the shortfall is $68 million.

Measure (US$ millions)	80% renewal	50% renewal	No renewal
Opening unrestricted cash	15	15	15
Operating cash before maturity	25	25	25
Refinancing proceeds	80	50	0
Total resources	120	90	40
Principal and interest due	108	108	108
Cash cushion after payment	12	0	0
Unfunded shortfall	0	18	68

Table 5. Hypothetical refinancing at the payment date, US$ millions. Refinancing is a percentage of the US$100 million principal. The examples assume receipts and new funding arrive before payment; intrayear timing could create an earlier shortfall.

The borrower’s operating performance has not changed across these cases. What changes is the willingness of creditors to provide replacement financing. This is why a financing plan that assumes normal renewal can conceal a large cash dependence. A strong projected interest-coverage ratio does not supply the principal needed when a lender exits.

Renewal is a new credit decision

An outstanding loan and a future loan are different contracts. Unless renewal is already enforceably committed and all conditions can be met, it should be treated as an assumption about future lender behavior. A relationship that has renewed for many years can still be interrupted by the lender’s own losses, funding pressure, or revised risk appetite.

Extending maturities changes the arithmetic. If creditors defer $50 million of principal beyond the modeled year while the $8 million interest remains due, current payments fall to $58 million. With $40 million of internal resources and no new borrowing, an $18 million gap remains. The extension provides substantial relief, but does not make the current funding plan complete and does not cancel the deferred principal.

Additional equity, asset sales, a negotiated reduction, or a credible liquidity facility could close the remaining gap. Each changes the allocation of ownership, resources, or future obligations. The correct description depends on which transaction is actually executed.

The example helps explain the historical value of creditor coordination. Agreements that reduce the amount falling due can change the demand for emergency money directly. The success of that approach still depends on whether the revised schedule is compatible with the borrower’s longer-term cash generation.

HISTORICAL CREDIT SERIES

15. Stressing the assumptions together

A refinancing analysis becomes more useful when it allows operating cash and lender behavior to change together. Continue the preceding example, with $15 million opening cash and $108 million due. Let operating cash range from $15 million to $35 million and refinancing range from zero to the full $100 million principal. The figure shows the additional funding required at the payment date.

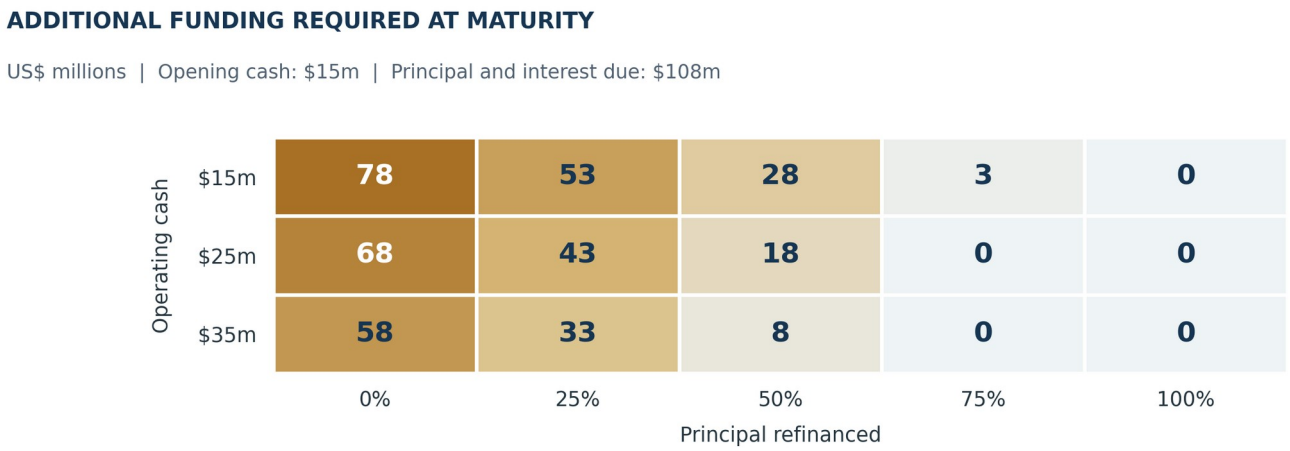

Figure 4. Funding shortfalls under joint stress, US$ millions. Each cell equals the positive part of 108 minus opening cash of 15, minus operating cash, minus refinancing proceeds. Zero indicates no shortfall, not zero risk. This is a deterministic scenario grid, not a probability forecast.

With $25 million operating cash, the borrower needs refinancing equal to at least 68 percent of principal to avoid a gap. If operating cash falls to $15 million, the threshold rises to 78 percent. At $35 million, it falls to 58 percent. A modest change in earnings can therefore alter the minimum lender participation required to keep payments current.

The relationship can become more adverse in a real crisis. Lost sales can reduce operating cash while the same economic news causes lenders to reduce exposure. The apparent diversification between internal cash generation and external finance is weak if both deteriorate in the same conditions. A plan that varies one assumption while keeping all others normal may understate the combined pressure.

A liquidity buffer must remain usable

An asset described as liquid should be tested against the contemplated stress. A deposit may be restricted, collateral may already be pledged, and a security sale may require more time or a larger discount than assumed. Committed facilities also need examination of their draw conditions and the provider’s ability to perform. These questions concern the resources actually available by the payment date.

An extension or new official loan belongs in the scenario only when its terms justify inclusion. Otherwise, the analysis should show the gap first and identify the proposed remedy separately. This preserves the distinction between a demonstrated financing plan and a plan dependent on another party’s future decision.

The calculation also clarifies the role of time. It aggregates one year into a single deadline. A real analysis should place each receipt, maturity, margin call, and facility expiry on its own date. A borrower can show enough cash for the year and still fail in March if receipts arrive in September.

The stress grid identifies when action becomes necessary: a specified combination of operating cash and refinancing. A liquidity label is useful only when those assumptions are explicit.

HISTORICAL CREDIT SERIES

16. Russia and the limits of expected support

Russia's August 1998 crisis tested assumptions about both sovereign repayment and the willingness of international institutions to prevent a disruptive outcome. The measures announced on August 17 included changes to the exchange-rate arrangement, restructuring of domestic government obligations, and a temporary moratorium affecting specified payments. These were distinct actions and should not be compressed into a claim that every Russian obligation was treated identically. [15]

The August 18 FOMC discussion reveals the uncertainty surrounding the measures. Participants asked what had actually been announced, how the wider exchange-rate band would function, and whether quoted ruble prices reflected meaningful trading. Truman distinguished short-term GKOs from longer-term OFZs and noted that the scope of the payment suspension was still being clarified. This contemporary record captures the difficulty of assessing an event while its operational details remained unsettled. [15, PDF pp. 8–9]

The event also challenges a simple distinction between domestic-currency and foreign-currency debt. A sovereign's ability to create domestic money does not establish that it will honor every domestic-currency obligation on the original terms. Political choices, inflation concerns, institutional constraints, and the wider policy arrangement affect the decision. Currency denomination matters greatly, but it does not erase sovereign credit risk.

The presumed backstop changes investor behavior

If investors expect official support in an adverse state, they may accept positions they would otherwise judge too risky. The expectation may be explicit, loosely inferred, or based on past interventions. Its strength is difficult to observe, and it can vary across investors. When support is smaller or less effective than anticipated, positions can be repriced even in countries whose own finances have not changed that day.

At the September 29 FOMC meeting, Alan Greenspan raised competing explanations for the market reaction to Russia: renewed concern about contagion and a reassessment of expected international rescues. Fisher considered the explanations potentially complementary. Their exchange is evidence of a debate about transmission, not a definitive measurement of which channel accounted for the losses. [16, PDF pp. 23–24]

The analytical implication is that a financing arrangement may depend on an institution that has made no enforceable commitment. Such dependence belongs in the risk assessment as a contingent belief. It should not be counted as a reserve asset or a committed line.

Russia's importance to the chapter consequently extends beyond the face amount of the obligations affected. A change in expectations about official support can alter the terms on which investors are willing to finance many other borrowers. The transmission follows the decisions of creditors and intermediaries, as well as the direct losses on the original claims.

HISTORICAL CREDIT SERIES

17. How a local loss becomes a wider withdrawal

Financial contagion describes transmission beyond the initial distress. Revised economic information, shared lenders, and sales to obtain cash can each affect prices in another country. These channels can operate together without implying that affected borrowers have identical weaknesses.

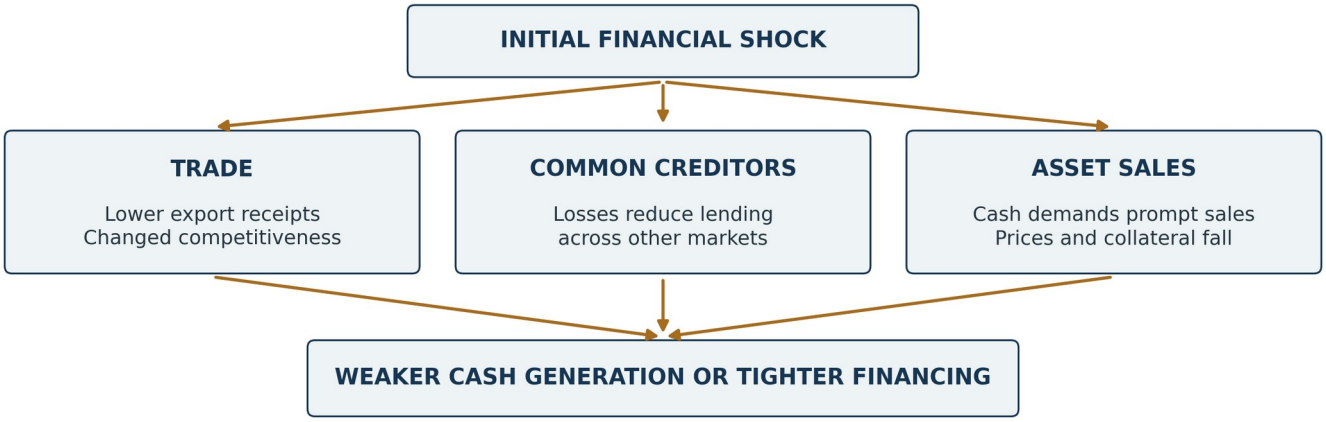

Figure 5. Channels that can transmit a financial shock. Original analytical diagram. Arrows identify possible mechanisms rather than measured causal weights or a claim that every channel operated equally in every country.

A trade channel operates through demand and competitiveness. Lost export sales can reduce foreign-currency receipts; a competitor's depreciation can alter relative prices. A common-creditor channel operates through the lender's balance sheet. Losses in one market can cause lending cuts elsewhere to preserve capital or liquidity, even without a new policy error by the second borrower.

A portfolio channel operates through cash needs and market access. An investor unable to sell the most distressed asset may sell a more liquid holding elsewhere. The resulting price decline can trigger further losses, collateral calls, or redemptions for other holders. The sale reveals something about the seller's constraint; it does not necessarily imply new information about the asset's eventual cash flows.

Similar price movements do not identify the cause

During stress, correlations may increase because investors face common constraints. That observation is consistent with contagion but is not sufficient to distinguish it from a common fundamental shock. A rigorous empirical analysis would need exposure data, transaction timing, and an explicit comparison. This chapter uses the mechanisms to interpret the sequence without assigning unsupported numerical shares to them.

Fisher's September 1998 market review described substantial disturbances in fixed-income markets, including wider and more volatile spreads. The discussion extended well beyond Russian assets. The record shows officials confronting a repricing across instruments and jurisdictions, while still debating its interpretation. [16, PDF pp. 20–22]

The distinction between a falling government benchmark yield and a borrower's financing cost is particularly important. A flight toward highly liquid securities can lower the benchmark while the premium required from a risky borrower rises. Some borrowers may benefit from lower overall rates; others may face higher rates or no financing at all. An average market measure can conceal that divergence.

The remedy should follow the channel: disclosure for uncertainty about exposures, liquidity for forced sales threatening viable institutions, and loss recognition when assets cannot support obligations. A common price decline can conceal different problems.

HISTORICAL CREDIT SERIES

18. LTCM and concentrated exposure

Long-Term Capital Management brought these issues into an institution whose activities crossed markets, currencies, and instruments. In his October 1, 1998 testimony, Greenspan described a leveraged investment strategy that sought returns from relationships among market prices and suffered severe losses as conditions departed from prior patterns. The concern was not simply that investors had lost money, but that a disorderly unwinding could damage market functioning more broadly. [17]

The Basel Committee's subsequent review emphasized the size and concentration of positions, favorable financing terms, reliance on collateral, and confidence in the fund's principals. It also described how the simultaneous deterioration of several markets undermined assumptions of diversification. The analysis makes clear that counting positions or jurisdictions is insufficient when those positions share the same exposure to liquidity and leverage. [18, pp. 10–12]

A strategy can be diversified across names yet concentrated in one financing premise: that relative prices will converge before creditors or collateral rules force an exit. If convergence takes longer than expected, a position may require additional cash even if its long-term rationale remains plausible. The relevant horizon is set by both the investment and the financing contract.

A model cannot supply the missing cash

Statistical estimates are useful for comparing exposures under stated assumptions. They do not guarantee that the next shock resembles the data used to construct them. More importantly, a probability estimate does not pay a margin call. The institution needs resources that remain available while an adverse position is held or closed.

The GAO's 1999 investigation identified weaknesses in the practices of LTCM's creditors and counterparties, including failures to apply their own standards consistently. It also questioned oversight that focused on individual firms without adequately capturing risks crossing institutional and regulatory boundaries. The episode was therefore a failure of the surrounding credit relationships as well as of the fund's own decisions. [19, pp. 2–3]

An individual lender may hold collateral sufficient to cover current exposure and still face a loss if the position must be closed during a sharp market move. Other lenders may hold similar protection and plan to act at the same time. What appears prudent in each bilateral relationship can produce a collectively difficult liquidation.

This is the chapter's transition from borrower analysis to system analysis. The question is no longer limited to whether a counterparty can pay under an assumed market path. It also includes what the counterparties will do when payment fails, whether those actions can be carried out together, and how their execution changes prices and losses for everyone else.

HISTORICAL CREDIT SERIES

19. Collateral calls and forced liquidation

Consider a hypothetical investment vehicle holding securities worth $100 million and unrestricted cash of $2 million. It owes $95 million under secured financing. Its equity is therefore $7 million. The lender initially advances 95 percent of the securities' value, corresponding to a 5 percent haircut. Ignore interest, fees, taxes, and other positions.

Now the securities fall 4 percent to $96 million and the lender requires a 10 percent haircut at the next financing reset. Permitted secured borrowing becomes 90 percent of $96 million, or $86.4 million. The vehicle must repay $8.6 million. Its $2 million cash leaves a $6.6 million funding gap, even though its simplified equity remains positive at $3 million.

Measure (US$ millions)	Initial position	Price / haircut shock	After cash use / sales
Securities value	100.0	96.0	30.0
Unrestricted cash	2.0	2.0	0.0
Secured debt	95.0	95.0	27.0
Equity	7.0	3.0	3.0
Financing haircut	5%	10%	10%
Permitted secured borrowing	95.0	86.4	27.0

Table 6. Hypothetical collateral and financing adjustment, US$ millions. Equity equals securities plus cash minus debt. The final column assumes sales at the stressed price with no further market impact and all available cash and sale proceeds used to repay secured debt.

Selling $6.6 million of securities is insufficient because selling collateral also reduces borrowing capacity. Let S be the value sold at the stressed price. After using the $2 million cash and sale proceeds, debt is 93 minus S. Remaining collateral is 96 minus S. To satisfy a 10 percent haircut, debt must be no greater than 0.90 times that remaining collateral.

The condition is $93 - S \leq 0.90 \times (96 - S)$, which requires S of at least $66 million. After that sale, $30 million of securities supports $27 million debt and $3 million equity. The initial $6.6 million cash gap has required liquidation of more than two-thirds of the stressed securities position under these assumptions.

A funding constraint can force action before insolvency

The mechanism does not require negative equity. It requires a lender to reduce the amount advanced against the remaining assets. If many borrowers respond by selling similar securities, the fixed-price assumption becomes optimistic: further price declines can require still more repayment. The example isolates the first round so that the arithmetic remains transparent.

An external equity injection or another dependable source of cash could avoid the modeled sale. Those funds would need to be available at the reset, and their terms would determine the resulting ownership and obligations. Assuming they will appear is different from having them committed.

The example explains the concern raised in the Basel review about substantial unsecured risk during the liquidation of collateralized positions. Current collateral coverage is a snapshot. Losses depend on the price and time at which protection can actually be realized when a counterparty can no longer maintain its position. [18]

HISTORICAL CREDIT SERIES

20. Intervention and the boundary of responsibility

The response to LTCM illustrates the difference between facilitating a private agreement and supplying public money. Greenspan's testimony stated that Federal Reserve funds were not put at risk in the recapitalization. The New York Fed helped bring parties together because officials feared broader disruption from a disorderly liquidation. That rationale concerned market functioning, while losses and control were addressed through a private transaction. [17]

The distinction does not remove questions about incentives. Official involvement can influence what market participants expect in a future crisis even when no public financing is provided in the current one. Conversely, allowing an uncontrolled liquidation can impose costs on parties that neither financed nor invested in the troubled institution. The policy judgment must consider both the immediate spillover and the behavior encouraged by intervention.

A defensible assessment begins with the proposed action. Does it supply cash, guarantee a claim, organize negotiations, alter interest rates, or absorb losses? These mechanisms differ in authority, distribution, and consequences. Calling each one a rescue obscures the choices that need evaluation.

Monetary policy addresses the wider economy

On October 15, 1998, the Federal Reserve announced a quarter-point reduction in the discount rate and an expected comparable decline in the federal funds rate. Its statement cited more cautious lending and unsettled financial markets as prospective restraints on aggregate demand. This was a broader monetary-policy action, distinct from the arrangements made around one institution. [20]

The difference matters analytically. A reduction in policy rates can ease financing conditions across an economy, but it cannot directly repair every impaired asset or assure that all borrowers regain market access. A negotiated recapitalization can stabilize one institution, but it does not establish that aggregate demand no longer requires support. Several interventions may occur close together because they address different parts of the disturbance.

The historical record also cautions against evaluating an action only by the absence of catastrophe afterward. If intervention prevents a damaging outcome, that outcome is unobserved. If the feared outcome would not have occurred, the same observation is possible. Assessment therefore requires evidence about exposures, likely liquidation behavior, and the available alternatives, rather than simply treating subsequent calm as proof.

The chapter's judgment is that intervention should be evaluated through its mechanism and distribution. Preserving payment functions and avoiding destructive sales can be valuable. The associated treatment of shareholders, creditors, and public risk determines whether that value has been obtained on defensible terms. Those questions remain relevant even when the immediate financing problem is successfully contained.

HISTORICAL CREDIT SERIES

21. Recovery beyond market stabilization

Financial stabilization and economic recovery occur on different schedules. Exchange rates and asset prices can react within hours. A bank's loan portfolio, a company's productive capacity, or a household's lost earnings may take much longer to recover. A chapter concerned with credit must follow that slower process because future repayment depends on it.

The February 1998 FOMC discussion already distinguished the situations in Thailand and Korea from Indonesia. William McDonough saw signs of improvement in the first two while remaining more concerned about the third. This was a contemporary assessment, not a claim that recovery was complete or that the later path was assured. [14, PDF p. 74]

Case	Financing pressure	Response examined
Mexico	Short-term indexed public claims	Official support and financing over longer terms
Thailand	Reserve commitments and private debt	Exchange adjustment and financial restructuring
Indonesia	Bank distress and uncertain protection	Bank resolution and depositor-treatment credibility
Korea	Foreign bank claims coming due	Coordinated rollover and maturity restructuring
Russia	Domestic public debt and support expectations	Debt measures, exchange adjustment, and repricing
LTCM	Leverage, collateral, and crowded positions	Private recapitalization and counterparty scrutiny

Table 7. Different financing structures required different responses. This is an analytical comparison of the cases discussed in the chapter, not a ranking of policy success. [2, 7–9, 12, 15, 17–19]

A restored external balance can result from stronger exports or sharply reduced imports. The distinction matters when firms depend on imported equipment and inputs. Likewise, a bank can reduce reported risk by shrinking lending while viable customers lose access to working capital. A financial ratio may improve alongside a deterioration in the economy's capacity to produce.

The incidence of adjustment belongs in the analysis

Households experience a crisis through wages, employment, prices, and services. Borrowers with fixed nominal income may struggle as interest costs rise. People holding foreign assets can be better protected against depreciation than those whose savings and earnings remain domestic. The distribution of protection is therefore part of the financial story, not an unrelated qualification added after the contracts are settled.

Program design could explicitly address these effects. Korea's initial IMF announcement paired proposed changes to dismissal restrictions with an intention to strengthen employment insurance. The announcement establishes a policy commitment, not evidence that every affected worker received adequate support. Evaluating implementation requires a separate record. [9]

A durable recovery also depends on the use of financing space. If a maturity extension preserves investment and allows viable enterprises to rebuild cash generation, future repayment becomes more credible. If it mainly postpones recognition of losses or sustains unproductive arrangements, another refinancing problem may follow. The same contractual concession can support different economic paths.

The appropriate outcome measures consequently include functioning credit channels, viable investment, household conditions, and reduced vulnerability to another withdrawal. Market access remains important, but it should be examined alongside the maturity and currency of the new obligations. Otherwise, the return of financing can be mistaken for the removal of the dependence that made the previous interruption so damaging.

HISTORICAL CREDIT SERIES

22. Creditworthiness under changing conditions

The period from 1994 to 1998 broadened the practical meaning of credit analysis. An assessment of assets and expected earnings remained necessary, but the financing arrangement determined how much time a borrower had to realize that value. Currency commitments, repayment dates, collateral terms, and the behavior of other creditors could alter the outcome before a long-term forecast had a chance to unfold.

The examples in this chapter show the mechanisms separately. Currency depreciation increases the local cost of an unchanged dollar obligation. Reduced refinancing creates a principal shortfall despite unchanged operating performance. A larger collateral haircut can force extensive asset sales while equity remains positive. In an actual crisis, these mechanisms can operate together and change each other's severity.

The immediate supervisory response reflected that interaction. The Basel Committee's January 1999 sound-practices paper emphasized meaningful exposure measures, stress testing, and the risks that remain during collateral liquidation. The Federal Reserve's February guidance similarly called attention to the interaction of market and credit risk and to whether actual practices matched stated policies. These are historical responses to the period, rather than a statement of today's regulatory framework. [21, 22]

The analytical discipline that survives the period

A credit decision should identify the contractual payer and currency, the source and timing of cash, and the actions required if expected financing is interrupted. It should also ask whether the protection relied upon can be maintained and realized under the same conditions that weaken the borrower. These questions connect traditional repayment analysis with the market structure surrounding the obligation.

For lenders, the result may justify less exposure, a different maturity, stronger information rights, or a larger funding buffer. For borrowers, it may justify paying more for financing that remains dependable across a wider range of conditions. The apparent saving from a fragile arrangement should be compared with the resources needed to survive its interruption.

For public authorities, the period demonstrates the difficulty of acting across private contracts and national boundaries. Liquidity support, creditor coordination, loss recognition, and institutional reform address different constraints. Their effectiveness depends on sequence and on an allocation of responsibility that participants can understand and sustain.

The series now reaches a financial system in which risks are transmitted through both lending relationships and market positions. The next historical developments will extend those connections through securitization and other forms of intermediation. The enduring question remains concrete: whether the resources behind a promise can be delivered when the holder is entitled to demand them.

Capital takes flight through decisions made by identifiable institutions under particular constraints. Understanding those constraints explains why a financing system can appear stable, why it can change abruptly, and what must change for renewed credit to rest on a more durable foundation.

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WEITL ENTERPRISES LLC

Author, publication, and illustration notes

Peter Weitl

Weitl Enterprises LLC

Historical Credit Series • September 2026 edition

This paper follows The Price of Adjustment: Sovereign Debt, the Lost Decade, and the Brady Plan, 1982–1994. It is prepared as a standalone white paper and a chapter for later inclusion in the series' collected book. Section numbering, explanatory captions, linked references, and the established visual design are retained for that purpose.

Suggested citation

Weitl, Peter. 2026. When Capital Takes Flight: Currency Crises, Financial Contagion, and the Limits of Global Credit, 1994–1998. Historical Credit Series. Weitl Enterprises LLC. DOI: 10.5281/zenodo.22684273.

Publication identifier

DOI: 10.5281/zenodo.22684273
Permanent link: https://doi.org/10.5281/zenodo.22684273

Illustrations and production

The cover is original AI-generated artwork created for this edition with OpenAI image generation. Its fractured globe, open vault, and outward flow of coins form a new composition, while WPA-inspired block lettering, colors, and print texture continue the series design. The illustration is symbolic and depicts no identified historical event. It is not archival evidence.

The five interior figures and seven tables are original explanatory constructions. Historical anchors are cited; hypothetical inputs and units are stated in the associated text and captions. No third-party photograph, archival illustration, or borrowed chart is reproduced. Numerical examples were calculated from the stated assumptions and rounded where indicated.

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