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INSTITUTIONAL CAPTURE & MACRO-FINANCIAL COLLAPSE · HISTORICAL DATA 2005–2025

How Lebanon's "Deep State" Drove the Economic Crisis

> *Two decades of data, one argument: an entrenched, captured elite hollowed out the productive economy for years. Then, a deliberate domestic financial scheme detonated one of the three worst economic collapses recorded anywhere since the 1850s.*

Evidence briefs · charts generated from the cited series · macro outcomes (2005–2025) from World Bank Open Data & IMF WEO; capture proxies from World Bank WGI, V-Dem v15, Transparency International, the Alvarez & Marsal / BdL forensic audit, IMF Article IV, and the World Bank Lebanon Economic Monitor & Public Finance Review. Every figure is sourced inline; full data tables in the appendix.

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Abbreviations and Symbols

Abbreviations used in the running text, the figure notes and the tables. Institutions that appear only in the reference list are spelled out there.

Abbreviations

AML	Anti-money laundering
BdL	Banque du Liban, Lebanon's central bank
BIS	Bank for International Settlements
BLOMINVEST	BLOMINVEST Bank, whose research notes and data portal are cited in several figure notes
BRITE	BLOM Research Indicators and Trends in the Economy, BLOMINVEST's open-access Lebanese economic data portal
CFT	Combating the financing of terrorism
COVID-19	Coronavirus disease 2019
CPI	Consumer Price Index, in the inflation series; and, separately, Transparency International's Corruption Perceptions Index, used as a capture proxy in Part 3, §2.2. The two are unrelated, and context distinguishes them.
ECB	European Central Bank
EdL	Électricité du Liban, the state electricity utility
ERF	Economic Research Forum
EU	European Union
FATF	Financial Action Task Force, the intergovernmental body that sets anti-money-laundering and counter-terrorist-financing standards
FDD	Foundation for Defense of Democracies
FPM	Free Patriotic Movement
FSB	Financial Stability Board

FX	Foreign exchange
GDP	Gross domestic product
HRW	Human Rights Watch
IMF	International Monetary Fund
INSS	Institute for National Security Studies
IPU	Inter-Parliamentary Union
kWh	Kilowatt-hour
LEM	Lebanon Economic Monitor, the World Bank's periodic report on Lebanon
LL	Lebanese lira, also written as the Lebanese pound
MENAFATF	Middle East and North Africa Financial Action Task Force, the FATF-style regional body
MIMIC	Multiple Indicators, Multiple Causes, a structural-equation model that recovers a latent variable from several observed indicators
MoEW	Ministry of Energy and Water
OFAC	Office of Foreign Assets Control, the sanctions authority of the U.S. Department of the Treasury
PFR	Public Finance Review, the World Bank's 2022 review of Lebanese public finance, subtitled Ponzi Finance?
TI	Transparency International
TIMEP	The Tahrir Institute for Middle East Policy
USIP	United States Institute of Peace
V-Dem	Varieties of Democracy, the dataset and the research institute of that name
WB	World Bank
WEO	World Economic Outlook, the IMF's database and semi-annual report

WGI	Worldwide Governance Indicators, World Bank
WP	Working Paper

Symbols

Notation of the Predator's Dilemma model, set out in Part 3, §1, and of the electricity-sector estimator in Part 3, §2.3. Symbols are listed in the order in which the model introduces them.

Y	Total output, the model's counterpart to GDP
K	The private capital stock
G	Productive public goods and infrastructure actually supplied
A	Total factor productivity
α	Capital's share of income, $\alpha \in (0,1)$
τ	The flat tax rate levied on output
θ	The extraction rate: the share of public revenue diverted from productive public goods into patronage, $\theta \in [0,1]$. This is the report's central quantity.
MPK	The marginal product of capital, that is, the return on private investment
$\theta(EdL)$	The extraction rate estimated for the electricity sector alone, equal to $1 - \rho\kappa$
ρ	EdL's cost-recovery ratio, the average applied tariff as a fraction of the cost of supply
κ	EdL's billed-and-collected share, the fraction of generated electricity that was billed and paid for
T	Treasury transfers to EdL

Executive Summary

Between 2005 and 2018, Lebanon's dollar economy looked like a success story. GDP more than doubled, from $21bn to $55bn, and the pound held at 1,507.5 to the dollar, a rate fixed since 1997. Then the economy did not decline; it imploded. Output fell 6.9% in 2019 and 21.4% in 2020. The currency lost more than 98% of its value. Inflation ran at 85, 155, 171 and 221 per cent in four consecutive years. In March 2020 the state defaulted on its foreign-currency debt for the first time in its history. The World Bank ranks the episode among the three most severe economic collapses recorded anywhere since the mid-nineteenth century and observes that a contraction of that depth "is usually associated with conflicts or wars." Lebanon fought none.

This report argues that the collapse was not bad luck but the arithmetic of capture. It models Lebanon as a *Predator's Dilemma*. An entrenched elite, lodged inside the central bank and the bank-sovereign nexus rather than lobbying them from outside, diverts a fraction θ of public revenue away from productive public goods and into patronage. Because output depends on that public capital, every increase in θ shrinks the economy the elite is extracting from. As external inflows slow, θ must rise further to sustain the same patronage, until the return on productive investment falls below the world interest rate. At that point private capital strikes: investment halts, the capital stock runs down, and the tax base collapses. The model predicts a discontinuous break rather than a smooth decline, and that prediction is what the report tests.

The test is passed. The extraction rate θ is identified three times over, from three bodies of data that share no sources, and the estimates agree on level, direction and timing. A structural-break test then places the decisive rupture in 2017–2019, before COVID-19 and before the August 2020 port explosion, on the domestic policy choices rather than on the external shocks. Capture also had a guarantor: Hezbollah, the one actor holding a coercive veto the rest of the elite could not override, and the reason no judge, no reformist cabinet and no IMF program has yet forced the system to stop.

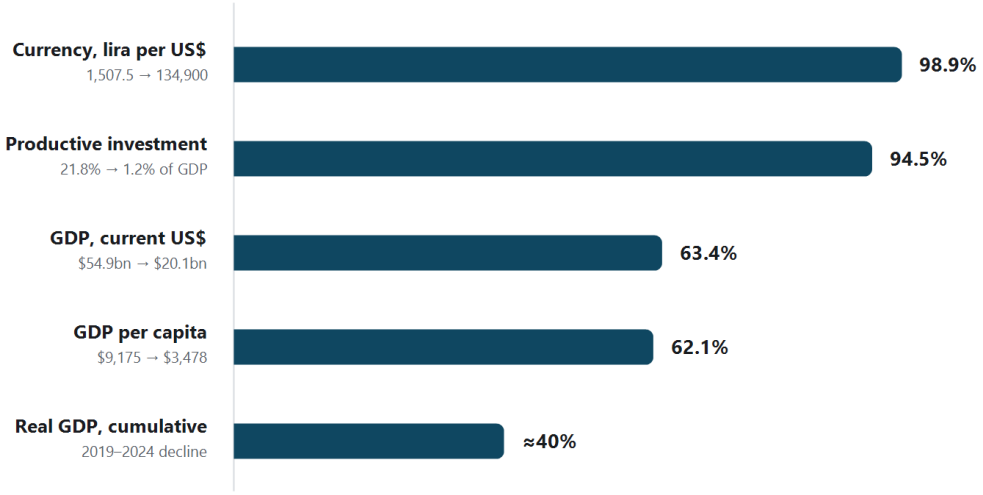
Key findings

- **The extraction rate never fell below about 0.87**, even in the good years. Roughly nine-tenths of the fiscal resources nominally available for productive public capital never reached it. From 2019 the rate stands at 0.99 to 1.00, inside the model's collapse region.
- **Three independent estimators converge.** The fiscal identity $\theta = 1 - G/(\tau Y)$; a governance latent factor extracted from seven WGI, V-Dem and Transparency International indicators, which correlates with the fiscal series at $r = 0.77$; and a sectoral estimate built from electricity tariffs, generation costs and unpaid bills, $\theta(\text{EdL}) \approx 0.71$, a deliberately conservative floor.
- **The dominant structural break lands in 2017–2019.** A Bai–Perron test, which infers the break date from the data rather than assuming it, dates the rupture before COVID-19 and before the port explosion.
- **The decisive choice was domestic.** BdL's 2016 "financial engineering" paid commercial banks to move money out of private lending and into the central bank. The Alvarez & Marsal forensic audit finds BdL paid out $47.9bn of foreign-exchange reserves between 2010 and 2020, while banks placed $76bn with it. On the eve of the crisis, some 66% of banks' foreign-currency assets were claims on BdL and the sovereign, against 23% lent to the private sector.
- **Productive investment was withdrawn, not merely starved.** Gross fixed capital formation held above 20% of GDP for fifteen years, then fell to barely 1% by 2022.
- **A single conduit carried nearly half the public debt.** Cumulative Treasury advances to EdL reached some $40–43bn by 2020, about 46% of public debt, for a grid supplying a few hours of power a day.
- **The elite survived the catastrophe it caused.** Turnover stayed low, 18 of the top 20 banks were tied to political elites, and losses were sequenced to protect insiders while informal capital controls, imposed without any law, trapped ordinary depositors.

- **The rescue was refused rather than failed.** Six years after Lebanon first approached the IMF (May 2020), and four years after a staff-level agreement on a $3bn Extended Fund Facility (April 2022), no financing program has been signed, and more than $72bn of losses remain unallocated.
- **Rents migrated; they did not stop.** When subsidies ended in 2021 and the fiscal channel closed, extraction resurfaced in the parallel economy: the gap between the official and street exchange rates widened to roughly 59 times by 2023, while θ stayed near 0.99.

Summary figure · Share of value destroyed, 2018 peak to trough

Percentage of each quantity's 2018 level erased by the collapse. A longer bar means more destroyed. The bars are ranked by magnitude, not ordered causally.



Sources: Appendix A (World Bank Open Data; IMF WEO). Currency taken at the parallel-market peak of 134,900 per US$ (March 2023); investment trough 2022; GDP and GDP per capita trough 2023. The real-GDP figure is the World Bank's cumulative 2019–2024 estimate and is approximate.

The policy implication follows from the model rather than from sentiment. Because the collapse was produced by an extraction rate driven to its ceiling and defended by a veto player, stabilization requires the two things Lebanon's elite has spent six years resisting: allocating the losses to the banks, the central bank and the state that created them, and dismantling the veto that protects them. Reform that does not impose losses on the captors, and does not break their hold on cabinet, Finance and the courts, is not reform. It is the same equilibrium under a new name.

Introduction

Lebanon's collapse admits two explanations, and the choice between them is not academic. The first is a story of misfortune: a small, open economy absorbed the Syrian war and a refugee influx exceeding a quarter of its population, the loss of Gulf remittances and investment, a global pandemic, and the detonation of 2,750 tons of ammonium nitrate in its principal port. On this account the state was overwhelmed. The second is a story of design: the same collapse was produced, over three decades, by an elite that captured the institutions of the state and drained them, and that continues to block the measures which would end the crisis. This report tests the second account against the first.

The distinction determines what recovery requires. If Lebanon was unlucky, then patience, external finance and time will suffice. If Lebanon was captured, then finance without loss allocation will simply recapitalize the captors, and the crisis will resume the moment the money runs out. The two accounts also make different empirical predictions, which is what makes the question answerable rather than rhetorical. A shock account predicts a decline proportionate to the shocks and coincident with them. A capture account predicts a discontinuity arriving on the timetable of domestic policy choices, and an elite that survives the outcome it produced.

The phrase "deep state" is loose in popular usage and precise enough in the scholarly literature to be worked with. It corresponds to what political economy calls *state capture* (Kaufmann and Hellman, 2001): not conventional corruption, in which private actors pay to bend the application of the rules, but the purchase of the rules themselves. Around it sit *clientelism* (Kitschelt and Wilkinson, 2007), the exchange of distributed benefits for political loyalty, institutionalized in Lebanon as the confessional *muhasasa*; *extractive institutions* (North, 1990; Acemoglu and Robinson, 2012), which persist because those they enrich control the means of changing them; and *veto-player entrenchment*, the survival of the same elite across every crisis. "Deep state" is a latent construct: it cannot be observed directly, and so must be decomposed into sub-constructs carrying measurable proxies. Part 2 performs that decomposition.

The report's contribution is to make the claim estimable, and therefore refutable. Three moves do the work. First, the capture mechanism is formalized as a Predator's Dilemma, a growth model in which the elite's extraction rate θ enters the production of public goods, and in which collapse is a threshold phenomenon rather than a slow decline. Second, θ is identified three separate times: from the public accounts, from international governance indicators, and from a single rent channel, electricity, so that no one proxy carries the argument. Third, the model's distinctive prediction, a discontinuity, is tested with a structural-break procedure that infers the break date from the data instead of assuming it. Where writing on Lebanon has largely proceeded by narrative, the argument here is stated as a hypothesis with a parameter, a threshold, and a set of conditions that would defeat it. Those conditions are set out in the Conclusion.

The evidence base is documented rather than asserted. Macroeconomic outcomes for 2005–2025 come from World Bank Open Data and the IMF World Economic Outlook. Capture proxies come from the World Bank's Worldwide Governance Indicators, V-Dem v15, Transparency International's Corruption Perceptions Index, the Alvarez & Marsal forensic audit of Banque du Liban, IMF Article IV staff reports, and the World Bank's Lebanon Economic Monitor and Public Finance Review. Institutional history is traced from the post-war settlement of 1993; the quantitative series run from 2005 to 2025, and provisional figures for the 2026 war are flagged as such. Every figure is sourced inline, and the full series are reproduced in Appendix A.

The report is in three parts. **Part 1** establishes what a systemic crisis is: how the literature defines and classifies one, the seven transmission mechanisms through which distress propagates, and what four centuries of episodes reveal, before setting Lebanon's numbers against that frame. **Part 2** establishes what a deep state is: the theory of capture, clientelism and entrenchment, the channels through which such systems sustain themselves, and the operationalization of the concept into five measurable sub-constructs, applied to Lebanon.

Part 3 joins the two: it formalizes the Predator's Dilemma, estimates θ three ways, tests for the structural break, and discusses what the results imply, including the role of the armed veto player and six years of blocked IMF negotiations. The Conclusion states the verdict, and the terms on which it could be overturned.

Systemic Economic Crisis: A Literature Review

Concepts, Mechanisms, and Historical Episodes

The following section surveys the academic literature on systemic economic and financial crises, episodes in which distress propagates across institutions, markets, and the real economy rather than remaining confined to a single firm or sector. It organizes the field around three questions: how scholars define and classify a systemic crisis; what theoretical mechanisms generate and amplify one; and what the historical record, spanning four centuries, reveals about recurring patterns. Drawing on institutional, macroeconomic, and financial-network scholarship, the review shows that systemic crises share a common anatomy, a credit-fuelled build-up, a fragile balance-sheet structure, a trigger, and a self-amplifying collapse, even as their proximate forms (banking, currency, sovereign-debt, and sudden-stop crises) differ. The Lebanese collapse of 2019 is situated within this comparative frame.

1. Defining and classifying systemic crises

A crisis is "systemic" when the failure or distress of one part of the economic system threatens the functioning of the whole. The distinction is not merely one of scale. As Kaufman and Scott (2003) put it, systemic risk is the risk that a shock at one institution or in one market is transmitted, through real or financial linkages, to the rest of the system. Definitions used by central banks and by the International Monetary Fund (IMF), the Bank for International Settlements (BIS) and the Financial Stability Board (FSB) (2009) emphasize three elements: a triggering event, a propagation mechanism, and material spillovers to the real economy. This review treats a systemic economic crisis as the macro-financial counterpart of that definition: a discrete episode in which financial distress becomes severe and widespread enough to disrupt output, employment, and the payment system.

The scope is deliberately broad. The review draws on four traditions: the narrative-historical (Bagehot, Kindleberger, Reinhart and Rogoff); the formal theory of bank runs, fragility, and contagion (Diamond and Dybvig, Allen and Gale, Brunnermeier); the empirical crisis-dating and early-warning literature (Laeven and Valencia, Schularick and Taylor, Claessens and Kose); and episode-specific scholarship on the major crises of the last century. The aim is a synthesis usable as a reference framework rather than an exhaustive bibliography.

1.1 From idiosyncratic distress to system-wide failure

Not every bankruptcy is systemic. The literature distinguishes *idiosyncratic* or exogenous shocks, such as oil shocks or wars, which the system absorbs, from *systemic* events, in which losses cascade. Two features make a shock systemic: *interconnectedness*, whereby exposures link institutions into a network through which losses travel (Allen and Gale, 2000), and *common exposure*, whereby many institutions hold correlated assets and fail together (Acharya et al., 2017). Brunnermeier and Oehmke (2013) add the temporal dimension distinguishing the build-up phase from the materialization phase: systemic risk builds up quietly during booms and materializes abruptly.

1.2 A taxonomy of crisis types

Claessens and Kose (2013) provide the standard taxonomy, identifying four core types: *currency crises* (a sharp depreciation or forced abandonment of a peg), *sudden stops* (an abrupt halt in capital inflows), *sovereign-debt*

crises (default or restructuring of government debt), and *banking crises* (runs, insolvencies, and bank failures). Reinhart and Rogoff (2009) add inflation crises and document that the types frequently coincide: *twin crises* (banking plus currency); For Kaminsky and Reinhart (1999), even triple crises (banking, currency, and sovereign together) are common, because the balance sheets of the central bank and commercial banks and the state budget are exposed on several fronts at once. Lebanon's post-2019 episode is a textbook triple crisis.

1.3 Operational definitions and crisis dating

For quantitative work the field relies on operational definitions. Laeven and Valencia (2013, 2020), in the IMF *Systemic Banking Crises Database*, date a systemic banking crisis by two jointly observed criteria: significant signs of financial distress in the banking system (runs, losses, liquidations) and significant policy interventions in response (guarantees, recapitalizations, nationalizations). Bordo et al. (2001) and Reinhart and Rogoff (2009) instead reconstruct crisis chronologies over centuries, supporting the long-run claim that crises are recurrent, not anomalous.

2. How a systemic crisis spreads: the mechanisms in plain terms

A systemic crisis is rarely a single event; it is a chain reaction. Economists have spent decades mapping the links in that chain: the *transmission mechanisms* by which trouble in one corner of the financial system spreads until the whole thing seizes up. This section walks through seven of them in plain language. The first six are general lessons drawn from financial history. The seventh, the one that did the most damage in Lebanon, gets the closest look.

2.1 Why calm times plant the seeds of the crash (Minsky and Kindleberger)

The most influential explanation of why good times lead to crashes comes from Minsky (1986, 1992). His idea is almost a paradox: long stretches of calm make a crisis more likely, not less. When profits are reliable and confidence is high, borrowers and lenders both grow bold. Minsky saw borrowers drifting through three stages. At first, they earn enough to cover both the loan and its interest, he called this *hedge finance*. Next, they earn only enough to cover the interest and must keep rolling the loan over (*speculative finance*). Finally, they cannot cover even the interest and survive only as long as the price of whatever they invested in keeps rising (*Ponzi finance*), the classic bubble borrower. By the peak of the boom, the whole system is balanced on the assumption that prices never fall. That is what makes it fragile: stability itself breeds the recklessness that ends it.

Kindleberger (1978), in *Manias, Panics, and Crashes*, turned this insight into a repeating story he traced across three centuries: a trigger that excites everyone, a borrowing-fuelled boom, euphoria and over-trading, then a dawning unease, and finally panic and crash. The names change; the shape does not.

2.2 Bank runs, and the central bank as firefighter (Diamond and Dybvig; Bagehot)

Banks rest on a fragile trick: they take deposits you can pull out at any moment but lend that money out in loans they cannot call back quickly. Diamond and Dybvig (1983) showed exactly why this leaves a bank open to a *run*. If everyone trusts the bank, only people with a genuine need for cash withdraw, and all is well. But if depositors fear that others will rush to pull their money out first, the rational move is to rush too because the bank cannot pay everyone at once. The fear becomes self-fulfilling, and a perfectly healthy bank can be killed simply because people expect it to fail.

The same model draws a line that matters enormously later: the difference between a bank that is *illiquid* (short of ready cash, but fundamentally sound) and one that is *insolvent* (its assets are genuinely worth less than what it owes). The cure for a run was prescribed long before the mathematics, by Bagehot (1873) in *Lombard Street*: in a panic the central bank should lend freely, against good collateral, at a penalty rate. That is what it means to be the *lender of last resort*, the firefighter who stops a survivable scare from burning down a sound bank. Modern deposit insurance does the same job by reassuring savers in advance.

2.3 The downward spiral: when forced sales feed on themselves

Once a shock lands, the plumbing of balance sheets can turn a stumble into a fall. Shleifer and Vishny (1992, 2011) describe the *fire sale*: a firm in trouble must sell assets quickly, but the natural buyers are other firms in the same trouble, so it can only sell at a knock-down price. Those low prices then become the new "market value" for everyone else holding similar assets, making them look weaker on paper too, which forces yet more sales and drives prices down further.

Bernanke (1983) and Bernanke, Gertler and Gilchrist (1999) showed how this leaks into ordinary economic life: as borrowers' wealth shrinks, lenders demand a bigger cushion to lend at all, credit dries up, and businesses that rely on loans are forced to cut back, a feedback they called the *financial accelerator*. Brunnermeier and Pedersen (2009) add a twin spiral between the ability to sell assets and the ability to borrow against them, and Adrian and Shin (2010) show that borrowing swells in booms and collapses in busts, drying up at the worst possible moment.

2.4 How trouble travels: the financial network

The financial system is a web: banks lend to one another, so they are all connected. Allen and Gale (2000) showed that this web is double-edged. In good times the links spread risk around and make everyone a little safer. In a crisis the very same links become the wires along which losses travel from one institution to the next. Whether the network absorbs a shock or amplifies it depends on how it is wired.

Haldane and May (2011), borrowing from how shocks spread through ecosystems, and Acemoglu, Ozdaglar and Tahbaz-Salehi (2015) found a *robust-yet-fragile* pattern: a densely connected system easily shrugs off small shocks, but past a certain tipping point it spreads a large shock to everyone at once. This is why, after 2008, regulators began watching the *systemically important* institutions whose failure would drag others down and adopted *macroprudential* policy, rules aimed at the health of the system, not just one bank at a time.

2.5 The clearest warning sign: too much borrowing, too fast

If you could watch only one number to see a crisis coming, it would be how fast *credit* or the total stock of borrowing is growing. Schularick and Taylor (2012), studying a long history of advanced economies, found that *credit booms gone bust* are the single most reliable warning sign of a financial crisis. Borio (2014) calls this slow, powerful swing the *financial cycle*, which is bigger and longer than the ordinary ups and downs of the economy. When such a boom finally turns, the result is what Koo (2009) named a *balance-sheet recession*: so many households and firms are scrambling to pay down debt while spending collapses and the economy stalls, even when interest rates are cut to zero.

2.6 When the currency breaks and the money flees

Countries that fix their exchange rate carry a particular vulnerability. The classic account, from Krugman (1979), is simple: if a central bank prints money to cover the government deficit while promising to hold the exchange

rate steady, sooner or later it runs out of foreign reserves and the peg snaps. A second wave of thinking, from Obstfeld (1986, 1994), showed that such crises can also be *self-fulfilling*: if traders merely expect a devaluation, defending the currency becomes so painful that the government eventually gives up, and the expectation comes true on its own.

After the Asian crisis of 1997, a third view (Krugman, 1999; Chang and Velasco, 2001) added the most dangerous detail of all: when a country's banks and businesses have borrowed in a foreign currency, usually dollars, but earn their income in the local one, a falling exchange rate suddenly inflates their debts and shatters their balance sheets. Calvo (1998) gave the trigger its name: the *sudden stop*, the moment when foreign money abruptly stops flowing in, and even reverses, forcing a brutal adjustment no matter what the government does. This is where Lebanon's story begins to bite.

2.7 The doom loop: when the banks and the state pull each other under -- the Lebanon case

This is the mechanism that matters most for Lebanon, so it is worth slowing down. The deepest sovereign crises happen where the health of a country's banks and the health of its government become chained together. Reinhart and Rogoff (2009, 2011), surveying centuries of defaults, found two patterns that repeat almost every time. The first is *debt intolerance*: some governments default at debt levels that other countries handle comfortably, simply because investors do not trust them to pay. The second is the *this-time-is-different* delusion, the belief, right up to the brink, that financial crises are things that happen to other people in other countries at other times. Relying on this new narrative, governments, banks, and citizens take on unprecedented amounts of debt, assuming the risk is minimal. Eventually, the structural reality catches up. Debt becomes unsustainable, capital flies out of the country, and the system crashes.

The chain that binds banks to their government even has a name: the *doom loop* (Acharya, Drechsler and Schnabl, 2014; Brunnermeier et al., 2016). It works like this. Banks hold large amounts of their own government's debt, so when the government's finances wobble, the banks' main asset loses value and they look shaky. To rescue the banks, the government must step in, which piles fresh strain on its own finances and makes it look weaker still, which damages the banks further. Each one drags the other down. This spiral sat at the heart of Europe's debt crisis of 2010–12 and, in a far more extreme form, of Lebanon's collapse.

Lebanon ran the doom loop in perhaps its purest version ever seen. The mechanics were strikingly simple. Lebanese commercial banks gathered deposits from the public, overwhelmingly in US dollars. But instead of lending that money to local businesses, they handed the bulk of it to the central bank, the *Banque du Liban* (BdL), which paid them generous interest. BdL used the inflow for two purposes: to finance the government's never-ending deficits, and to defend the Lebanese pound's fixed rate of 1,507.5 to the dollar, held for some twenty-two years. The whole arrangement was marketed as "financial engineering." Its real effect was that the banking system's single biggest asset was no longer loans to the economy, but IOUs from the central bank and the state. Banks, central bank, and government had quietly fused into a single balance sheet.

That fusion is exactly what the doom-loop literature warns against, and it failed exactly as the theory predicts. Once fresh dollars stopped flowing in (the *sudden stop* of section 2.6) and public confidence cracked in 2019, the structure unwound all at once. In March 2020, the government defaulted on its foreign-currency debt for the first time in the country's history. BdL's usable reserves were largely gone, having been paid out as interest to service the debt and burned defending the peg. Because the banks' money was locked inside a state and a

central bank that could no longer pay, the banks were not merely short of cash, they were *insolvent*, genuinely unable to honour their deposits. They responded by quietly freezing ordinary people out of their own savings through informal capital controls, and the Lebanese pound, no longer defensible, collapsed from 1,507.5 to the dollar to well beyond 90,000, losing more than ninety-eight per cent of its value and wiping out the savings of a generation.

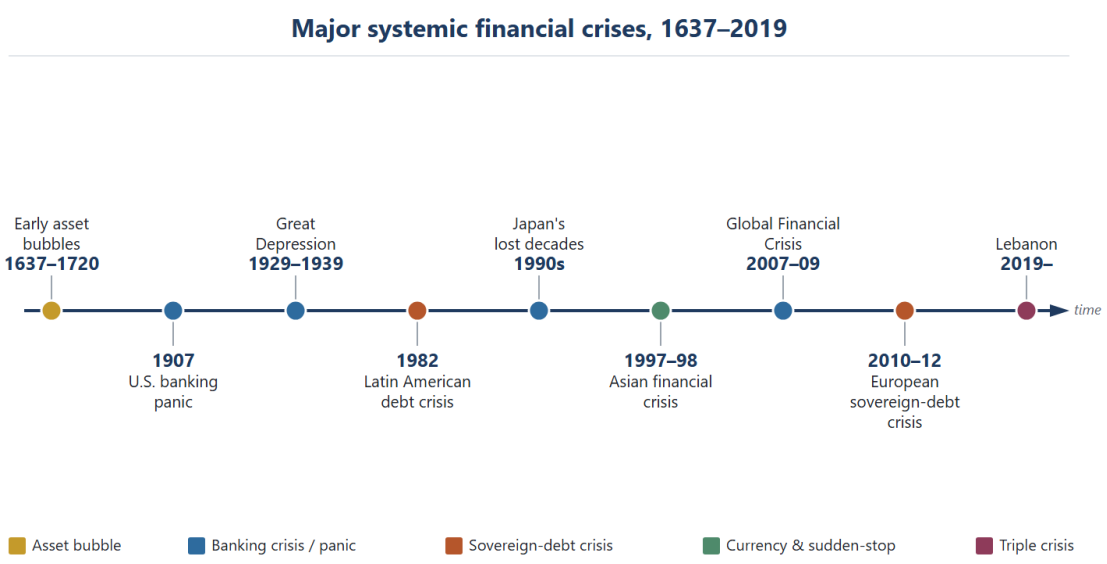
Because the three pillars had been welded together, there was no firewall. There was no healthy bank standing apart, no solvent central bank able to act as Bagehot's *lender of last resort* (section 2.2), and no government with the means to rescue anyone. The same links that had funnelled the public's deposits into the state during the good years became the channels of what the World Bank called a *deliberate depression* (World Bank, 2021), built on a scheme widely likened to a Ponzi arrangement, which is simply Minsky's *Ponzi finance* (section 2.1) scaled up to an entire country.

Lebanon, in other words, is where every mechanism in this section converges at once: a credit-and-deposit boom (section 2.5), a currency mismatch and a sudden stop (section 2.6), bank-run dynamics with no lender of last resort (section 2.2), and fire-sale insolvency (section 2.3), all bound together by the bank–sovereign doom loop into a single, self-reinforcing collapse. It is less an exception to the theory than its most complete illustration.

3. Historical episodes

The historical record both illustrates these mechanisms and supplies the comparative evidence that crises recur. The episodes below are selected for their analytical importance and the depth of scholarship devoted to them.

Figure 1. Historical record of financial crisis



A timeline of selected major systemic financial crises, 1637–2019, colour-coded by predominant crisis type. Ordering is chronological; horizontal spacing is schematic, not to linear scale.

3.1 Early asset bubbles (1637–1720)

The Dutch *tulip mania* (1637), the *Mississippi Bubble* (1719–20), and the *South Sea Bubble* (1720) are the archetypes of displacement-driven euphoria, the recurring template of credit-fed speculation followed by collapse (Kindleberger 1978; Garber 2000).

3.2 The Panic of 1907

A classic pre-central-bank banking panic, triggered by a failed speculative corner and propagated through the lightly regulated trust companies, the 1907 panic was halted only by J. P. Morgan's private coordination of emergency liquidity (Bruner and Carr, 2007). Its lesson, that a public lender of last resort was needed, led directly to the founding of the U.S. Federal Reserve in 1913.

3.3 The Great Depression (1929–1939)

The defining systemic crisis of the twentieth century remains the most studied. Friedman and Schwartz (1963) attribute its severity to monetary contraction and the Federal Reserve's failure to act as lender of last resort during successive banking panics. Bernanke (1983) adds a non-monetary channel: the collapse of the banking system destroyed information and credit intermediation, deepening the real downturn. Eichengreen (1992), in *Golden Fetters*, shows that adherence to the gold standard transmitted and prolonged the contraction internationally, and that recovery began only as countries left the peg.

3.4 The Latin American debt crisis (1980s)

Triggered by the Volcker interest-rate shock and the reversal of petrodollar recycling, Mexico's 1982 default opened a decade-long sovereign-debt crisis across the region called the "lost decade." Sachs (1989) and the subsequent Brady Plan literature established the template for sovereign-debt restructuring and clarified the link between external shocks, currency mismatch, and default.

3.5 Japan's asset bubble and lost decades (1990s–)

The bursting of Japan's land and equity bubble in 1990–91 produced a prolonged *balance-sheet recession* (Koo, 2009) and a banking system burdened by non-performing loans and *zombie* firms kept alive by forbearance (Hoshi and Kashyap, 2004; Caballero, Hoshi and Kashyap, 2008). Japan is the canonical case of how unresolved bank losses and debt overhang can suppress growth for a generation. The end of the "lost decades" is a subject of ongoing debate among economists. Because the stagnation was structural rather than a simple temporary recession, there is no single date when a switch flipped.

3.6 The Asian financial crisis (1997–98)

A third-generation crisis par excellence: short-term foreign-currency borrowing, fixed exchange rates, and weak bank supervision combined so that a sudden stop and a currency collapse became mutually reinforcing across Thailand, Indonesia, and Korea. Radelet and Sachs (1998) emphasize self-fulfilling panic and creditor flight; Corsetti, Pesenti and Roubini (1999) emphasize moral hazard and weak fundamentals. The episode reshaped views on capital-account liberalization and on the role of the IMF.

3.7 The Global Financial Crisis (2007–09)

The most severe systemic crisis since the Depression originated in the U.S. subprime-mortgage market and propagated globally through securitization, wholesale funding, and counterparty networks. Brunnermeier

(2009) and Gorton (2010) characterize it as a run on the *shadow banking system*, a run in the repo and asset-backed-commercial-paper markets rather than on retail deposits. Reinhart and Rogoff (2009) situate it within the long history of slow, debt-laden post-crisis recoveries, while the official Financial Crisis Inquiry Commission (2011) stressed regulatory failure, excessive leverage, and the too-big-to-fail problem.

3.8 The European sovereign-debt crisis (2010–12)

A currency union without fiscal or banking union proved vulnerable to the bank–sovereign doom loop. Lane (2012) traces how pre-crisis capital flows into the periphery, an abrupt sudden stop, and the feedback between bank and sovereign solvency produced cascading crises in Greece, Ireland, Portugal, Spain, and Cyprus, contained only by the European Central Bank (ECB) 2012 commitment to do "whatever it takes" and the subsequent move toward banking union.

3.9 Lebanon (2019–present)

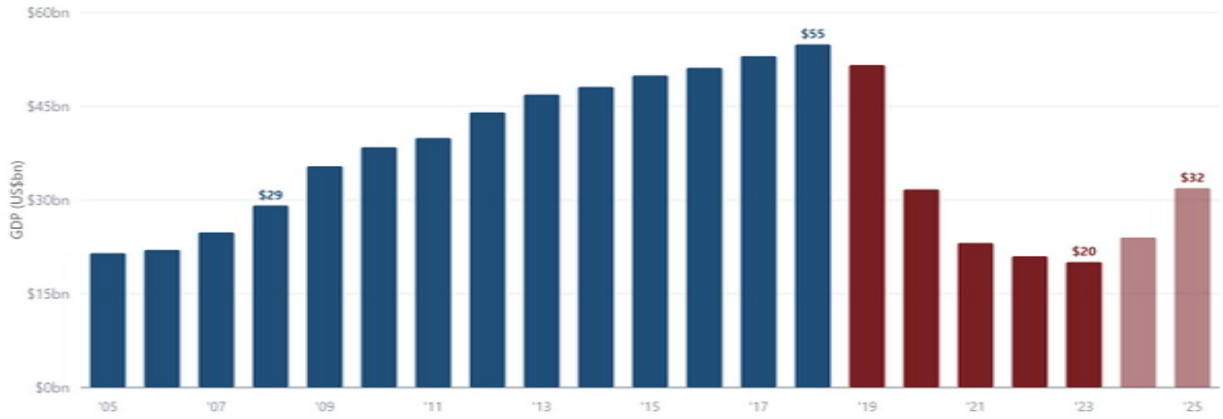
Lebanon's collapse, simultaneous sovereign default (March 2020), currency collapse (the lira losing well over 90% of its value), and banking insolvency, is ranked by Laeven and Valencia and by the World Bank (2021) among the most severe systemic crises in modern history, a magnitude the World Bank notes is "usually associated with conflicts or wars," though Lebanon fought none. It exemplifies the triple-crisis structure, the Ponzi-finance endgame in Minsky's sense, and the bank–sovereign doom loop, with the additional feature analysed in the rest of the report, that the build-up was driven by institutional capture rather than by a conventional private-credit boom alone.

4. Lebanon crisis in numbers

For roughly fifteen years Lebanon's dollar economy *looked* like steady growth. GDP more than doubled from $21bn (2005) to a peak of $55bn (2018). Then it didn't fall; it imploded, losing more than 60% of its dollar value in three years. A gradual external shock does not produce this shape.

Figure 2 · GDP, current US$ (billions), 2005–2025

Nominal GDP in US dollars. The 2005–2018 climb masked structural decay; the post-2019 collapse is the captured system hitting its limit. 2024–2025 are IMF estimates (faded).

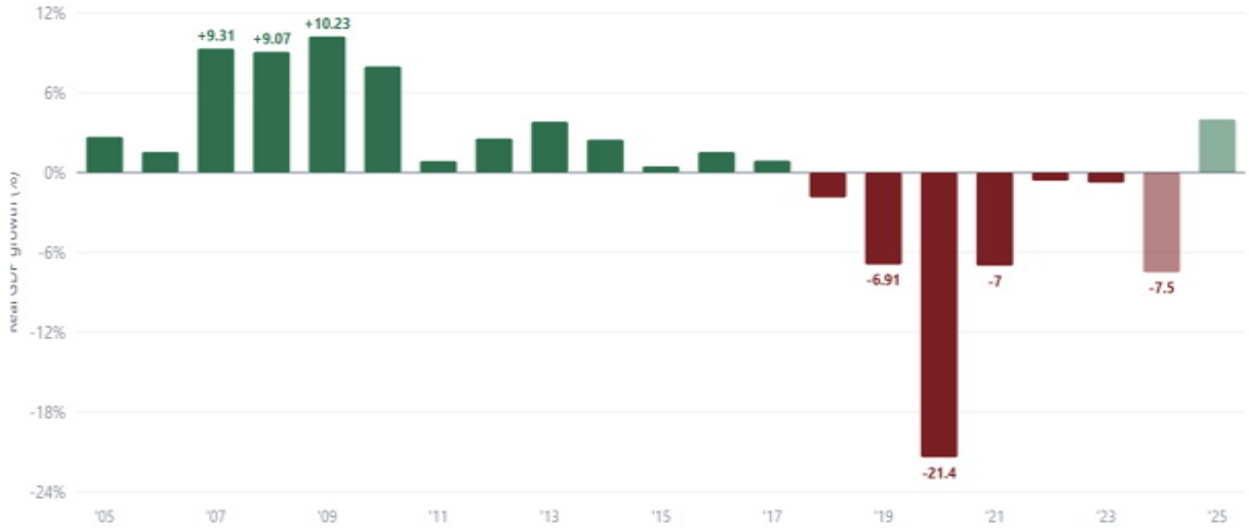


Source: World Bank Open Data (NY.GDP.MKTP.CD), updated Apr 2026; 2024–25 IMF WEO via worldeconomics.com.

The growth series makes the discontinuity unmistakable. After years of positive (if slowing) growth, the economy fell off a cliff: −6.9% in 2019 and −21.4% in 2020. A contraction of that depth, outside war, is the empirical signature *the Predator's dilemma* model (explained in Part 3, §1) predicts when the extraction rate θ crosses its threshold. The 2020 crater (−21.4%) is not proportionate to any single shock. It is the discontinuous collapse a captured, over-leveraged system produces when confidence breaks. A faint rebound (~+4%) appears only in 2025, once reform began.

Figure 3 · Real GDP growth (annual %), 2005–2025

Real GDP growth. Green = expansion, red = contraction. 2024–25 are IMF estimates/projections.

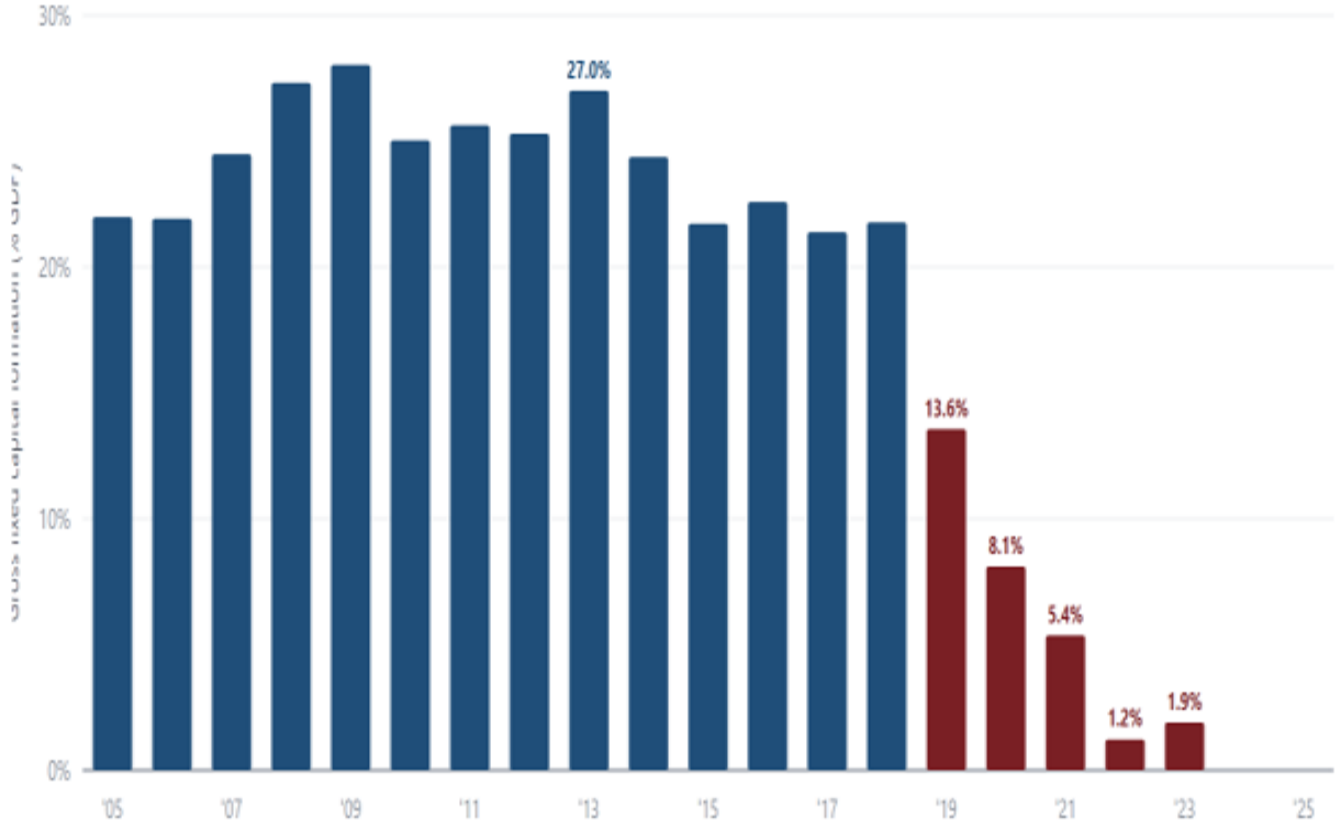


Source: World Bank Open Data (NY.GDP.MKTP.KD.ZG); 2024–25 IMF WEO (Apr 2026).

The investment collapse in Figure 4 is the most direct evidence of the mechanism, the *Predator's dilemma*, described in Part 3, §1. Productive investment (gross fixed capital formation), the build-up of the economy's capital stock K, held above 20% of GDP for fifteen years, then collapsed to barely 1% by 2022. Capital didn't just stop growing; it was actively withdrawn, exactly as the crowding-out story requires. The productive base wasn't merely starved during the boom; it was destroyed at the bust.

Figure 4 · The investment collapse — gross fixed capital formation (% of GDP), 2005–2023

Share of GDP going into productive capital (machinery, structures, infrastructure). This is the model's variable K — the productive base.

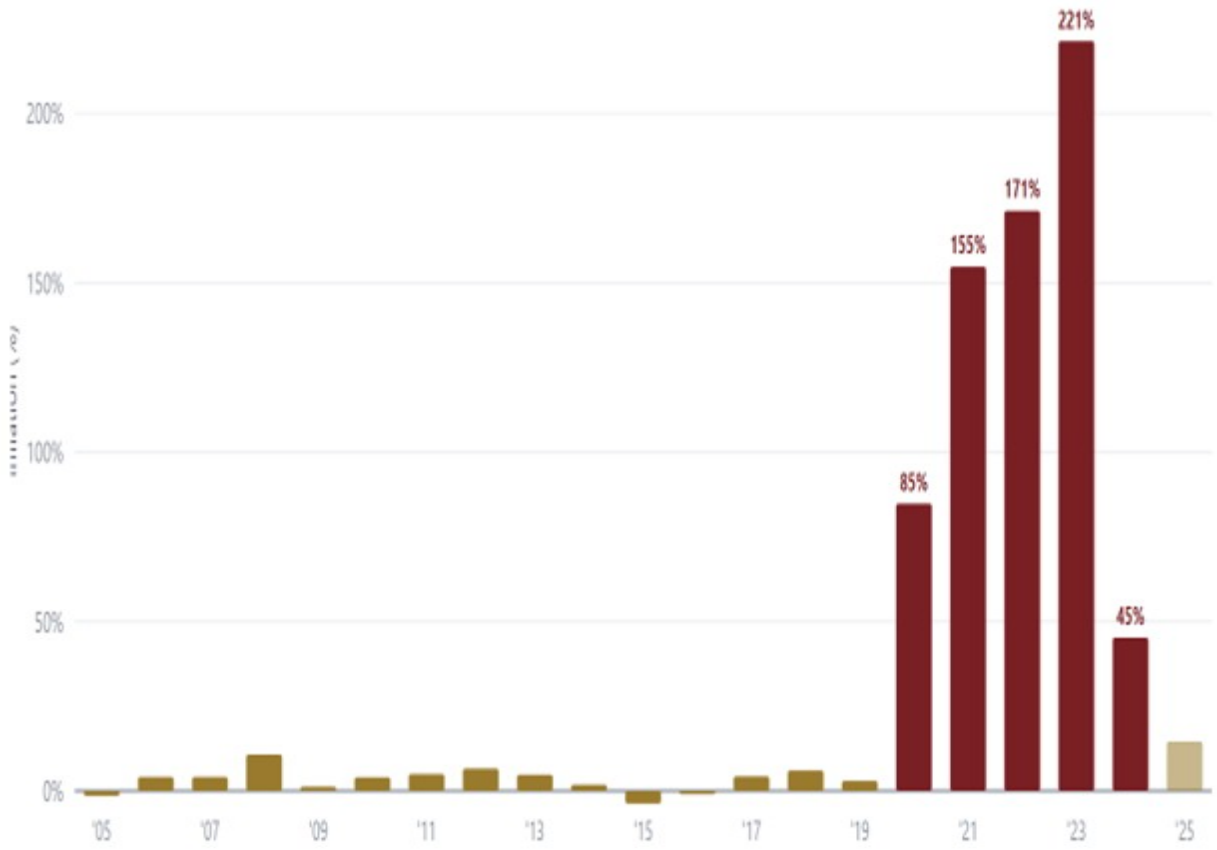


Source: World Bank Open Data (NE.GDI.FTOT.ZS). 2024–25 not yet released.

And the human cost: as the peg broke and money was printed to paper over insolvency, prices exploded. Inflation ran near zero for years, then hit 85% (2020), 155% (2021), 171% (2022) and 221% (2023), a full hyperinflation that wiped out wages and savings.

Figure 5 · Inflation, consumer prices (annual %), 2005–2025

Annual CPI inflation. The pre-2020 bars are tiny *because* the post-2020 hyperinflation dwarfs them — that contrast is the point. 2025 is an IMF estimate.



Source: World Bank Open Data (FP.CPI.TOTL.ZG); 2005–08 & 2025 IMF WEO.

The Deep state fingerprint: Institutions, State capture and clientelism before and through the collapse

Concepts, channels and long-run dismantling strategies

The concept often referred to in popular discourse as the "deep state" is more rigorously examined in academic literature through frameworks such as state capture, clientelism, and institutional economics. These approaches analyze how entrenched political and economic elites shape institutions to preserve power and control resource distribution. This literature review synthesizes key theoretical and empirical contributions on the economic dismantling of such systems, with particular relevance to developing and fragile states, including Lebanon.

1. Defining the concept

1.1 Theoretical Foundations: Institutions and Power

A central theme in the literature is the role of institutions in shaping economic outcomes. Acemoglu and Robinson (2012) distinguish between inclusive institutions, which promote broad participation and innovation, and extractive institutions, which concentrate power and wealth among elites. Extractive systems tend to persist because elites have incentives to maintain the status quo.

Similarly, North (1990) emphasizes that institutions are "rules of the game" that evolve slowly and are resistant to change due to path dependency. These frameworks suggest that dismantling entrenched systems requires structural institutional transformation, not merely policy adjustments.

Selectorate theory (Bueno de Mesquita et al., 2003) further explains how political leaders maintain power by distributing economic benefits to a narrow support base. This creates patronage networks that distort market competition and limit access to opportunities for outsiders, including entrepreneurs.

1.2 State Capture and Systemic Corruption

The concept of state capture (Kaufmann & Hellman, 2001) provides one of the closest academic equivalents to the "deep state." It describes a situation where private interests significantly influence a state's decision-making processes to their own advantage. Unlike conventional corruption, state capture involves shaping the legal and regulatory framework itself.

Empirical studies show that in captured states:

- Regulations are designed to exclude competitors
- Public procurement systems favor politically connected firms
- Enforcement mechanisms are selectively applied

These dynamics create high barriers to entry, particularly affecting small and medium enterprises and marginalized groups.

1.3 Clientelism and Patronage Economies

Clientelism is a dominant feature in many developing political economies. Kitschelt and Wilkinson (2007) define it as the exchange of goods and services for political support. In such systems:

- Economic resources are distributed based on loyalty rather than merit
- Public sector employment becomes a tool for political control
- Informal networks override formal institutions

In the Middle East, Diwan et al. (2019) highlight the prevalence of crony capitalism, where business elites maintain close ties with political actors. This reinforces inequality and limits market dynamism.

2. Economic Mechanisms of Entrenchment

2.1 Economic channels powering the deep state

The literature identifies several economic channels through which entrenched systems sustain themselves:

- **Rent-seeking**: Elites extract income without productive contribution
- **Monopolies and oligopolies**: Market dominance restricts competition
- **Financial capture**: Banking and financial systems are aligned with political interests
- **Regulatory barriers**: Licensing and permits are used to exclude newcomers

These mechanisms create a self-reinforcing cycle where economic power translates into political influence, and vice versa.

2.2 Challenges of Dismantling Entrenched Systems

Research consistently shows that dismantling such systems is complex and often unsuccessful in the short term. Key challenges include:

- **Institutional resilience**: Bureaucratic networks adapt to reforms
- **Elite resistance**: Powerful actors block or dilute reforms
- **Information asymmetry**: Insiders possess knowledge that allows them to circumvent new rules

Case studies from post-conflict and transitional states demonstrate that removing political leaders does not necessarily dismantle underlying networks.

2.3 Strategies for Economic Dismantling

The literature suggests that effective reform must be systemic and multi-dimensional, including:

Institutional Reform

- Strengthening judicial independence
- Adopting rules in fiscal and monetary policies
- Enhancing regulatory transparency
- Building merit-based civil services

Market Liberalization

- Reducing barriers to entry
- Enforcing competition laws
- Breaking monopolistic structures

Anti-Corruption Mechanisms

- Digital governance systems to reduce discretion
- Transparent public procurement processes
- Independent anti-corruption agencies

Incentive Restructuring

- Aligning public sector wages with market conditions
- Reducing reliance on patronage for service delivery

2.4 Implications for Entrepreneurship and Gender

Entrenched political-economic systems have significant implications for entrepreneurship:

- Limited access to finance due to politically controlled banking sectors
- Unequal market access due to favoritism toward connected firms
- Regulatory burdens that disproportionately affect small businesses

For women entrepreneurs, these challenges are often amplified due to:

- Weaker access to informal networks
- Social and institutional biases
- Reduced political representation

This suggests that dismantling entrenched systems is not only a governance issue but also a key determinant of inclusive economic development.

3. Lebanon: the deep state before and through the collapse

3.1 An internal entrenchment character to the deep state

Empirically, captured states share a recognizable signature: regulations engineered to exclude competitors, public procurement steered toward connected firms, licensing and permits used as gatekeeping devices, and enforcement applied selectively against rivals. The result is high barriers to entry that fall hardest on small and medium enterprises and politically unconnected groups. The Lebanese variant is distinctive in that the captor sits *inside* the core institutions of the state, most consequentially the central bank and the commercial-bank–sovereign nexus, rather than merely lobbying them from outside; it is this internal entrenchment that gives the phenomenon its "deep state" character.

Clientelism (mass loyalty traded for distributed benefits) and crony capitalism (the elite fusion of political and economic power) are analytically distinct, but in Lebanon they interlock: the confessional *muhasasa* is a

textbook case of clientelism institutionalized along sectarian lines and crowned by a cross-sectarian business-political cartel.

3.2 Operationalizing a latent concept

"Deep state" is a *latent* construct: it cannot be observed directly, so it must be decomposed into sub-constructs that have observable proxies. We adopt the following decomposition, standard in political economy:

Sub-construct	What it means	Lebanese manifestation
State capture	Private/factional actors shape laws and enforcement for their own benefit	Political influence over monetary and fiscal policies
Clientelism / muhasasa	Sectarian-quota allocation of state jobs, contracts, services	The core operating logic of the confessional system
Institutional informality	Real power exercised outside formal rules	Informal capital controls imposed without a law, 2019+
Rent extraction / corruption	Diversion of public resources from productive use	Électricité du Liban (EdL) transfers; opaque public procurement
Veto-player entrenchment	The same elites survive every crisis intact	Continuity of the political class since the civil war

3.3 The World Bank's own diagnosis

The strongest corroboration that Lebanon's depression is governance-driven rather than shock-driven comes from the World Bank's own *Lebanon Economic Monitor* series, whose report titles alone advance the argument: *The Deliberate Depression* (Fall 2020) and *Lebanon Sinking… amidst Deliberate Inaction* (Spring 2021). The Bank ranks the episode among the top three most severe crises worldwide since the mid-nineteenth century and observes that such *"brutal and rapid contraction is usually associated with conflicts or wars"*, yet Lebanon fought none. The table below maps each capture proxy to the Bank's evidence and to the measured collapse.

Capture proxy	World Bank evidence	Causal channel	Depression outcome (WB data)
State capture (bank-sovereign nexus)	Public finance "served the interests of an entrenched political economy"; "excessive debt… gave the illusion of stability" (Ponzi Finance?, 2022); banks lobbied to be bailed out with state assets	Captured policy propped up an unsustainable peg and debt spiral; when inflows stopped, the banking system was insolvent	GDP $55bn (2018) to $33bn (2020); financial-sector losses >$72bn

Capture proxy	World Bank evidence	Causal channel	Depression outcome (WB data)
Clientelism / muhasasa	Subsidies and transfers were "distribution channels… to entrench the power-sharing confessional system" (Ponzi Finance?, 2022)	Patronage wages and transfers crowded out public investment; deficits debt-financed until insolvency	Capital expenditure ~1.5-2% of GDP; rigid spending >75% of budget; deficit -7% to -12% of GDP
Institutional informality	"Informal and ad hoc capital controls… lack of harmonization… considerable popular backlash"; "de facto lirafication and haircuts on dollar deposits" (Deliberate Depression, 2020)	Lawless controls destroyed confidence, trapped depositors and froze payments; credit and investment collapsed	Dollarization 81%; exchange-rate gap up to ~9x; cash economy ~46% of GDP
Rent extraction / corruption	Savings "misused and misspent over the past 30 years"; a dedicated chapter on "Public Service Non-Delivery" (Ponzi Finance?, 2022)	Decades of rents, electricity above all, drove the debt that detonated; starved public goods (G) sank productivity	EdL ~$40-43bn (~46% of public debt); electricity 1-3 hrs/day; debt/GDP 194% (2020)
Veto-player entrenchment	Report titles "Deliberate Depression" / "Deliberate Inaction"; section "Governance Failure and Causes of Policy Inaction"; the "financial gap law" still pending in 2026	The same elites blocked every loss-imposing reform, prolonging the depression by design and delaying recovery six years	Top-3 crisis globally since the 1850s; ~40% cumulative GDP decline 2019-2024; only a "fragile rebound" by 2025

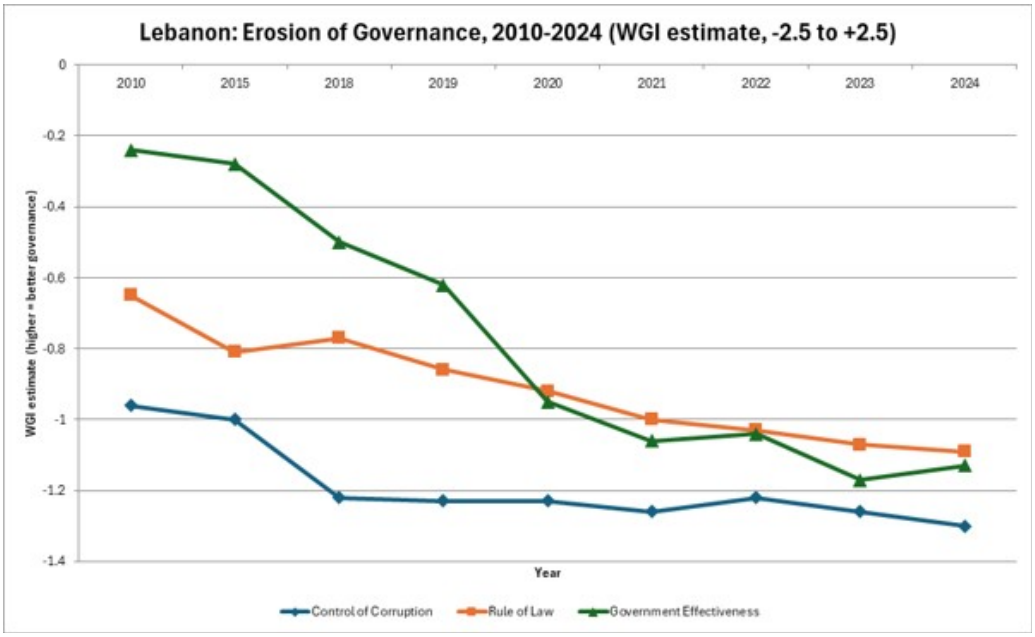
As of the Bank's *A Fragile Rebound* (Winter 2025, published January 2026), real GDP grew 3.5% in 2025 (projected 4.0% in 2026), but only as partial reform began. The Bank stresses that *"critical structural reforms, including the 'financial gap law'… are still pending,"* that public debt *"remains high,"* and that Lebanon is *"still out of international capital markets."* Stabilization arriving only once capture began to be unwound is itself consistent with the corroboration that the systemic crisis was caused by elite capture. A network of unaccountable, entrenched actors operating outside formal democratic control, defined by the five sub-constructs (in section 3.2), has measurably worsened Lebanon's economic crisis, by an amount that exceeds the damage attributable to exogenous shocks alone.

3.4 Measuring Capture: Proxies and Data Sources

Each sub-construct from section 3.2 maps to measurable time-series proxies:

Governance / capture indices: The World Bank's Governance indicators measure whether the state can deliver. Government effectiveness held flat, then fell off a cliff after 2018, precisely as the financial scheme hit its limit. Control of corruption was already deep in the negative and kept sinking. So did the Rule of Law, decreasing sharply since 2018. Two outside gauges confirm it. Transparency International's CPI drifts from 30 (2012) to 22 (2024), among the world's worst, while V-Dem's clientelism index sits pinned near 0.85 (world corruption average ≈ 0.48). The clientelism line barely moves; that *persistence* through catastrophe is itself the signature of an entrenched veto-player network (Appendix A).

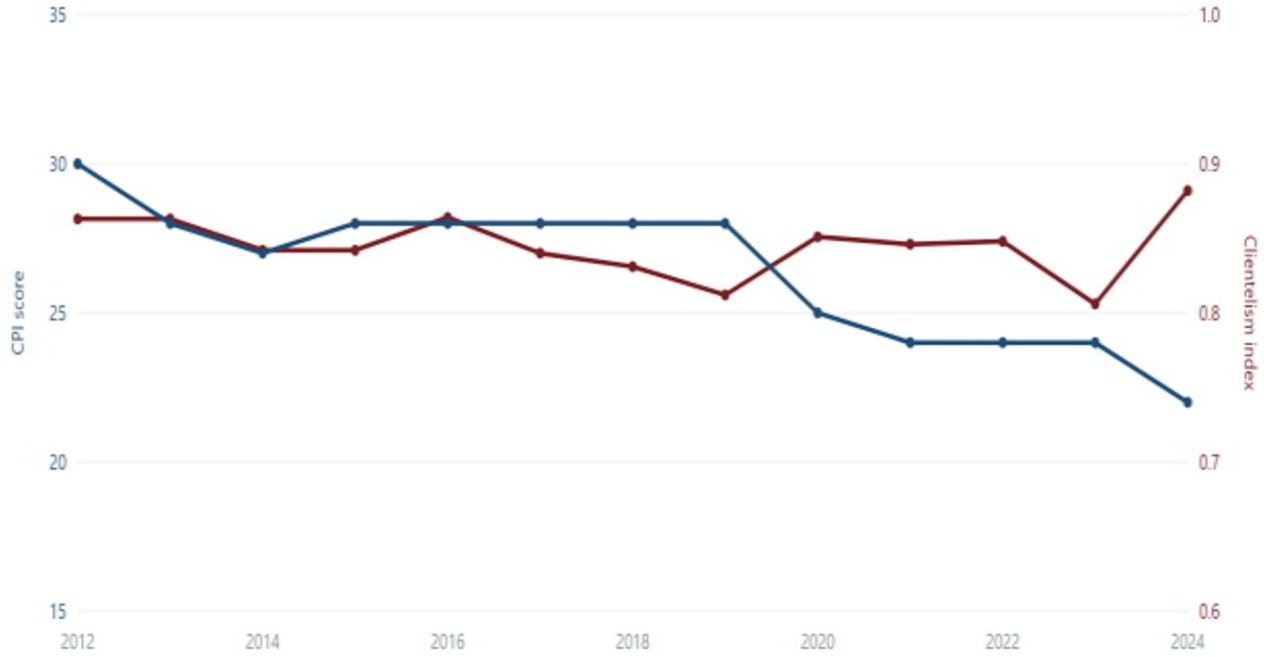
Figure 6. Governance indicators 2010-2024



Source: Lebanon's erosion of governance, 2010-2024 (World Bank WGI estimates; scale -2.5 to +2.5, higher = better). All three governance dimensions decline, with Government Effectiveness collapsing after 2018 — the operationalized signature of deepening capture. Source: World Bank Worldwide Governance Indicators.

Figure 7· Two outside gauges of capture, 2012–2024

Left axis: Transparency International CPI (0 corrupt … 100 clean). Right axis: V-Dem clientelism index (0 none … 1 pervasive).



■ CPI score (cleaner = higher) ■ V-Dem clientelism (worse = higher)

Sources: V-Dem v15 via Our World in Data. All indices 0-1, HIGHER = worse (more clientelistic / more corrupt). Transparency International Corruption Perceptions Index (Lebanon), via TI country page + Our World in Data. Higher score = cleaner.

- **Elite continuity:** The defining test of a "deep state" is whether the elite *survives the catastrophe it caused*. It did: turnover stayed low, banking and politics remained fused, and wealth stayed extraordinarily concentrated. *Low turnover during catastrophic outcomes is itself evidence.* With 18 of the top 20 banks tied to political elites, the institutions that engineered the collapse and the politicians meant to regulate them were substantially the same network, which is why the losses were sequenced to protect insiders, and why reform stalled for years.

Entrenchment proxy	Value	Source
Incumbent MPs re-elected after the collapse (May 2022)	68 of 128	IPU Parline 2022
Speaker Nabih Berri — continuous tenure	since 1992	USIP / IPU
Top-20 banks with shareholders linked to political elites	18 of 20	Carnegie / Assouad 2021
Bank assets controlled by politically-linked individuals	~43%	Carnegie / Assouad 2021
Top 1% income share / Top 10% wealth share	~25% / ~70%	Assouad / World Inequality DB
Year-to-year persistence in the top 1%	~75%	Carnegie / Assouad

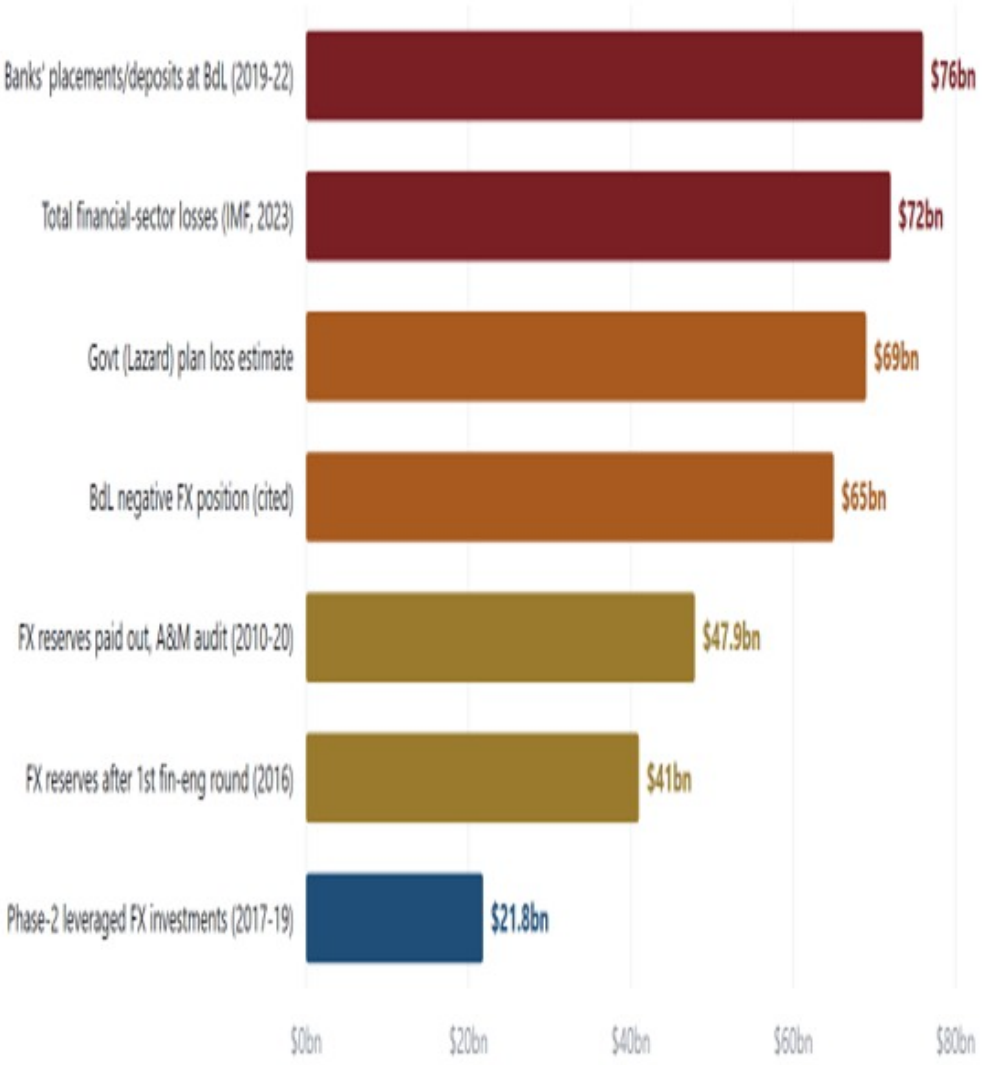
Sources: Arab News (2018), IPU Parline (2022), USIP (2022), Carnegie/Lydia Assouad "From Predatory to Self-Devouring" (2021), World Inequality Database; Jad Chaaban, ERF WP 1059 (2016) for the 18-of-20 banks figure. Low elite turnover + extreme concentration = veto-player entrenchment proxy.

- **Financial engineering:** As regional inflows slowed after 2015, the central bank (BdL) launched "Financial Engineering" in 2016, paying commercial banks lavish returns to move money *out* of private lending and into the central bank, to defend the peg and hide insolvency. The forensic numbers are staggering , and they predate COVID and the port blast.

The Alvarez & Marsal audit found BdL paid out $47.9bn of FX reserves (2010–2020); banks piled $76bn into BdL while starving firms; the system's hole reached $72bn+ (IMF). Pre-crisis, ~66% of banks' FX assets were claims on the sovereign/BdL versus only ~23% lent to the private sector, the crowding-out, quantified (Figure 8).

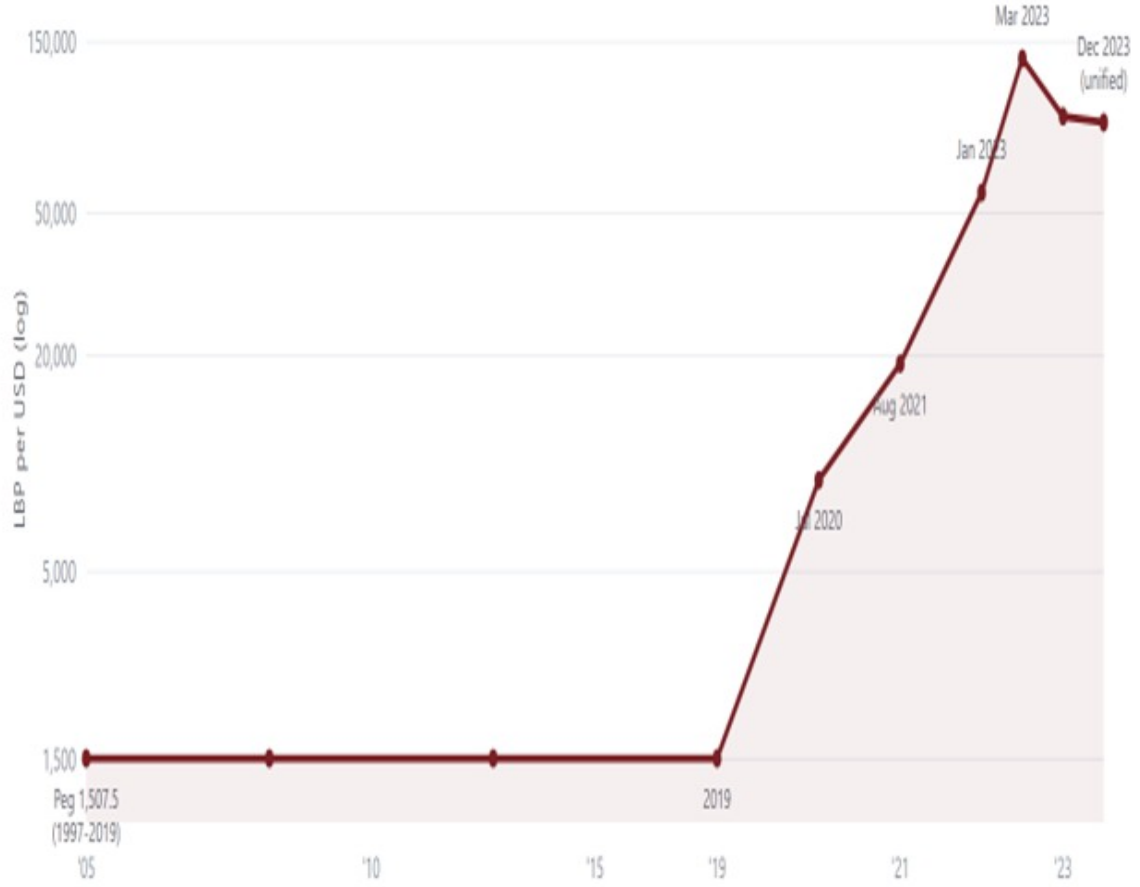
The Lebanese lira was pinned at 1,507.5 per dollar from 1997 to 2019. When the scheme failed it disintegrated; the parallel-market rate peaked near 134,900 in March 2023, and the gap between the official and street rate, a direct proxy for lawless, informal control, blew out past 12× (Figure 9). A pure-shock story cannot produce this discontinuity. A rate frozen by policy for over two decades broke ~90-fold once the captured scheme hit its mathematical limit.

Figure 8 · The cost of propping up a captured system (US$ billions)



Sources: Alvarez & Marsal BdL forensic audit (via BLOMINVEST); Executive Magazine; Lazard plan; IMF Article IV 2023; World Bank LEM Fall 2022.

Figure 9 · Currency collapse — parallel-market rate, 2005–2023 (log scale)
Lebanese lira per US dollar, parallel market, log scale (each gridline ~3× the one below). Flat for fourteen years in view, then vertical.



Sources: BLOMINVEST/BRITE, Al Jazeera, Reuters, ReliefWeb, The National, L'Orient Today. Unified at ~89,500 in Dec 2023.

- **Patronage spending:** Capture has a budgetary footprint: money flowed to patronage (wages, subsidies, sweetheart contracts) and away from productive investment. *Électricité du Liban* is the emblem, tens of billions transferred for a grid delivering a few hours of power a day. As the formal system froze depositors out, nearly half the economy fled into untraceable cash. Misallocation is directly measurable.

Figure 10 · Where the budget went

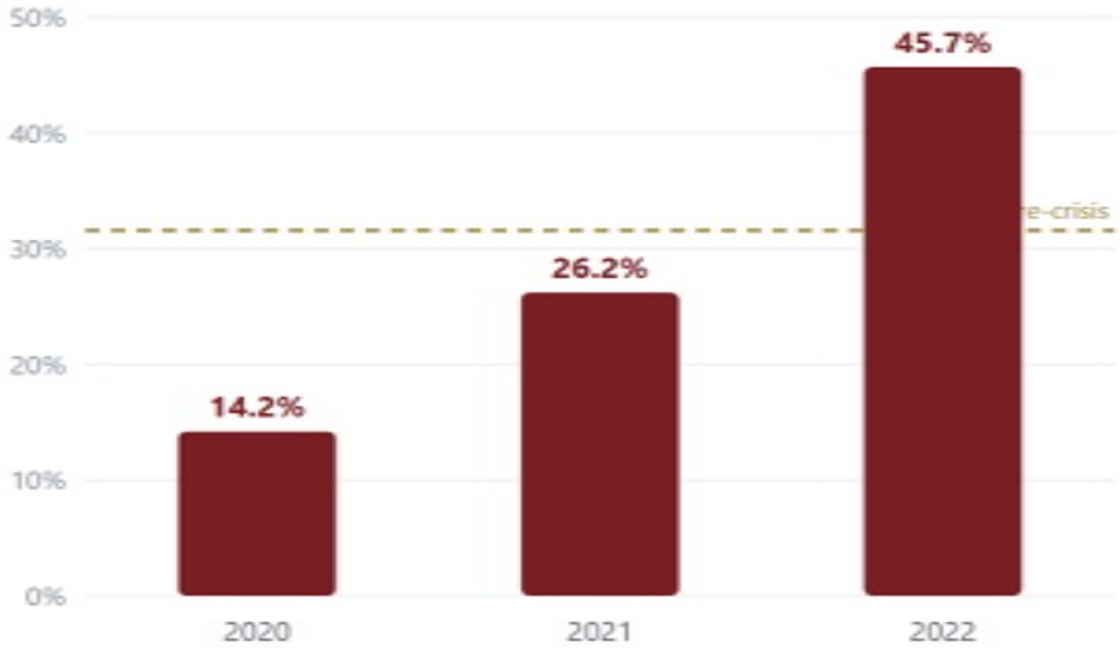
Where the budget went	Figure	Period / source
Capital expenditure (productive investment)	~1.5–2% of GDP	2008–2017 · WB PFR
Interest — share of all revenue	50.8% (world's highest)	2016 · World Bank WDI
Personnel/wages — share of budget	60–66%	2023 · The Policy Initiative
Rigid spending (wages+interest+EdL)	>75% of budget	historical · W. Hassan
EdL transfers, cumulative (~46% of public debt)	~$40–43bn	1992–2020 · HRW 2023
Electricity delivered, post-crisis	1–3 hrs/day	2021–2022 · HRW

Source: Human Rights Watch "Cut Off From Life Itself" (2023); World Bank electricity reports. Collapse in service delivery is a tangible proxy for rent extraction / starved public good G.

- **Shadow-economy size** — estimated via currency-demand or MIMIC models (Medina & Schneider datasets cover Lebanon)

Figure 11 · Flight into cash, 2020–2022

Share of GDP transacted in untraceable cash. Dashed line = pre-crisis shadow economy (~32% of GDP).



Sources: World Bank LEM Spring 2023; Medina & Schneider IMF WP/18/17; HRW 2023; WB Public Finance Review 2022.

Empirical Application: Lebanon, 1993–Present

Model, Results and Discussion

We now formalize the transmission mechanism from elite capture to systemic collapse. The "deep state" concept, characterized by entrenched, non-transparent networks of elite actors within political and financial institutions, can be precisely modelled through the mechanics of the Predator's Dilemma. In the context of Lebanon's systemic economic crisis, the structural breakdown occurred when the return on political rent-seeking and wealth extraction systematically eclipsed the returns on productive macroeconomic investment. Faced with weak institutional constraints and a fragmented regulatory environment, dominant factions across the political-financial nexus abandoned wealth-creating cooperation in favor of aggressive wealth expropriation. This shifted the entire Lebanese economy away from a sustainable, productive equilibrium and locked it into a destructive, predatory cycle. Ultimately, this structural distortion institutionalized systemic corruption and capital depletion, rendering the eventual collapse of the financial architecture not an anomaly, but the predictable Nash equilibrium of a coordinated predatory game.

1. Formalizing the transmission Mechanism from Elite Capture to Systemic Collapse

1.1 Setup: The Predator's dilemma

Consider a closed economy in which total output **Y** depends on private capital **K** and productive public goods/infrastructure **G**, under a standard Cobb-Douglas technology:

where **A** is total factor productivity and $\alpha \in (0,1)$ is capital's income share.

1.2 The capture mechanism

The state levies a flat tax τ on output to finance infrastructure. But an entrenched elite captures the regulatory apparatus and diverts a fraction $\theta \in [0,1]$ of revenues into off-budget patronage, inflated contracts, and sectarian subsidies. Resources actually reaching productive public goods are therefore:

Substituting back and solving for **Y** shows how extraction scales down the entire economy:

1.3 The crisis threshold (proof of collapse)

The return on private investment is the marginal product of capital:

As the elite entrenches, or as external capital dries up, it must raise the extraction rate to sustain patronage, so $\theta \to 1$. Then:

When MPK falls below the global real interest rate plus depreciation, private capital strikes: investment halts, K → 0, and the tax base collapses. The model thus predicts a sharp, discontinuous crisis, not a smooth decline, which is the distinctive empirical signature we look for in Lebanon.

1.4 The three-phase trajectory, 1993–present

The collapse condition of §1.3 is not only an inequality; it carries a date. Mapping the model onto Lebanon's post-war history yields three phases, and the passage from the second to the third is the discontinuity the model predicts and §2.4 tests for.

Phase I — Rent stabilization (1993–2015). High global rates, heavy diaspora remittances and regional inflows masked structural decay, the placid GDP climb of Figure 2. The fixed peg subsidized consumption, and the elite extracted large rents, a high θ, while infrastructure stayed starved: across these years capital spending never rose above roughly a tenth of government revenue (Figure 12). From 2008 the post-Doha "blocking third" handed Hezbollah and its allies a veto over the entire system, locking the rent-sharing arrangement in place and insulating it from reform (§3.1). The arrangement then began to outlast its own funding. Regional inflows slowed after 2011, and investment shows an early, gentler break at 2014/15, softening from a boom-era level near 25% of GDP to a plateau near 20% (§2.4). Capture was tightening quietly before it detonated.

Phase II — The Predator's Dilemma and Financial Engineering (2015–2019). Regional inflows slowed further and the deficit turned structural. BdL's 2016 Financial Engineering (Figure 8) lured the banks out of private lending and into the central bank. This is the deliberate domestic choice that crowded out the real economy, visible as investment rolling over from 2018 (Figure 4) and as θ climbing toward 1 (Figure 12), before COVID-19 or the port blast.

Phase III — Systemic banking collapse (2019–present). By late 2019 the scheme hit its limit and θ breached the threshold. A sudden stop triggered acute illiquidity; the banks defaulted on their depositors; the sovereign defaulted on its Eurobonds in March 2020; GDP cratered by 21.4% (Figure 3); the currency broke roughly ninety-fold (Figure 9); inflation reached 221% (Figure 5). As the state's finances collapsed, Hezbollah's parallel economy stepped into the vacuum, importing Iranian fuel outside customs in 2021 and leading the obstruction of the port-blast inquiry, the captured order outliving the state that hosted it (§3.1, §3.4).

2. Applying the model: proxies, operationalization and results

This section bridges the illustrative model to an *estimable* one, assigning a measurable proxy to every variable in the Predator's Dilemma.

Recall the model: $\mathbf{Y = A \cdot K^{\alpha} \cdot G^{1-\alpha}}$, with $\mathbf{G = (1-\theta) \cdot \tau \cdot Y}$, which yields $\mathbf{MPK = A^{1/\alpha} \cdot [(1-\theta)\tau]^{(1-\alpha)/\alpha}}$ and predicts collapse as the extraction rate $\boldsymbol{\theta \to 1}$.

θ is the "deep state" parameter which will be identified through each proxy independently to check if the estimates agree and spike together into 2019.

3 ways to compute θ: Accounting/standard estimate; Latent governance index; Channel-specific rent proxies.

Symbol	Meaning	Suggested proxy	Source
Y	Output	Real GDP in **constant local currency** (or PPP); optionally non-remittance GDP to isolate domestic production	WB / IMF
K	Productive private capital	**(a)** Perpetual-inventory stock from *private* gross fixed capital formation; **(b)** real **bank claims on the private sector** (the crowding-out flow)	WB; BdL / IMF IFS
G	Productive public goods	**(a)** Public-capital stock (PIM from capital expenditure); **(b)** service-delivery index (EdL electricity hrs/day, water access)	WB PFR; IMF; HRW
A	Total factor productivity	**Solow residual** $A = Y / (K^{\alpha} \cdot G^{1-\alpha})$; or Penn World Table *rtfpna*	computed / PWT
α	Private-capital elasticity	**Calibrate** ≈ 0.33–0.40 and sensitivity-test (model omits explicit labour, so read α as private capital's elasticity)	national accounts
τ	Fiscal take	**General government revenue / GDP** (or tax revenue / GDP); Lebanon ≈ 15–21 %	IMF / WB fiscal
δ	Depreciation	**Calibrate** ≈ 5–7%	standard
θ	Capture / diversion rate	*Latent — estimated two ways 2.1, 2.2;2.3); break-tested in 2.4*	multiple
MPK	Return on private capital	α·Y/K (fitted); real private lending rate; or inverse ICOR (incremental output / capital)	BdL / computed
θ*	Collapse threshold	Year where MPK proxy falls below **r* + δ**, with r* = world real rate (US 10-yr TIPS)	FRED / computed

2.1 θ Estimate: Accounting/structural estimator

Since $G = (1-\theta)\tau Y$, then $\boldsymbol{\theta = 1 - G / (\tau Y)}$, the share of revenue that *never becomes* productive public goods. If we proxy G by public investment and τY by total revenue the direct annual θ series is shown in figure 12.

WORKED EXAMPLE — A FIRST Θ FROM ALREADY EXISTING FIGURES

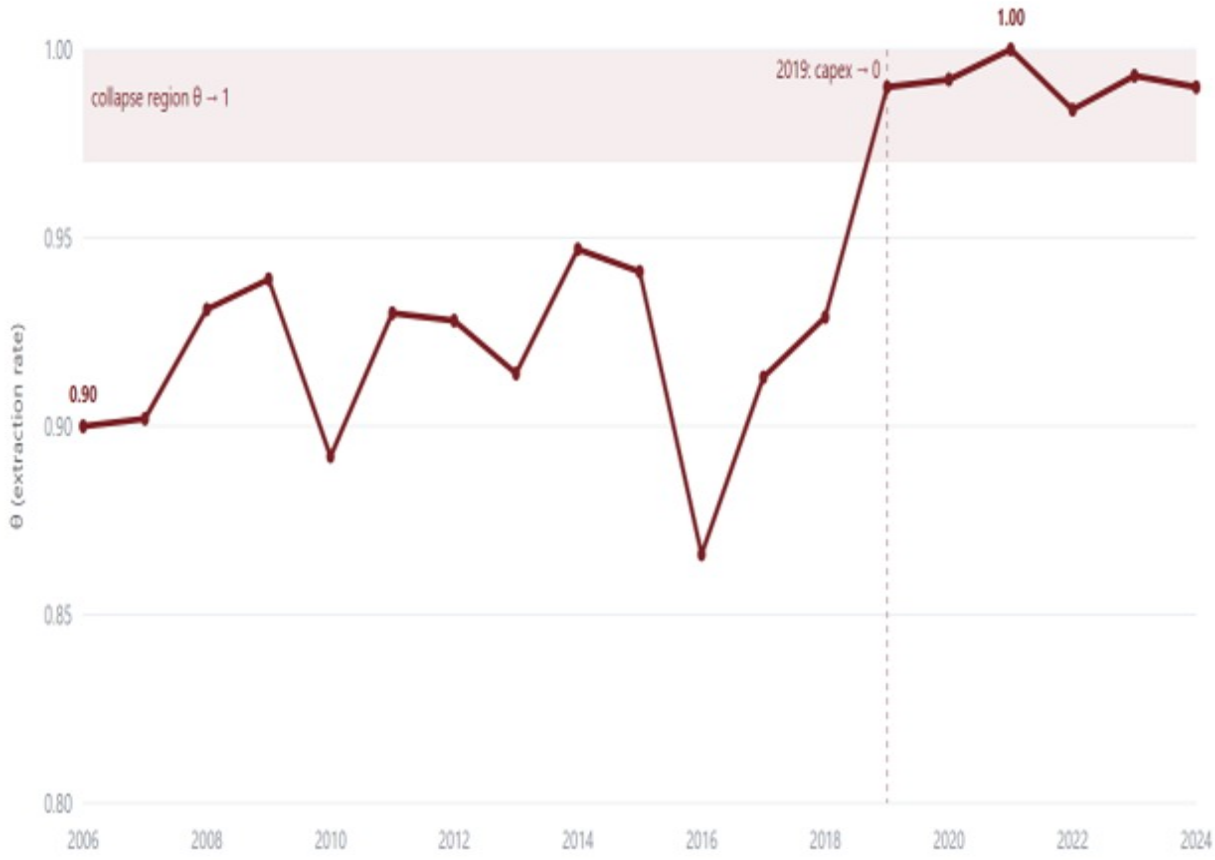
Using the documented anchors: productive public investment **G ≈ 1.5–2% of GDP** and government revenue **τY ≈ 15–21% of GDP**. Then

$$\theta = 1 - G / (\tau Y) \approx 1 - (2 / 19) \approx 0.88 - 0.92.$$

Roughly **90% of the resources nominally available for productive public capital never reached it,** an extraction rate already deep in the model's collapse region *well before* 2019. Caveat: this uses capex as a narrow proxy for G; broadening "diverted" to include patronage wages, EdL transfers and inflated procurement pushes the measured rent share higher still. The annual series in Figure 12 below computes θ year by year from IMF Article IV and World Bank fiscal data, and it confirms the estimate.

Figure 12· The actual capture rate, θ = 1 − G / (τY), 2006–2024

θ computed year by year from government capital expenditure (G) and total revenue (τY), both as % of GDP. Higher θ = more fiscal resources diverted from productive public capital. Shaded band = the model's collapse region (θ → 1).



θ never sat below ~0.87 even in the "good" years, roughly **nine-tenths of fiscal resources never reached productive public capital,** then jumped to **~0.99–1.00 from 2019** as capital spending collapsed to zero. The model's collapse condition (θ → 1) is not hypothetical; it is what the fiscal accounts actually did, precisely at the crisis. (Definitional note: 2006–2015 used

the IMF budget capex line; 2016–2024 used the World Bank public-investment series, a small framework change at 2016, which is why the line dips that year.)

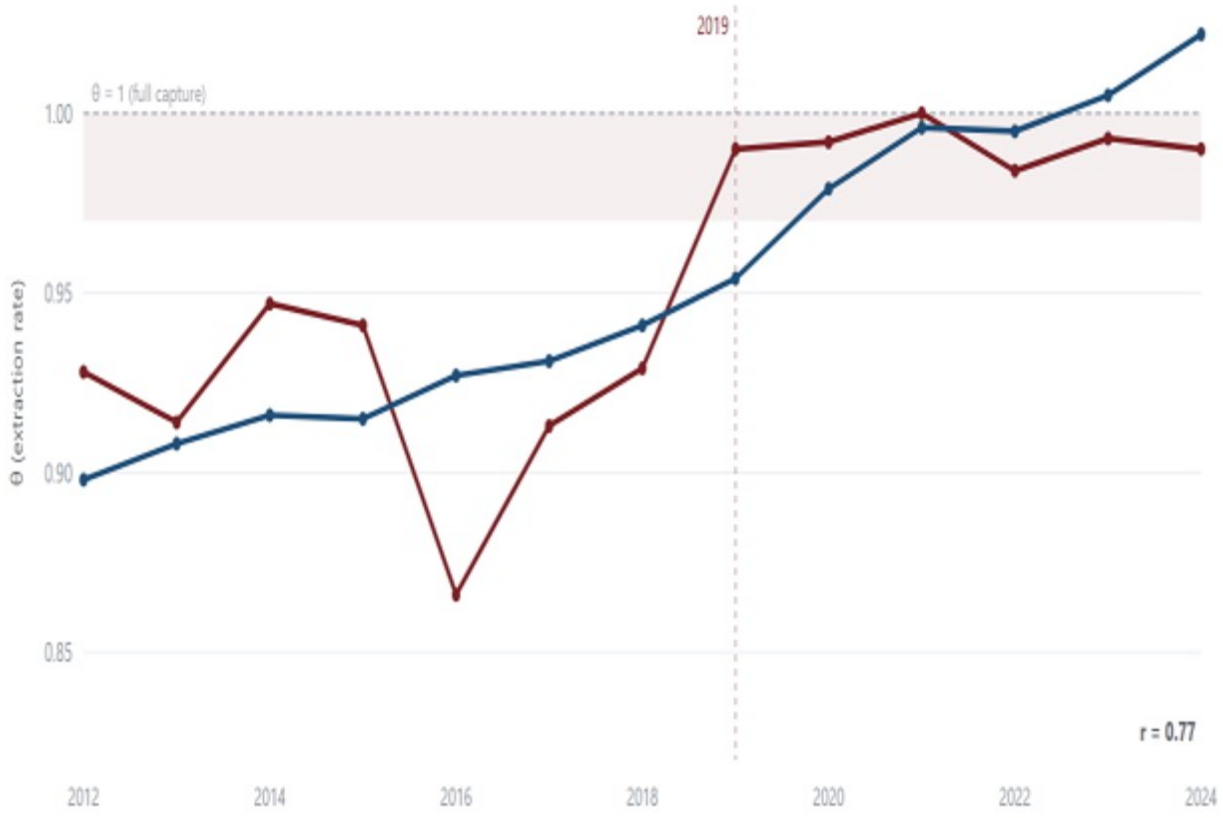
Year	Capex %GDP (G)	Revenue %GDP (τY)	(1−θ) = G/τY	θ	Source basis
2006	2.5	25.1	0.100	0.900	IMF Art. IV
2007	2.4	24.4	0.098	0.902	IMF Art. IV
2008	1.7	24.8	0.069	0.931	IMF Art. IV
2009	1.5	24.6	0.061	0.939	IMF Art. IV
2010*	2.6	24.1	0.108	0.892	IMF (proj.)
2011	1.6	22.8	0.070	0.930	IMF Art. IV
2012	1.6	22.3	0.072	0.928	IMF Art. IV
2013	1.8	20.9	0.086	0.914	IMF Art. IV
2014	1.1	20.8	0.053	0.947	IMF (2017 actuals)
2015	1.1	18.8	0.059	0.941	IMF (2017 actuals)
2016	2.6	19.4	0.134	0.866	World Bank MPO
2017	1.9	21.9	0.087	0.913	World Bank MPO
2018	1.5	21.0	0.071	0.929	World Bank MPO
2019	0.2	20.8	0.010	0.990	World Bank MPO
2020	0.1	13.1	0.008	0.992	World Bank MPO
2021	0.0	7.5	0.000	1.000	World Bank MPO

2.2 Latent governance index

Standardize and combine WGI Control of Corruption, Rule of Law and Government Effectiveness; V-Dem clientelism, political corruption and executive corruption; and the (inverted) CPI into a 0–1 index, the measurement core of a Multiple Indicators Multiple Causes model (MIMIC / structural-equation model)[1] in which the accounting θ is the anchor and the governance indices are the indicators (Figure 13).

Figure 13 · Two independent θ estimators converge, 2012–2024

Dark red = structural/accounting θ (Figure 12, the fiscal identity). Blue = governance-index (MIMIC) θ (latent factor, anchored to the same scale). Shaded band = collapse region; dashed line = θ = 1.



Two estimators built from entirely different data, one from the budget, one from governance indices, correlate at r = 0.77 and both climb into the collapse band, reaching θ ≈ 1 by 2019–2021. The accounting θ steps sharply (the fiscal cliff is abrupt); the governance θ rises more gradually (institutional erosion is slower-moving), but

[1] The index is constructed using a Multiple Indicators Multiple Causes (MIMIC) model, a Structural Equation Modelling technique that estimates an unobserved latent variable by simultaneously mapping it against its causal drivers and its observable symptoms or indicators, thereby capturing complex dynamics while explicitly accounting for measurement error.

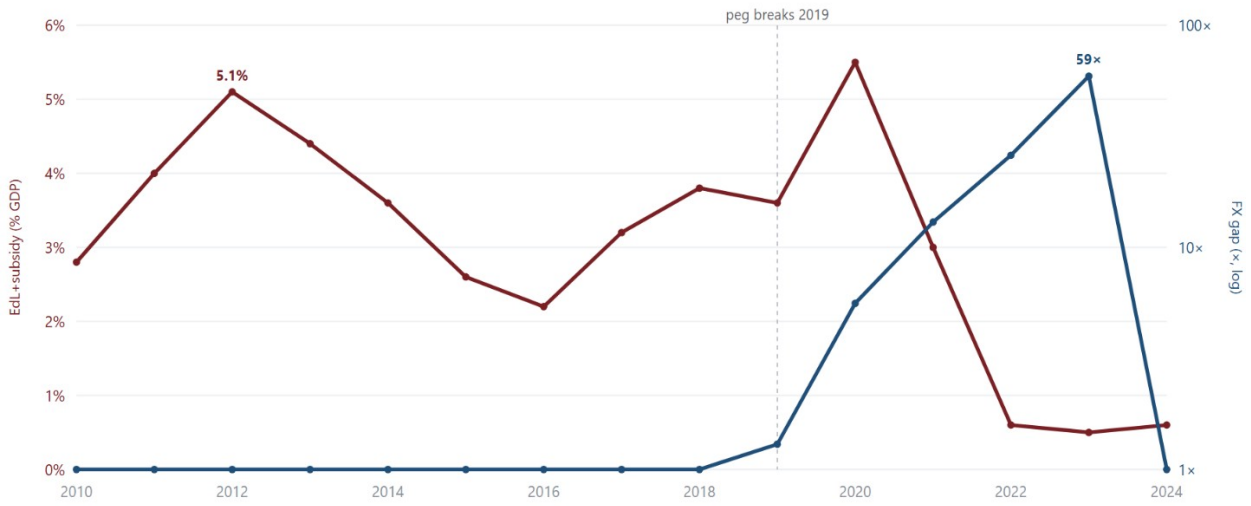
they agree on direction, timing and endpoint. Convergence from independent sources is exactly the triangulation §2 calls for.

2.3 Channel-specific rent proxies

The third leg is to check the *channels*, the specific conduits through which rent actually left the public's pocket, and confirm they move on the same timeline. Two conduits dominate, and both are **Hezbollah's home turf**: the **EdL / fuel-subsidy drain** (the fiscal-leakage channel, the subsidised fuel Hezbollah smuggled to Syria) and the **official-versus-parallel FX gap** (the informal-control channel, the parallel economy Hezbollah runs through Al-Qard al-Hassan and the cash sector). Plotting them together shows what the single θ number hides: as the peg broke, the locus of extraction *migrated* from the budget into the parallel economy, out of the fiscal accounts and into precisely the informal space Hezbollah controls.

Figure 14 · Where the rent went, the two capture channels, 2010–2024

Left axis (red): EdL transfers + BdL fuel subsidy, % of GDP or the fiscal-leakage channel. Right axis (blue, log): the official-versus-parallel exchange-rate gap (parallel rate ÷ 1,507.5 peg), informal-control intensity. The dashed line marks the 2019 peg break.



Sources: World Bank Public Finance Review and HRW "Cut Off From Life Itself" (2023), BLOMINVEST/BRITE, Reuters, L'Orient Today); rate unified at ~89,500 in Dec 2023. The EdL/subsidy %-of-GDP series is indicative, compiled from the anchors above with gap years interpolated.

EdL and fuel subsidies running **3–5% of GDP** peaked to 5.1% in 2012. When the peg broke, that channel spiked one last time, the 2020 fuel subsidy that helped drain BdL reserves from **$40bn to $15bn**, then was switched off when subsidies were removed in 2021. Extraction did not stop; it re-surfaced in the **informal** channel, the FX gap blowing out to **~59×** by 2023. The gap's 2024 collapse is the *unification* of the rate (the official rate moved up to meet the street), not a return of honest governance. θ stayed ≈0.99. The rents simply moved into the cash-and-parallel.

Year	EdL + subsidy, % GDP	FX gap (parallel ÷ official)
2010	2.8	1.0
2012	5.1	1.0
2015	2.6	1.0
2018	3.8	1.0
2019	3.6	1.3
2020	5.5	5.6
2021	3.0	13
2022	0.6	26
2023	0.5	59
2024	0.6	1.0

Converting the channel into a rate. The two channels establish *where* and *when* the rent left. The EdL channel can be pushed one step further, into an actual extraction rate on the same 0–1 scale as §2.1 and §2.2, because electricity is the one sector in which the model's two objects are separately observable: the public resources sunk in, and the public good that came out. Applying the model identity to the sector alone gives $\theta(\text{EdL}) = 1 - (\text{value of the electricity users actually paid for}) \div (\text{economic cost of supplying it}) = 1 - \rho \cdot \kappa$, where ρ is the *cost-recovery ratio* (the average applied tariff as a fraction of the cost of supply) and κ is the *billed-and-collected share* (the fraction of generated electricity that was billed and paid for). Everything the subsidy bought that was never generated, never billed, never collected, or bought above market from connected suppliers falls inside $\theta(\text{EdL})$ by construction.

Both inputs are documented for the pre-2019 regime. EdL's tariff was set in the mid-1990s against oil at roughly $22–23 a barrel and left unchanged until 2022, so it drifted further below cost as oil rose: by 2017 the average applied tariff was $0.095/kWh against a cost of generation of $0.17–0.23/kWh. Over the same period the Ministry of Energy and Water's own 2019–20 accounting found that 40–45% of the electricity EdL generated was never paid for, technical losses compounded by theft and non-collection, against a global norm of 5–10%.

Input	Value used	Source basis
Average applied tariff (2017)	$0.095 / kWh	MoEW-based sector analyses
Cost of generation	$0.17 – 0.23 / kWh	MoEW; World Bank
Cost-recovery ratio, ρ	0.41 – 0.56	computed; 2010 check = 0.55
Billed-and-collected share, κ	0.55 – 0.60 (40–45% unpaid)	MoEW 2019–20; HRW 2023
θ(EdL) = 1 − ρ × κ	**0.66 – 0.77 (central ≈0.71)**	**computed**
θ(EdL) at breakeven $0.30/kWh	0.81	computed (upper variant)
Memo: transfers to EdL	3.8% of GDP/yr; $1.8bn (2018)	World Bank PFR 2022
Memo: cumulative advances	$40–43bn ≈ 46% of public debt (2020)	World Bank; HRW 2023

Those anchors bound the sectoral capture rate. The cost-recovery ratio is ρ = 0.095 ÷ (0.17…0.23) = 0.41–0.56, corroborated independently by the finding that in 2010 EdL's price covered only 55% of production cost; the billed-and-collected share is κ = 0.55–0.60. Hence θ(EdL) = 1 − ρ·κ ≈ **0.66 – 0.77**, with a central estimate of **≈ 0.71**. Roughly seven-tenths of every dollar of economic cost sunk into Lebanese electricity never came back as electricity the public received and paid for. Substituting the Ministry's own breakeven tariff of $0.30/kWh, which prices transmission, distribution and overheads, not generation alone, gives ρ = 0.32 and θ(EdL) ≈ 0.81, so the 0.66–0.77 band is itself the conservative reading.

The estimate is consistent with the fiscal record, which is a real check because it shares none of the same data. Since the Treasury covers whatever the tariff does not, the transfer is by identity the same share of cost: T ÷ cost = 1 − ρ·κ = θ(EdL). A θ(EdL) of 0.71 against transfers averaging 3.8% of GDP therefore implies a total sector cost near 5.4% of GDP and EdL revenue near 1.5%, about $2.9bn and $0.8bn respectively on 2018 GDP, with an implied transfer of ~$2.1bn against the $1.8bn EdL deficit actually reported for 2018. The two routes agree to within roughly fifteen per cent.

How to read θ(EdL). It sits below the fiscal θ of ≈0.9 (Figure 12), and it should: EdL did deliver some real, paid-for electricity, whereas the aggregate budget identity of §2.1 has no such offset. θ(EdL) is therefore a *conservative floor*, not a rival estimate, and its worth lies in being built from tariffs, generation costs and unpaid-bill rates , data that touch neither the fiscal aggregates of §2.1 nor the governance indices of §2.2. Its *movement* is the more telling part. Subsidies were removed in 2021 and the tariff was raised in November 2022 to $0.10/kWh for the first 100 kWh and $0.27/kWh above it, roughly cost-reflective for the first time in a quarter-century: ρ jumps, transfers collapse to 0.5–0.6% of GDP (table above), and θ(EdL) falls sharply. Yet the aggregate θ stayed at ≈0.99. The fiscal channel did not become honest, it was *closed*, and the rent migrated into the informal channel, exactly as the FX-gap column records.

The scale of what this one conduit carried is worth stating plainly: cumulative Treasury advances to EdL reached roughly $40–43bn by 2020, about 46% of Lebanon's public debt. The single channel that §3.1 identifies as Hezbollah's fiscal home turf accounts for nearly half of the debt whose default detonated the crisis. A caveat kept in the open: ρ and κ are regime averages, and consistent annual series for EdL's collected revenue and billed volumes are not published, so θ(EdL) is a level estimate for the pre-2019 regime rather than a year-by-year series. That is why Figure 14 continues to plot the channel rather than the rate.

Sources: average applied tariff ($0.095/kWh, 2017) and cost of generation ($0.17–0.23/kWh) — sector analyses drawing on Ministry of Energy and Water data (BLOMINVEST; Executive Magazine); MoEW, Updated Policy Paper for the Electricity Sector (March 2019). 2010 cost-recovery ratio (price = 55% of production cost) — EdL / MoEW. Unpaid share of generated electricity (40–45%) — MoEW 2019–20 accounting, reported in Badil, "New EDL Tariffs" (2023); see also Human Rights Watch, "Cut Off From Life Itself" (2023). Breakeven tariff ($0.30/kWh) and the November 2022 schedule ($0.10/$0.27 per kWh, effective February 2023) — MoEW / EdL. Transfers to EdL (≈3.8% of GDP; $1.8bn deficit in 2018) — World Bank, Lebanon Public Finance Review: Ponzi Finance? (2022). Cumulative Treasury advances (≈$40–43bn, ≈46% of public debt at end-2020) — World Bank; HRW (2023). θ(EdL) computed by the author from these anchors.

This third estimator now yields a number of its own: θ(EdL) ≈ 0.71 in the pre-2019 regime, computed from tariffs, generation costs and unpaid-bill rates , data independent of both the budget identity (§2.1) and the governance indices (§2.2). It is a floor rather than a rival to the fiscal θ, and it validates level and timing from a third direction. It also localises Hezbollah in θ: the two channels it dominates are exactly the two that carried the measured rent, first fiscally, through the EdL/subsidy drain it smuggled against, then informally, through the parallel-FX economy it runs. Three estimators, three independent data sources, one capture.

2.4 Testing the reliability of θ

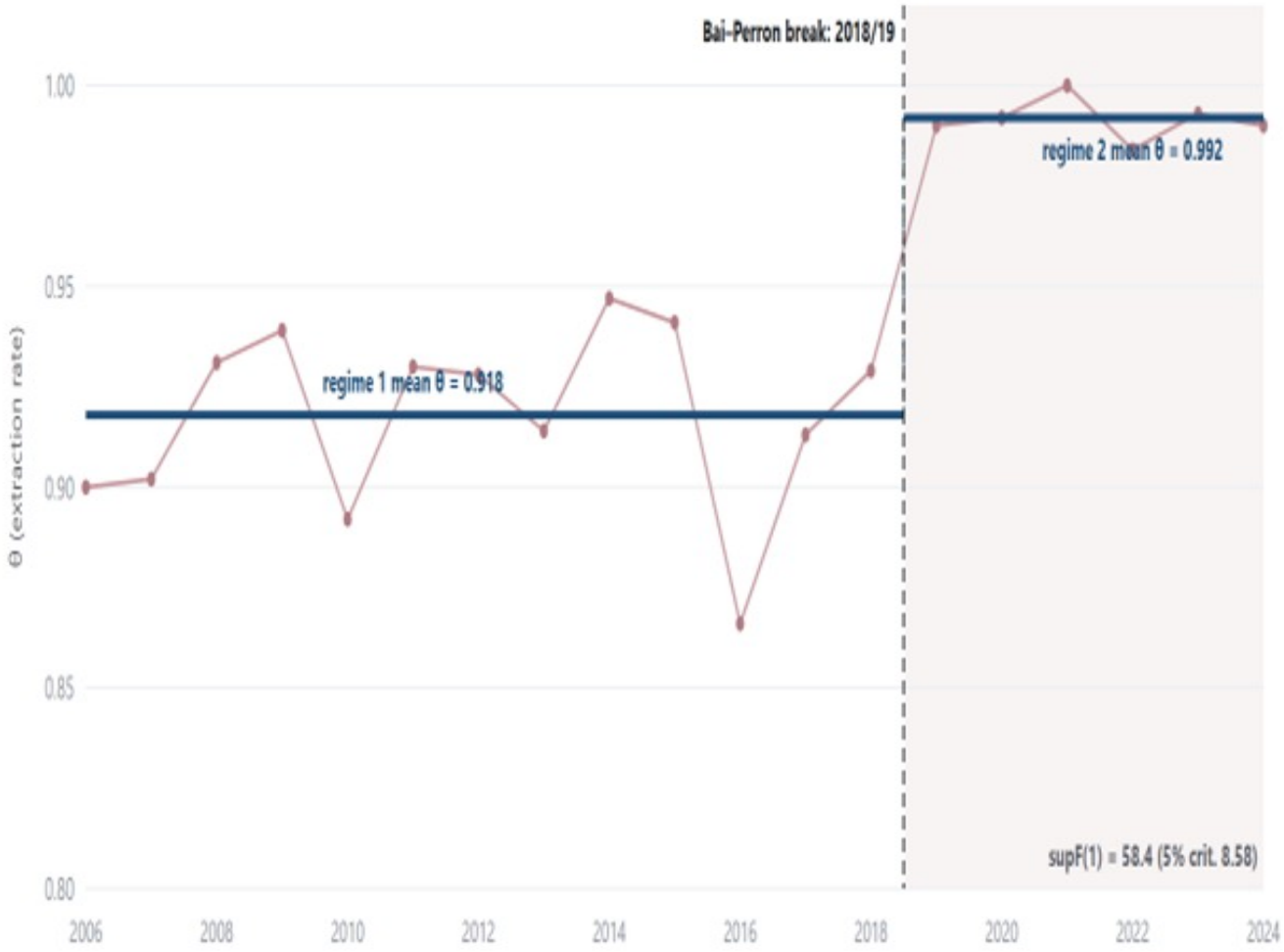
The model's distinctive claim is a discontinuity, an abrupt collapse, not a smooth decline due to exogenous economic shocks. Thus, to ensure the stability and reliability of our estimates across the entire sample period 2006- 2024, we employ the Bai-Perron (1998, 2003) structural break test. Unlike traditional frameworks that require pre-specifying a known date for an economic shift (such as a specific policy implementation or a market crash), the Bai-Perron approach endogenously detects the *exact timing* of a structural shift directly from the data.

Three series, three independent tests, one verdict: the dominant structural break lands in **2017–2019** (Financial Engineering 2016 → contraction onset 2018 → systemic collapse 2019), and **before** COVID-19 (2020) and the Beirut port explosion (August 2020). A pure-shock account predicts a break *coincident* with the shock; the data instead place them earlier, on the domestic policy choices. Investment even shows an earlier, gentler break at 2014/15 (boom-era ~25% of GDP softening to a ~20% plateau) *before* the 2019/20 collapse to ~4%, capture quietly tightening before it detonated.

Series tested	Window	Breaks (BIC)	Break date(s)	Regime means	supF(1)	5% crit.
θ (accounting)	2006–2024	1	**2018/19**	0.918 → 0.992	58.4	8.58
Investment (% GDP)	2005–2023	2	2014/15 & **2019/20**	25.1 → 20.2 → 4.1	121.0	8.58
Real GDP growth	2005–2024	1	**2017/18**	+4.1 → −6.6	19.9	8.58

Figure 15· Bai–Perron structural-break test on θ, 2006–2024

Faint red = observed θ. Bold blue = the Bai–Perron fitted regime means (the model the test selects). Black dashed line = the estimated break date; shaded = the post-break regime.



3. Discussion

3.1 The keystone veto player: Hezbollah and the armed enforcement of capture

The proxies above describe *what* capture did to the economy; they do not name *who* made it unbreakable. Confessional blocs, the Free Patriotic Movement, the Lebanese Forces, the Future Movement, the Progressive Socialist Party, and Amal, all drew rents from the same *muhasasa* system. But one actor sat above the rest, because it alone held a coercive veto the others could not override: Hezbollah, the armed guarantor of the deep state, and the principal reason the captured equilibrium survived every attempt to break it:

A structural veto over the entire executive. Since the 2008 Doha Agreement, settled only after Hezbollah's armed takeover of west Beirut, the Hezbollah-led March 8 bloc repeatedly secured a *"blocking third"* of cabinet seats, enough to collapse any government or freeze any decision it opposed. The veto is also wired into the machinery of state: most Lebanese decrees and appointments require the Finance Minister's signature (the "third signature," alongside the president and prime minister), and the Hezbollah–Amal "Shia duo" has controlled that ministry continuously since 2014. A reform that threatens elite rents can thus be vetoed twice

over, in cabinet and at Finance, by a single alliance. With Speaker Nabih Berri holding parliament since 1992, this is veto-player entrenchment in its purest form.

Ministerial patronage. Hezbollah took the Ministry of Public Health, Lebanon's fourth-largest budget (~$338m/yr), in January 2019 and held it until September 2021, directing state-funded jobs, contracts, medicine and equipment to its base and to its own parallel welfare network (the Islamic Health Authority): the textbook conversion of public goods into clientelist rent.

A parallel economy outside the state. Hezbollah's distinctive contribution to diverted public revenues is what it does *outside* the budget. It runs Al-Qard al-Hassan, an unlicensed institution that has operated as a deposit-taking bank beyond central-bank oversight for some forty years, a parallel banking system that widens the very formal-versus-informal gap that the official-versus-street FX spread measures as "lawless, informal control." It also controls the network of illegal border crossings through which an estimated two million litres of subsidised fuel a day were smuggled into Syria at the peak of the subsidy regime, bleeding the central-bank reserves (fuel was priced at the 1,507.5 peg while the street rate ran past 8,000), a loss put near $400m a year. In September 2021 it went further, importing Iranian fuel through the Syrian port of Baniyas on its own sanctioned trucks, bypassing Lebanese customs entirely. Analytically it is capture's endpoint, a non-state actor supplanting the state outright.

Why it is the principal driver. Hezbollah is *not* the largest line in the diverted fiscal revenues skimmed from the Lebanese budget. Its weight falls on the other two estimators: it is the heaviest single contributor to the governance index of §2.2 (the armed veto pinning the rule-of-law and clientelism indices at their worst) and to the informal-control channel of §2.3 (the parallel bank, the smuggling, the FX gap). That is what makes it the keystone: the others could extract, but only Hezbollah could *guarantee* that no judge, no reformist cabinet and no IMF program would ever force the system to stop. The Predator's Dilemma needs an enforcer; Hezbollah is it.

Sources: Doha Agreement & "blocking third": INSS, "Lebanon after the Doha Agreement"; Reuters. Finance-Ministry "third signature" / Shia-duo control since 2014: The Washington Institute; France 24; Times of Israel. Health Ministry: The Washington Institute, "Why Does Hezbollah Want Lebanon's Health Ministry?"; Chatham House, "How Hezbollah Holds Sway over the Lebanese State." Al-Qard al-Hassan: U.S. Department of the Treasury (press releases sb0189, jy1135); Al Jazeera. Subsidised-fuel smuggling (~2m L/day, ~$400m/yr): Arab News; Daraj; L'Orient Today. Iranian-fuel imports (Sept 2021): The Washington Post; The National; USIP Iran Primer. Iran funding (~$700m/yr): U.S. State Department estimates via The Washington Institute / FDD.

Who held which channel. The *muhasasa* apportioned the administration itself, and the record of who held what is a matter of cabinet minutes rather than inference. The table below maps each rent channel this report measures to the actor that controlled it, over the period it controlled it.

Channel or institution	Controlled by	Period	What it carried
Electricity: EdL and the fuel subsidy (Ministry of Energy and Water)	Free Patriotic Movement (Bassil, Abi Khalil, Boustani, Ghajar); Tashnag, an FPM ally, in the interval (Nazarian)	2009–2021, continuous	Transfers ≈3.8% of GDP a year; θ(EdL) ≈ 0.71; ≈$40–43bn cumulative, ≈46% of public debt
Public finance: the "third signature" (Ministry of Finance)	Amal and Hezbollah (the "Shia duo")	2014–present	A veto over every decree and senior appointment
The legislature	Amal (Nabih Berri)	1992–	A veto over all legislation,

Channel or institution	Controlled by	Period	What it carried
(Speakership)		present	loss-allocation laws included
Public health (fourth-largest budget)	Lebanese Forces (Hasbani, also Deputy PM); then Hezbollah's nominees (Jabak, Hamad Hassan)	2016–2021	≈$338m a year; under Hezbollah, steered to its base and to the Islamic Health Authority
Social affairs and information; later labour (assistance budgets, state media, work permits)	Lebanese Forces (Bou Assi, Riachi; then Kouyoumdjian, Abou Sleiman, Chidiac)	2016–2019	Held until the party left government in October 2019. This report measures no rent magnitude for these portfolios
Reconstruction contracting (Council for Development and Reconstruction)	Office of the Prime Minister (Rafic Hariri); Berri later on the board	1991 onward	State and donor project funds, exempt from advance oversight by the Court of Accounts
Displacement funds (Ministry of the Displaced, Central Fund for the Displaced)	Progressive Socialist Party (Walid Jumblatt)	1990s onward	≈$800m disbursed, roughly a quarter of the displaced returned (press reporting; no audited accounts)
Commercial banking (ownership)	Political families across all blocs	2014; 2022	18 of the 20 largest banks politically linked; 43% of sector assets under political control (2014), 34% (2022); eight families hold 29% of shares

The table records institutional control, which is documented, and not culpability, which is not. Holding a ministry is not proof that its holder stole from it. What it establishes is who held discretion over a channel while the rent flowed through it, and who therefore had to consent to any reform of that channel. Two limits follow. A row records control, not extraction: for several portfolios, including those the Lebanese Forces held, this report measures no rent at all, which reflects the limits of the available data rather than a finding of probity. And the rows are not additive. They cannot be summed into party shares of θ, because the estimators of §2 measure aggregate extraction rather than its division among the extractors; no dataset apportions θ by party, and this report does not claim one. The *muhasasa* divided the whole administration, not only these eight conduits.

What the table does show is threefold. The largest single fiscal channel, electricity, which alone accounts for close to half the public debt, sat with one party and its ally for twelve uninterrupted years. The two vetoes that decide whether any of it can be undone, the Finance Ministry's signature and the Speaker's control of the

legislative calendar, have sat with another two parties since 2014 and 1992 respectively. And bank ownership, the mechanism through which the losses were eventually sequenced to protect insiders, spanned all of the blocs at once. Responsibility for the collapse is collective. Responsibility for its channels is not evenly distributed.

Sources: energy ministers from cabinet records, Gebran Bassil (Nov 2009–Feb 2014), Arthur Nazarian, Tashnag (Feb 2014–Dec 2016), César Abi Khalil (Dec 2016–Jan 2019), Nada Boustani (Feb 2019–Jan 2020), Raymond Ghajar (Jan 2020–Sep 2021), with ministerial profiles from Middle East Strategic Perspectives; EdL magnitudes as computed in §2.3. Public Health handover: Ghassan Hasbani, Lebanese Forces, also Deputy Prime Minister (Dec 2016–Jan 2019); Jamil Jabak, Hezbollah's nominee though not a member (Jan 2019–Jan 2020); Hamad Hassan, Hezbollah (Jan 2020–Sep 2021), per cabinet records, Al Jazeera and Haaretz. Other Lebanese Forces portfolios: Social Affairs (Pierre Bou Assi, then Richard Kouyoumdjian), Information (Melhem Riachi), Labour (Camille Abou Sleiman), Culture and Administrative Development (May Chidiac); the party left government in October 2019. Finance-Ministry "third signature" and Shia-duo control since 2014: The Washington Institute; France 24. Speakership: IPU Parline. Health Ministry as patronage vehicle: The Washington Institute; Chatham House. Council for Development and Reconstruction: Chatham House, "Breaking the Curse of Corruption in Lebanon" (2021); Baumann, "Social Protest and the Political Economy of Sectarianism in Lebanon." Ministry of the Displaced: contemporaneous press reporting, unaudited. Banking ownership: Jad Chaaban, "I've Got the Power: Mapping Connections between Lebanon's Banking Sector and the Ruling Class" (Economic Research Forum WP 1059, 2016; 2014 data), and "They Still Got the Power" (ERF WP 1678, 2023; 2022 data).

3.2 Where the rent went: the cash economy, the grey list, and the narcotics trade

Section 2.3 closed on a result the model did not have to deliver, and did. When the subsidy regime ended in 2021 and the electricity tariff was made roughly cost-reflective, the fiscal channel narrowed sharply: transfers to EdL fell from about 3.8% of GDP to 0.5–0.6%, and θ(EdL) fell with them. The aggregate extraction rate did not follow. It stayed at ≈0.99. Rent that can no longer be taken through the budget is not thereby surrendered; it changes address. This section sets out where it went, how large that space is, what it has cost Lebanon internationally, and which of the actors of §3.1 is best placed inside it.

The new address is cash. The World Bank estimates Lebanon's cash economy at US$9.9bn, or 45.7% of GDP, in 2022 (Figure 11). The comparison that matters is not with zero but with the pre-crisis baseline: Medina and Schneider put Lebanon's shadow economy near 32% of GDP before the collapse, so on the order of fourteen points of national income moved out of the banking system in three years. This is not the ordinary informality of a middle-income economy. It is a formal economy that has been evacuated. The World Bank's own account of what such an economy does is unusually blunt for the institution: it "threatens to compromise the effectiveness of fiscal and monetary policy," it "heightens the risk of money laundering," and it "increases informality, and prompts further tax evasion."

Read through the model, the cash economy attacks θ from an unexpected side. The accounting estimator of §2.1 is $\theta = 1 - G/(\tau Y)$, the share of collected revenue that never becomes productive public goods. A cash economy does not raise that ratio. It shrinks the quantity underneath it. What cannot be observed cannot be taxed, so τY contracts, and the public loses twice: once to the fraction θ diverts, and once to the base that never reaches the tax net at all. An extraction rate pinned near unity on a revenue base that has itself collapsed is a worse outcome than the number alone conveys, and it is why θ can sit at ≈0.99 in a year when the fiscal conduit that carried most of the measured rent has been shut. Nor is cash neutral as to who profits by it. An unsupervised, dollar-denominated cash economy is precisely the habitat in which an unlicensed deposit-taker operating outside central-bank oversight enjoys a comparative advantage. The conditions for the parallel bank of §3.1 improved as the formal system failed.

In October 2024 the international system put a price on it. On 25 October 2024 the Financial Action Task Force added Lebanon to its list of jurisdictions under increased monitoring, the "grey list," on the strength of the strategic deficiencies identified in the mutual evaluation conducted with MENAFATF and published in 2023. The FATF records that "in October 2024, Lebanon made a high-level political commitment to work with the FATF and MENAFATF to strengthen the effectiveness of its AML/CFT regime in spite of the challenging social, economic and security situation within the country," and set an action plan covering, among other items, the

assessment of money-laundering and terrorist-financing risks, beneficial-ownership transparency, mutual legal assistance and asset recovery, and the application of effective, proportionate and dissuasive sanctions for breaches of AML/CFT obligations. Lebanon remained listed after the plenary of 17–19 June 2026, one of twenty-two jurisdictions then under increased monitoring.

Grey-listing is not a symbolic reprimand. It raises the cost and reduces the availability of correspondent banking, imposes enhanced due diligence on transfers into and out of the country, and deters precisely the diaspora remittances and Gulf inflows on which Phase I of the trajectory depended (§1.4). The circuit therefore closes, and it closes in the direction the model predicts. Capture drove the banking system into insolvency; insolvency drove the economy into cash; and the cash economy has now triggered international measures that further restrict the external inflows whose earlier retreat precipitated Phase II. Note also where the burden of those measures falls. Enhanced due diligence is borne by the migrant worker wiring three hundred dollars home and by the firm seeking a letter of credit. It is not borne by an elite whose wealth left through the formal system before the controls, nor by an actor that never used the formal system at all. The distributive signature of §3.4 repeats itself.

The third channel is narcotics, and the evidence here must be handled with more care than it usually receives. The claim commonly made in the press, that Hezbollah produces captagon, is not what the primary record establishes, and this report does not adopt it. What United States authorities have found, repeatedly and under their own signature, is narrower and still substantial. In its February 2011 finding that the Lebanese Canadian Bank was a financial institution of primary money-laundering concern, the Treasury's Financial Crimes Enforcement Network stated that the network at issue had "laundered the proceeds" of cocaine sales in Europe and the Middle East, "as much as $200 million per month," that "Hizballah derived financial support from the criminal activities of this network," and that "LCB managers are linked to Hizballah officials outside Lebanon." The network's principal, Ayman Joumaa, had been designated by the Office of Foreign Assets Control under the Foreign Narcotics Kingpin Designation Act on 26 January 2011. On captagon specifically, OFAC's March 2023 designations state that Lebanese drug traffickers, "some of whom maintain ties to Hizballah," help facilitate the drug's export, and describe Hassan Muhammad Daqqou, whom the press calls the "King of Captagon," as smuggling across the Syria–Lebanon border "under the protection of Hizballah associates." OFAC's October 2024 action against a Hezbollah finance network and Syrian captagon traffickers describes a trade that has "benefitted Bashar al-Assad's regime and its allies, including Hizballah," and names a Lebanon-based trafficker "with ties to Hizballah." The Congressional Research Service states the position as it stands: Hezbollah "reportedly plays a role in the trafficking of amphetamine-type stimulants, marketed as captagon, along the Syrian border."

The limits of that record deserve stating as plainly as its contents. No primary United States government document reviewed here asserts that Hezbollah manufactures captagon. Industrial production was Syrian, organized around the Fourth Division of the Syrian army under Maher al-Assad; the UN Office on Drugs and Crime reports Syria as the indicated country of origin for roughly four-fifths of the captagon seized since 2019, and does not name Hezbollah at all. The official formulations are consistently those of ties, protection, facilitation and benefit, not ownership. Saudi Arabia's April 2021 ban on Lebanese fruit and vegetable imports, imposed after more than 5.3 million captagon pills were found concealed in a pomegranate consignment at Jeddah, was directed at Lebanon's failure to police its exports rather than at any named party. And the claim, current since the fall of the Assad regime in December 2024, that captagon manufacture has relocated into the Beqaa under Hezbollah's protection rests on think-tank and press analysis rather than on any attributable official finding: Lebanese army raids on laboratories near the Syrian border through 2025 are documented, their sponsorship is not. This report marks that claim contested and leaves it there.

What survives is enough, and it is the same species of fact the muhasasa table records. Not that Hezbollah runs the captagon trade, but that the trade moves along the crossings, the territory and the financial channels §3.1 already shows the party to control, and that United States authorities have found, across fifteen years and several administrations, that it draws financial support from the proceeds. Note what this does and does not do

to θ. Narcotics revenue is not diverted public revenue. It is income earned entirely outside the state, and it enters none of the three estimators of §2. Its significance lies elsewhere: it is what makes the informal channel self-financing. An enforcer able to fund itself outside the budget does not need the budget, and therefore does not need the reforms that would restore it. That is why the closing of the fiscal conduit in 2021 did not loosen the veto, and why the IMF's conditions, which bite on the formal system alone, meet an adversary that has already left it (§3.3).

The three observations are one observation. The rent moved into cash; the cash economy is what the FATF has now formally designated Lebanon's strategic deficiency; and the illicit trades that populate that economy run along routes held by the actor holding the coercive veto over any return to the formal one. Extraction did not stop when the state could no longer afford to fund it. It changed jurisdiction, from a budget an auditor can read into a cash economy no one can, and the party best placed in the second is precisely the party positioned to prevent a return to the first.

Sources: cash economy (US$9.9bn, 45.7% of GDP, 2022) and the quoted risks: World Bank, Lebanon Economic Monitor, Spring 2023: The Normalization of Crisis Is No Road for Stabilization, and the accompanying press release (16 May 2023); pre-crisis shadow economy: Medina & Schneider, IMF WP/18/17. Grey-listing and the quoted commitment: Financial Action Task Force, "Jurisdictions under Increased Monitoring," 25 October 2024, and the FATF Lebanon country page; underlying deficiencies: FATF/MENAFATF, Mutual Evaluation Report of Lebanon (2023); continued listing: FATF, outcomes of the plenary of 17–19 June 2026. Reported remarks of BdL governor Karim Souaid on the parallel economy and illicit financial flows, and reporting that the action plan's binding items reach Al-Qard al-Hassan and designated Hezbollah-linked businesses: Asharq Al-Awsat (2026). Lebanese Canadian Bank: U.S. Department of the Treasury, Financial Crimes Enforcement Network, "Finding That the Lebanese Canadian Bank SAL Is a Financial Institution of Primary Money Laundering Concern," Federal Register, 17 February 2011. Ayman Joumaa: OFAC designation under the Foreign Narcotics Kingpin Designation Act, 26 January 2011. Captagon designations: OFAC press releases jy1369 (28 March 2023) and jy2648 (16 October 2024). Hezbollah's reported role in trafficking: Congressional Research Service, Lebanese Hezbollah, In Focus IF10703 (updated 4 December 2024). Syrian origin of seizures and the post-2024 disruption of manufacture: UN Office on Drugs and Crime (December 2025). Saudi import ban and the pomegranate seizure: Arab News (23 April 2021). Post-2024 relocation of production into the Beqaa: think-tank and press analysis, treated here as contested; Lebanese army raids: contemporaneous reporting.

3.3 The aftermath: six years of blocked rescue — the IMF negotiations, 2020–present

Lebanon first turned to the Fund in May 2020, when Prime Minister Hassan Diab's government requested assistance and opened talks built on a Lazard-advised rescue plan, drafted by finance-ministry director-general Alain Bifani and endorsed by Finance Minister Ghazi Wazni, that put system-wide losses near $69bn (LL 241 trillion). Within weeks the talks collapsed. The commercial banks, the central bank under Riad Salameh, and parliament's Finance & Budget Committee rejected the loss estimate outright, because admitting the hole meant deciding *who would fill it*, bank shareholders and the state, or ordinary depositors. That first rupture set the pattern for everything since: the dispute was never really technical; it was about which insiders would be made to pay.

A second, more formal attempt produced a staff-level agreement on 7 April 2022 , a 46-month Extended Fund Facility worth about $3bn, negotiated for Lebanon by Deputy Prime Minister Saade Chami. Crucially, the money was conditioned on roughly ten *prior actions* the elite had every reason to resist: a bank-restructuring plan and a bank-resolution law, a revised banking-secrecy law, a formal capital-controls law, an external audit of BdL's foreign-asset position, unification of the multiple exchange rates, the 2022 budget, and a medium-term fiscal and debt-restructuring strategy. Years passed with almost none of them delivered. A presidential vacuum (October 2022–January 2025), a caretaker cabinet, and criminal investigations into Salameh furnished cover for inaction; by 2023 the IMF and the EU were publicly warning that progress was "very slow." The deadlock, exactly as in 2020, was a refusal to legislate loss-distribution and to lift the opacity (secrecy, capital controls) that shields captured wealth.

Only after Joseph Aoun was elected president (January 2025) and Nawaf Salam formed a government (February 2025) did momentum return. Finance Minister Yassine Jaber re-engaged the Fund; parliament amended the

banking-secrecy law (April 2025) and passed a bank-resolution law, and independent regulators were finally created for electricity and telecoms. IMF missions came in May and September 2025 and again in February 2026, yet a full financing program remains *unsigned*. The sticking point is unchanged: how to allocate more than $72bn in losses across the state, BdL, the banks and depositors, with the draft law guaranteeing protected deposits only up to $100,000 over four years. That is why six years of talks have produced an agreement on paper and almost nothing on the ground: the reforms the IMF demands are exactly the ones that force the captured elite to absorb losses and surrender opacity, the rents capture exists to defend. The IMF impasse is the Predator's Dilemma made visible.

Sources: IMF press releases (PR 22/108, 7 Apr 2022; PR 25/182, 5 Jun 2025; PR 25/316, 25 Sep 2025) and IMF Lebanon country page; Reuters & Al Arabiya (2020 Lazard plan and loss-estimate dispute); L'Orient Today (Chami interviews; "How Yassine Jaber became one of the IMF's strongest allies"); The Century Foundation, "How Lebanon's Elites Sabotaged an IMF Rescue"; TIMEP, "Lebanon's Bank Resolution Law" (2025); The National (IMF–Lebanon bank-restructuring talks, Feb 2026); Cabinet of Nawaf Salam / Arab News (Souaid appointment).

3.4 Why it wasn't just bad luck and how we'd know if we were wrong

The honest counter-argument: Lebanon absorbed an extraordinary run of genuinely exogenous shocks, the Syrian war and a refugee influx exceeding a quarter of the population, collapsing Gulf remittances, COVID-19, and the 2020 Beirut port explosion, and any state would have buckled. Four features of the data answer it.

A note on the port blast; it is not cleanly exogenous. We count the August 2020 Beirut port explosion as an external shock above, deliberately generous to the skeptic. In truth the blast is largely a product of capture itself. Its precondition, roughly 2,750 tons of ammonium nitrate stored unsafely at the port for about six years, with officials across successive governments aware and inert, is the same starvation of public goods (here, basic port safety) the model describes; the port had long operated as a patronage fiefdom. Its aftermath, the obstruction of the judicial investigation, with judges removed and parliamentary immunity shielding ex-ministers, is veto-player entrenchment in real time. Hezbollah and its ally Amal led that obstruction, publicly demanding the removal of investigating judge Tarek Bitar (after his predecessor Fadi Sawan had already been forced out), and the deadly October 2021 Tayouneh violence grew out of their march against him (see §3.1 on Hezbollah as the system's armed veto). Responsibility for the underlying negligence remains collective across the confessional elite, and claims that any single party owned or detonated the nitrate remain unproven, but the burial of the investigation was driven, more than by anyone else, by the one actor with the coercive power to make it stick. Retaining the blast as "exogenous" in the baseline therefore understates the governance-attributable share of the collapse, the conservative choice, made so the falsification test stays hard to pass.

A note on the 2024 and 2026 wars, also not cleanly exogenous. The same logic applies to the two Hezbollah–Israel wars that bracket the recovery. In October 2023 Hezbollah opened a "support front" against Israel without any decision of the Lebanese state, the captured sovereignty described in §3.1, and the escalation to full war in September–November 2024 followed. The World Bank costed that war at about $14bn ($6.8bn in physical damage, $7.2bn in losses) plus ~$11bn in reconstruction and put 2024 growth at −7.1% against a no-conflict counterfactual of +0.9%, roughly eight points of output erased in a single year. A second war from March 2026 is projected to cut a further 7–10%. Because the decision to fight was Hezbollah's and not the state's, the bulk of this damage is governance-attributable, not bad luck; it belongs in the same column as the port blast. And note what it does to θ: with the extraction rate already pinned at ≈1 since 2019 (Figure 12), the wars could not raise it, capture was already near-total. They are instead what total capture produces once it extends to the war-and-peace decision: a deeper collapse in output Y at an unchanged θ, and a larger governance-attributable share of the ruin. (Sources: World Bank conflict-impact and reconstruction-needs assessments, 2024–25; Al Jazeera and contemporary reporting on the 2026 war, figures provisional.)

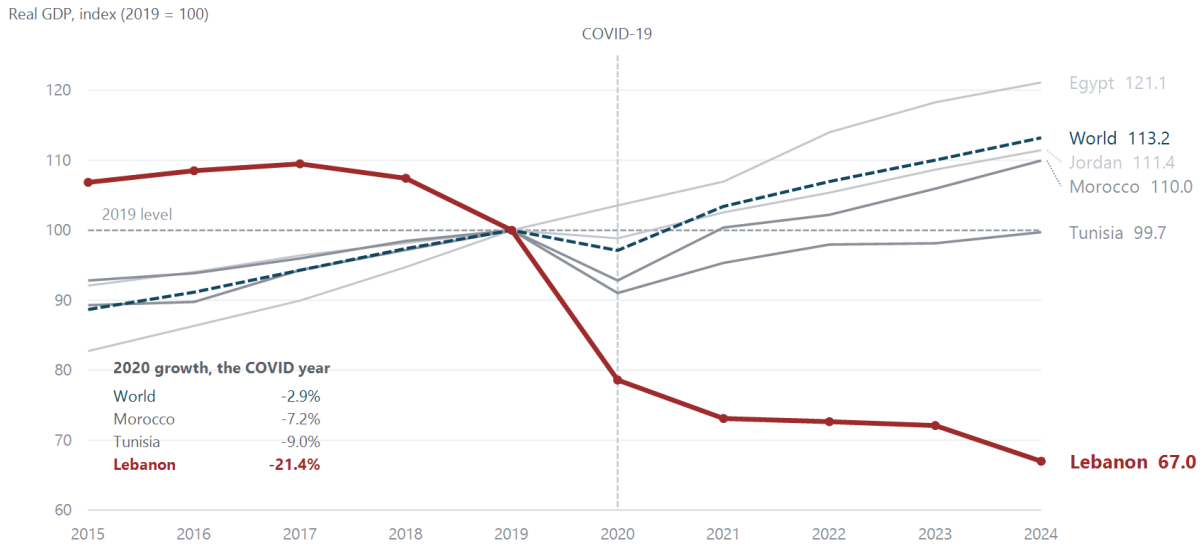
1. The timing is wrong for a shock story. The decisive choice, 2016 Financial Engineering crowding out credit, with investment rolling over from 2018 (Figure 4), came *before* COVID and the port blast. Effect preceding the largest alleged causes is hard to call bad luck.

2. The shape is wrong for a shock story. The model predicts a *discontinuous* break, not a proportionate response to shock size. The −21% growth crater (Figure 3), the 90-fold currency break (Figure 9), and the post-2018 governance cliff (Figure 6) are that discontinuity, and the Bai–Perron test (Figure 15) confirms it formally.

In comparison, COVID-19 hit every economy in the region in 2020, and it hit two of Lebanon's neighbors harder than it hit the world: Tunisia lost 9.0% of real output that year and Morocco 7.2%, against a world contraction of 2.9%. Both reverted. Morocco was back above its 2019 level by 2021, and Tunisia had climbed to within 0.3% of its own by 2024, because an exogenous shock displaces a series and the series returns. Lebanon's path has neither feature. Output was already falling in 2018, it fell 6.9% in 2019 while world output grew 2.7%, and it has contracted in every year since, seven consecutive years that leave real GDP at 67% of its 2019 level (Figure 16). The 21.4% lost in 2020 is real, but 2020 is neither where the collapse began nor where it stopped: an exogenous shock is a displacement the data reverse, and what Lebanon suffered was a permanent shift in the level.

Figure 16 · The weight of an exogenous shock, real GDP indexed to 2019 = 100

Real GDP in constant 2015 US$, each economy indexed to its own 2019 level. Darker lines = the two comparators COVID-19 hit hardest; lighter lines = Egypt and Jordan, which it barely touched, Egypt in fact growing 3.6% in 2020; navy dashed = world. Every comparator absorbed the 2020 shock and recovered its 2019 level, Tunisia to within 0.3% of it. Lebanon's decline begins in 2018, before the shock, and does not reverse.



Source: World Bank, World Development Indicators, series NY.GDP.MKTP.KD (GDP, constant 2015 US$), database updated 1 July 2026, retrieved 10 July 2026. Indices and 2020 growth rates computed by the author.

3. The distribution is wrong for a shock story. Capital controls were imposed with no law, protecting large, connected depositors while trapping ordinary ones, a distributive *choice*, not an exogenous event.

4. The cure was refused, not just failed. A pure-bad-luck story predicts a state straining to recover; instead, the captured elite spent six years blocking the IMF program that would have stabilized the economy, because its conditions force losses onto banks and insiders and strip away the financial opacity that shields them (see §3.3, *The aftermath: six years of blocked rescue*, above). Obstructing the rescue is itself capture, observed in real time.

Conclusion

Lebanon did not stumble into one of the three most severe economic collapses recorded since the 1850s. It was driven there, by an extraction rate that the fiscal accounts, the governance indicators and the electricity sector independently place near its mathematical ceiling, and that was held there by an elite with the means to veto its own removal.

The evidence converges. The accounting estimator, inverting the model's identity, shows θ never below about 0.87 across the boom years, and at 0.99 to 1.00 from 2019, when capital spending fell to zero. The governance estimator, a latent factor drawn from seven indicators that touch none of the fiscal data, tracks it at $r = 0.77$ and reaches the same endpoint by 2019–2021. The channel estimator, built from electricity tariffs, generation costs and unpaid bills, returns $\theta(\text{EdL}) \approx 0.71$ for the pre-2019 regime, a conservative floor from a third and unrelated dataset. Three estimators, three independent sources, one capture.

The timing settles the causal question. Applied to the annual series, the Bai–Perron procedure locates the dominant structural break in 2017–2019: after BdL's 2016 financial engineering, as investment rolled over from 2018, and before both COVID-19 and the port explosion of August 2020. A shock account predicts a break coincident with the shock; the data place it earlier, on the domestic policy choices. The shape of the collapse tells the same story. A 21% output crater, a 90-fold currency break and a governance cliff are a discontinuity, not a proportionate response to shock size. Nor is the distribution of losses consistent with misfortune: capital controls were imposed without any law, sparing large connected depositors and trapping ordinary ones. That is a decision, not an event.

The most conservative witness reaches the same verdict. The World Bank titled its own reports *The Deliberate Depression* (2020) and *Lebanon Sinking, amidst Deliberate Inaction* (2021), noted that a contraction of this magnitude is "usually associated with conflicts or wars," and found in its Public Finance Review, subtitled *Ponzi Finance?* (2022), that Lebanese public finance had "served the interests of an entrenched political economy." The institution least likely to be accused of conspiracy theory reached the capture conclusion independently.

Capture is visible not only in how the crisis was made, but in how it has been prolonged. Six years after Lebanon first approached the IMF, and four years after a staff-level agreement, no program is signed and more than $72bn of losses remain unallocated, because the Fund's conditions, loss distribution, bank resolution, an end to banking secrecy, a capital-controls law, are precisely the measures that force the captured elite to absorb losses and surrender opacity. Obstructing the rescue is itself capture, observed in real time. And it has an enforcer. Hezbollah's blocking third in cabinet, its continuous control of the Finance Ministry since 2014, its parallel banking network and its command of the smuggling routes made it the one actor able to guarantee that the system would never be forced to stop. The Predator's Dilemma requires an enforcer; that role was filled.

What would overturn this. The hypothesis is placed at risk, not assumed. It weakens or fails if any of the following holds: (a) Lebanon's excess decline, measured against a synthetic-control benchmark of shock-comparable peers, proves statistically indistinguishable from zero; (b) elite turnover across 2011–2024 turns out to have been high, rather than the low turnover documented in Part 2, §3.4; (c) credit and capital allocation did not systematically favor politically connected actors once shocks are controlled for; or (d) the decline tracks shock arrival proportionately, with no discontinuity around domestic policy thresholds and no Phase-II signature, though the break tests of §2.4 find exactly that signature. The recovery is a test of the same kind. Real GDP grew 3.5% in 2025, and is projected at 4.0% for 2026, once partial reform, an elected president, a bank-resolution law, an amended banking-secrecy law and independent regulators, began to unwind capture. Stabilization arriving exactly as capture loosened is what the hypothesis predicts. That the rebound was then cut short by the 2026 war, brought on by Hezbollah without any decision of the Lebanese state, is the same prediction running in reverse.

The reform agenda follows from the parameter, not from preference. θ falls only if the resources it diverts are made to reach public goods, and only if the actors who divert them lose the power to prevent it. That means

allocating the $72bn hole to the banks, the central bank and the state rather than to depositors; resolving insolvent banks instead of forbearing them; legislating capital controls rather than administering them informally; auditing BdL; unifying the exchange rate; and completing the electricity reform whose first steps, cost-reflective tariffs and an independent regulator, already register in the EdL channel as a collapse in transfers from 3.8% to 0.6% of GDP. None of this is technically difficult. All of it is politically contested, because each measure removes a rent from an actor who can presently veto its removal. That, and not a shortage of expertise or of external finance, is why the crisis persists.

Lebanon is therefore not an exception to the theory of systemic crisis but its most complete illustration: a credit-and-deposit boom, a currency mismatch and a sudden stop, bank-run dynamics with no lender of last resort, and fire-sale insolvency, all welded together by the bank–sovereign doom loop and driven by an extraction rate pushed toward unity. In the model, $\theta \to 1$ is the condition under which an economy ceases to reproduce itself. In Lebanon it is neither a limiting case nor a metaphor. It is what the fiscal accounts recorded, from 2019 onward, while the elite that produced it remained in office.

Appendix A · Data

Macro series used above, year by year are sourced from the World Bank Open Data (updated Apr 2026); 2024–25 (*) from IMF WEO. "n/a" = genuinely unavailable. Debt %GDP caveat: 2005–2018 are IMF WEO (clean); 2019–2025 (≈) are approximate and highly source-dependent; the USD-GDP collapse against partly-lira-denominated debt swings the ratio violently (2021 ~345%), so post-2019 debt ratios as indicative only.

Year	GDP US$bn	Growth %	Invest. %GDP	Inflation %	GDP/cap US$	Debt %GDP
2005	21.5	+2.7	22.0	−1.4	4,602	178.9
2006	22.0	+1.6	21.9	4.1	4,635	183.3
2007	24.8	+9.3	24.5	4.1	5,125	169.3
2008	29.1	+9.1	27.3	10.7	5,912	161.5
2009	35.4	+10.2	28.0	1.2	7,091	144.5
2010	38.4	+8.0	25.0	4.0	7,626	136.8
2011	39.9	+0.9	25.6	5.0	7,835	134.4
2012	44.0	+2.6	25.3	6.6	8,407	131.0
2013	46.9	+3.8	27.0	4.8	8,162	135.3
2014	48.1	+2.5	24.4	1.9	7,578	138.3
2015	49.9	+0.5	21.7	−3.8	7,714	140.5
2016	51.2	+1.6	22.6	−0.8	8,089	145.7
2017	53.0	+0.9	21.4	4.3	8,608	149.2
2018	54.9	−1.9	21.8	6.1	9,175	154.8
2019	51.6	−6.9	13.6	3.0	8,906	≈172
2020	31.7	−21.4	8.1	84.9	5,561	≈149

Year	GDP US$bn	Growth %	Invest. %GDP	Inflation %	GDP/cap US$	Debt %GDP
2021	23.1	−7.0	5.4	154.8	4,045	≈345
2022	21.0	−0.6	1.2	171.2	3,654	≈245
2023	20.1	−0.8	1.9	221.3	3,478	≈193
2024*	24.0	−7.5	n/a	45.2	5,480	≈164
2025*	31.9	+4.0	n/a	14.6	6,443	≈139

Capture-proxy series (incl. θ estimators)

Year	WGI Gov. Eff.	WGI Rule of Law	WGI Ctrl. Corrupt.	CPI	V-Dem cl.	θ acct.	θ MIMIC
2010	−0.24	−0.65	−0.96	—	0.869	0.892	—
2011	-0.26	-0.48	-0.86	—	0.863	0.930	—
2012	-0.26	-0.52	-0.94	30	0.863	0.928	0.898
2013	-0.33	-0.62	-0.97	28	0.863	0.914	0.908
2014	-0.27	-0.69	-1.11	27	0.842	0.947	0.916
2015	−0.28	−0.81	−1.00	28	0.842	0.941	0.915
2016	-0.25	-0.85	-1.07	28	0.864	0.866	0.927
2017	-0.22	-0.82	-1.07	28	0.840	0.913	0.931
2018	−0.50	−0.77	−1.22	28	0.831	0.929	0.941
2019	−0.62	−0.86	−1.23	28	0.812	0.990	0.954

Year	WGI Gov. Eff.	WGI Rule of Law	WGI Ctrl. Corrupt.	CPI	V-Dem cl.	θ acct.	θ MIMIC
2020	−0.95	−0.92	−1.23	25	0.851	0.992	0.979
2021	−1.06	−1.00	−1.26	24	0.846	1.000	0.996
2022	−1.04	−1.03	−1.22	24	0.848	0.984	0.995
2023	−1.17	−1.07	−1.26	24	0.806	0.993	1.005
2024	−1.13	−1.09	−1.30	22	0.882	0.990	1.022

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