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Systemic Banking Crises Database: 1970-2025

Luc Laeven and Fabian Valencia

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ABSTRACT: This paper presents an updated version of the Laeven and Valencia (2013, 2020) database on systemic banking crises, extending the coverage through 2025. The update incorporates new episodes, while maintaining the definition established in previous editions, which emphasizes both significant signs of financial distress and substantial policy interventions. The update integrates textual tools to screen potential candidates that are then further scrutinized to confirm if our definition is met. The database includes information on banking crises episodes during 1970-2025, including starting dates, policy responses, fiscal costs, and output losses. It offers a comprehensive tool for assessing cross-country vulnerabilities and policies to resolve banking crises.

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Contents

I. Introduction

Since 2020, the global economy has experienced a sequence of overlapping shocks, including the COVID-19 pandemic-induced economic shutdown, persistent supply chain disruptions, and a global inflation surge. These shocks have contributed to heightened macroeconomic volatility, elevated debt burdens, and structural realignments in global production and trade. Unlike past episodes of economic stress, the global banking system demonstrated remarkable resilience in the face of this sequence of economic shocks, and widespread systemic banking crises did not materialize during this period. This outcome was supported by the improvements in bank capitalization and financial regulation in the aftermath of the 2007-09 Global Financial Crisis, but also by the prompt monetary and fiscal policy responses, and the use of flexibility in regulatory and supervisory frameworks in response to the pandemic (IMF, 2021a,b, 2022a,b; BIS, 2021).

Nevertheless, banking vulnerabilities did resurface in 2023. The failure of Silicon Valley Bank (SVB) and Signature Bank in the United States, followed by the emergency takeover of Credit Suisse in Switzerland, served as stark reminders of the potential for rapid confidence loss and liquidity pressures even in sophisticated financial systems. While these episodes did not trigger widespread contagion, and do not meet our criterion of a systemic banking crisis, they reignited discussions about interest rate risk, depositor flight, and crisis management frameworks in the post-pandemic era.

In this context, timely and accurate identification of systemic banking crises remains an important priority for research and policy. To this end, this paper updates the Laeven and Valencia database – last updated in 2020 – to reflect crisis episodes during 1970-2025. We exploit textual tools to detect possible instances of systemic banking crises and then assess whether these cases fit our definition by examining their context and supporting data. Our new approach therefore integrates both narrative analysis and quantitative evidence to identify episodes of systemic banking crises as accurately and completely as possible.

Between 1970 and 2025, we record 164 banking crises (including borderline cases), dated yearly and, where possible, monthly. The database covers policy responses, fiscal costs, output losses, and other statistics. High-income countries tend to experience longer crises with lower fiscal costs but greater output losses, though policy responses remain consistent across income levels.

The literature on banking crisis dating has grown since the global financial crisis with notable contributions including Reinhart and Rogoff (2009), Schularick and Taylor (2012), Romer and Romer (2017), and Baron et al. (2021). Some of these studies rely on quantitative

information while others on narrative approaches. Our approach is a combination of narrative and quantitative information that aims at a systematic application of our definition while considering the context around the episode of distress. Differences in approaches to date banking crises result in differences in crisis dates across databases but importantly, there are also similarities, both in terms of crisis dates and findings, despite the distinct methodologies. Relative to other studies in this area, the main advantage of our database remains its comprehensiveness in coverage of countries of all levels of income and the documentation of policy responses during such crises.[1] This distinction allows us to examine the implications and policy responses to banking crises beyond advanced economies and major emerging markets.

The remainder of the paper is organized as follows. Section II presents our definition of banking crises. Section III explains how we exploit text analysis to identify banking crisis episodes. Section IV shows the resulting list of crises during the period 1970–2025. Section V discusses policy responses during crises followed by crises' outcomes in Section VI, including fiscal costs and output losses. Section VII concludes.

II. Definition of a Banking Crisis

We follow the same definition adopted in Laeven and Valencia (2013, 2020), reproduced below for convenience, where we define a banking crisis as an event that meets two conditions:

1) Significant signs of financial distress in the banking system (as indicated by significant bank runs, losses in the banking system, and/or bank liquidations).

2) Significant banking policy intervention measures in response to significant losses in the banking system.

We consider the first year in which both criteria are met to be the year when the crisis became systemic.

This is to ensure that we date the crisis at the first signs of major problems in the banking system. When the losses in the banking sector and/or liquidations are severe, we treat the first criterion as sufficient condition to date a systemic banking crisis. We operationalize this definition by considering that losses are severe when either (i) a country's banking system exhibits significant losses resulting in a share of nonperforming loans above 20 percent of total loans or bank closures of at least 20 percent of banking system assets or (ii) fiscal restructuring

[1] The studies by Schularick and Taylor (2012), Romer and Romer (2017), and Baron and others (2018) cover only a comparatively smaller number of countries.

costs of the banking sector are sufficiently high, exceeding 5 percent of GDP.2 However, relying exclusively on the first criterion is problematic because it is not always straightforward to quantify the degree of financial distress in a banking system, particularly in low- and middle-income countries, and also because losses can be mitigated, delayed, or transferred by policy responses. Therefore, we also rely on the second criterion, if policy intervention meets the requirement of being significant. We consider policy interventions in the banking sector to be significant if at least three out of the following six measures have been used:[3]

1) deposit freezes and/or bank holidays;
2) significant bank nationalizations;
3) bank restructuring fiscal costs (at least 3 percent of GDP);
4) extensive liquidity support (at least 5 percent of deposits and liabilities to nonresidents);
5) significant guarantees put in place; and
6) significant asset purchases (at least 5 percent of GDP);

The above thresholds are based on judgment, as explained in (Laeven and Valencia, 2020). We also reproduce below our definitions of the policy variables used in our crisis definition:

- Deposit freeze and bank holidays: Whether the government introduced restrictions on deposit withdrawals or a bank holiday. If implemented, we also collect information on the duration of the deposit freeze and bank holiday, and the affected instruments.

- Significant nationalizations: If the government took over systemically important financial institutions, or at least a majority stake in the capital of such financial institutions.

- Significant bank guarantees: a significant government guarantee on bank liabilities, indicating that either a full protection of liabilities has been issued by the government or that government guarantees have been extended to non-deposit liabilities of banks. Actions that only raise the level of deposit insurance coverage are not included.

- Liquidity support: It is measured as central bank claims on other depository institutions (from the IMF's IFS) and liquidity support directly provided by the Treasury (if applicable). We normalize this variable by the total deposits and bank liabilities to non-residents. We

[2] Fiscal restructuring costs exclude emergency liquidity assistance. The increase in the ratio of non-performing loans to total loans above 20 percent is considered a sufficient condition if the ratio at least doubled in three years.

[3] We express our measure of fiscal costs in terms of GDP. However, whenever available, we also report fiscal costs expressed in percent of financial system assets.

consider liquidity support to be extensive when this ratio exceeds 5 percent and more than doubles relative to its pre-crisis level.[4]

- Bank restructuring costs: defined as gross fiscal outlays directed to the restructuring of the financial sector, with the most important component being recapitalization costs. We consider restructuring costs to be significant if they exceed 3 percent of GDP, excluding liquidity assistance provided directly from the treasury. We focus on gross fiscal costs instead of net because it takes time to record recoveries. However, wherever data on recoveries were available we report also net fiscal costs.

- Asset purchases: This variable refers to purchases of assets from financial institutions implemented by the central bank, the treasury, or a government entity (such as an asset management company). We define significant asset purchases as those exceeding 5 percent of GDP.

III. Identifying and Dating Systemic Banking Crises

We rely on textual analysis to identify possible crisis episodes, using primarily publicly available International Monetary Fund (IMF) country reports. The search begins by extracting raw text from IMF Article IV staff reports, technical assistance reports, and financial sector stability assessments (FSSAs) published between 2017 and 2025.[5] This textual data was organized into a dataset that included metadata on each report, such as the publication year, country, report page number, type, and title. We then performed basic text analysis to identify potential crisis episodes using a dictionary of about 250 unique words (Appendix II, Table A3) and expressions indicative of banking stress episodes.

We looked at the frequency of “banking crisis” terms in the extracted text by matching all extracted words against the dictionary to short-list possible crisis episodes. The associated IMF reports, combined with supplementary information from international news articles (Factiva), official communications from national central banks (press releases), and national authorities’ technical reports (e.g., central bank financial stability reports) were further reviewed manually to verify events and determine if our crisis definition was met.

[4] This measure of liquidity would also capture the impact of currency swap lines among central banks, agreed during the global financial crisis, to the extent that they were used to inject liquidity in the financial sector.

[5] We use a Python script to categorize reports by country and year. The raw text from each document was extracted with the aid of the PyPDF2 library.

This combination of textual analysis and expert evaluation based on available news articles and technical reports formed the basis for the identification and dating of an updated list of banking crisis episodes for the period 1970-2025.

IV. Banking Crises Episodes During 1970–2025

Using the approach explained in Section II, we identify 13 new crisis episodes since our last update (Laeven and Valencia, 2020), bringing the total number of systemic banking crises during 1970-2025 to 164, including borderline episodes. These new systemic episodes are listed in Table 1, where we also identify 3 borderline episodes where stress events, while significant, did not meet our definition: Nicaragua (2018), Vietnam (2022), and Sri Lanka (2023). The complete list of systemic banking crisis episodes over the period 1970-2025, including these borderline cases6, is shown in Table A1 of Appendix I.

Table 1. New episodes relative to Laeven and Valencia (2020)

Country	Start
Angola	2015
Azerbaijan	2015
Chad	2015
Equatorial Guinea	2015
Ghana	2015
Kazakhstan	2014
Lebanon	2019
Nicaragua*	2018
Republic of the Congo	2018
São Tomé and Príncipe	2016
Sri Lanka*	2023
Tajikistan	2016
Vietnam*	2022

* Denotes borderline cases
Source: Authors' calculations

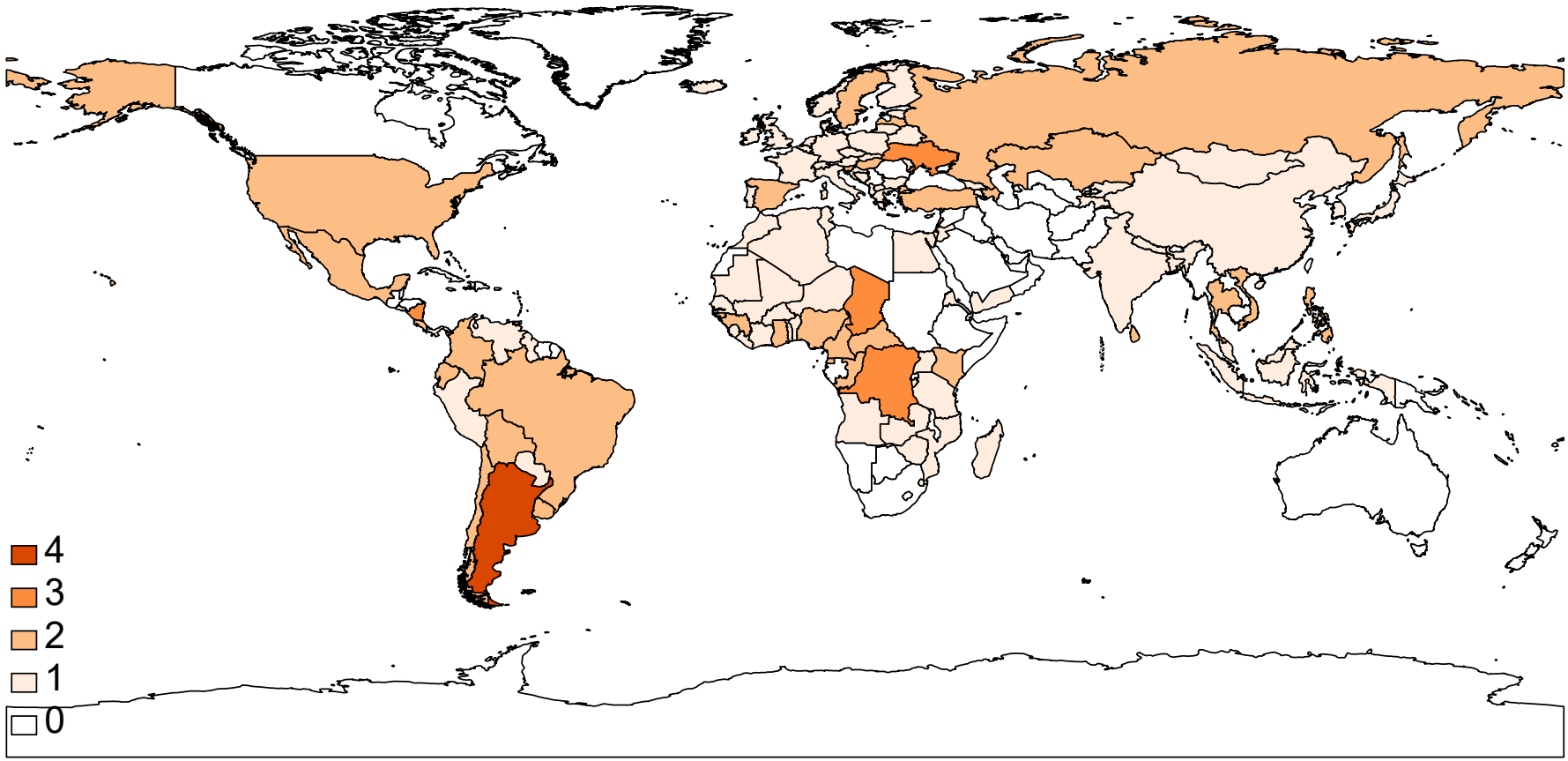
The newly identified episodes predominantly reflect the outcomes of significant negative shocks outside the financial sector that impacted banks' balance sheets. A common shock that adversely affected several of these economies was the sharp decline in oil prices that started in

[6] In earlier updates we have included cases where our definition is not met but some of the relevant indicators that are part of our definition get close to or cross some of our thresholds.

late 2014 and hit oil-producing countries hard (e.g., Angola, Chad, Azerbaijan). Unlike the events around the global financial crisis where problems originated in the financial sector, most new episodes that we identify in this update fall in this category of crises.

Most countries have experienced at least one systemic banking crisis during 1970–2025, with many going through multiple episodes (Figure 1). However, only a handful of countries experienced more than two systemic banking crises, including borderline episodes, during the past 53 years: Argentina (4), Chad (3), the Democratic Republic of Congo (3), Nicaragua (3), and Ukraine (3).

Figure 1. Banking Crises Around the World 1970-2025



Source: Authors' calculations
Note: Crises include borderline cases. The color coding denotes the number of episodes per country.

A. The March 2023 events in the US and Switzerland

In 2023, the United States experienced in rapid succession the failure of three regional banks: Silicon Valley Bank (SVB), Signature Bank, First Republic. While none of them were categorized as systemically important prior to failure, together these three banks held a total of US$ 367 billion in deposits, or 2.0 percent of total US bank deposits. Unrelated to these events in the US, Credit Suisse, Switzerland's second largest bank at the time, failed in March 2023. On March 15, its share price dropped by nearly 25 percent after its largest shareholder said it would not provide additional capital. Several reports and official statements (e.g., Acharya et al., 2023; Angeloni et al., 2024; Board of Governors, 2023; FINMA, 2023) have already provided detailed accounts of these events and of its causes and consequences; therefore, we only highlight a few facts relevant for applying our definition.

The bank runs on SVB and Signature Bank occurred at an unprecedented speed,[7]partly due to the large concentration of wholesale deposits and the ease with which to make online withdrawals. Both banks had about 90% of uninsured deposits. To stop the run and prevent major spillovers onto similar banks, the Federal Reserve established a new liquidity facility with access on favorable terms and conditions. The systemic risk exception was invoked and uninsured depositors in SVB and Signature Bank were fully protected by the FDIC, backed by a US Treasury guarantee. Two months later, on May 1, 2023, First Republic Bank failed after a series of downgrades related to its high concentration on uninsured deposits and large-scale deposit withdrawals. Despite liquidity support from eleven major US banks on March 16, 2023, the bank was closed on May 1, 2023. The FDIC subsequently sold the bank and almost all its assets to J.P. Morgan Chase.

The failures of these three regional US banks do not meet our criteria for a systemic banking crisis. The early intervention prevented the runs from spreading and becoming systemic. The government guarantees (in the case of SVB and First Republic) applied explicitly to the affected institutions but not to the banking system. At its peak, liquidity support amounted to about 1% of total US banks liabilities, staying well below our 5 percent threshold, and there were no fiscal costs from bank restructuring.

Credit Suisse, a globally systemic important bank (G-SIB), represented 14.2 percent of Swiss total banking sector assets. The Swiss National Bank (SNB) injected 168 billion Swiss

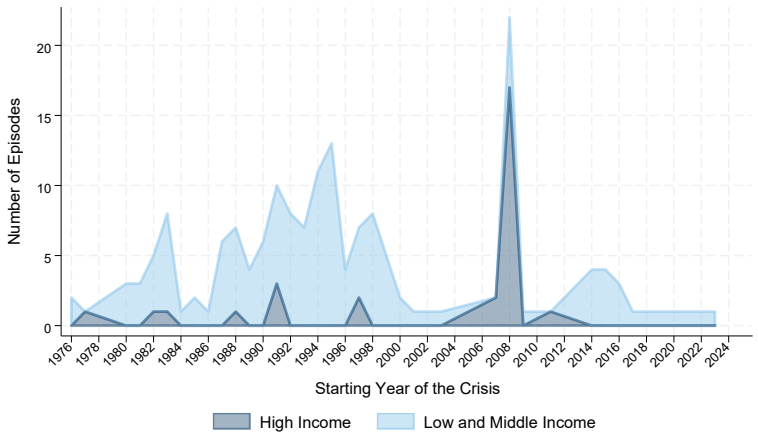
[7] On March 9, 2023, SVB customers withdrew US$ 42 billion (nearly 25 percent) of the bank's total deposits. In the two days that followed, depositors at Signature Bank withdrew more than US$ 10 billion of deposits, or about 20 percent of the bank's total deposits.

francs (around US$ 185 billion) in emergency liquidity support (around 20% of Swiss GDP) but it was ultimately taken over by UBS with a 9 billion Swiss franc state guarantee on the value of the bank's assets. While Credit Suisse was a systemic institution, its speedy resolution by the Swiss authorities avoided potentially significant spillovers. The failure of Credit Suisse, despite its systemic threat, does not qualify as a systemic banking crisis according to our definition. Liquidity support provided by SNB represented 4.5 percent of total banking system liabilities in Switzerland, below our 5 percent threshold, and aside from the state guarantee on the bank's liabilities to support the takeover by UBS, there were no fiscal outlays from bank restructuring costs.

B. Banking crises episodes by income level

Banking crises are rarely single-country events due to their origin in common global or regional shocks, contagion effects across similar countries, or spillovers through cross-border exposures. Following the World Bank's historical income classification, Figure 2 groups episodes according to the income level of the affected country at the start of the crisis, which shows visible waves of crises, starting with the episodes in Latin America in the early 1980s, the crises in the aftermath of the breakup of the Soviet Union, the Tequila Crisis, the Asian crisis, and more recently the global financial crisis. The 2008 global financial crisis stands out not just in terms of the number of countries affected but also their composition (i.e., affecting also a large number of high-income countries). The period around the mid-2000s, which broadly coincided with the global moderation, also saw a low incidence of crises. Since then, some episodes have taken place in low- and middle-income countries. The COVID-19 pandemic and the global inflation surge that followed, despite having severe and significant social and economic consequences, did not induce a wave of banking crises as it was feared at the start. The unprecedented policy support and resilience of the banking sectors across the globe, partly the result of the post-GFC financial reforms, avoided a widespread occurrence of banking crises

Figure 2. Banking Crises 1970-2025
Number of Episodes by Income Level

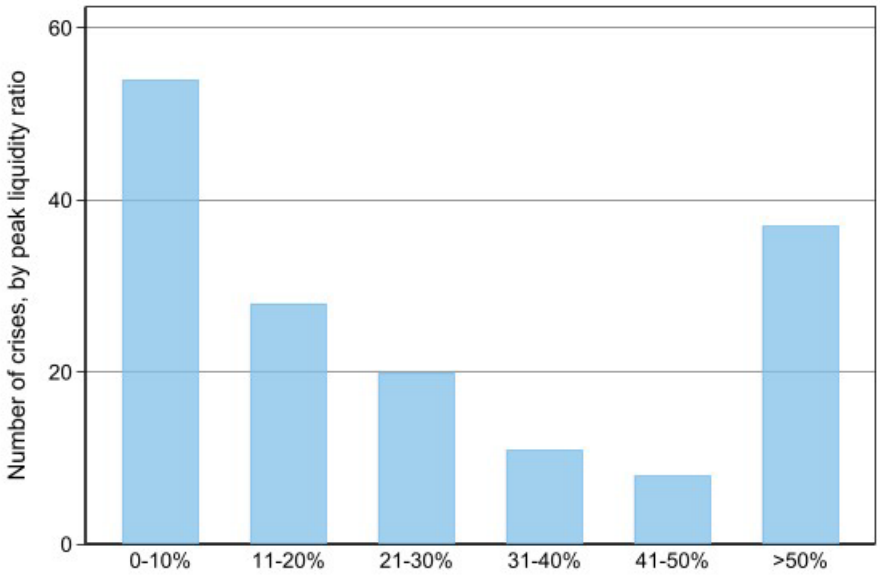


Source: Authors' calculations
Note: Crises include borderline cases

V. Policy Interventions during Crises

As in previous updates of our database, we investigate the policies that governments deployed to contain and resolve banking sector problems, focusing on those cases where the intensity of policy intervention meets our definition of a crisis. Detailed interventions data is reported in Table A2 of Appendix I. As we reported in Laeven and Valencia (2020), both high and low and middle-income countries have relied extensively on liquidity support when hit by a crisis. Laeven and Valencia (2010), Claessens and others (2011), and Stone and others (2011) have also noted the wider array of instruments used by high-income countries when experiencing a crisis, including through the coordinated deployment of central bank swap facilities during the global financial crisis and later in response to the pandemic. The provision of extensive liquidity support during systemic banking crises is pervasive in our sample, a stylized fact that we have reported in the past. Figure 3 illustrates this point, showing the histogram of the highest balance of liquidity provision, hence "peak liquidity support" in our sample, with liquidity support measured as the ratio of central bank claims on the financial sector to deposits and foreign liabilities. The median peak liquidity support ratio reaches 20 percent.

Figure 3. Peak Liquidity Support
Number of Episodes by Peak Liquidity Ratio Range



Source: Authors' calculations
Note: Crises include borderline cases

Laeven and Valencia (2010), Claessens and others (2011), and Stone and others (2011) have also pointed out that low and middle-income countries tend to rely on liquidity provision as a containment tool for much longer than high-income countries, on average, before introducing bank recapitalization and restructuring measures. A prolonged reliance on liquidity support may be explained by the difficulties in determining in real time the nature of the shock, whether it is a temporary liquidity problem or a solvency problem that requires bank recapitalization or restructuring, or the lack of a fiscal backstop to finance bank recapitalizations in the event that existing or new shareholders are unable to do it.

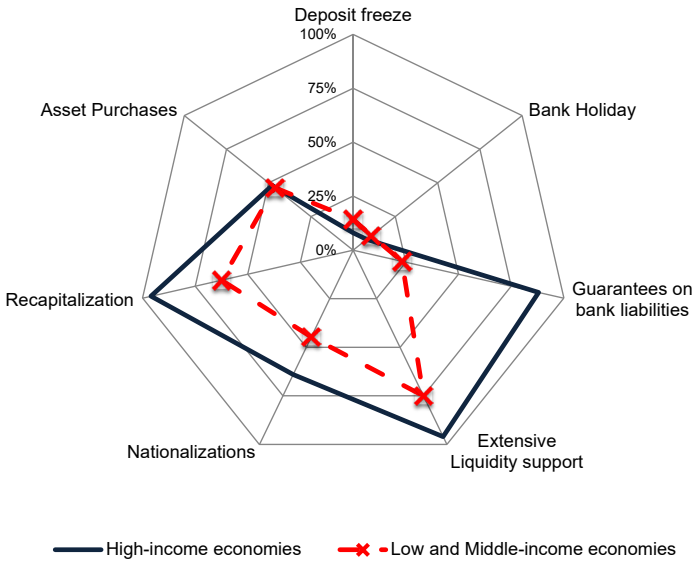
It is important to note that regulatory reforms implemented since the global financial crisis, notably Basel III's introduction of releasable capital buffers (notably the CCyB), have significantly diversified the crisis-response toolkit available to governments. Unlike the 1980s and 1990s—when governments often relied on prolonged liquidity provision even amid solvency issues—post-GFC regulation enhanced both the flexibility and effectiveness of crisis responses, including through the introduction of structured capital buffers such as the capital conservation buffer and countercyclical capital buffer (CCyB), alongside enhanced liquidity standards like the Liquidity Coverage Ratio (LCR). These frameworks require banks to build capital and liquidity in

good times and permit authorities to release it during downturns, thereby bolstering resilience and enabling institutions to continue lending without breaching regulatory thresholds. The value of these reforms was evident during the COVID-19 crisis (e.g., Abboud and others, 2021; IMF, 2020; Basel Committee on Banking Supervision, 2021), where a wave of systemic banking crises was avoided.

During the early stages of banking crises, and often in combination with liquidity support, governments have also resorted to limited or full guarantees on some or most bank liabilities, to help stem bank runs and alleviate liquidity pressures on these entities, as documented in Laeven and Valencia (2012, 2020). In cases where liquidity pressures have been significant, countries have in some cases resorted to administrative measures, suspending the convertibility of deposits into cash and restricting foreign payments. These “deposit freezes” have often been preceded by bank holidays—the temporary closure of banks—often by design as banks need some time to adapt their IT systems and procedures to the new regime. However, bank holidays and deposit freezes have been rarely used. The most recent cases in our sample of deposit freezes include Cyprus in 2013, Ukraine in 2014, Greece in 2015, and Lebanon in 2019 and of bank holidays Cyprus, Greece, Lebanon, and Sri Lanka.

Private or public recapitalization of viable institutions, resolution of insolvent ones, and even outright nationalization are policies common in the sample, with the appropriateness and effectiveness of these tools in situations of severe financial distress widely studied in the theoretical and empirical literature (e.g., Philippon and Schnabl, 2013; Sandri and Valencia, 2013; Homar and others, 2017; Giannetti and Simonov, 2013; and Laeven and Valencia, 2013). Bank recapitalization with public funds is often the most important component of direct fiscal costs from government intervention in the financial sector. Government capital injections, encompassing often a combination of preferred and common equity, have also been accompanied by conditions or restrictions, for instance requiring board seats for government representatives, and limiting or prohibiting dividend payments (Laeven and Valencia, 2008). These recapitalizations can often lead governments to own a majority share of a bank’s capital, which together with outright nationalizations, often means the government retains ownership of those assets for many years after the crisis (Igan and others, 2019). Figure 4 summarizes at a high level, the policy mix used in banking crises, which remains broadly the same after the current update relative to what we reported in Laeven and Valencia (2020).

Figure 4. Containment and Resolution Policies



Source: Authors' calculations.

The figure makes it clear that countries of both income groups resort broadly to the same types of policies to resolve systemic banking crises, except for guarantees. Significant guarantees on bank liabilities are more common among high-income countries, which could be explained by generally stronger institutions, possibly more fiscal space, or lower prevalence of bank liabilities denominated in foreign currency. The latter could affect the credibility of blanket guarantees depending on the available foreign exchange (FX) liquidity.

VI. Crises Outcomes

We report data on the direct fiscal costs, measured as fiscal outlays linked to government intervention policies in the banking system; peak nonperforming loans (NPLs); crisis duration, measured in number of years between the start and end of the crisis; and output losses, measured as the 4-year cumulative deviation of output from its pre-crisis trends. Detailed crises outcome data is reported in Table A2 of Appendix I.

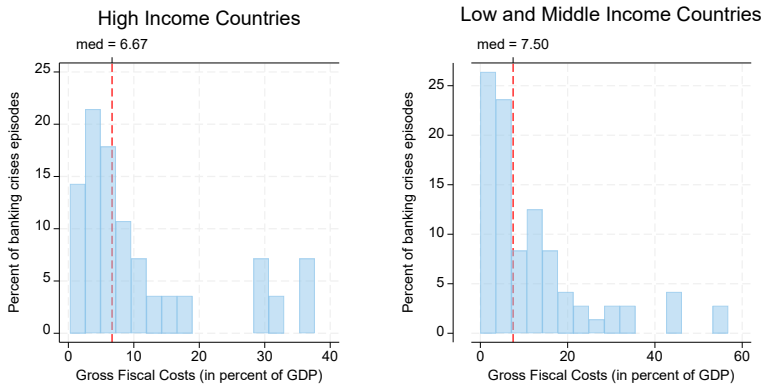
A. Fiscal Costs of Banking Crises

We measure fiscal costs of banking crises as the sum of all fiscal outlays directly linked to government interventions to stabilize the banking system since the start of the crisis. These interventions include capital injections in financial institutions, operating costs of agencies or entities such as asset management companies, exercised public guarantees, and any other fiscal costs directly attributable to the rescue of financial institutions.

In reporting the fiscal costs of a banking crisis episode, we normalize the outlays by the nominal gross domestic product of the year in which they are incurred and sum them up. We do not include government guarantees of bank liabilities or assets because they do not represent an outlay,[8] although they are critical if one wanted to measure the total ex-ante risk taken by the public sector during the early stages of a banking crisis. Our ex-post analysis focuses on the actual fiscal costs of a banking crisis episode.[9] Data on fiscal costs are collected from official country publications, supranational agencies, and IMF staff reports.[10]

Figure 5. Gross Fiscal Costs of Banking Crises

Percent of Episodes by Gross Fiscal Costs and Income Level



Source: Authors' calculations.
Note: Fiscal costs correspond to government outlays directly linked to policies to stabilize the financial system.

[8] Our calculation of fiscal costs also excludes deferred tax assets (i.e., for Spain, these deferred tax assets amounted to €70 billion as of end-2016 according to IMF, 2017).

[9] The fiscal costs are reported in percent of GDP where nominal outlays have been converted in domestic currency and are divided by the nominal GDP of the corresponding year when the outlays took place.

[10] The fiscal costs for this paper are taken from Laeven and Valencia (2020), except for the episodes we identified in this paper. For Lebanon (2019), direct fiscal costs are not available but the 2023 Article IV consultation staff report noted estimated overall losses in the financial system at about US$70 bn (more than 300 percent of the estimated 2022 GDP).

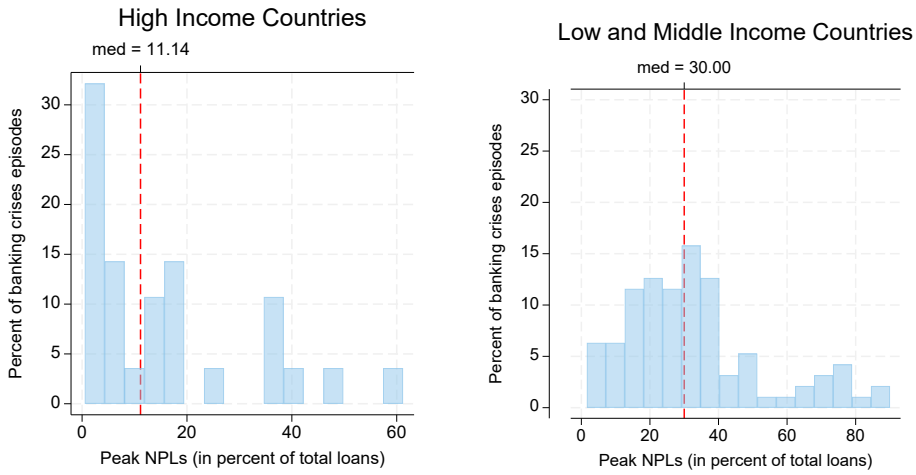
The histograms in Figure 5 show substantial variation in the fiscal costs of systemic banking crises episodes, both in high-income and low and middle-income economies. The median cost for crises in high-income countries is 6.7 percent of GDP and 7.5 percent of GDP for low and middle-income countries. The substantial heterogeneity in fiscal costs shown in the picture reflects the interplay of pre-crisis vulnerabilities, the speed and design of crisis resolution, and structural conditions, which differ across crisis episodes, as documented in previous work (e.g., Pazarbasioglu, Laeven, Claessens, Valencia, and others, 2011; Claessens, Kose, Laeven, and Valencia, eds., 2014; Laeven and Valencia, 2020).

B. Peak Nonperforming Loans

Nonperforming loans are one indicator that can help provide a sense of the direct impact of the crisis on banks' portfolios, even though it may be affected by changes in regulation, the presence of regulatory forbearance, and non-homogeneous definitions across countries. Nonetheless, it is a simple proxy that allows to examine ex post the deterioration in asset quality during a crisis event, even if it reaches a peak several years after the start of the crisis. Figure 6 shows the distribution of peak NPLs in the two groups of countries. The median peak NPL among crises in high-income countries slightly exceeds 11 percent. In contrast, the median peak NPL reaches 30 percent among crises episodes in low and middle-income economies, notwithstanding the caveat on definitions mentioned above.

Figure 6. Peak NPLs in Banking Crises Episodes

Percent of Episodes by Peak NPL Ratio and Income Level



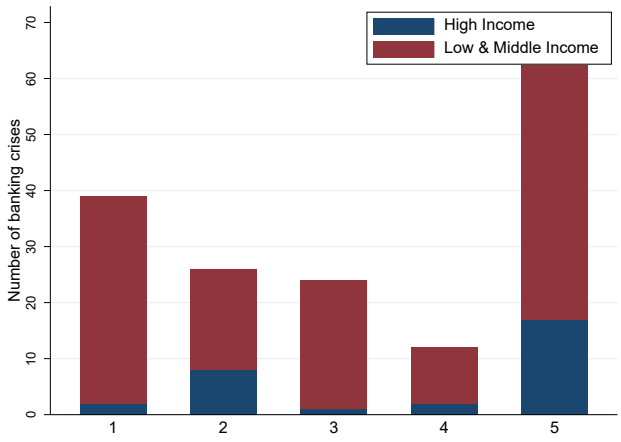
Source: Authors' calculations.

C. Systemic Banking Crises Duration

Following the same definition as in Laeven and Valencia (2013, 2020), we also report end dates for each crisis episode, defined as the year before both real GDP growth and real credit growth are positive for at least two consecutive years.11 The rationale for identifying the end of a banking crisis through this approach hinges on the notion that a deterioration in bank solvency can disrupt the supply of credit (e.g. Bernanke and Gertler, 1987; Van Den Heuvel, 2006; Valencia, 2014; Abbasi and others, 2016) and these disruptions to the supply of credit can have real effects (e.g. Peek and Rosengren, 1997; Ashcraft, 2005; Kroszner and others, 2007; Dell'Ariccia and others, 2008; and Alfaro and others, 2017). Therefore, we look for an inflexion point in the evolution of credit in real terms and in real GDP growth that we interpret as the end of the crisis episode.

Figure 7. Banking Crises Duration

In years, by income level



Source: Authors' calculations.

Figure 7 shows the distribution of the estimated duration of banking crises episodes, differentiating them by income level. In all cases, and as in previous versions of our database, we truncate the duration of a crisis at five years, starting from the first year of the crisis. Table

[11] In computing end dates, we use bank credit to the private sector (in national currency) from IFS. Bank credit series are deflated using CPI from WEO. GDP in constant prices (in national currency) also comes from the WEO. When credit data are not available, the end date is determined as the first year before GDP growth is positive for at least two years. When the definition is met in the first year of the crisis, then we set the crisis end year equal to the starting year.

A1 in the appendix indicates in which episodes our methodology would have implied a longer crisis in absence of this truncation assumption. Its rationale follows from the fact that as the horizon lengthens, other factors influence whether and when we see an inflexion point, given also we are working with credit stocks not flows. These other factors include other shocks, credit write-offs, and restructurings, which could bias upwards the duration of the crisis episode. The chart shows that about two-thirds of crises ended in less than five years, with crises in high-income countries tending to be more persistent, lasting five years or more. In contrast, most crises in low and middle-income countries lasted four years or less.

Crisis severity may be an important factor explaining these differences in duration as many crises in high-income countries correspond to the global financial crisis. At the same time, larger financial systems and institutions in these countries add a layer of complexity to the resolution of the crisis, which could help explain the longer duration of crises. Finally, the ability of high-income countries to rely also on monetary and fiscal policy to mitigate the real effects of banking crises may also reduce the urgency of more active bank restructuring which could ultimately prolong the duration of a crisis (Claessens et al., 2011).

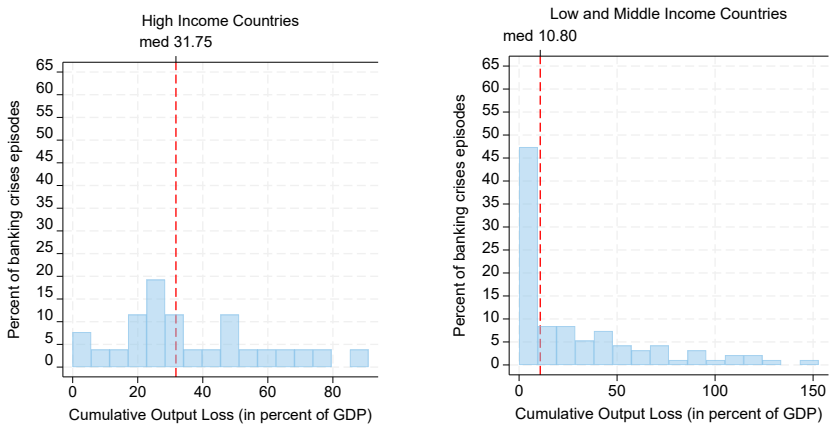
D. Output Losses

We report output losses associated with banking crises episodes, computed as deviations of actual GDP from its trend. [12] The output losses are reported in cumulative terms over [T, T+3], with T denoting the starting year of the crisis, and expressed in percent of one year's trend GDP. A caveat worth mentioning upfront is that these losses should be interpreted as losses happening around crises episodes but not as caused solely by the banking crisis as these losses may include the consequences of multiple shocks affecting the economy before, during, and after a banking crisis. While admittedly the level of output losses is sensitive to how the trend is calculated, Laeven and Valencia (2013) showed that the ranking of crises is robust to using alternative sample periods when computing the trend. Therefore, the metric is primarily adequate to capture the relative size and heterogeneity of output losses across crises.

[12] Output losses are computed as the cumulative sum of the differences between actual and trend real GDP over the period [T, T+3], expressed as a percentage of trend real GDP, with T the starting year of the crisis. Trend real GDP is computed by applying an HP filter (with λ=100 for annual data) to the log of real GDP series over [T-20, T-1] or the longest available series as long as it includes at least 4 pre-crisis observations. Real GDP is extrapolated using the trend growth rate over the same period. For crisis that started in 2013 or later, the calculations are based on real GDP data from the fall 2025 World Economic Outlook (WEO) database. For earlier crises, the output losses are taken from Laeven and Valencia (2020).

Figure 8. Output Losses around Banking Crises

Percent of Episodes by Output Loss Range and Income Level



Source: Authors' calculations.

Figure 8 shows that the output losses in high-income countries tend to be much larger than those in low and middle-income countries. As with the earlier result on crisis duration, the larger output losses in high-income countries could be explained by the presence of larger and deeper financial systems, whose disruption has stronger effects on the real economy.

VII. Conclusions

This paper updates the Laeven and Valencia systemic banking crises database – last updated in 2020 – through the end of 2025. To ensure comprehensive coverage and reduce the instances of "missed" cases, we adopt text analysis tools to scan media, published IMF staff reports, central bank reports, and other sources to identify potential crises episodes which we then assess against our definition.

The update shows that, despite global economic shocks such as the COVID-19 pandemic and the global inflation surge, systemic banking crises remained relatively rare between 2020 and 2025, reflecting increased resilience of the global banking sector. However, banking turmoil in 2023, notably in the U.S. and Switzerland, underscores the continued relevance of research on how to avoid, alleviate, and resolve banking crises, for which this banking crises database is an important input. This database will continue to support a broad range of policy and analytical uses—from understanding cross-country vulnerability patterns and evaluating resolution frameworks to assess the macroeconomic effects of crises and the effectiveness of containment measures.

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Appendix I. Banking Crises Episodes and Policy Responses

Table A1. Banking Crises Dates, Resolution, and Outcomes

Country	Start	End	Output loss [1/]	Fiscal Costs [2/] (% of GDP)	Peak liquidity [3/]	Peak NPLs [4/]
Albania	1994	1994	…	...	7.6	26.8
Algeria	1990	1994 5/	41.4	...	37.6	30.0
Angola	2016	2020 5/	69.9	2.6	7.2	29.8
Argentina	1980	1982	58.2	55.1	64.6	9.0
Argentina	1989	1991	12.6	6.0	151.6	27.0
Argentina	2001	2003	71.0	9.6	22.9	20.1
Argentina 5/	1995	1995	0.0	2.0	71.4	17.0
Armenia 4/	1994	1994	…	...	41.4	...
Austria	2008	2012 5/	19.2	5.2	10.0	4.1
Azerbaijan	2015	2019 5/	90.5	31.0	20.1	17.2
Azerbaijan	1995	1995	...	...	127.6	...
Bangladesh	1987	1987	0.0	...	26.0	20.0
Belarus	1995	1995	...	...	35.8	...
Belgium	2008	2012 5/	15.7	6.2	13.7	4.2
Benin	1988	1992 5/	14.9	17.0	99.6	80.0
Bolivia	1986	1986	49.2	...	57.5	30.0
Bolivia	1994	1994	0.0	6.0	31.9	6.2
Bosnia and Herzegovina	1992	1996 5/	...	...	...	...
Brazil	1994	1998	0.0	13.2	20.1	16.0
Brazil 5/	1990	1994 5/	62.3	0.0	11.3	...
Bulgaria	1996	1997	59.5	14.0	17.3	75.0
Burkina Faso	1990	1994	...	...	9.4	16.0
Burundi	1994	1998 5/	121.2	...	23.4	25.0
Cameroon	1987	1991 5/	105.5	...	59.1	65.0
Cameroon	1995	1997	8.1	...	12.3	30.0
Cape Verde	1993	1993	0.0	...	4.0	30.0
Central African Republic	1976	1976	0.0	...	90.8	...
Central African Republic	1995	1996	9.0	...	24.8	40.0
Chad	1983	1983	0.0	...	199.3	...
Chad	1992	1996 5/	0.0	...	120.9	35.0
Chad	2015	2019 5/	55.1	0.1	40.2	31.5
Chile	1976	1976	19.9	...	32.2	...

Country	Start	End	Output loss [1/]	Fiscal Costs [2/] (% of GDP)	Peak liquidity [3/]	Peak NPLs [4/]
Chile	1981	1985 5/	8.6	42.9	61.2	35.6
China	1998	1998	19.4	18.0	62.0	20.0
Colombia	1982	1982	47.0	5.0	21.1	4.1
Colombia	1998	2000	43.4	6.3	5.1	14.0
Costa Rica	1987	1991	0.0	...	20.2	...
Costa Rica	1994	1995	0.0	...	15.2	32.0
Cote d'Ivoire	1988	1992 5/	45.0	25.0	76.9	50.0
Croatia	1998	1999	...	6.9	3.2	10.5
Cyprus	2011	2015 5/	59.3	18.0	20.3	47.8
Czech Republic 5/	1996	2000 5/	...	6.8	12.7	18.0
Democratic Republic of Congo	1983	1983	1.4	...	20.0	...
Democratic Republic of Congo	1991	1994 5/	129.5	...	44.7	...
Democratic Republic of Congo	1994	1998 5/	79.0	...	77.3	75.0
Denmark	2008	2009	35.0	5.9	17.7	5.95
Djibouti	1991	1995 5/	42.6	...	5.2	...
Dominican Republic	2003	2004	12.5	22.0	43.4	9.0
Ecuador	1982	1986 5/	98.2	...	146.7	...
Ecuador	1998	2002	25.4	21.7	26.0	40.0
Egypt	1980	1980	0.9	...	66.7	...
El Salvador	1989	1990	0.0	...	51.6	37.0
Equatorial Guinea	1983	1983	0.0	...	75.8	...
Equatorial Guinea	2015	2019 5/	121.8	0.7	34.8	60.0
Eritrea	1993	1993	...	...	...	...
Estonia	1992	1994	...	1.9	30.9	7.0
Eswatini	1995	1999 5/	45.7	...	3.6	...
Finland	1991	1995	69.6	12.8	12.0	13.0
France 5/	2008	2009	23.3	1.3	9.6	4.5
Georgia	1991	1995 5/	...	...	...	33.0
Germany	2008	2009	12.3	2.7	12.9	3.7
Ghana	1982	1983	45.3	6.0	0.2	35.0
Ghana	2017	2021 5/	2.5	4.4	11.4	22.6
Greece	2008	2012 5/	64.9	28.7	61.7	37.1
Guinea	1985	1985	0.0	3.0	...	...
Guinea	1993	1993	0.0	...	14.6	45.0
Guinea-Bissau	1995	1998	29.6	...	137.3	45.0
Guinea-Bissau	2014	2016	0.0	5.0	33.4	25.7

Country	Start	End	Output loss [1/]	Fiscal Costs [2/] (% of GDP)	Peak liquidity [3/]	Peak NPLs [4/]
Guyana	1993	1993	0.0	...	1.8	...
Haiti	1994	1998	37.5	...	4.8	...
Hungary	1991	1995 5/	0.0	10.0	47.0	23.0
Hungary 5/	2008	2012 5/	37.3	2.9	2.3	17.3
Iceland	2008	2012 5/	34.5	37.6	33.8	61.2
India	1993	1993	0.0	...	4.3	20.0
Indonesia	1997	2001 5/	69.0	56.8	23.1	32.5
Ireland	2008	2012 5/	107.7	37.6	18.1	25.7
Israel	1983	1986	42.7	30.0	5.3	...
Italy	2008	2009	32.2	0.7	19.4	18.0
Jamaica	1996	1998	37.8	43.9	0.4	28.9
Japan	1997	2001 5/	45.0	8.6	2.4	35.0
Jordan	1989	1991	106.4	10.0	20.7	...
Kazakhstan	2014	2018 5/	36.4	4.0	6.9	22.6
Kazakhstan 5/	2008	2008	0.0	3.7	6.6	37.7
Kenya	1985	1985	23.7	...	2.0	...
Kenya	1992	1994	50.3	...	25.2	...
Korea	1997	1998	57.6	31.2	27.4	17.7
Kuwait	1982	1985	143.4	...	9.6	40.0
Kyrgyz Republic	1995	1999 5/	...	...	286.1	85.0
Latvia	2008	2012 5/	93.9	8.1	3.6	15.9
Latvia	1995	1996	...	3.0	9.2	20.0
Lebanon	1990	1993	102.2	...	4.4	...
Lebanon	2019	2023 5/	133.5	...		15.0
Liberia	1991	1995 5/	...	...	85.2	...
Lithuania	1995	1996	...	3.1	27.5	32.2
Luxembourg	2008	2012 5/	43.3	7.2	6.0	1.7
Madagascar	1988	1988	0.0	...	20.2	25.0
Malaysia	1997	1999	31.4	16.4	9.7	30.0
Mali	1987	1991 5/	0.0	...	50.5	75.0
Mauritania	1984	1984	7.5	15.0	48.4	70.0
Mexico	1981	1985 5/	26.6	...	5.3	...
Mexico	1994	1996	13.7	19.3	16.8	18.9
Moldova	2014	2018 5/		11.7	24.7	16.4
Mongolia	2008	2009	0.0	5.1	34.5	20.0
Morocco	1980	1984 5/	21.9	...	22.1	...
Mozambique	1987	1991 5/	0.0	...	4.2	...
Nepal	1988	1988	0.0	...	14.6	29.0
Netherlands	2008	2009	26.1	14.3	5.5	3.2

Country	Start	End	Output loss [1/]	Fiscal Costs [2/] (% of GDP)	Peak liquidity [3/]	Peak NPLs [4/]
Nicaragua	1990	1993	11.4	...	195.1	50.0
Nicaragua	2000	2001	0.0	13.6	21.8	12.7
Nicaragua 5/	2018	2020	61.6	...	6.2	5.0
Niger	1983	1985	97.2	...	45.6	50.0
Nigeria	1991	1995 5/	0.0	...	6.6	77.0
Nigeria	2009	2012	14.0	11.8	49.6	30.1
North Macedonia	1993	1995	0.0	32.0	22.3	70.0
Norway	1991	1993	5.1	2.7	16.9	16.4
Panama	1988	1989	85.0	12.9	3.6	...
Paraguay	1995	1995	15.3	12.9	27.3	8.1
Peru	1983	1983	55.2	...	16.8	...
Philippines	1983	1986	91.7	3.0	19.4	19.0
Philippines	1997	2001 5/	0.0	13.2	1.4	20.0
Poland	1992	1994	0.0	3.5	45.9	24.0
Portugal	2008	2012 5/	35.0	11.1	25.7	12.9
Republic of Congo	1992	1994	47.4	...	30.7	...
Republic of Congo	2017	2020	72.3	...	4.5	29.2
Romania	1998	1999	0.0	6.5	129.1	30.0
Russia	1998	1998	...	6.0	23.7	40.0
Russia 5/	2008	2009	0.0	2.3	24.2	9.6
São Tomé and Príncipe	1992	1992	1.9	...	...	90.0
São Tomé and Príncipe	2016	2020 5/	0.0	0.3	6.9	34.0
Senegal	1988	1991	5.6	17.0	74.7	50.0
Sierra Leone	1990	1994 5/	34.5	...	0.0	45.0
Slovak Republic	1998	2002 5/	0.0	...	13.0	35.0
Slovenia	1992	1992	...	14.6	10.0	3.6
Slovenia	2008	2012 5/	39.1	9.9	14.2	18.0
Spain	1977	1981 5/	58.5	7.7	7.6	5.8
Spain	2008	2012 5/	38.8	5.4	33.5	9.4
Sri Lanka	1989	1991	19.6	5.0	8.0	35.0
Sri Lanka 5/	2023	…	5.9	1.4	2.4	11.5
Sweden	1991	1995	32.9	3.6	3.1	13.0
Sweden 5/	2008	2009	25.5	0.2	11.1	2.0
Switzerland 5/	2008	2009	0.0	1.1	4.6	0.5
Tajikistan	2016	2018	0.0	6.1	36.6	48.8
Tanzania	1987	1988	0.0	10.0	100.9	70.0
Thailand	1983	1983	24.8	0.7	8.5	...
Thailand	1997	2000	109.3	43.8	5.1	33.0

Country	Start	End	Output loss [1/]	Fiscal Costs [2/] (% of GDP)	Peak liquidity [3/]	Peak NPLs [4/]
Togo	1993	1994	38.8	...	6.2	...
Tunisia	1991	1991	1.3	3.0	31.5	...
Türkiye	1982	1984	35.0	2.5	71.7	...
Türkiye	2000	2001	37.6	32.0	20.5	27.6
Uganda	1994	1994	0.0	...	7.6	...
Ukraine	2008	2010	0.0	4.5	16.4	15.5
Ukraine	2014	2018 5/	75.5	13.9	14.0	55.1
Ukraine	1998	1999	0.0	0.0	19.1	62.4
United Kingdom	2007	2011 5/	25.3	8.8	3.4	4.0
United States	2007	2011	30.0	4.5	4.7	5.0
United States 5/	1988	1988	0.0	3.7	0.1	4.1
Uruguay	1981	1985 5/	38.1	31.2	24.6	...
Uruguay	2002	2005	66.1	20.0	12.8	36.3
Venezuela	1994	1998 5/	1.2	15.0	2.9	24.0
Vietnam	1997	1997	0.0	10.0	64.9	35.0
Vietnam 5/	2022	…	0.0	...		5.85
Yemen	1996	1996	16.4	...	0.8	...
Zambia	1995	1998	31.1	1.4	27.9	...
Zimbabwe	1995	1999 5/	10.4	...	8.6	...

1/ Output losses are computed as the cumulative sum of the differences between actual and trend real GDP over the period [T, T+3], expressed in percent of trend real GDP, with T denoting the starting year of the crisis. The trend is computed by applying an HP filter (λ=100) to the GDP series over [T-20, T-1].
2/ Fiscal costs refer to outlays directly related to the restructuring of the financial sector.
3/ Measured as the ratio of central bank claims (and liquidity provided by the treasury if any) on deposit money banks to total deposits and liabilities to non-residents.
4/ In percent of total loans.
5/ We truncate the duration of crises at 5 years, starting with the first crisis year.
6/ Borderline cases.

Source: WEO, IFS, IMF Staff reports, IMF Financial Soundness Indicators, Laeven and Valencia (2020), and authors' calculation.

Table A2. Banking Crisis Policy Responses

Country	Start 1/	Deposit Freeze		Bank Holiday		Guarantees on Bank Liabilities			Bank Nationalization	Asset Purchase	Bank Recapitalization	IMF Program
		Date	Duration	Date	Duration	Start	Duration	Coverage			In percent of GDP	
			(months)		(days)		(months)					
Angola	2015								N	Y		2018
Argentina	Mar-80								Y	N		1983
Argentina	Dec-89	28-Dec-1989	120	1-Jan-1990	4				N	N		1990
Argentina	Jan-95								N	N	0.28	1995
Argentina	Nov-01	3-Dec-2001	12	31-Dec-2001	5				Y	N	9.58	2000
Austria	Sep-08					Dec-08		Unlimited coverage to depositors, bank and non-bank bonds.	Y	N	3.96	
Azerbaijan	Sep-15					Mar-16	57	All depositors' funds irrespective of the amount and currency denomination	Y	N	1.00	
Belgium	Sep-08					Oct-08		Deposit-like insurance instruments. Interbank loans	Y	N	5.80	

Country	Start 1/	Deposit Freeze		Bank Holiday		Guarantees on Bank Liabilities			Bank Nationalization	Asset Purchase	Bank Recapitalization	IMF Program
		Date	Duration	Date	Duration	Start	Duration	Coverage			In percent of GDP	
			(months)		(days)		(months)					
								and short-term debt. Specific guarantees for Dexia.				
Bolivia	Nov-94								N	Y	0.95	
Brazil	Feb-90	1-Mar-1990	29						N	N	0.00	1989
Brazil	Dec-94								N	N	4.98	
Bulgaria	Jan-96								Y	Y	2.31	1996
Chad	2015								N	N		2017
Chile	Nov-81								N	Y	34.33	1983
Colombia	Jul-82								Y	N	1.87	
Colombia	Jun-98								Y	Y	4.26	
Congo, Republic of	2018								N	N		2019
Cote d'Ivoire	1988								N	Y	small	1985
Croatia	Mar-98								Y	Y	3.20	
Czech Republic	Jun-96					Jun-96	18	Depositors, except shareholders up to CZK4m (at the 18 banks under restructuring)	N	Y	0.98	

Country	Start 1/	Deposit Freeze		Bank Holiday		Guarantees on Bank Liabilities			Bank Nationalization	Asset Purchase	Bank Recapitalization	IMF Program
		Date	Duration	Date	Duration	Start	Duration	Coverage			In percent of GDP	
			(months)		(days)		(months)					
								and CZK0 1m everywhere else				
Cyprus	Jun-11	28-Mar-2013	14	18-Mar-2013	8				Y	Y	18.90	2013
Denmark	Sep-08					Feb-09		Deposits and unsecured claims of PCA banks.	Y	N	2.80	
Dominican Republic	Apr-03								N	Y	0.00	2004
Ecuador	Aug-98	12-Mar-1999	6	8-Mar-1999	5	Dec-98	37	All creditors except for subordinated debt and related parties	Y	Y	1.90	2000
Equatorial Guinea	2015								Y	N		2019
Estonia	Nov-92								Y	Y	1.26	1993
Finland	Sep-91					Feb-93	70	All creditors except for shareholders	Y	Y	8.63	
France	Sep-08					Oct-08			N	N	1.00	
Germany	Sep-08					Oct-08		Unlimited coverage of	Y	Y	1.80	

Country	Start 1/	Deposit Freeze		Bank Holiday		Guarantees on Bank Liabilities			Bank Nationalization	Asset Purchase	Bank Recapitalization	IMF Program
		Date	Duration	Date	Duration	Start	Duration	Coverage			In percent of GDP	
			(months)		(days)		(months)					
								household deposits.				
Ghana	Jan-82								N	Y	6.00	
Ghana	2015								N	N		2015
Greece	Sep-08	20-Jul-2015	37	29-Jun-2015	21	Oct-08			N	Y	25.40	2010, 2012
Guinea-Bissau	2014								N	N		2015
Hungary	Sep-08					Oct-08		Unlimited protection to depositors of small banks.	N	N	0.23	2008
Iceland	Sep-08					Oct-08		Unlimited coverage to domestic deposits.	Y	N	24.30	2008
Indonesia	Nov-97					Jan-98	78	All liabilities of domestic banks (excluding shareholders' capital, subordinated debt, and	Y	Y	37.30	1998

Country	Start 1/	Deposit Freeze		Bank Holiday		Guarantees on Bank Liabilities			Bank Nationalization	Asset Purchase	Bank Recapitalization	IMF Program
		Date	Duration	Date	Duration	Start	Duration	Coverage			In percent of GDP	
			(months)		(days)		(months)					
								related-parties deposits).				
Ireland	Sep-08					Sep-08		Unlimited coverage to most liabilities of 10 banks.	Y	Y	37.13	2010
Italy	Sep-08					Nov-08		State guarantee for new bank liabilities.	N	N	0.30	
Jamaica	Dec-96					Feb-97	11	Depositors' funds in licensed deposit-taking institutions, pension funds managed by authorized institutions, and policy-holders funds in insurance companies	Y	Y	13.90	
Japan	Nov-97					Nov-97	89	All deposits, including interbank deposits	Y	Y	6.61	

Country	Start 1/	Deposit Freeze		Bank Holiday		Guarantees on Bank Liabilities			Bank Nationalization	Asset Purchase	Bank Recapitalization	IMF Program
		Date	Duration	Date	Duration	Start	Duration	Coverage			In percent of GDP	
			(months)		(days)		(months)					
Kazakhstan	Sep-08								N	N	2.40	
Kazakhstan	Feb-14								N	N		
Korea	Aug-97					Nov-97	37	All liabilities (excluding shareholders' capital and subordinated debt) of banks, securities companies, insurance companies, merchant banks, mutual savings and finance companies, and credit unions. Overseas	Y	Y	19.31	1998

Country	Start 1/	Deposit Freeze		Bank Holiday		Guarantees on Bank Liabilities			Bank Nationalization	Asset Purchase	Bank Recapitalization	IMF Program
		Date	Duration	Date	Duration	Start	Duration	Coverage			In percent of GDP	
			(months)		(days)		(months)					
								branches were also included.				
Latvia	Apr-95								N	N	0.00	1993
Latvia	Sep-08	1-Dec-2008	6			Dec-08		Guarantees on Parex syndicated loans	Y	N	3.10	2009
Lebanon	Oct-19	17-Oct-2019	14	17-Oct-2019	14				N	N		
Lithuania	Dec-95								Y	Y	1.70	
Luxembourg	Sep-08					Oct-08		Guarantees on Dexia's debt	Y	N	7.70	
Malaysia	Jul-97					Jan-98	91	Deposits only of commercial banks, finance companies and merchant banks, including overseas branches of	Y	Y	16.40	

Country	Start 1/	Deposit Freeze		Bank Holiday		Guarantees on Bank Liabilities			Bank Nationalization	Asset Purchase	Bank Recapitalization	IMF Program
		Date	Duration	Date	Duration	Start	Duration	Coverage			In percent of GDP	
			(months)		(days)		(months)					
								domestic banking institutions.				
Mexico	Dec-94					Dec-93	109	All bank liabilities except subordinated debt	Y	Y	3.80	1995
Moldova	Nov-14								N	N	0.00	
Mongolia	Sep-08							Unlimited coverage to all deposits.	Y	N	4.20	2009
Netherlands	Sep-08					Oct-08		Interbank loans of solvent banks.	Y	N	6.30	
Nicaragua	Jun-18								N	N		
Nigeria	Aug-09					Oct-09		Guarantees on all interbank transactions, foreign credit lines and pension deposits.	Y	Y	11.80	
Norway	Oct-91								Y	N	2.61	

Country	Start 1/	Deposit Freeze		Bank Holiday		Guarantees on Bank Liabilities			Bank Nationalization	Asset Purchase	Bank Recapitalization	IMF Program
		Date	Duration	Date	Duration	Start	Duration	Coverage			In percent of GDP	
			(months)		(days)		(months)					
Paraguay	May-95					Jul-95	11	Announcement included backing of all deposits, but no explicit breakdown was given.	N	N	1.22	
Philippines	Jul-97								N	N	0.20	1998
Portugal	Sep-08					Oct-08		Debt issued by credit institutions.	N	N	0.00	2011
Russia	Aug-98								Y	Y	0.00	1999
Russia	Sep-08					Nov-08		Interbank borrowing for qualifying banks.	N	N	2.30	
São Tomé and Príncipe	Jul-16								N	N		2019
Slovenia	Sep-08					Dec-08		Unlimited protection for all deposits by individuals and small enterprises until	N	N	0.80	

Country	Start 1/	Deposit Freeze		Bank Holiday		Guarantees on Bank Liabilities			Bank Nationalization	Asset Purchase	Bank Recapitalization	IMF Program
		Date	Duration	Date	Duration	Start	Duration	Coverage			In percent of GDP	
			(months)		(days)		(months)					
								end-2010, and capped at €100,000 thereafter				
Spain	Sep-08					Oct-08			N	Y	2.00	
Sri Lanka	Jun-05								N	N	3.60	
Sri Lanka	Jun-23			29-Jun-2023	5				N	N		2023
Sweden	Sep-91					Sep-92	46	All liabilities, except for shareholders	Y	Y	1.85	
Sweden	Sep-08					Oct-08		Medium-term debt of banks and mortgage institutions	N	N	0.20	
Switzerland	Sep-08								N	Y	1.10	
Tajikistan	2016								Y	N	6.10	
Thailand	Jul-97					Aug-97	89	Deposits, contingent and foreign liabilities (excluding shareholders' capital and subordinated	Y	Y	18.80	1998

Country	Start 1/	Deposit Freeze		Bank Holiday		Guarantees on Bank Liabilities			Bank Nationalization	Asset Purchase	Bank Recapitalization	IMF Program
		Date	Duration	Date	Duration	Start	Duration	Coverage			In percent of GDP	
			(months)		(days)		(months)					
								debt) of banks and finance companies. Directors' and related persons' deposits and/or claims were not covered unless it could be proven that the transactions were at arms' length.				
Turkey	Nov-00					Dec-00	43	All liabilities (including contingent) of domestically incorporated banks except for owners' deposits, deposits linked to criminal activities, subordinated debt, and equity	Y	Y	24.50	2000

Country	Start 1/	Deposit Freeze		Bank Holiday		Guarantees on Bank Liabilities			Bank Nationalization	Asset Purchase	Bank Recapitalization	IMF Program
		Date	Duration	Date	Duration	Start	Duration	Coverage			In percent of GDP	
			(months)		(days)		(months)					
Ukraine	Aug-98								N	N	0.00	1995
Ukraine	Sep-08								Y	N	4.50	2009, 2010
Ukraine	Feb-14	1-Mar-2014	40						Y	N	7.20	2014
United Kingdom	Sep-07					Oct-08		Guarantee on short-to-medium term debt; blanket guarantee on Northern Rock and Bradford & Bingley wholesale deposits.	Y	Y	5.00	
United States	Dec-07					Oct-08		Money market funds (capped at US$50 billion); full guarantee on transaction deposits; newly issued senior unsecured debt.	Y	Y	3.60	

Country	Start 1/	Deposit Freeze		Bank Holiday		Guarantees on Bank Liabilities			Bank Nationalization	Asset Purchase	Bank Recapitalization	IMF Program
		Date	Duration	Date	Duration	Start	Duration	Coverage			In percent of GDP	
			(months)		(days)		(months)					
Uruguay	Jan-02	5-Aug-2002	36	30-Apr-2002	5				Y	Y	6.18	1996
Venezuela	Jan-94								Y	N	5.59	1996
Vietnam	Nov-97								N	Y	5.00	
Vietnam	2022								N 2/	N		

Source: Laeven and Valencia (2020), and authors' calculations

1/ Where feasible, the date includes the month of the crisis. As a result, this table includes only a subset of the crises presented in Table A1, in addition to the availability of more details on the policy response relative to all cases reported in Table A1.

2/ Saigon Commercial Bank (SCB) was placed under special control measures under the central bank in 2023 without transfer of ownership.

Appendix II. Implementation of Textual Analysis

To prepare the text for analysis, we applied first a cleaning and filtering process. This process involved splitting the raw text into sentences, removing punctuation and unwanted characters, and eliminating elements such as section headers, titles, table rows, hyperlinks, and footnotes. Each sentence was then tokenized and lemmatized, which included converting sentences to lowercase, removing stopwords, and retaining only valid English words. We used the WordNet lemmatizer from the Natural Language Toolkit (NLTK) in Python for lexical normalization, and then stored the lemmatized words in the dataset. All steps are programmed in Python.

Table A3. Dictionary for Textual Analysis

administrative liquidation, asset backed security, asset fall, asset guarantee, asset purchase, assist bank funding, assisted merger, authority responded, automatic stabilizer, bad bank, bailout, bank, bank asset purchase, bank assistance, bank authority, bank bailout, bank capitalization, bank closure, bank collapse, bank collateral, bank consolidation, bank crisis, bank default, bank distress, bank emergency, bank exposure, bank failure, bank freeze, bank funding assistance, bank guarantee, bank holiday, banking collapse, banking crisis, banking distress, banking regulation, banking sector vulnerability, banking support, banking system, banking turmoil, bank involvement, bank liquidation, bank loss, bank management, bank measure, bank nationalization, bank obligation, bank panic, bank problem, bank recapitalization, bank reform, bank rehabilitation, bank rescue, bank resolution, bank restructuring, bank run, bank squeeze, bank stimulus, bank suffered, bank support, bank turmoil, bank vulnerability, bank writedown, biggest bank, bridge bank, blanket deposit guarantee, blanket guarantee, capital adequacy, capital buffer, capital crunch, capital erosion, capital failure, capital infusion, capital injection, capital loss, capital market, capital reserve, capital requirement, capital risk, capital shortage, capital support, compensation scheme, confidence dropped, contagion, contagion risk, contingency plan, contingency planning, central bank intervened, central bank intervention, clearing bank, credit collapse, credit crunch, credit default, credit failure, credit guarantee, credit instability, credit loss, credit risk, credit squeeze, crisis management, crisis response, debt amortization, deep recession, default, deposit guarantee, deposit freeze, deposit insurance, depositor concern, depositor reimbursement, depositor protection, depositor withdrawal, deposit protection, deposit reimbursement, deposit withdrawal, deteriorating asset quality, deteriorating economic outlook, deterioration, downsize, downsizing, ecb lending, economic challenge, economic difficulty, economic downturn, economic instability, economic sector fragility, economic slowdown, economic weakness, emergency intervention, emergency liquidity, emergency measure, emergency support, equity injection, financial collapse, financial contagion, financial crisis, financial default, financial distress, financial loss, financial market disruption, financial meltdown, financial problem, financial risk, financial sector guarantee, financial stabilization, financial

stabilization package, financial stress, financial system risk, financial trouble, financial turmoil, financial volatility, financial vulnerability, funding guarantee, funding pressure, funding risk, funding tightness, government bailout, government freeze, government funding assistance, government guarantee, government intervened, government intervention, government involvement, government pledged, government measure, government nationalization, government recapitalization, government rescue, government support, guarantee, high leverage ratio, idiosyncratic risk, illiquidity, impaired loan, increased risk, increased uncertainty, inject capital, injected capital, inject fund, injection capital, injecting fund, insolvency, insolvent, insurance company, interbank exposure, interbank funding, interbank lending, interbank loan, interbank market, intervene, intervention, intervention framework, intervention measure, involvement bank, large bank, large financial institution, large private bank, large public bank, largest bank, last resort, liquidate, liquidity assistance, liquidity monitoring, liquidity pressure, liquidity risk, liquidity shortage, liquidity support, loan impairment, macroprudential policy, major bank, major financial institution, management change, market authority, market distortion, market resolution, market supervision, market support, market turbulence, market turmoil, national bank, national central bank, nationalized, non performing, npl, npls, nonperforming loan, panic, policy intervention, policy measure, public guarantee, public sector support, purchase assets, recapitalization, recapitalize bank, recovery, reduced credibility, regulatory forbearance, regulatory guideline, regulatory intervention, regulatory measure, regulatory requirement, regulatory response, reserve, rescue, resolution measure, restructure, restructuring, rising vulnerability, risk financial system, rollover risk, safety net, securitization, securities regulator, shareholder dilution, solvency concern, state guarantee, state support, stimulus, strengthen financial stability, stress test, stress testing, structural weakness, support market liquidity, support measure, support package, systematic intervention, systemic concern, systemic disruption, systemic pressure, systemic risk, tail risk, tightening lending, toxic asset, troubled bank, troubled financial institution, troubled institution, undercapitalisation, undercapitalization, unsecured financing, unsound bank, vulnerability banking sector, vulnerability financial system, weak bank, wholesale funding.

PUBLICATIONS

Systemic Banking Crises Database: 1970-2025

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