

Two Centuries of Systemic Bank Runs[†]

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July 2026

Abstract

Bank runs are a central concern for financial stability, yet empirical evidence on their incidence and macroeconomic aftermath remains scarce. We construct a novel database of bank runs covering 192 countries since 1800, combining narrative evidence from 667 sources with statistical indicators of aggregate deposit contractions. Systemic runs—those accompanied by country-level deposit outflows—are followed by output losses of around 9% over five years, far larger than those following non-systemic runs or deposit contractions outside of runs. The output costs of systemic runs are more severe when a fundamental cause is present, yet runs remain costly even when they are panic-driven rather than due to deteriorating fundamentals. Deposit insurance and the presence of a central bank are associated with a lower probability of runs turning systemic, and liquidity support and liability guarantees with smaller output losses. Our findings suggest that both fundamentals and disruptions to bank liabilities shape the downturns that accompany bank runs.

JEL Classification Codes: E44, G01, G20, G21, G28, N20

Keywords: bank runs, banking crises, macroeconomic costs, long-run data

[†]Jamilov acknowledges funding by the John Fell Fund (CUD00490). König acknowledges funding by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) through CRC TR 224 (Project C03). Müller acknowledges support from a Singapore MOE PYP grant (WBS A-0003319-01-00 and A-0003319-02-00), Tier 1 grant (A-8001749-00-00), and the NUS Risk Management Institute (A-8002360-00-00). Saidi acknowledges funding by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) under Germany's Excellence Strategy (EXC 2126/2 – 390838866) and through CRC TR 224 (Project C03). We would like to thank Viral Acharya, Matt Baron, Michael Bordo, David Chambers, Alessandro Dovis, Martin Ellison, Thomas Flanagan, James Forder, Ricardo Duque Gabriel, Mariassunta Giannetti, Itay Goldstein, Dan Greenwald, Kinda Hachem, Raj Iyer, Matthew Jaremski, Anil Kashyap, Narayana Kocherlakota, Peter Koudijs, Arvind Krishnamurthy, Stephan Luck, David Martinez-Miera, Chris Meissner, Éric Monnet, Cecilia Parlatore, Jonathan Payne, Diane Pierret, Rafael Repullo, Hélène Rey, Björn Richter, Anthony Saunders, Philipp Schnabl, Moritz Schularick, André Silva, Nico Thürow, Harald Uhlig, Emil Verner, Guillaume Vuillemy, Olivier Wang, Chenzi Xu, Kaspar Zimmermann, as well as seminar participants at Boston College, Brown University, INSEAD, Banque de France, Bank for International Settlements, CEMFI, Imperial College London, Kiel Institute for the World Economy, NYU Stern, Universidad Carlos III de Madrid, University of Oxford, London Business School, Bank of England, Asia School of Business, Finance in the Tuscan Hills, Miami Business School, CEPR Macro History Online Seminar, 2024 CEPR IMF Annual Meeting, Banco de Portugal & CEPR Conference on Financial Intermediation, Qatar Centre for Global Banking & Finance, 2024 Yale Symposium on Financial Stability, 2024 CEBRA Annual Meeting, 2024 Wharton Conference on Liquidity and Financial Fragility, 2025 Adam Smith Workshop, 2025 FIRS Annual Conference, 2025 LBS Summer Finance Symposium, 2025 WFA Annual Meeting, 2025 EFA Annual Meeting, and 2026 Stockholm International Banking Crisis Management Conference for helpful comments. Ziliang Chen, Mohamed Lehib, Robin Bae, Sunandita Borah, Lingzhi Cai, Johannes Frenken, Juliane Grill, Xiangzhu Han, Jia Ying Hsiao, Tongyu Hu, Utkarsh Kumar, Max Kordon, Hendriyono Rachman, Allah Rakha, Carlo Schröter, Sachin Sharma, Devang Shekhar, and Sin Yan Tang provided outstanding research assistance. Additional materials including datasets can be found on the project website: www.systemicbankruns.com.

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1 Introduction

Banks play an important role in the economy by providing long-term loans funded by short-term deposits. At the same time, this maturity transformation also gives rise to an inherent vulnerability: the possibility of bank runs (Diamond and Dybvig, 1983). Despite the prominence of runs in economic theory, and renewed interest in better understanding them in the wake of the 2023 Silicon Valley Bank run, the existing empirical evidence is mostly confined to banking crises reflecting both solvency and liquidity events, or individual bank run episodes. To fill this gap, we introduce a novel cross-country dataset of 405 episodes of bank runs covering 192 countries over the period 1800-2024, which allows us to systematically study bank runs and their relationship with the macroeconomy.¹

Because bank runs are relatively infrequent, the unprecedented geographical and historical coverage of our dataset provides us with the necessary statistical power to test competing views about these events. At the heart of our work are two data contributions. First, we collect narrative evidence on the incidence of bank runs from 667 individual sources, such as historical newspapers, central bank publications, specialized scholarship on the banking history of individual countries, and existing chronologies of financial crises. 214 out of the 405 runs we identify are not covered by existing crisis lists and thus entirely new events. Second, we construct a new dataset on country-level banking sector outstanding deposits, which allows us to identify 1,356 episodes of banking sector-wide deposit outflows. While aggregate deposit contractions can reflect various factors beyond mass depositor withdrawals, our combined narrative-statistical approach helps isolate genuine bank run episodes from other sources of deposit volatility.²

We begin by documenting new stylized facts. First, we measure the probability of bank runs across time and space, a key parameter in macro-finance models and an important ingredient for policy analysis (Goldstein and Pauzner, 2005). The average unconditional frequency of bank runs over the period 1800-2024 is about 2.4%. The frequency of bank runs trended upwards until World War II, fell considerably during the relative financial calm between 1940 and 1970, and increased during the turbulent decades from 1980 to 2010. Second, to compare bank runs to other sources of financial instability, we also construct a unified indicator of banking crises by combining the influential crisis lists

¹By a bank run, we mean a situation in which “depositors rush to withdraw their deposits because they expect the bank to fail” (Diamond and Dybvig, 1983, p. 401). While we build on Diamond and Dybvig’s definition, bank runs do not have to be sunspot events. As we will explain below, we focus entirely on *retail* runs, not wholesale funding runs.

²All datasets are available on www.systemicbankruns.com. Table A.1 in the Online Appendix presents our bank run chronology. Online Appendix B and C provide extensive details on coverage and sources for the narrative run database and the dataset of outstanding deposits, respectively.

of Baron et al. (2021), Laeven and Valencia (2018), Jordà et al. (2017), and Reinhart and Rogoff (2009b). While about half of these banking crises coincide with runs, there are many episodes of runs without crises and vice versa.³ We thus identify hundreds of events capturing threats to financial stability that are absent from the existing literature.

Equipped with our new narrative chronology and statistical data on deposit withdrawals, we classify bank runs into *systemic* and *non-systemic* episodes. This empirical classification speaks directly to the theories of endogenous systemic bank runs of Diamond and Rajan (2005) and Uhlig (2010). While some runs are idiosyncratic in nature and only affect individual institutions, others can propagate across the banking system when deposit withdrawals at one bank increase the likelihood of runs at other banks. Both contagion effects and runs on large banks should manifest as measurable contractions in the aggregate deposit base. We therefore classify a bank run as systemic when narrative evidence of a run coincides with objective statistical evidence of declining total banking sector deposits. To accommodate the fact that a reallocation of deposits alone may capture disruptions to bank liabilities (e.g., Acharya et al., 2025), we also consider bank runs to be systemic if they are accompanied by a drop in either demand or time deposits, even if total deposits are unaffected. Conditional on the availability of deposit data, this classification yields 181 systemic and 158 non-systemic bank run episodes.

To understand what happens during systemic bank runs at a more granular level, we complement our cross-country analysis with detailed bank-level data. We start with evidence from the United States, for which the available bank-level data overlap with a large number of bank runs. Specifically, we combine historical bank balance sheet data from the National Banking Era between 1867 and 1904 (Carlson et al., 2022) with Call Reports data for the period 1976-2020. Systemic bank runs are associated with a significant reallocation of deposits and larger deposit outflows than banking crises or normal times. The affected banks cannot make up for the loss in deposit liabilities and contract their lending.

In international bank-level data spanning 1987Q1 to 2026Q1, we show that deeper aggregate deposit contractions are also associated with a higher dispersion of bank-level deposit growth rates. This suggests that the more aggregate deposits fall, more depositors withdraw money from some banks and deposit it with others. The five largest banks account for most of the aggregate deposit outflows we observe. Put differently, when deposits decline across the banking sector as a whole, this usually masks considerable churn across individual institutions; in many cases, large banks are also affected.

³We focus on these four chronologies because they appear to span earlier important work such as Bordo et al. (2001), Caprio and Klingebiel (2002), and Demirgüç-Kunt and Detragiache (2005).

We then characterize the macroeconomic aftermath of systemic bank runs and ask: are they associated with depressed output, and if so, why? Our central empirical exercise is to investigate these questions from a historical cross-country perspective. We find that the macroeconomic costs of runs are substantial: five years after a systemic bank run, real deposits contract significantly, and real GDP is on average 9% lower relative to its pre-run trend. A likely contributor is the severe, roughly 30% contraction in credit, which reflects the banking system's critical function of financing the real economy.

Crucially, bank runs are associated with significant macroeconomic costs only when they are *systemic*, i.e., accompanied by a decline in aggregate deposits. In contrast, non-systemic bank runs or deposit contractions without narrative evidence of a bank run are associated with much weaker declines in output, deposits, and credit. The output losses from systemic runs are twice as large in bank-based relative to market-based economies, where firms cannot turn to capital markets when bank credit contracts. This finding suggests that studies of bank runs in relatively more market-based economies such as the United States may understate the potential damages of bank runs for the macroeconomy.

One concern with the interpretation of these results is that worse macroeconomic outcomes after systemic bank runs simply proxy for the fragility that precipitated them, rather than reflecting any independent role of the runs themselves. Our long-run historical panel dataset allows us to investigate the role of deteriorating fundamentals as opposed to pure coordination failures (Goldstein, 2013).

A first indication that runs may not always and everywhere be explained by fundamental issues is their sudden nature. Using monthly data, we show that runs are associated with an abrupt, major disruption to a banking sector's deposits precisely in the month they materialize, with limited evidence of a "trickle" in the months beforehand. Runs are thus at least to some extent surprise events of depositor coordination rather than the predictable outcome of slowly deteriorating solvency of the banking system.

To better understand the triggers of bank runs, we adopt a narrative approach. As argued by Gorton (1988), bank runs are not always isolated incidents and can take place when aggregate or idiosyncratic fundamentals are weak. Following a strict hierarchy, we differentiate between systemic run episodes triggered by macroeconomic factors (e.g., currency devaluation, a monetary policy shift), bank-level or banking sector-wide fundamental issues, and as non-fundamental only when no source identifies either. These non-fundamental runs are not necessarily sunspot events in the strict sense; in many cases, they are better described as sudden events that led to coordination among depositors despite containing little or no information about bank solvency. We identify 27 out of 181 systemic runs as being non-fundamental. Importantly, the distribution of causes is

largely identical across systemic and non-systemic runs, implying that the output losses of systemic runs are not merely due to worse fundamentals.

When we compare the output losses of fundamentally-triggered relative to non-fundamental systemic runs, we find the following pattern. Where fundamentals are impaired, there is a larger contraction in output, but non-fundamental runs are also followed by a statistically significant GDP decline of around -5.1%. This finding is consistent with theories in which liability-side disruptions, driven by shifts in sentiment rather than fundamental insolvency, suffice to generate significant real economic costs (Shleifer and Vishny, 2010). That non-fundamental runs are followed by substantial output losses is difficult to reconcile with the idea that runs only matter for the macroeconomy because they reflect worse fundamentals. Instead, these results support the view that bank runs can independently amplify economic downturns.

Two further patterns point in the same direction. First, systemic runs predict sizable output losses even outside banking crises or widespread bank failures, which we interpret as ex-post revelations of solvency problems. Unlike crises, such runs are not accompanied by negative cumulative bank equity returns, suggesting they are a disruption to liquidity rather than solvency. This connects to macroeconomic models in which crises arise from disruptions to banks' ability to roll over short-term funding, even absent any deterioration in asset fundamentals (Gertler and Kiyotaki, 2015). Second, we find complementary evidence when investigating the role of banking sector leverage before runs materialize. The GDP losses of systemic runs are larger when banks are highly levered, in line with theories in which bank vulnerability depends on the leverage position (Amador and Bianchi, 2024). However, systemic runs still predict a GDP decline when banks are well capitalized and equity returns recover quickly.

Given the severe macroeconomic aftermath of systemic bank runs, are government policies effective at reducing the likelihood of such runs or mitigating their fallout? While we cannot establish causal effects in our setting, our results are consistent with a role for specific types of policy interventions. Specifically, we document that the introduction of deposit insurance is associated with a decrease in the likelihood of systemic bank runs by about one and a half percentage points at the country-year level. Additionally, deposit insurance schemes or the existence of a central bank are associated with a lower probability that a bank run escalates into a systemic event. We also find evidence for a role of ex-post interventions: systemic runs accompanied by liquidity support or liability guarantees specifically are, on average, associated with an up to 4.3 percentage points smaller output contraction.

Taken together, our paper provides a panoramic overview of the history of bank

runs over more than two centuries. From a financial stability perspective, our findings imply that bank solvency is important but insufficient to safeguard the wider economy. When faced with system-wide pressures on their liabilities, banks are forced to derisk and shrink their balance sheet, inducing a costly credit crunch. While the interpretation of our results on ex-ante and ex-post government policies is complicated by endogeneity issues, they point to a potential stabilizing role of deposit insurance and liability-centered interventions.

Related literature. Our paper contributes to several strands of the literature. First, we contribute to the literature on banking crises. These crises can manifest in a variety of ways, such as bank failures (Calomiris and Mason, 2003b; Correia et al., 2026), an erosion of bank capital (Jordà et al., 2021), or more general panics (Friedman and Schwartz, 1963; Bernanke, 2018; Baron et al., 2021), as surveyed by Sufi and Taylor (2022).

Because existing crisis chronologies spanning several countries identify banking sector distress almost exclusively based on the combination of solvency and liquidity events, they cannot speak to the role of bank runs in particular, which requires a “census” of run events around the globe. By creating such a database, we show that many banking crises are *not* associated with runs, and runs are also not always the source of a crisis, in contrast to the view that crises and runs are one and the same phenomenon (Schwartz, 1987; Gorton, 2012). As such, our paper complements recent work by Baron et al. (2026), who provide evidence that bank capital losses during crises are permanent and mainly reflect deteriorating asset quality rather than liquidity concerns. We instead focus on bank runs and show that they matter for the economy even outside of such crises (or when banks are well capitalized and, thus, better shielded from losses). Our findings highlight a role for the liability side of the banking sector beyond its net worth (e.g., Brunnermeier and Sannikov, 2014; Rampini and Viswanathan, 2019; Baron et al., 2021).

Second, we propose a quantitatively validated measure of systemic bank runs, defined as bank runs accompanied by a drop in the outstanding deposits of the banking sector as a whole. As shown by Bordo and Meissner (2016) and Baron et al. (2021), existing chronologies of banking crises frequently disagree with one another, which gives rise to “classification uncertainty.”⁴ To address this issue, we build on Baron et al. (2021) in proposing a statistical measure to complement the more subjective classification of crisis episodes. Baron et al. (2021) identify banking crises by incorporating information on banks’ stock returns. However, as they acknowledge, there are several drawbacks to

⁴See Jalil (2015) and Hoon et al. (2025) for a similar perspective with a focus on historical banking crises in the United States.

this approach. Even today, many banks are not listed on a stock exchange, and some countries may not have a sufficiently developed stock market to make banks' stock prices a reliable indicator. This issue is particularly important for developing countries, where the majority of crises occur, and for historical crises. Our approach overcomes these limitations because historical data on deposits are widely available and usually cover the entirety of a country's banking sector. Importantly, our chronology of bank runs considerably extends the coverage of existing work measuring episodes of banking sector distress. With 26,763 country-year observations, our data have broader coverage than any other chronology we are aware of. As such, an important contribution of our paper is that we provide a new, quantitatively validated measure for banking sector disruptions that we believe can serve as a useful input for future research.

Third, we build on a long tradition in economics that attempts to measure the incidence of bank runs using deposit contractions. [Bordo and Wheelock \(1998\)](#) describe what they call a "monetary approach" to financial stability as identifying "financial crises with banking panics that either cause or aggravate monetary contractions" ([Bordo and Wheelock, 1998](#), p. 44). The perhaps most prominent advocates of this view are [Friedman and Schwartz \(1963\)](#), who propose the ratio of outstanding deposits to currency in circulation as a statistical indicator of banking sector problems (see also [Bernanke and James, 1990](#)). [Gorton \(1988\)](#) documents a strong link between the currency-to-deposits ratio and banking panics in the United States. [Reinhart and Rogoff \(2009b\)](#) also put forward using deposit contractions as an "objective criterion for the incidence of banking sector distress" but quote a lack of cross-country data. Through a new data collection effort, we can take the insights of these classic papers seriously and propose bank run episodes accompanied by deposit withdrawals as an objective and quantifiable approach to measuring the incidence of financial stability issues across countries.

Fourth, we also contribute to the empirical literature that analyzes depositor behavior during runs and in the run-up to bank failures (see, e.g., [Kelly and Ó Gráda, 2000](#); [Ó Gráda and White, 2003](#); [Iyer and Puri, 2012](#); [Iyer et al., 2016](#); [Artavanis et al., 2022](#); [Martin et al., 2026](#)). Our results suggest that bank runs often act as a trigger, transforming underlying solvency vulnerabilities into full-blown crises. [Calomiris and Mason \(2003a\)](#), [Frydman et al. \(2015\)](#), and [Monnet et al. \(2021\)](#) use cross-sectional variation across regions or firms to provide evidence that individual historical bank run episodes can lead to a decline in economic activity. Our work also complements that of [Romer and Romer \(2017\)](#), who propose a continuous narrative measure of financial distress (see also [Krishnamurthy and Muir, 2025](#)). Similar to their work, our paper shows that it is possible to gauge the severity of a financial crisis using variation in the level of distress, in our case measured

by the extent of deposit withdrawals. Relatedly, [Iyer et al. \(2022\)](#) explore the link between deposit conditions and regional economic activity.

Finally, our paper builds on and complements the theoretical literature on bank runs and bank regulation, starting with the seminal contributions of [Bryant \(1980\)](#) and [Diamond and Dybvig \(1983\)](#). [Goldstein and Pauzner \(2005\)](#) put forth an important general extension of the canonical [Diamond and Dybvig \(1983\)](#) model and derive probabilities of bank run equilibria. Our database can be used to calibrate those probabilities across many countries and many years. The notion of bank runs potentially becoming *systemic*, which is at the center of our analysis, is a feature of many theories ([Diamond and Rajan, 2005](#); [Uhlig, 2010](#); [Robatto, 2019](#); [Liu, 2023](#); [Amador and Bianchi, 2024](#)). The probability of narrative bank runs turning into systemic episodes, among other critical parameters and estimates that are needed in this literature, is readily available from our data and analysis. Finally, an important strand of the literature studies models where runs occur due to either non-fundamental reasons ([Peck and Shell, 2003](#); [Gertler and Kiyotaki, 2015](#); [Diamond and Kashyap, 2016](#)), fundamental causes ([Chari and Jagannathan, 1988](#); [Jacklin and Bhattacharya, 1988](#); [Allen and Gale, 1998](#); [Kashyap et al., 2024](#)), or both ([Bocola and Dovis, 2019](#); [Amador and Bianchi, 2024](#)). Our analysis directly speaks to this literature in a macro-historical, empirical context.

2 Measuring Systemic Bank Runs

This section describes the new chronology of bank runs and statistical measures of deposit withdrawals covering 192 countries for the period 1800-2024.

2.1 A New Chronology of Bank Runs Around the World

Bank run definition. We define a bank run as a situation where “depositors rush to withdraw their deposits because they expect the bank to fail” ([Diamond and Dybvig, 1983](#), p. 401), where we consider as a bank any type of deposit-taking institution. The distinguishing feature of bank runs relative to the regular ebb and flow of deposits is their sudden and severe nature, which causes the affected institution to run into liquidity problems. Because our chronology varies by country, rather than by bank, we record both runs on individual institutions or clusters of institutions, and we also do not require the banks experiencing a run to be large.⁵ As we will discuss in Section 2.4, our approach is to

⁵Here and throughout the paper, we follow the existing literature and classify the location of bank runs based on modern-day country borders (see, e.g., [Reinhart and Rogoff, 2009b, 2013](#)).

use changes in outstanding deposits of the entire banking sector as a statistical measure to identify whether runs were *systemic* in nature or only affected (possibly immaterial) parts of the financial system.⁶

We focus on events that were not driven by runs on the wholesale liabilities of banks, i.e., interbank deposits and other types of non-deposit liabilities. Although such episodes of wholesale funding runs played a prominent role in the 2007-08 Global Financial Crisis, they were less important historically and in many emerging markets. In addition, data on interbank deposits and other types of non-deposit liabilities are not systematically available for most countries. As a result, we focus on runs on *retail* deposits by households and non-financial firms.

Our approach to identifying bank runs differs from that in existing cross-country chronologies. Reinhart and Rogoff (2009b) classify banking crises as either (i) bank runs that lead to the closure, merging, or takeover of one or more financial institutions by the government, or (ii) periods without runs where the government provides assistance to an important financial institution or group of institutions with the goal of preventing spillovers to other financial entities (see also Reinhart and Rogoff, 2009a, 2013). Laeven and Valencia (2018) classify a banking crisis as a period of large-scale defaults affecting the financial sector by eroding banking sector capitalization. They mention that “[i]n some cases, the crisis is triggered by depositor runs on banks.” Jordà et al. (2017) classify a period of banking distress by identifying major bank failures, banking panics, substantial losses in the banking sector, significant recapitalization, and/or significant government intervention. Baron et al. (2021) classify a banking crisis if the banking sector’s ability to intermediate funds is severely impaired, where a large decline in bank equity prices is usually a necessary requirement for a banking crisis. They define a “panic” episode when there is evidence of “sudden salient funding pressures,” which may originate from deposit withdrawals, “strains in interbank lending markets,” or “foreign-currency capital outflows from the banking sector” (Baron et al., 2021, p. 76).

The central conceptual difference we make is to focus entirely on bank runs, for which we have a close mapping to theory. Some bank run episodes are a strict subset of banking crises that may also have other causes; other runs do not coincide with banking crises at all. In practice, we uncover many episodes of bank runs that are not part of existing crisis chronologies. Section A.8 of the Online Appendix provides a detailed outline of the crisis definitions in existing work.

Our definition of bank runs also differs from the definition of “banking panics” in

⁶Note that because our data vary by country and year, there may be dozens or even hundreds of individual runs during each bank run episode. For brevity, we will sometimes refer to bank run episodes and bank runs interchangeably throughout the paper.

Baron et al. (2021). Section A.9 of the Online Appendix provides a detailed comparison of every discrepancy between our chronology of bank runs and that of banking panics in theirs. These discrepancies arise mainly because of our focus on retail bank runs, for which we require explicit narrative evidence, and the fact that we determine their systemicness using statistical data on banking sector deposits.

Narrative evidence. Following the existing literature, we rely on historical qualitative evidence to identify episodes of bank runs, based on an (entirely human) reading of sources. We apply three systematic criteria throughout. First, we focus on retail bank runs. Second, we search for evidence of bank runs on a country-by-country basis to minimize the probability of missing run events, where we also draw on sources in the local language wherever possible. In doing so, we always require explicit mention of key terms such as “run,” “sudden depositor withdrawals,” or “panic among depositors.” We avoid classifying as runs unspecified mentions of “drying up of liquidity” and similar descriptions that could also refer to wholesale funding problems (for which we have no reliable statistical measures). Third, whenever possible, we try to identify contemporaneous accounts of runs rather than exclusively relying on ex-post historical descriptions. This approach helps address the natural tendency for bank runs to be more prominently reported if they went hand in hand with a severe recession. To further minimize the likelihood of false negatives, we also developed a pipeline utilizing Large Language Models (LLMs) to detect potential run events; importantly, the actual classification is always ours.

Why rely on such qualitative evidence at all? As argued by Romer and Romer (2017, p. 3073), “purely statistical indicators may misidentify financial disruptions.” The reason is that any particular financial variable may be affected by many factors even in the absence of problems in the financial sector. In our case, we will rely on changes in outstanding banking sector deposits as a statistical measure. But a decline in deposits does not necessarily mean there is a bank run; it could also reflect a change in the monetary policy stance or a recession without sudden withdrawals by panicked depositors. This is why we use a hybrid approach akin to Baron et al. (2021) in combining qualitative, narrative evidence with an objective, statistical indicator. In support of this approach, we will later show that deposit contractions by themselves are much less informative about future output growth than (systemic) runs.

Sources of narrative information. In sum, we identify 405 bank run episodes covering 192 countries by drawing on a grand total of 667 sources, where there are at times dozens

of individual bank runs during each episode.⁷ These include many new sources (e.g., historical newspaper articles, government reports, banking history books, or IMF reports), but also existing narrative accounts of crises. We also researched every single episode classified as a banking crisis by Reinhart and Rogoff (2009b, 2013), Jordà et al. (2017), Laeven and Valencia (2018), and Baron et al. (2021), as well as every event mentioned in the list of banking crisis interventions by Metrick and Schmelzing (2021). Importantly, 449 of the sources we use (or 67% of the total 667 sources) are unique, in that they identify entirely new events not mentioned in existing chronologies.

The causes of runs (fundamental or not). We also categorize bank runs based on their underlying cause. For this purpose, we use a narrative coding to classify bank runs depending on whether historical accounts clearly attribute them predominantly to macroeconomic causes (such as a currency devaluation, a monetary policy shock, or a non-financial recession) or banking-related causes (such as unexpected portfolio losses at individual banks or banking sector distress). For 53, corresponding to about one-sixth of the 339 bank runs with aggregate deposit data coverage, we cannot identify any fundamental reason. We label this as the “non-fundamental” group.⁸

Examples of historical bank runs. Before proceeding, we briefly illustrate the value of the narrative approach with three case studies. In September 1893, New Zealand experienced a run on the Auckland Savings Bank. Unfounded rumors about the bank’s investments were circulating when Margaret Sanders, a woman ridiculed by a group of teenagers, was pushed and stumbled in front of the branch; a large crowd gathered, onlookers mistook it for a run already underway, and that misperception set off an actual run, with customers withdrawing more than £41,000, about \$8 million in 2024 (The New Zealand Herald, 2015).

A second case is the run on the Dutch bank DSB in October 2009, triggered when Pieter Lakeman, a lawyer representing aggrieved clients, appeared on Dutch public television and urged all depositors to participate in a mass withdrawal; thousands heeded the call, and DSB lost around one-sixth of its deposits (Dutchnews, 2009).⁹ These two episodes

⁷In some cases, we found several distinct bank runs in close succession. If these runs were not part of the same clustered episode, we documented them as separate events even if they happened in adjacent years. An episode is defined as a series of bank runs indicating continuous liquidity pressure, for which all runs within one episode can be attributed to the same fundamental or non-fundamental cause. In our empirical analysis, we only retain the first such run episode within a three-year window to avoid duplicating the observations we use to study macroeconomic fluctuations around these events.

⁸Table A.1 provides the coding of “fundamentalness” for every bank run in our dataset. Online Appendix B provides a detailed classification and reasoning for all run events.

⁹Survey-experimental evidence confirms that public communication can shape run behavior in this way:

Table 1: Comparing the JKMS Bank Run Chronology with Other Crisis Lists

Dataset	Crisis definition	Approach	No. of countries	No. of events	Start Year	End Year	Obs.
Reinhart and Rogoff (2009b)	Banking crisis	Narrative	68	303	1800	2014	12,606
Laeven and Valencia (2018)	Banking crisis	Narrative	156	151	1970	2017	7,488
Jordà et al. (2017)	Banking crisis	Narrative	18	88	1870	2020	2,668
Baron et al. (2021)	Bank equity crash	Statistical	46	262	1870	2016	4,279
Baron et al. (2021)	Banking crisis	Hybrid	46	224	1870	2016	6,608
Baron et al. (2021)	Banking panic	Hybrid	46	192	1870	2016	6,608
JKMS	Bank run	Narrative	192	405	1800	2024	26,763
JKMS	Deposit contraction	Statistical	190	1,356	1801	2024	14,366
JKMS	Systemic bank run	Hybrid	190	181	1801	2024	14,367

Notes: This table compares the coverage of the JKMS bank run chronology introduced in this paper with existing lists of banking crises. “Narrative” refers to chronologies that do not incorporate statistical indicators to identify crisis episodes, such as deposit growth rates (this paper) or bank equity returns (Baron et al., 2021). “Hybrid” refers to chronologies that incorporate statistical data, either for all identified episodes (this paper) or only for a subsample but not all crises.

illustrate how coordination shocks—whether a misread crowd or a public appeal—can trigger measurable declines in aggregate deposits without being driven by fundamental causes.

In contrast, the 2023 U.S. regional banking turmoil began with a run on Silicon Valley Bank after it liquidated its Treasury portfolio at a large loss (e.g., Jiang et al., 2024), a case with a clear fundamental trigger. It also prompted a range of government interventions, including the Federal Reserve’s Bank Term Funding Program, which offered liquidity to eligible depository institutions against pledged collateral. We revisit the role of fundamentals at individual banks, in the banking sector, and in the broader economy in Section 4.3.

2.2 Comparison with Other Chronologies

Table 1 compares the coverage of our (JKMS) measures of narrative bank runs, deposit withdrawal episodes¹⁰, and systemic bank runs¹¹ to several existing chronologies of financial crises. We focus on four prominent sources of crisis dates: Reinhart and Rogoff (2009b), Laeven and Valencia (2018), Jordà et al. (2017), and Baron et al. (2021). Based on

Sandri et al. (2023) show that information about a bank failure raises households’ propensity to withdraw, while reassurances from central banks and deposit insurers can contain it.

¹⁰An episode of aggregate deposit withdrawals sometimes spans multiple consecutive years. The total number of country-year observations with negative deposit growth rates is 2,431.

¹¹Systemic bank runs have coverage for one additional year because we classify the Syrian bank run in 2012 by using the statistical deposit contraction of 2011. The deposit data coverage for Syria ends in 2011.

these datasets, we construct a set of dates that refer to the start year of a banking crisis.¹²

An important difference between our bank run dates and the crisis chronologies of Reinhart and Rogoff (2009b), Laeven and Valencia (2018), and Jordà et al. (2017) is that their dating of events is based entirely on narrative evidence, which may give rise to “classification uncertainty.” As Jalil (2015), Bordo and Meissner (2016), Baron et al. (2021), and Hoon et al. (2025) show, existing narrative classifications of crises can frequently disagree, use inconsistent coding, lack proper documentation, or even identify entirely spurious “crises” based on an incorrect reading of secondary sources.

Baron et al. (2021) improve on this front by combining a qualitative reading of sources with a statistical measure of banking sector distress (declines in bank equity indices). Because data on banks’ stock prices are not always available—besides the fact that they require banks to be publicly listed in the first place—the authors can construct an indicator for crises that is quantitatively validated for around two-thirds of their sample of narrative crises covering 46 countries. For the remainder, they use a mix of statistical validation and narrative coding, which gives them their measures with the most extensive coverage.

Our chronology of (systemic) bank runs makes progress in three dimensions. First, our data have unprecedented geographical and historical coverage. With 192 countries, we essentially cover the universe of economies that frequently publish economic data, starting as early as 1800. 214 of these bank runs do not coincide with years identified as banking crises by Baron et al. (2021), Metrick and Schmelzing (2021), Laeven and Valencia (2018), Jordà et al. (2017), and Reinhart and Rogoff (2009b).¹³ We thus identify many genuinely new events. Second, our indicator for systemic bank runs incorporates not only qualitative sources but also the quantifiable, objective measure of contractions in banking sector deposits. Third, we focus on a single, specific source of banking sector distress in our narrative classification, and look for unambiguous evidence to support it by means of a comprehensive documentation of sources.

In the following, we expand on our definitions, measurement procedures, and each one of the above-mentioned features in turn.

¹²To be precise, we use the most recently available updates of these crisis chronologies. For Reinhart and Rogoff (2009b), we use data published on Carmen Reinhart’s website; see also Reinhart and Rogoff (2009a) and Reinhart and Rogoff (2013). Laeven and Valencia (2018) provide the most recent version of the data originally published in Laeven and Valencia (2008). The data in Schularick and Taylor (2012) are frequently updated as part of the Macrohistory Database (Jordà et al., 2017), and we use version 6 of these data.

¹³The number 214 of unique run episodes outside existing banking crisis chronologies is based on the narrative bank runs that are not mentioned in any of the five banking crisis chronologies. This number represents the run episodes for which we cite no existing chronology in Appendix B.

2.3 Measuring Episodes of Deposit Withdrawals

Data sources and coverage. To measure the extent of deposit outflows from a country's banking sector, we construct a new dataset on outstanding deposits for 190 countries for the period 1800 to 2024. In total, we collect deposit data from 55 primary and secondary sources, many of which come from historical archives or were produced for country-specific statistical compendia. We ultimately use 44 of the 55 sources to construct the harmonized historical deposit database.¹⁴ We always cross-validate our values relative to existing sources such as the IMF and [Mitchell \(2013\)](#); overall, the quality of the data appears sound.¹⁵ Table C.1 in Online Appendix C summarizes both the time periods covered and the individual sources used for our deposit data. Table C.2 reports the coverage of our (JKMS) retail deposit data with existing data on retail deposits from the IMF and [Jordà et al. \(2017\)](#).

The resulting dataset comprises 14,633 country-year observations and 14,366 growth rates. As such, our deposit data cover essentially the universe of modern banking systems since 1800, subject to data availability constraints. The time series go back to the 19th century for many countries, including Belgium, Brazil, Canada, Chile, Germany, Japan, Russia, Sweden, Switzerland, the United Kingdom, and the United States.

Definition of deposits. Our statistics refer only to retail deposits by non-bank customers, and exclude various forms of wholesale or interbank funding. While [Jordà et al. \(2021\)](#) document an upward trend in banks' reliance on non-deposit liabilities in advanced economies, [International Monetary Fund \(2013\)](#) shows that most banks in both advanced and emerging economies continue to rely heavily on deposit funding.

We collect data on total deposits, which we further split into demand and time deposits where possible. Demand deposits refer to all types of deposits that can be redeemed at par without delay, and time deposits refer to those with a lock-in period of any length, which may also include various types of savings deposits. We have data on total outstanding deposits for 14,633 observations, data on demand deposits for 13,478 observations, and data on time deposits for 10,990 observations.¹⁶

¹⁴For some countries, we identify several sources with overlapping historical coverage. In these cases, we use all available sources to cross-validate the deposit data, even though not all of the resulting series enter the harmonized database.

¹⁵In Figures C.1 and C.2 of the Online Appendix, we compare the evolution of the deposits-to-GDP ratio for (i) our newly constructed JKMS deposit data, (ii) the IMF retail deposit data, and (iii) the [Jordà et al. \(2017\)](#) deposit data for their sample of 17 countries.

¹⁶We construct total deposits as the sum of demand and time deposits when both are available. In some cases, historical data for total deposits are spliced using the time series that only refer to demand or time deposits. In these cases, we do not calculate the other deposit category as a residual to avoid creating

Table 2: Distribution of Fundamental Causes within Systemic vs. Non-Systemic Runs

	Cause of runs			Total
	Macroeconomic	Banking	Non-fundamental	
Systemic runs	49	105	27	181
Non-systemic runs	39	93	26	158

Notes: This table reports the total number of bank runs by underlying cause. We distinguish between (i) macroeconomic causes, (ii) banking-related causes, and (iii) non-fundamental causes. The sample is limited to all bank runs from our chronology for which we have narrative evidence and deposit data available. We consider systemic bank runs in the first row and non-systemic bank runs in the second row. We use a narrative coding to determine whether a bank run was triggered by macroeconomic causes, banking-related causes, or non-fundamental causes. Run causes classified as macroeconomic are those for which historical accounts attribute the trigger to factors such as a currency devaluation, a change in the monetary policy stance, or a non-financial recession. Runs with banking-related causes are triggered by systemic deterioration in aggregate banking sector fundamentals, a financial crisis, or bank-level causes. Non-fundamental runs are runs for which we neither find a macroeconomic cause nor a banking-related cause.

Time series construction. Like any historical cross-country dataset, the raw data on deposits from different sources do not always agree. Furthermore, individual time series sometimes exhibit sudden jumps that stem from changes in statistical methodology or changes in the reported currency rather than “true” economic events. To create consistent time series, we carefully investigated the data from each individual source and combined them according to our assessment of their reliability for a given time period. We also adjusted for breaks stemming from a change in sources or methodological changes by chain-linking overlapping time series.¹⁷

2.4 Defining Systemic Bank Runs

Conceptual definition. The discussion above shows that the existing literature has, at least in part, relied on narrative evidence of bank runs to determine whether a country experienced a banking crisis. Our qualitative chronology of runs differs from these approaches in that we explicitly do *not* require bank runs to be widespread or systemic. Instead, we use objective, quantitative data on the outstanding deposits of the banking sector to assess the extent to which a bank run episode was systemic.

The idea is the following. If a bank run event is sufficiently severe to affect the banking sector as a whole, either because it happens at large banks or many small banks, it should be accompanied by a contraction in *aggregate* deposits. This approach is motivated by

mechanically constant shares of the different deposit types. This explains why we have a slightly different observation count for demand and time deposits.

¹⁷The IMF data in particular required some adjustments because of erroneous entries and classification changes. Wherever possible, we tried to find alternative sources and identify the reasons behind every change in the IMF data to make sure we do not overly “smooth” the time series. When we do not have overlapping data for chain-linking series, we calculate the median deposit growth rate for the three years before and after a break, and use it to adjust a series break.

Diamond and Rajan (2005) and Uhlig (2010), among others, in which withdrawals from one bank increase the probability of a run at another bank. This can, in turn, lead to a run becoming systemic in nature by culminating in a sufficiently large share of banks facing a run (Amador and Bianchi, 2024).

Empirical implementation. To distinguish systemic bank runs from possibly more idiosyncratic cases, we need to define what exactly we mean by a contraction in deposits. Our baseline definition simply requires the year-on-year change in outstanding total nominal deposits ΔD_{it} to be negative. In our deposit data, we find 1,356 such episodes.

We classify episodes as *systemic* bank runs when narrative evidence of a run is accompanied by an outflow of total retail deposits from the banking sector. One issue is that the time series on total, demand, and time deposits may contain measurement error. We thus also treat as a deposit contraction any episode where either demand or time deposits exhibit negative growth rates *and* total deposit growth is below 4%.¹⁸ This definition also acknowledges the possibility that even when total deposits are unchanged, a bank run-induced reshuffling from one deposit category to another can be costly.

We can differentiate between systemic and non-systemic bank runs for 339 out of 405 bank run episodes in our chronology that overlap with the deposit data. In this sample, we identify 181 systemic bank runs and 158 non-systemic bank runs. When classifying bank runs into systemic and non-systemic, we do not require deposit contractions to overlap perfectly with the incidence of a run. In our baseline definition, we categorize a bank run as systemic if it coincides with a deposit contraction at any point between the year before and after the bank run.¹⁹

A potential identification concern is that the more severe macroeconomic outcomes following systemic bank runs may reflect differences in their underlying causes rather than the systemic nature of the runs themselves. However, Table 2 shows that the distribution of causes is remarkably similar across the two groups: 27% of systemic runs and 25% of non-systemic runs are associated with macroeconomic causes, 58% vs. 59% with banking-related causes, and 15% vs. 16% with residual, non-fundamental causes. This similarity suggests that the differential output losses between systemic and non-systemic bank runs are not driven by compositional differences in their underlying triggers.

¹⁸In Section A.10 of the Online Appendix, we show robustness using alternative classifications of deposit contractions, such as conditioning only on contractions in total deposits and excluding contractions in demand or time deposits.

¹⁹We consider several alternatives in Section A.10 of the Online Appendix.

What happens to the funds depositors withdraw? When the banking sector experiences a contraction in deposits, where do the withdrawn funds go? Historically, one might expect that they simply keep the money in coins or bank notes, or exchange it directly for precious metals. In modern times, they might deposit the withdrawn funds with other financial institutions, such as better-protected banks or money market mutual funds (e.g., [Acharya and Mora, 2015](#)). To address this question, in Section [A.11](#) of the Online Appendix, we zoom in on systemic bank run episodes in the United States with higher-frequency data, before and after the introduction of deposit insurance. We find that the outflow of deposits is matched by an increase in currency in circulation (historically) or inflows into money market funds (in recent times).

2.5 A Unified Measure of Banking Crises

An important question we are interested in is how (systemic) bank runs compare with banking crises in general. To this end, we need an indicator for whether a country experiences a banking crisis in a given year, ideally with a similarly comprehensive coverage as our bank run chronology.

We construct a unified indicator variable of banking crises by combining the widely used chronologies mentioned above. The measure proposed by [Baron et al. \(2021\)](#) has the advantage of incorporating an objective, quantitative measure of poor banking sector health (a decline in bank equity prices). We thus prioritize their measure, and then use the crisis lists of [Laeven and Valencia \(2018\)](#), [Jordà et al. \(2017\)](#), and [Reinhart and Rogoff \(2009b\)](#), in that order, to determine the first year of a banking crisis. This means we use the crisis dates from [Baron et al. \(2021\)](#) for all country-year observations they cover, and then subsequently add the other sources.²⁰

2.6 The JKMS List of Bank Runs

Table [A.1](#) in the Online Appendix presents our full bank run chronology. For each episode, we measure run severity by reporting the maximum decline (in %) in each of the three deposit categories—total deposits, demand deposits, and time deposits—occurring at any time from one year before to one year after the run. If a bank run is accompanied by a contraction of aggregate deposits, we call it a *systemic* bank run, in line with our definition

²⁰One issue when combining several crisis chronologies is that they may assign the start date of the same crisis event to different years. For example, [Reinhart and Rogoff \(2009b\)](#) identify a banking crisis in the United States lasting from 1984 to 1991, which [Baron et al. \(2021\)](#) classify as two separate events in 1984 and 1990, and [Laeven and Valencia \(2018\)](#) treat 1988 as the crisis year. To address this issue, we only treat as a “new” event any banking crisis that was not preceded by another one within the last three years.

in Section 2.4. We indicate the fundamental (or not) nature of causes for each bank run by classifying runs into those with macroeconomic causes, banking-related causes, or a residual group of non-fundamental runs.²¹ We also report whether or not a given bank run is associated with a banking crisis as identified by the existing literature, and whether there is evidence of a banking panic as classified by Baron et al. (2021).²²

In addition, Online Appendix B contains episode-by-episode descriptions for each of the 405 bank run episodes we identified with our narrative approach.²³ This allows others to follow the logic we used to classify a particular episode as a bank run. For each episode, we describe the background of the run, the involved institutions (if known), and the sources on which we draw. Whenever we can find information on it, we also include the month in which the bank run started.

3 Bank Runs Around the World, 1800–2024

Have bank runs become more or less common over time? How does their frequency compare to that of banking crises? Are all crises driven by runs, and all runs by crises? What role does the systemic nature of a bank run play? Using our newly collected data on (systemic) bank runs, this section introduces a new set of facts to address these questions.

3.1 How Frequent Are Bank Runs? The Long View

The average unconditional frequency of bank runs between 1800 and 2024 is 2.4%.²⁴ Figure 1 plots the share of countries experiencing a bank run over time. For the sake

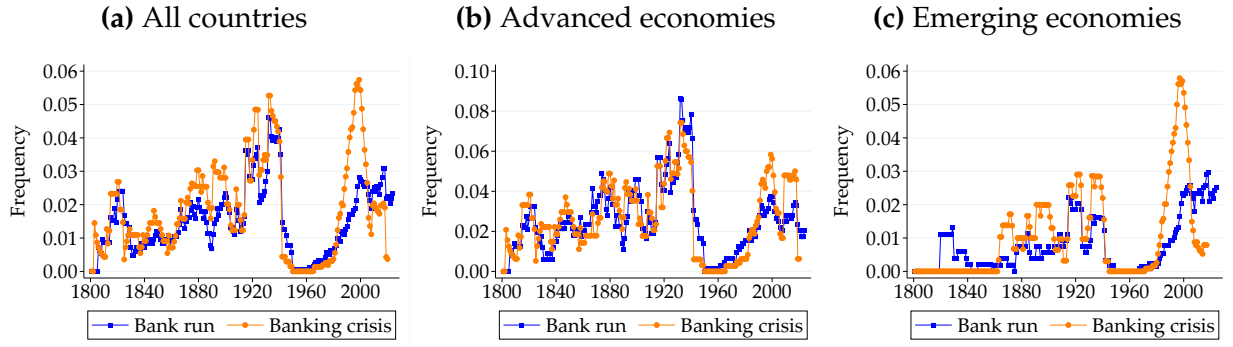
²¹We describe the classification in greater detail in Section 4.3.

²²In Baron et al. (2021), the starting year of a banking panic is generally defined as the first year with negative bank equity returns. In a small number of cases, the statistically identified starting year differs from the narrative dating by three to six years. Throughout this paper, the year of a bank run reported in Table A.1 is based on narrative evidence. To ensure comparability when assessing whether a bank run overlaps with a banking panic, we use the narrative panic dates reported in Table VI, column (6), of the appendix in Baron et al. (2021) for ten of the 192 banking panics. The cases in which we replace the statistical date with the narrative date are Canada (1873/1879), the Czech Republic (1991/1994), the Czech Republic (1995/2000), Mexico (1928/1931), New Zealand (1888/1893), Norway (1919/1923), Norway (1987/1991), the Philippines (1971/1974), Turkey (1980/1983), and Venezuela (1981/1978), where each pair denotes the statistical and narrative starting years, respectively.

²³For historical completeness, we additionally document in Online Appendix B eleven pre-1800 episodes outside our sample period.

²⁴This is our preferred measure which is defined as the total number of bank runs (405) over the number of observations for which we have coverage in any of the aggregate banking variables. Coverage for a given country starts with the first run or banking crisis we observe for this country, or with the first year for which we have aggregate deposit or credit data available. If we instead divided the number of runs by the number of observations for which we have coverage in *any* macroeconomic variable, the frequency would be around 1.6%.

Figure 1: Frequency of Bank Runs and Banking Crises



Notes: These figures plot the frequencies of bank runs for which we have narrative evidence and the unified banking crisis indicator from 1800 to 2024 for (i) all countries (left panel), (ii) advanced economies (middle panel), and (iii) emerging economies (right panel). We visualize the annual frequency of runs and crises as a moving average, using a ten-year window. The frequency in each individual year is calculated as the total number of runs/crises divided by the number of countries for which we have data coverage in any of the aggregate macroeconomic variables in that specific year.

of legibility, we calculate the number of runs using a ten-year moving average. We also plot the number of countries experiencing a banking crisis using the unified indicator described in Section 2.5.

Panel (a) visualizes the share of bank runs and banking crises for all countries in our entire sample. Several features stand out. Most obviously, we find essentially no episodes of bank runs from the 1940s to the 1970s. For most countries, this period was one of relative financial calm, consistent with existing evidence on the absence of financial crises during that period (e.g., [Reinhart and Rogoff, 2009b](#)).

What is perhaps most striking is the decoupling in the likelihood of bank runs and banking crises over the past four decades. In the 19th century, the share of countries experiencing a crisis or a run moved in lockstep, with both increasing in frequency between 1800 and the Great Depression. The recent spike in crises starting in 1980, however, was not accompanied by an equivalent increase in the likelihood of runs. While it is true that bank runs increased in frequency between the 1980s and 2000s, they were no more common than they were in the 1920s or 1930s.

Interestingly, these patterns are roughly similar for both advanced and emerging economies, where we label an economy as advanced if it falls into the top quartile of real GDP per capita in PPP terms for a given decade. For both groups of countries, Figures 1b and 1c show an increase in run frequency until the Great Depression, limited runs in the post-World War II era, and a rise in runs after 1980 that is less severe than the increase in banking crises.

Table A.2 in the Online Appendix presents additional statistics on the frequency of

bank runs. We split the sample into two distinct subperiods: before the introduction of deposit insurance in 1933, and the period afterwards. We also divide the sample based on region, income level, financial development, and whether or not a country has deposit insurance.

On average, runs were considerably more likely before the advent of deposit insurance, and they were more likely to become systemic. While most of the bank runs we identify took place in Europe or North America, we record episodes on all continents during (almost) all time periods. While runs were more likely to occur and to be systemic in advanced than emerging economies before 1933, the frequencies converge after 1933. While the overall probability of a (systemic) run has gone down after 1933, this reduction mainly comes from countries with less developed financial markets (as measured by their credit-to-GDP ratio) and without deposit insurance. We will revisit the role of deposit insurance in influencing the systeminess of bank runs more formally in Section 4.4.

3.2 Bank Runs and Deposit Contractions

The premise of our measure of systemic bank runs is that we can distinguish bank runs on the basis of the severity of deposit outflows. A natural starting point for assessing the usefulness of this approach is to examine the behavior of aggregate banking sector deposits during bank runs and “normal” times.²⁵ To avoid duplicating deposit contractions associated with bank runs in consecutive years, we keep only the first bank run episode within a three-year window.²⁶

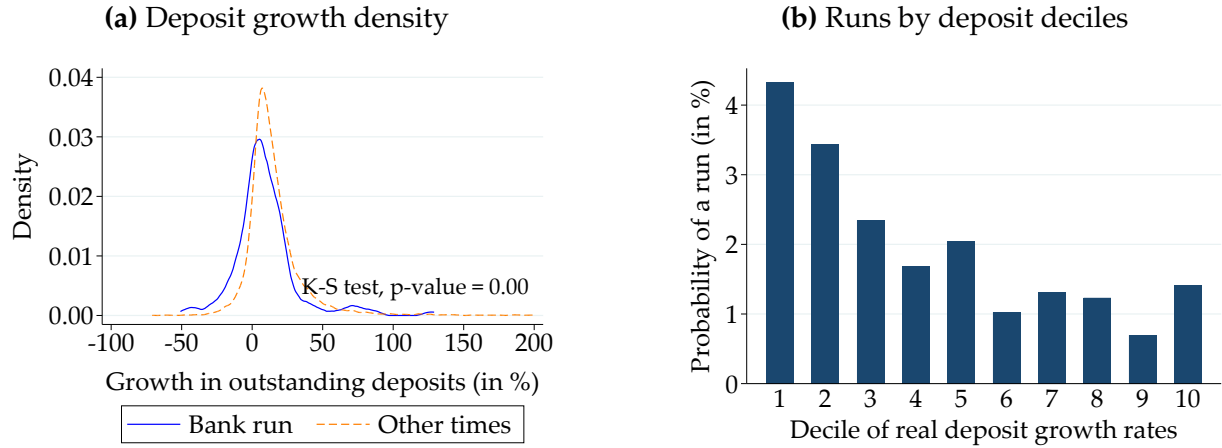
Panel (a) of Figure 2 shows a density plot of the year-on-year percentage changes in deposits. We present separate graphs for times when countries experience a bank run and for normal times outside of bank runs. In doing so, we focus on changes in outstanding nominal deposits because this will serve as our baseline metric to identify deposit contractions, but the figure looks similar when considering real deposits (see Figure A.1 in the Online Appendix). In Figure A.2 of the Online Appendix, we further verify that the general evolution of deposits after a systemic run is robust to the definition of country-level nominal or real deposits.

During normal times, there is a broad distribution of deposit growth rates. On average, deposits grow at a rate of 15.1% per year, with a standard deviation of 20.9%. Deposits rarely contract, around 12.4% of the time at the country-year level in our sample. When

²⁵We present robustness checks and details in Section A.3 of the Online Appendix, and shall refer to exhibits therein in what follows.

²⁶As a result, our empirical analysis excludes 58 of the 339 bank run episodes for which aggregate deposit data are available.

Figure 2: Bank Runs and Deposit Contractions



Notes: Panel (a) shows the distribution of nominal deposit growth rates during periods of bank runs vs. other times. We winsorize nominal growth rates at 200% to abstract from the influence of major inflation episodes. Panel (b) plots the frequency of bank runs across deciles of real deposit growth rates constructed separately within each country.

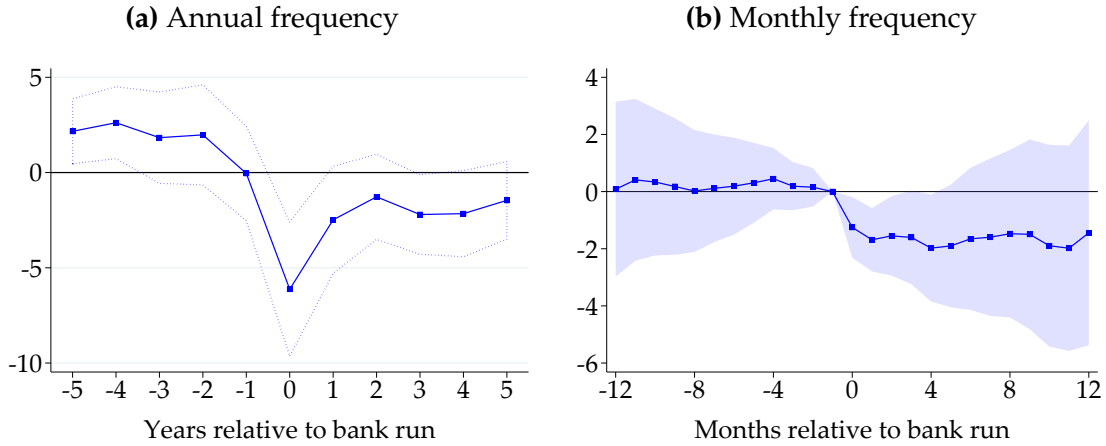
a country experiences a bank run, the distribution of deposit growth rates exhibits a clear leftward shift. During a run, the probability that a country's banking sector experiences an outflow of deposits at the country-year level is 27.9%. The mean deposit growth rate of 9.2% is considerably lower than during normal times. A Kolmogorov-Smirnov test for the equality of distributions suggests that this difference in deposit growth rates is statistically significant at the 1% level.

Another pattern that emerges from Panel (a) is the considerable variation in deposit growth rates during bank runs. Some runs are accompanied by a contraction in deposits of 20% or more, while others see a steady growth of the deposit base. It is exactly this variation that we use to differentiate systemic bank runs destabilizing short-term funding for a substantial portion of the banking sector from more isolated episodes without systemic implications.

Panel (b) of Figure 2 presents yet another way to visualize the relationship between deposit growth rates and bank runs. For each country, we create decile bins based on the growth rate of real deposits, and then calculate the probability of a bank run in each of these bins. Bank runs are much more frequent when deposit growth rates are low, and the magnitude of these differences is large: a bank run has a probability of 4.3% in the first (bottom) decile of deposit growth but clearly below 1% for higher deposit bins.

To better understand the dynamics of deposit contractions during runs, Panel (a) of Figure 3 plots the estimates of an event study specification. We regress logged deposits at the country-year level on the incidence of the exact timing of a bank run, captured by

Figure 3: Nominal Deposits Around Bank Runs



Notes: The figures visualize the responses of nominal deposits around bank runs from our bank run chronologies. Panel (a) plots the estimates of an event study specification relating annual nominal deposits (in logs) to the exact year a bank run starts. Panel (b) plots the impulse responses of monthly nominal deposits around bank runs. We specify the following local projections: $\Delta y_{i,t+h} = \alpha_i + \beta_h \mathbf{1}_{i,t}^{Run} + \epsilon_{i,t}$, where $h \in \{-12, \dots, 12\}$ and $\mathbf{1}_{i,t}^{Run}$ is one for country-month observations for which we have evidence of bank runs. The error bands depict 95% confidence bands based on standard errors double-clustered by country and year-month.

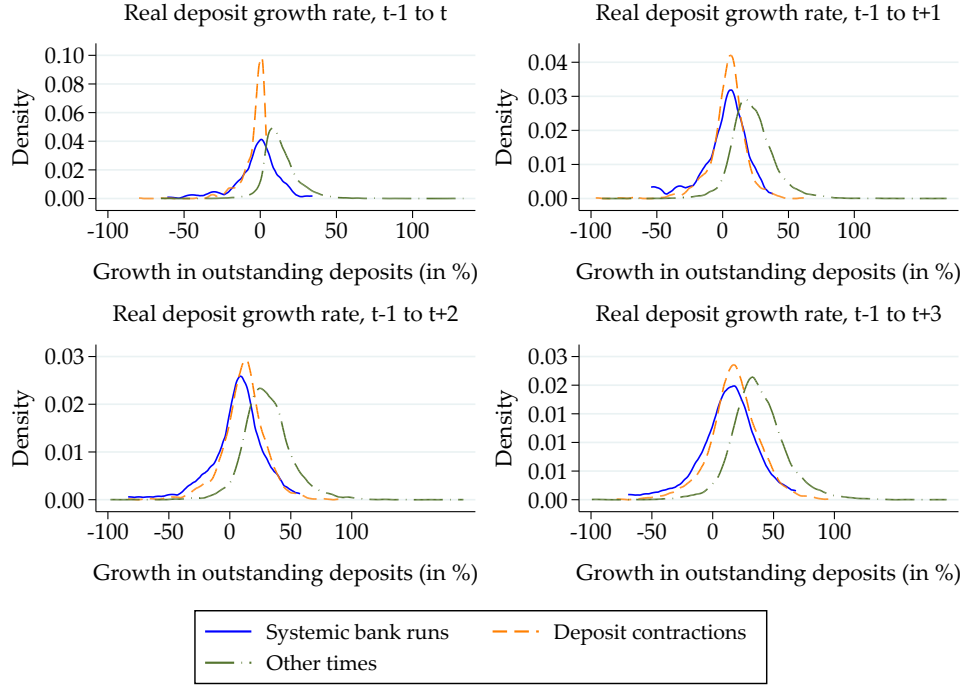
a sequence of indicator variables referring to a time window of ± 5 years around a run episode. Before a bank run, deposits expand relative to other periods. Once the run begins, there is a large reversal and a deposit contraction, and these negative growth rates persist for several years afterward.

Panel (b) repeats the same exercise using monthly data to investigate the exact timing. The precise month of a run is associated with a sudden and sizable fall in deposits. One month after a run, deposits are around 2% lower relative to other countries not experiencing a run, and they remain depressed for the following year. The annual and monthly data are thus consistent in painting a picture of runs as abrupt, major disruptions to the deposit base of a country's banking sector.

Do depositors run more on demand or time deposits? In Figures A.3 and A.4 of the Online Appendix, one can see that demand deposits are drawn down more quickly during runs, which is partially by design, given they have no lock-up period. We also find a decline in time deposits, both in the event study and when looking at the shift in the distribution of deposit growth rates around runs, but it is less rapid.

Do the magnitudes of deposit outflows differ between systemic bank runs—episodes marked by both narrative evidence of a run and an aggregate deposit contraction—and episodes of deposit contractions without accompanying bank runs? To this end, we

Figure 4: Real Deposit Growth Rates around Systemic Runs and Deposit Contractions



Notes: These figures plot the distributions of cumulative real deposit growth rates for different horizons around the incidence of systemic bank runs, deposit contractions outside of run episodes, and other times outside of run episodes or deposit contractions. We visualize the distributions of the real deposit growth rates $\Delta \log(\text{Deposits}_{i,t+h}^{\text{real}})$ at horizons $h \in [0, 3]$.

visualize in Figure 4 the distribution of real deposit growth rates around systemic bank runs, deposit contractions outside of run episodes, and for all other, normal times.

We find that contractions in real deposits are larger and more persistent around systemic bank run episodes compared to episodes of deposit contractions outside of runs. During the year of the run ($t - 1$ to t), the average contraction in real deposits is similar for systemic bank runs and deposit contractions. However, the distribution for systemic bank runs is notably wider, indicating greater dispersion and more extreme outflows. At longer horizons ($t - 1$ to $t + 1$, $t + 2$, and $t + 3$), the distributions of cumulative deposit growth rates diverge: for episodes of deposit contractions outside of runs, the densities shift rightward, suggesting a faster recovery of deposits, while systemic bank runs exhibit more mass on negative growth rates. This difference indicates that systemic runs are associated with more severe and persistent disruptions to the banking sector compared to deposit contractions alone and all other, normal times.

3.3 Bank-Level Evidence of Deposit Reallocation

To better understand what happens during systemic bank runs, we move beyond our aggregate analysis and take a more granular bank-level approach. In particular, we use our chronology of systemic runs and examine the reallocation of bank deposits during these events.

3.3.1 Data

We draw on three sources of bank-level data. The first is the Office of the Comptroller of the Currency (OCC) dataset from [Carlson et al. \(2022\)](#), which covers the National Banking Era between 1867 and 1904, overlapping with four separate bank run episodes in the U.S. banking system in 1873, 1884, 1893, and 1896, the latter three of which we identify to be systemic. The dataset includes 108,732 bank-year observations for 7,046 individual national banks.

The second dataset are the Federal Financial Institutions Examination Council’s Call Reports for U.S. banks between 1976 and 2020, which overlaps with more recent episodes of runs in 1982, 1983, 1984, 1985, 1990, 1991, 1992, 2007, and 2008 (of which we identify 1982, 1990, 1991, and 1992 as systemic). After data cleaning procedures, we are left with 424,066 bank-year observations and 20,622 unique banks.

The third dataset includes quarterly data on both U.S. and non-U.S. banks between 1987Q1 and 2026Q1, and is based on merging the Compustat Bank dataset with the Compustat Global dataset. The Compustat data allow us to analyze bank-level deposit withdrawals for 109 countries, covering 207,342 quarterly observations in total. We highlight the data cleaning steps in [Appendix A.4.1](#).

We provide summary statistics for bank-level variables in these three datasets in [Table A.3](#) of the Online Appendix.²⁷

3.3.2 Runs and the Cross-Section of Deposit Outflows

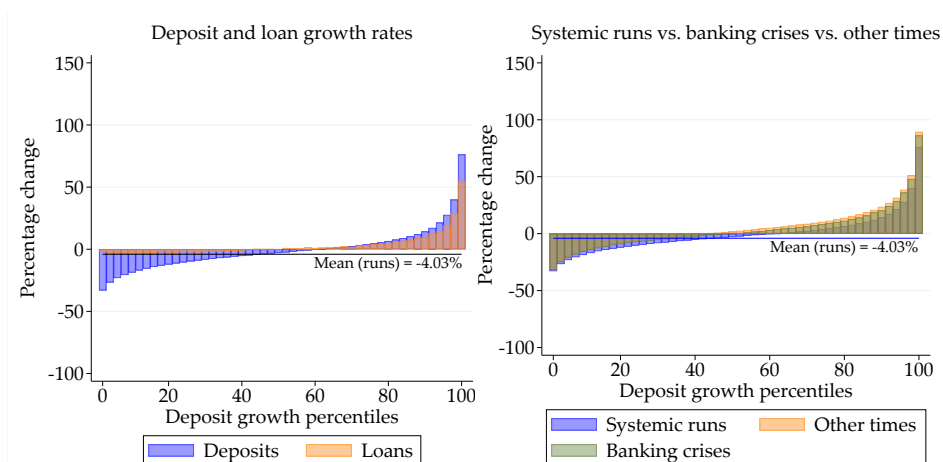
Panel (a) of [Figure 5](#) zooms in on depositor behavior during systemic bank runs in the U.S. across the 19th century and the modern period until 2020. For this purpose, we sort the deposit and loan growth rates across banks during systemic runs into percentiles of bank-level deposit growth rates to capture the degree of heterogeneity in inflows and outflows during run events.

During systemic runs, there is a significant reallocation of deposits across banks. More than 60% of banks experience deposit outflows and subsequently contract their

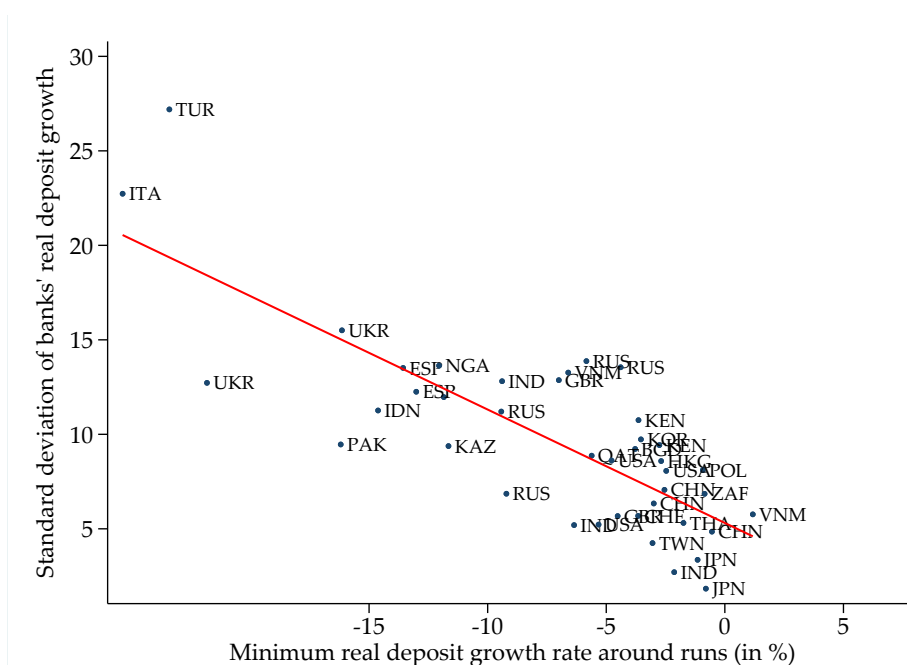
²⁷Section [A.4.1](#) provides a detailed description of the data cleaning process for the datasets.

Figure 5: Bank-Level Deposit Reallocation Around Bank Runs

(a) U.S. Bank-Level Deposit and Loan Growth During Systemic Runs



(b) International Bank-Level Deposit Growth Rates and their Dispersion Around Bank Runs



Notes: The left-hand side figure in the top panel visualizes the relationship between bank-level growth rates of real deposits and real loans. The right-hand side figure in the top panel plots bank-level growth rates of real deposits in the U.S. during periods of systemic bank runs, periods of banking crises, and periods outside of runs or crises across percentile bins of real deposit growth rates. The figures in Panel (a) are based on the OCC dataset for the period 1867-1904 and on Call Reports data for the period 1976-2020. The black solid line indicates the average deposit growth rate during systemic runs in the respective sample. The figure in the bottom panel plots the standard deviation of quarterly bank-level real deposit growth rates against the minimum quarter-on-quarter real deposit growth rate. Both measures are calculated over the same nine-quarter event window, spanning four quarters before to four quarters after each bank run. The figure in Panel (b) is based on the Compustat dataset for the period 1987Q1 -2026Q1 .

loan book, while among the remaining banks some see significant deposit inflows. The mass on deposit outflows during systemic runs surpasses even that during banking crises and, naturally, normal times, while the mass on deposit inflows during normal times, but also during banking crises, surpasses that during systemic runs. This provides some external validity for our definition, as systemic bank runs identified by our measure exhibit markedly larger deposit contractions than banking crises identified using alternative definitions.

These findings suggest that aggregate deposit contractions can be accompanied by a significant degree of deposit reallocation. In Panel (b) of Figure 5, we use international bank-level data from the past three decades to examine the dispersion of bank-level deposit growth rates and its relationship with the level of aggregate deposit growth.²⁸ Their correlation suggests that deeper aggregate contractions feature higher dispersion. That is, the more aggregate deposits fall, the less likely banks see uniform negative deposit growth and, instead, the more likely depositors run on certain banks and reallocate their deposits to others.

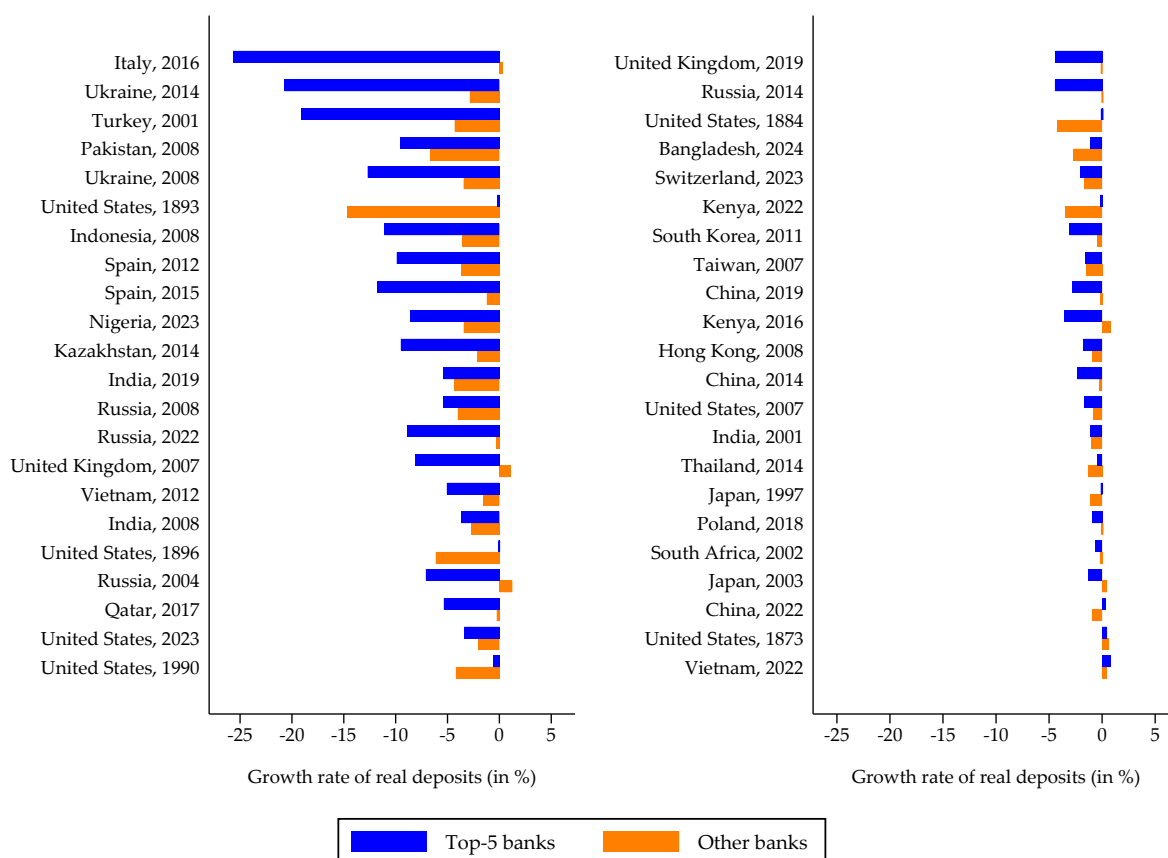
One important dimension along which deposits may be reallocated is bank size. For the union of all these narrative bank runs, Figure 6 reports aggregate deposit growth rates separately for the five largest banks and for all remaining banks. With some notable exceptions—most prominently the late 19th-century U.S. runs—growth at the top five is more negative than at the remaining banks, and the size of the top-five/other differential tracks the depth of the aggregate contraction across episodes. This pattern suggests not only that aggregate deposit contractions are concentrated at the largest banks, but also that reallocations from the largest banks to smaller ones are associated with deeper aggregate contractions.

3.4 Do Runs and Crises Coincide?

What differentiates a bank run from a banking crisis or panic? In the large literature following Diamond and Dybvig (1983), these are generally one and the same thing: by definition, a crisis is the undesirable equilibrium in which depositors withdraw their funds from the banking sector independent of fundamentals. Gorton (2012), for example, argues that “all financial crises are at root bank runs” (see also Schwartz, 1987). On the other hand, there is a literature arguing that banks’ net worth is the key state variable for

²⁸For each run episode, we use deposit growth rates within a nine-quarter event window—spanning four quarters before to four quarters after the run—to calculate the standard deviations. To avoid using the same deposit growth rates for two different run episodes in consecutive years, we keep only the first bank run within a one-year window.

Figure 6: Deposit Growth of Large vs. All Other Banks Around Bank Runs



Notes: The figures visualize the aggregate real deposit growth rates of the five largest banks in a country and all other banks around bank run episodes. The aggregate growth rates are based on size-weighted growth rates from the bank-level data. For each bank run episode, the real deposit growth rate shown corresponds to the minimum quarterly (annual for the U.S. national banking era) growth rate observed within a nine-quarter event window, from four quarters (one year) before to four quarters (one year) after the bank run. The sum of aggregate top-5 banks' growth rates (blue bars) and the aggregate other banks' growth rate corresponds to the aggregate country-wide real deposit growth rate. The figures are based on the OCC dataset for the period 1867-1904 and on the Compustat dataset for the period 1987Q1 -2026Q1 .

macro-financial linkages (e.g., [Gertler and Kiyotaki, 2010](#); [He and Krishnamurthy, 2013](#); [Brunnermeier and Sannikov, 2014](#)). The central idea is that an erosion of banks' net worth constrains their capacity to lend, giving rise to the possibility of banking crises without bank runs.

To quantify the extent to which bank runs overlap with banking crises, Table 3 reports the unconditional and conditional probabilities of several measures of bank runs and banking crises for all country-year observations with deposit data. The top panel shows the unconditional probabilities of a narrative bank run, aggregate deposit contraction, systemic bank run, and non-systemic bank run, as well as the probabilities conditional on a banking crisis or banking panic occurring within a one-year window around the run

Table 3: Probabilities of Bank Runs, Banking Crises, and Banking Panics

	Probabilities of bank runs			
	Narrative bank run	Deposit contraction	Systemic bank run	Non- systemic run
Unconditional	2.4	9.4	1.3	1.1
Conditional on a banking crisis	53	44	32	21
Conditional on a banking panic	68	49	40	29

	Probabilities of banking crises	Probabilities of banking panics
Unconditional	2.6	3.3
Conditional on a narrative bank run	49	37
Conditional on a deposit contraction	10	6
Conditional on a systemic bank run	56	40
Conditional on a non-systemic bank run	41	33

Notes: For all country-year observations with deposit data, this table reports unconditional and conditional probabilities of bank runs, banking crises, and banking panics. The top panel shows both the unconditional and the conditional probabilities of a narrative bank run, deposit contraction, systemic bank run (i.e., a narrative run accompanied by a deposit contraction), and non-systemic bank run (i.e., a narrative run without a deposit contraction). For conditional probabilities, we consider run events taking place within ± 1 years of a crisis or panic. The bottom panel shows both the unconditional and the conditional probabilities of a banking crisis and a banking panic, where we again consider a window of ± 1 years for conditional probabilities. The dates of banking crises are defined by combining several chronologies as described in Section 2.5, where we take dates from [Baron et al. \(2021\)](#), [Laeven and Valencia \(2018\)](#), [Jordà et al. \(2017\)](#), and [Reinhart and Rogoff \(2009b\)](#), in that order of priority. The dates of banking panics are from [Baron et al. \(2021\)](#).

event.²⁹

The following patterns emerge. When a banking crisis occurs, the likelihood of a run is 53%. Unsurprisingly, this ratio is higher for banking panics (which refer to both major runs and other kinds of panics banks may face). Put differently, not every episode classified as a banking crisis by some of the leading chroniclers of such events fulfills the [Gorton \(2012\)](#) standard of being a run.

Systemic bank runs, meaning those affecting aggregate banking sector deposits, occur in approximately 32% of banking crises, considerably more frequently than more isolated episodes without a deposit contraction (21%). Since the classifications of banking crises require such events to have a systemic dimension, this finding provides some reassurance that our new measure of systemic bank runs is able to pick up broader disruptions as opposed to more isolated, idiosyncratic events.

Figure A.5 in the Online Appendix plots the dynamic probability of a bank run around different types of financial crises using an event study approach. When a run happens, it is usually in the exact year of a banking crisis, or in the year before or after, with no clear

²⁹Tables A.4 and A.5 in the Online Appendix provide a more detailed breakdown for different crisis definitions and wider windows for overlapping events.

lead-lag relationship. Interestingly, bank runs are considerably more likely to happen *before* currency or sovereign debt crises.

Table A.6 in the Online Appendix presents the results from a panel regression relating the likelihood of bank runs to different types of financial crises in a multivariate setting. We find that banking crises are considerably more predictive of runs than other types of crises, but the overlap between crises and runs remains imperfect. To show this, we use the Area Under the Curve (AUC). The AUC is the integral under the Receiver Operating Characteristic (ROC) Curve, which plots the true positive rate (sensitivity) and the false positive rate ($1 - \text{specificity}$) for various thresholds. A model with an AUC of 0.5 suggests no ability to discriminate between crisis times and other periods, equivalent to flipping a coin. The classification ability of crises to differentiate between episodes of bank runs and other times is reasonably high ($\text{AUC} = 0.69$) but far from perfect.

This analysis suggests that runs are a common feature of banking crises, but perhaps not a necessary condition. A natural next step is to reverse the question: if a bank run occurs, what is the probability that it coincides with a banking crisis or a broader banking panic?³⁰ The bottom panel of Table 3 answers this question by showing the probabilities of banking crises and banking panics within a one-year window around a bank run. For example, 49% of bank runs in our sample are accompanied by a banking crisis and an even higher fraction of systemic bank runs (56%).

4 The Macroeconomic Aftermath of Bank Runs

Equipped with our new chronology of bank runs, we examine how these episodes relate to real economic activity across countries and time. Our emphasis is on understanding the macroeconomic costs of bank runs. We start by investigating the average patterns of real GDP around bank run events, and then differentiate between runs of varying severity, in particular whether they reflect underlying solvency issues in the economy or the banking sector. Finally, we study the role of deposit insurance, the presence of a central bank, and various crisis interventions in shaping the aftermath of bank runs.³¹

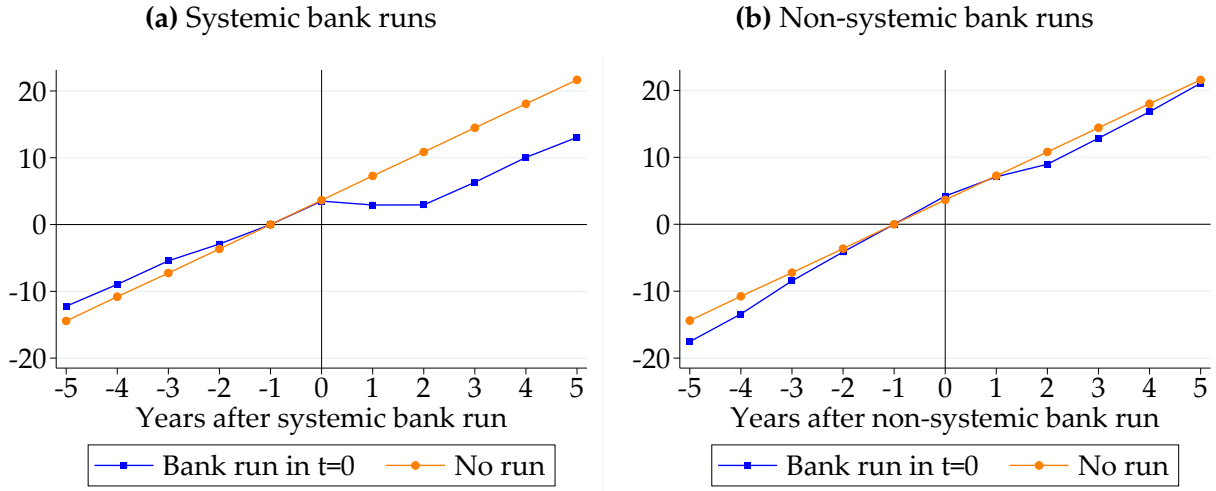
4.1 Data

We complement our new datasets on bank runs and deposits with additional information from the following sources.

³⁰We dig deeper into the more general precursors of financial crises in Section A.6 of the Online Appendix.

³¹As before, we keep only the first bank run episode within a three-year window. Hence, 58 of the 339 bank run episodes for which aggregate deposit data are available are excluded from the regressions.

Figure 7: Path of Output Around Systemic and Non-Systemic Bank Runs



Notes: These figures plot the path of log real GDP around systemic bank runs (left panel) and non-systemic bank runs (right panel) relative to the year before the run occurs (indexed as 0). The lines visualize the log change in real GDP once a run occurs (in blue) relative to a counterfactual path based on all other country-year observations during the same time window where no run occurs (in orange).

Macroeconomic data. We obtain macroeconomic data on real and nominal GDP from the World Bank, International Monetary Fund, Organisation for Economic Co-operation and Development, Penn World Tables, Montevideo-Oxford Latin American Economic History Database (MOxLAD), Jordà et al. (2017), and Bordo et al. (2001).

Credit and asset prices. We take data on credit to the private sector from the Global Credit Project (Müller and Verner, 2024). These data are defined similarly to those on deposits in that they measure the outstanding stock of credit. To maximize coverage, we also add some additional data points on credit from Jordà et al. (2017). Data on bank equity returns, credit spreads, and mortgage spreads are all taken from Baron et al. (2021).

Capital ratios. We collect data on bank capital ratios from the World Bank, International Monetary Fund, Organisation for Economic Co-operation and Development, and Jordà et al. (2017).

Deposit insurance and central bank founding dates. Information on the existence of deposit insurance is from Demirgüç-Kunt et al. (2014).³² We compile a list of central bank

³²For Taiwan, we set the start date of deposit insurance to 1985 (based on the Central Deposit Insurance Corporation's website). In Macao, we take 2008 as the beginning of deposit insurance, where an initially temporary scheme is now managed by the Deposit Guarantee Fund.

founding dates based on publicly available information on central bank websites, where we treat as the relevant date the first year a central bank is in operation in a given territory according to present-day political borders.

4.2 Output Losses from Bank Runs

In this section, we investigate the path of real GDP and additional macroeconomic outcomes after systemic and non-systemic bank runs. The year of the bank run is marked as $t = 0$, and we treat periods without bank runs as the benchmark.

To shed light not only on subsequent output losses but also on the possibility of pre-trends ahead of runs, we compute the path of real GDP around both systemic runs and non-systemic runs using an event study approach. Specifically, we index changes in log real GDP relative to the year before a run occurs. As a counterfactual, we consider all other country-year observations over the same event window where no run occurs.

Figure 7 plots the results. The left panel shows two important factors for the case of systemic bank runs. In the run-up to these runs, real GDP behaves quite similarly compared to a counterfactual path where no run occurs; in other words, we do not observe substantial pre-trends. Second, once a systemic run starts, there is a severe and persistent drop in real GDP. Within five years of a systemic run, real GDP is about 8.6% lower than the counterfactual. This pattern is qualitatively similar to the well-established finding that financial crises tend to have severe output costs (see, e.g., Cerra and Saxena, 2008; Reinhart and Rogoff, 2009b; Bordo and Haubrich, 2010). In contrast, non-systemic runs, which are depicted in the right panel of Figure 7, behave similarly to no-run episodes, both before and after the run event year.³³

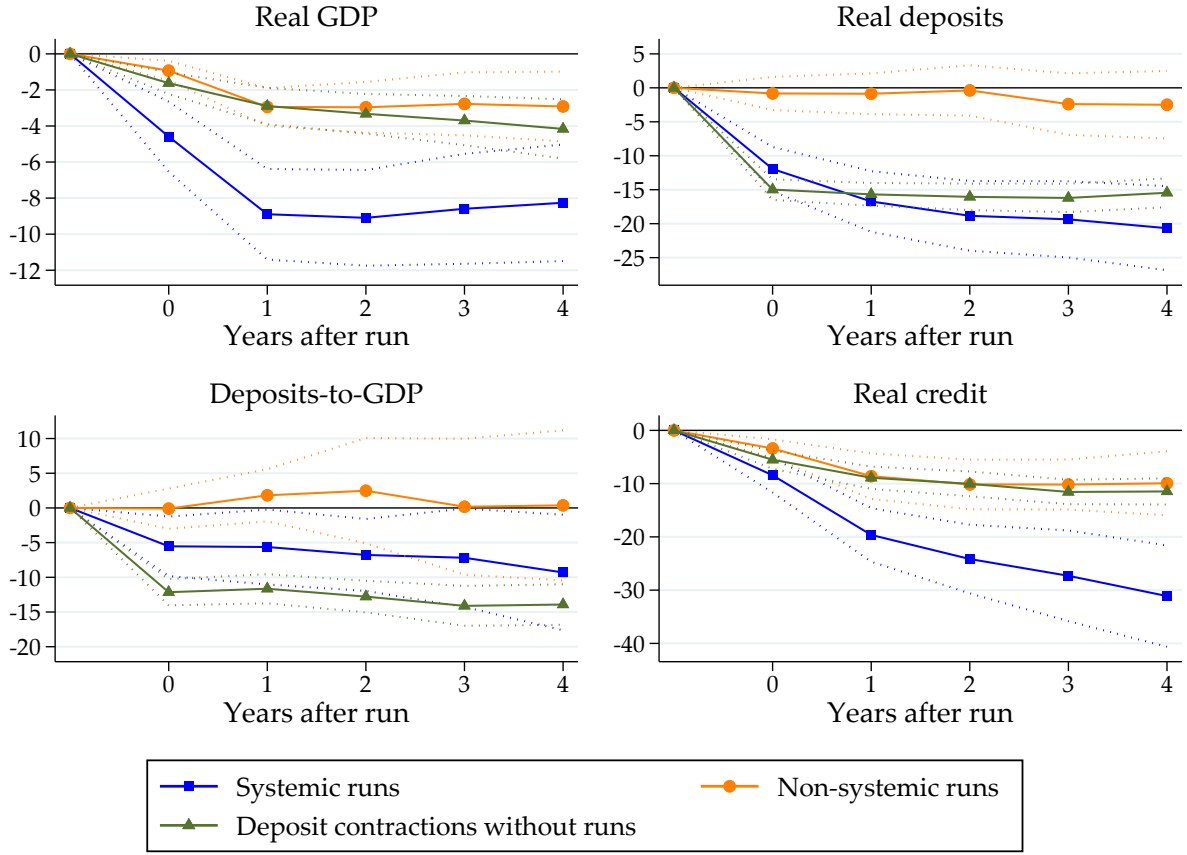
Next, to examine the relation between bank runs and output losses while systematically accounting for other factors, we estimate impulse responses using lag-augmented local projections following Jordà (2005) and Montiel Olea and Plagborg-Møller (2021) for a horizon h :

$$\Delta Y_{i,t+h} = \alpha_i^h + \beta^{run,h} \mathbf{1}_{i,t}^{run} + \sum_{k=1}^3 \gamma^{k,h} \Delta \mathbf{X}_{i,t-k} + \epsilon_{i,t}^h \text{ with } h \in \{0, 1, 2, 3, 4\}, \quad (1)$$

where i subscripts countries, t years, and h the forecast horizon. $Y_{i,t}$ denotes an outcome of interest, such as real GDP, α_i denotes country fixed effects, and the indicator variable $\mathbf{1}_{i,t}^{run}$ is equal to one for a given bank run episode.

³³Figure A.9 in the Online Appendix provides a more granular look at systemic runs defined based on a contraction in either only total, only demand, or only time deposits, with very similar quantitative conclusions.

Figure 8: Macroeconomic Aftermath of Runs and Deposit Contractions



Notes: These figures plot the impulse response functions of real GDP, real deposits, real credit, and deposits-to-GDP for (i) systemic bank runs (blue line), (ii) non-systemic bank runs (orange line), and (iii) deposit contractions outside of run episodes (green line). The estimates are based on local projections specified in equation (1). The error bands depict 95% confidence bands based on standard errors double-clustered by country and year.

We estimate equation (1) using three different perturbations of the bank run indicator variable: (i) systemic runs, i.e., narrative bank runs coinciding with a contraction in total retail deposits as defined above, (ii) non-systemic runs, i.e., narrative bank runs without deposit contractions, or (iii) purely statistical deposit contractions without narrative evidence of a bank run. The latter serves the purpose of providing us with an estimate of output losses typically associated with a deposit contraction that happens for reasons unrelated to bank runs, such as an exchange rate devaluation or changes in monetary policy.

Specification (1) is a flexible framework to control for past realizations of $Y_{i,t}$, e.g., real GDP growth, as well as for other predictors, which are all contained in $\mathbf{X}_{i,t-k}$. In our baseline specification, we include three lags of real GDP growth rates, real deposit growth rates, real credit growth rates, and changes in the deposits-to-GDP ratio. For robustness,

Table 4: Bank Runs and Output Losses

	ΔGDP_t^r	ΔGDP_{t+2}^r	ΔGDP_{t+4}^r
	(1)	(2)	(3)
Systemic Runs	-4.718*** (1.002)	-9.372*** (1.361)	-8.598*** (1.668)
Non-Systemic Runs	-1.063*** (0.287)	-3.230*** (0.725)	-3.214** (0.985)
Deposit Contractions w/o Runs	-1.678*** (0.310)	-3.441*** (0.566)	-4.272*** (0.844)
Observations	8,768	8,768	8,657
Countries	184	184	184
Systemic Runs	83	83	83
Deposit Contractions	639	639	635
Non-Systemic Runs	94	94	92
R^2	0.13	0.20	0.24

Notes: This table reports the estimated output losses from panel regression (2) in the year of the run, as well as two and four years after, relative to the year preceding the run. We present results for three types of bank run episodes: (i) systemic bank runs, i.e., narrative bank runs that coincide with deposit contractions; (ii) non-systemic bank runs, i.e., narrative bank runs not accompanied by deposit contractions; and (iii) deposit contractions, defined as periods of year-on-year declines in outstanding nominal deposits without narrative evidence of bank runs. Standard errors are double-clustered by country and year. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

we also consider alternative numbers of lags or adding year fixed effects. Standard errors are double-clustered by country and year, which corrects for serial correlation and residual correlation across countries from common shocks.

We are particularly interested in the sequence of coefficient estimates $\beta^{run,h}$ capturing the impulse response of the outcome $Y_{i,t}$ to the occurrence of a bank run. These estimates do not purely reflect the causal effect of bank runs because runs are not necessarily exogenous events. In some cases, the catalyst of a run is clearly an idiosyncratic event, such as a (false) rumor, an isolated fraud case at a well-known bank, or policy changes in foreign countries. In other cases, bank runs are an endogenous response to news about the poor state of the banking sector or the outbreak of war.

For our baseline exercises, we do not take a stance on what drives bank runs in the first place. Instead, we are interested in characterizing the aftermath of bank runs, taking their occurrence as given, and provide further robustness exercises below. Importantly, in Section 4.3, we differentiate bank runs by the extent to which they may have been caused by fundamental factors, such as macroeconomic causes or solvency issues in the banking sector, rather than pure coordination failures.

Figure 8 shows the impulse response functions of real GDP, real deposits, the deposits-to-GDP ratio, and real credit. Systemic bank runs are associated with a -9.1% loss in

output and a -20.7% drop in deposits after four years. Because deposits contract more than GDP, the ratio of deposits to GDP also declines. We find a large drop in credit of -31.1%, suggesting a credit crunch. The aftermath of an average systemic bank run can thus be described as severe.

The aftermath of non-systemic runs or deposit contractions without runs is substantially less dramatic than that of a systemic run. Non-systemic runs do not coincide with significant contractions in real deposits and are linked to a -3.0% decline in real GDP. Strikingly, it is the co-occurrence of a narrative run and an aggregate deposit contraction that proves damaging: a narrative run unaccompanied by a contraction, or a contraction unaccompanied by a run, each predicts only a modest output loss, whereas their conjunction—a systemic run—predicts a decline several times larger. This complementarity is consistent with knock-on effects through which the run and the drying-up of banks' short-term funding reinforce one another, with systemic runs showing a steeper decline in real deposits than contractions without runs, in line with the deeper credit crunch that follows them.

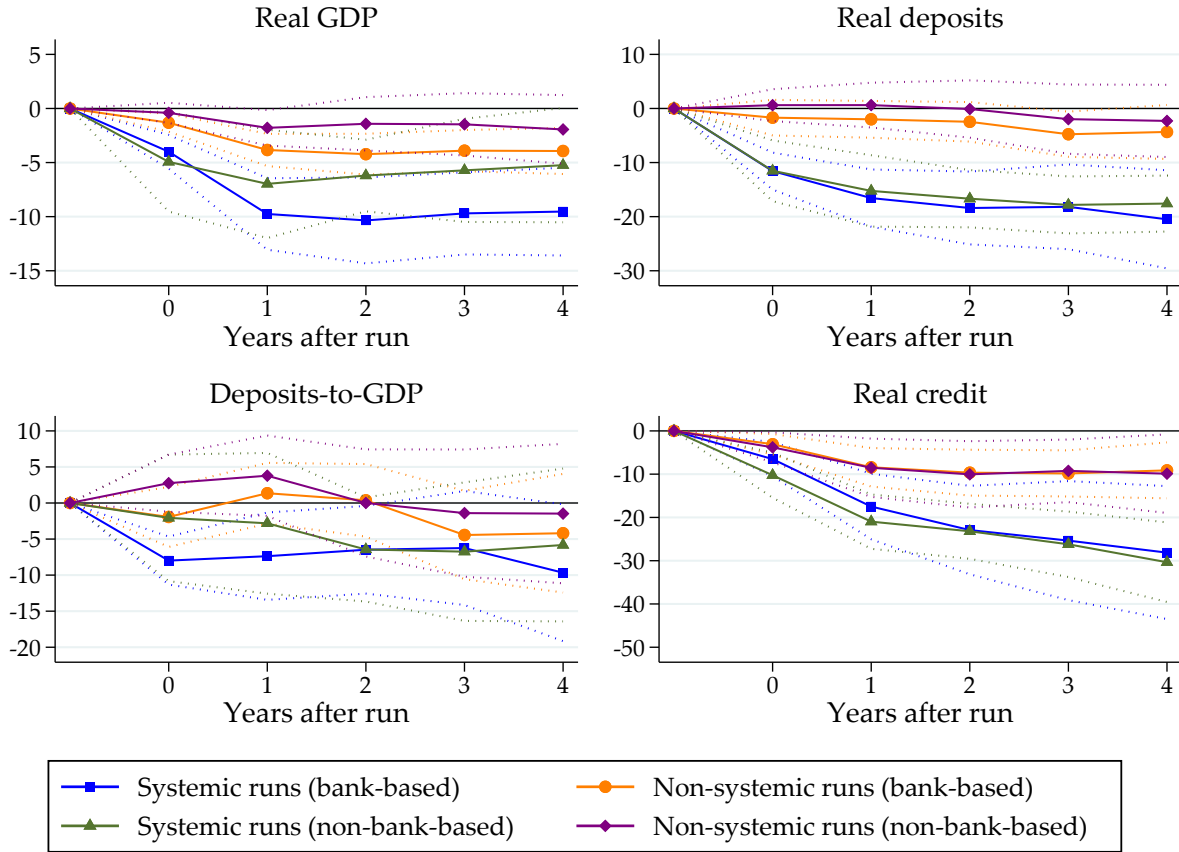
As an alternative test for differences in economic outcomes across bank run events, Table 4 presents regression results predicting changes in real GDP relative to the year preceding the run, using the following specification:

$$\Delta Y_{i,t+h} = \alpha_i^h + \beta_1^h \mathbf{1}[\Delta D_{i,t} < 0] + \beta_2^h \mathbf{1}[Run_{i,t}^{Systemic}] + \beta_3^h \mathbf{1}[Run_{i,t}^{Nonsystemic}] + \sum_{k=1}^3 \gamma^{k,h} \Delta \mathbf{X}_{i,t-k} + \epsilon_{i,t}^h \quad (2)$$

where $h \in \{0, 2, 4\}$ and $\mathbf{1}[\Delta D_{i,t} < 0]$ is an indicator variable for deposit contractions, i.e., periods where the year-on-year growth in outstanding nominal deposits $\Delta D_{i,t}$ is negative, without narrative bank runs, $\mathbf{1}[Run_{i,t}^{Systemic}]$ is a dummy for systemic bank runs, i.e., narrative bank runs accompanied by deposit contractions, and $\mathbf{1}[Run_{i,t}^{Nonsystemic}]$ a dummy for non-systemic bank runs, i.e., narrative bank runs that are not accompanied by deposit contractions. α_i denotes country fixed effects, and $Y_{i,t}$ denotes real GDP for country i in year t . $\mathbf{X}_{i,t-k}$ includes the same controls as in (1), namely three lags of real GDP growth, real deposit growth rates, real credit growth rates, and changes in the deposits-to-GDP ratio.

The results in Table 4 are consistent with Figure 8. Systemic bank runs have considerably higher predictive power for future real GDP growth than non-systemic runs or deposit contractions in the absence of bank runs. The coefficient on systemic bank runs at $h = 4$ suggests that these types of runs are associated with a -8.6% contraction in real GDP within four years. The coefficient on systemic bank runs is always statistically significantly different from the other two (across all horizons) at the 1% level.

Figure 9: Macroeconomic Aftermath of Runs—Bank-Based vs. Non-Bank-Based Countries



Notes: These figures plot the impulse response functions of real GDP, real deposits, real credit, and deposits-to-GDP for (i) systemic bank runs in bank-based countries (blue line), (ii) non-systemic bank runs in bank-based countries (orange line), (iii) systemic bank runs in non-bank-based countries (green line), and (iv) non-systemic bank runs in non-bank-based countries (purple line). We define (non-)bank-based countries as those with a credit-to-deposit ratio above (below) the median of the distribution in the year before the run. The estimates are based on local projections specified in equation (1). The error bands depict 95% confidence bands based on standard errors double-clustered by country and year.

Importantly, much of the existing evidence on the real effects of bank distress and depositor runs is drawn from the United States, where granular bank- and county-level data are available (e.g., [Correia et al., 2026](#)). Yet the United States is, by most measures, a capital market-based economy: firms there enjoy ready access to bond and equity markets that can substitute for bank credit when intermediation is disrupted. Whether the macroeconomic costs of runs documented in that setting extend to the bank-based economies that account for much of the world—and much of our sample—is therefore an open question that our global, long-run chronology is uniquely positioned to address.

For this purpose, we split systemic and non-systemic runs by whether they occur in a bank-based or a more market-based economy, classifying country-years by whether the

credit-to-deposit ratio in the year before the run lies above or below the annual cross-sectional median. In doing so, we exploit the fact that the credit-to-deposit ratio captures how much of an economy's financing runs through deposit-funded banks rather than capital markets: in bank-based economies, banks intermediate the bulk of credit and the ratio is high (averaging about 1.58), whereas in market-based economies more financing is raised directly in bond and equity markets and the ratio is lower (averaging about 0.59). Reassuringly, this ordering matches the conventional classification: bank-based economies such as Germany and Austria lie above the median in 97% and 93% of post-1945 years, respectively, compared with only 46% for the more market-based United States (Levine, 2002).

Figure 9 reveals a striking asymmetry. The contraction in real credit following a systemic run is of comparable magnitude in bank-based and market-based economies, declining by roughly 25-30% over four years in both. The output consequences, however, differ sharply: systemic runs in bank-based economies are followed by real GDP losses of around 10%, roughly twice the losses that follow systemic runs in market-based economies. In other words, a similar disruption to bank credit translates into a substantially larger real downturn where firms have no capital market alternative to bank financing, consistent with the view that bank credit is less easily replaced in bank-based systems (Levine, 2002). Non-systemic runs, by contrast, are associated with only modest output losses regardless of financial structure. These patterns suggest that evidence from market-based economies, if anything, understates the macroeconomic stakes of systemic runs in the bank-based economies that our worldwide coverage brings into view.

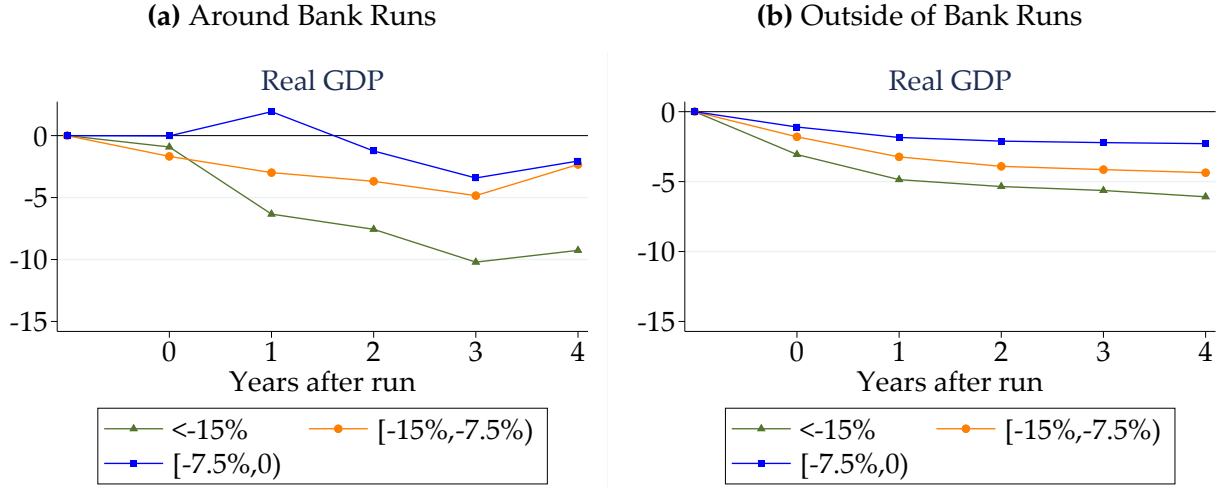
Intensive margin of deposit withdrawals. In our baseline definition, we are agnostic about the extent to which aggregate deposits decline. To capture differences in the severity of bank runs, we next analyze the intensive margin of aggregate deposit contractions by varying the range of negative deposit growth rates for the classification of systemic bank runs. For this purpose, we measure the degree of contractions in nominal deposits around each bank run episode.

We then augment our local projection framework to estimate the impulse response of real GDP to bank runs associated with different negative deposit growth rates:

$$\Delta Y_{i,t+h} = \alpha_i^h + \sum_{j=1}^3 \beta_j^h \mathbf{1}[d_{i,t} \in B_j] + \sum_{k=1}^3 \gamma^{k,h} \Delta \mathbf{X}_{i,t-k} + \epsilon_{i,t}^h, \quad (3)$$

with $h \in \{0, 1, 2, 3, 4\}$ and $\mathbf{1}[d_{i,t} \in B_j]$ is an indicator denoting whether country i 's nominal deposit growth rate is within bin j , α_i denotes country fixed effects, and $Y_{i,t}$ denotes real

Figure 10: Deposit Contractions and Output Losses Around and Outside of Bank Runs



Notes: These figures plot the impulse response functions of the one-year difference in logged real GDP to (narrative) bank runs for different percentiles, measuring the degree of nominal deposit contractions. The estimates are based on the local projection specified in equation (3). Panel (a) measures the contraction in deposits around each bank run episode using the sample of narrative bank runs. Panel (b) uses the full country-level sample excluding observations within a $\pm$ three-year window around bank runs. We calculate the contraction in deposits for each year by detrending the deposit growth rates using a backward-looking three-year moving average.

GDP for country i in year t . As before, $\mathbf{X}_{i,t-k}$ includes three lags of real GDP growth, real deposit growth rates, real credit growth rates, and changes in the deposits-to-GDP ratio.

Panel (a) of Figure 10 shows that the extent of deposit withdrawals during a bank run is highly informative about the future path of real GDP. When narrative bank runs are accompanied by a deposit contraction of more than 15%, their aftermath is typically a deep and long-lasting recession of 10% in real GDP. Smaller outflows of deposits are associated with milder consequences, with the smallest extent of withdrawals coinciding with the lowest output losses. The estimated coefficients can be directly related to the results shown in Figure 8. In particular, Panel (a) of Figure 10 shows which deposit bins drive the differences between systemic and non-systemic runs. Accordingly, the output gap between systemic and non-systemic runs can be interpreted as a linear combination of the estimated coefficients from specification (3).

To consider the role of the liability side of banks' balance sheets in economic fluctuations independent of a depositor panic, we also consider whether variations in deposit growth rates are predictive of future growth outside of bank run episodes. Looking at deposit growth rates directly without relying on our new bank run chronology addresses a reasonable objection that, despite our best efforts, our list of runs is bound to be incomplete. Of course, this issue is not unique to our work; it also applies to any other narrative chronology of banking crises. On the other hand, the downside of a purely statistical

approach is that whether the banking sector's deposits expand or contract has a myriad of reasons, only some of which may be related to potentially unobserved run events missing from our chronology.

Panel (b) of Figure 10 plots the estimates from (3), where we exclude observations within a $\pm$ three-year window around bank runs. Compared to those in the top panel, the coefficients are now considerably smaller, which underscores the critical distinction between systemic bank runs and aggregate deposit contractions without any narrative evidence of a bank run. This also suggests that deposit contractions are particularly predictive of real economic outcomes when they occur in conjunction with a bank run.

Deposit outflows and real GDP during the Great Depression. To further investigate the link between output losses and deposit contractions, we consider the Great Depression in Section A.12 of the Online Appendix. This period is an interesting case study for two reasons. First, we find 30 narrative bank runs, 26 of which we classify as systemic, in 25 countries between 1929 and 1931. Second, deposit insurance was not yet available and was introduced in the U.S. only in 1933. Figure A.23 plots the mean growth rate of real GDP against the mean growth rate of real total deposits between 1929 and 1931, for all countries with real GDP and deposit data. In line with our local projections evidence in Figure 10, we find that countries with larger deposit contractions around the Great Depression tended to also experience greater output losses.³⁴

Robustness. In Section A.7 of the Online Appendix, we consider alternative econometric specifications. Section A.10 of the Online Appendix revisits our baseline results using alternative classifications of deposit contractions. In particular, we consider: (i) real versus nominal growth rates to account for inflation, (ii) different absolute thresholds for deposit growth, (iii) different relative thresholds, defined as deposit growth dropping a given number of country-specific standard deviations below the time-varying country mean, (iv) contractions based on detrended deposit growth, (v) conditioning only on contractions in total deposits and excluding isolated contractions in demand or time deposits that coincide with positive total deposit growth below 4%, (vi) conditioning only on contractions in demand deposits or time deposits that are not accompanied by contractions in total deposits to evaluate the macroeconomic aftermath of shifts from demand to time deposits

³⁴Consistent with Monnet et al. (2021), the three-year average total deposit growth rate in France during the Great Depression is close to zero, which they explain with a reallocation of deposits from banks to savings institutions. However, both our definition of bank runs in our chronology and the total deposits variable include commercial banks and savings institutions. As a result, we find an aggregate contraction of 5.9% in 1931.

(and vice versa), and (vii) using monthly deposit data to identify contractions.³⁵ In addition, Section A.13 of the Online Appendix discusses natural disasters and wars as potential confounders. Across all of these tests, our estimates remain almost unchanged.

Finally, we address the potential role of false negatives—bank runs that our chronology may have failed to capture—by augmenting the run episodes with a broader set of candidate events drawn from existing chronologies. Figure A.19 shows that even if we assume every banking crisis to be accompanied by runs (irrespective of whether we find any narrative evidence), estimated output losses after systemic vs. non-systemic runs are virtually unaltered.

4.3 Bank Runs, Fundamentals, and Output Losses

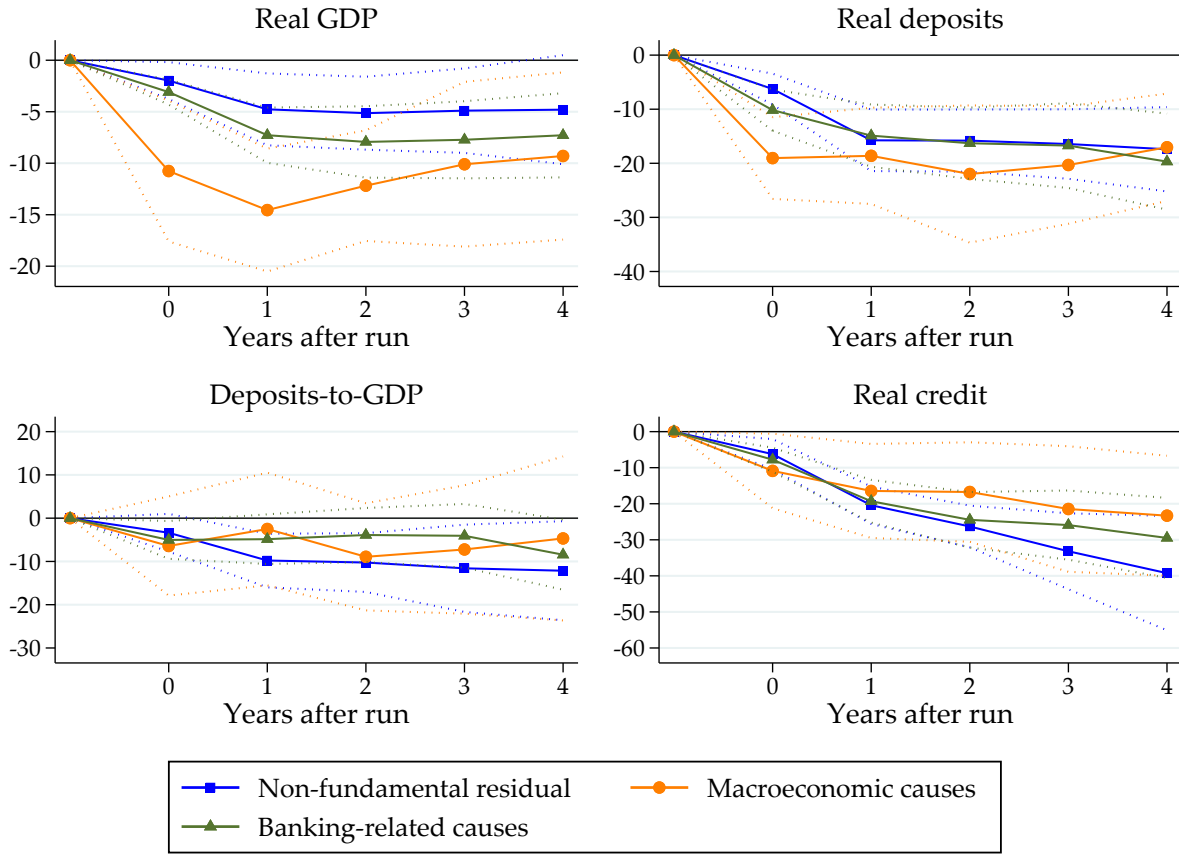
How consequential a bank run turns out to be depends on the fundamentals underlying it. Our narrative chronology lets us make this concrete. By classifying systemic runs according to the nature of their trigger, we can ask whether output losses are more severe when a fundamental trigger is present. We provide three pieces of evidence, all pointing in the same direction: fundamentals shape the severity of a run’s aftermath, yet runs remain costly even when triggered by near-payoff-irrelevant public signals.

Fundamental vs. non-fundamental runs. Figure 11 plots the aftermath of systemic runs split by trigger: non-fundamental runs, runs following a deterioration in macroeconomic fundamentals, and runs triggered by banking-sector or bank-level causes. All three groups are followed by significant output losses, deposit outflows, and credit contractions. Non-fundamental runs have less severe but still statistically significant output losses of around -5.1% and a credit contraction of -39.2%, comparable to that following banking-related runs. Because non-fundamental runs are less likely to be explained by shocks that could simultaneously trigger a run and a recession, this pattern is harder to reconcile with pure reverse causality. It is consistent with the view that systemic runs can be associated with macroeconomic costs even absent the solvency problems that might ultimately lead to bank failures.

Banking crises and bank failures. Because existing chronologies define banking crises largely by the presence of institutional (near-)failures, comparing output paths depending on whether a systemic run overlaps with a crisis or with widespread bank failures offers a second way to gauge the role of solvency. We treat events as overlapping within a

³⁵We collect monthly nominal deposit data for the period 1914-2023 from the IMF’s International Financial Statistics and U.S. deposit series from FRED.

Figure 11: Macroeconomic Aftermath of Systemic Runs, By Triggers



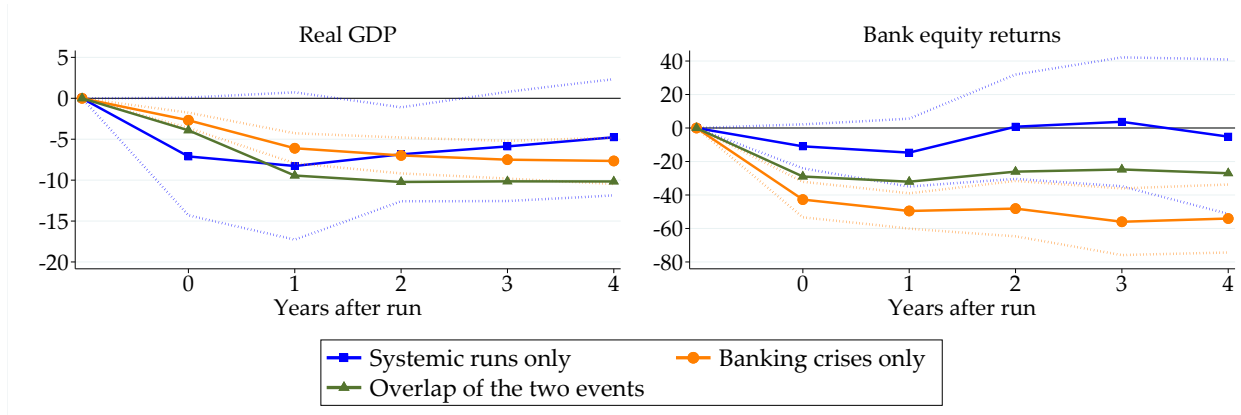
Notes: These figures plot the impulse response functions of real GDP, real deposits, real credit, and deposits-to-GDP for (i) non-fundamental systemic bank runs (blue), (ii) systemic bank runs following a deterioration in macroeconomic fundamentals (orange), and (iii) systemic bank runs triggered by either aggregate banking sector or bank-level fundamental causes (green). Non-fundamental systemic bank runs are runs for which we find no mention of macroeconomic causes—such as business cycle downturns or monetary policy decisions—or banking-related causes—such as major bank losses, banking crises, or credit booms and busts—in narrative accounts of the bank run events in our chronology. The estimates are based on local projections specified in equation (1). The error bands depict 95% confidence bands based on standard errors double-clustered by country and year.

three-year window and estimate specification (1) separately for each event type, where we replace $\mathbf{1}_{i,t}^{run}$ with an indicator for the event under consideration.

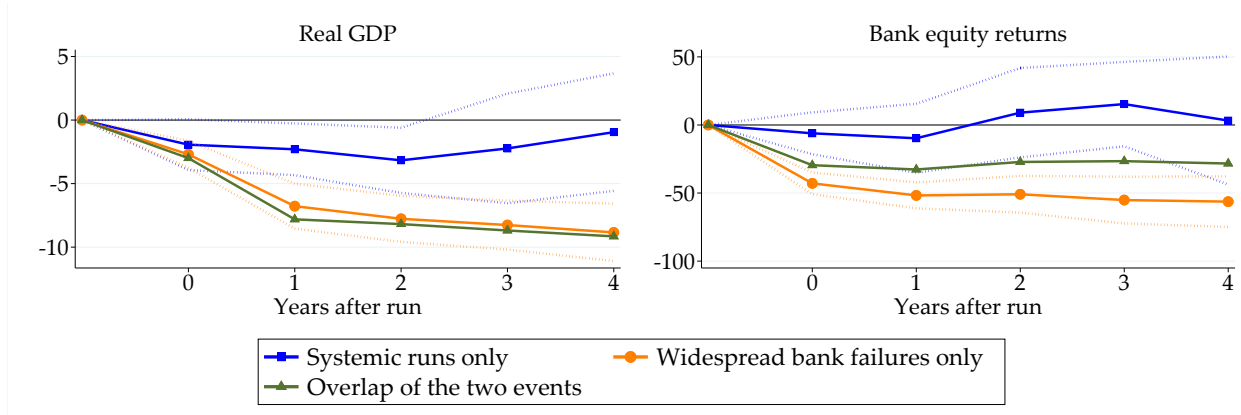
Figure 12a shows that output losses are most severe when systemic runs coincide with banking crises—the worst crises are those accompanied by large-scale runs. But systemic runs and banking crises are each independently associated with output declines of roughly comparable magnitude, suggesting that systemic runs predict lower future output even when solvency is not impaired enough for existing chronologies to record a crisis. The equity return responses are consistent with this reading: banking crises coincide with sharp declines in bank equity returns, whereas systemic runs without crises

Figure 12: Bank Runs, Bank Solvency, and Output Losses

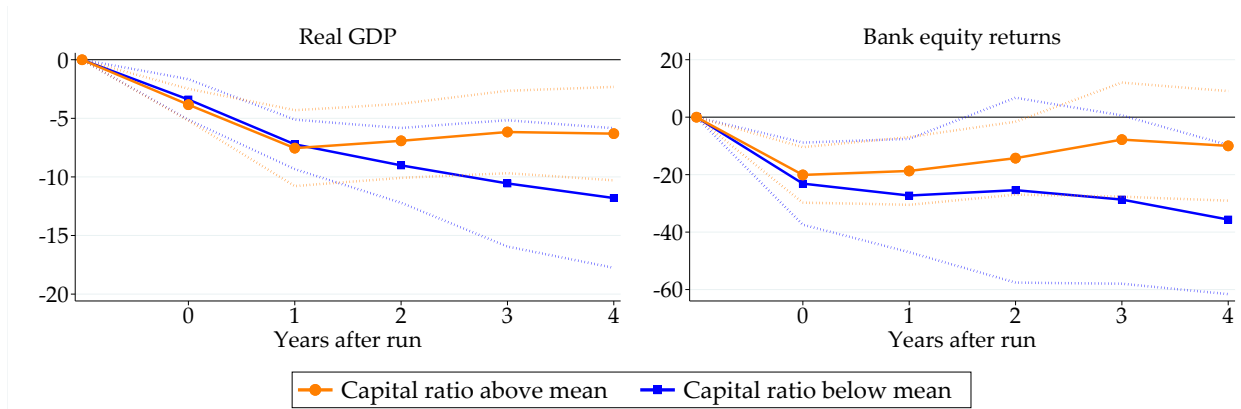
(a) Systemic runs and banking crises



(b) Systemic runs and widespread bank failures



(c) Systemic runs and bank capital ratios



Notes: These figures plot the impulse response functions of real GDP and real bank equity returns around systemic bank runs both within and outside of episodes of low levels of bank solvency. Panels (a) and (b) focus on the different subsets and overlap of systemic bank runs with episodes of banking crises and widespread bank failures, respectively, based on specification (1), where each line comes from a separate regression. Panel (c) plots the impulse responses around systemic bank runs with a below-average (blue lines) and with an above-average banking sector capitalization (orange lines), based on specification (4). The error bands depict 95% confidence bands based on standard errors double-clustered by country and year.

do not.³⁶ Figure 12b repeats the exercise using widespread bank failures (Laeven and Valencia, 2018; Baron et al., 2021) and yields a qualitatively similar pattern: systemic runs predict statistically significant output declines even absent bank failures.

Banking sector capitalization. Finally, we turn to aggregate bank capitalization. Here, we consider local projections with an interaction term that conditions the future path of output on the level of bank capitalization in a country prior to a systemic bank run:

$$\Delta Y_{i,t+h} = \alpha_i^h + \beta^{sysrun,h} \mathbf{1}_{i,t}^{sysrun} + \beta^{int,h} \mathbf{1}_{i,t}^{sysrun} \times z_{i,t} + v^h z_{i,t} + \sum_{k=1}^3 \gamma^{k,h} \Delta \mathbf{X}_{i,t-k} + \sum_{k=1}^3 \zeta^{k,h} \Delta \mathbf{X}_{i,t-k} \times z_{i,t} + \epsilon_{i,t}^h, \quad (4)$$

where $h \in \{0, 1, 2, 3, 4\}$, $z_{i,t}$ is an indicator for whether country i 's banking sector capitalization in year t is above the sample average, and $\mathbf{X}_{i,t-k}$ includes the same controls as in (1), namely three lags of real GDP growth, real deposit growth rates, real credit growth rates, and changes in the deposits-to-GDP ratio.

Figure 12c shows that output contracts less after systemic runs when the banking sector is well capitalized, consistent with the cushioning role of capital emphasized by Jordà et al. (2021) and Abad et al. (2024). This cushioning is far from complete, however: even well-capitalized banking sectors experience significant output losses after systemic runs.

In sum, while the deepest output losses follow systemic runs that coincide with banking crises, widespread failures, and low initial capitalization, these factors do not fully account for the downturns: significant losses also follow runs where we find no or only weak indications of fundamental distress. This is consistent with systemic runs being liability-side disruptions that can carry real costs even when not clearly triggered by observable fundamental causes.³⁷

4.4 Effectiveness of Deposit Insurance and the Lender of Last Resort

The macroeconomic costs of systemic bank runs that we have documented beg the question whether they can be contained by institutions that aim to avert financial instability in the economy. We zoom in on two institutional features with a clear-cut connection to

³⁶Figure A.25 in the Online Appendix depicts the macroeconomic aftermath of systemic bank runs, banking crises, and episodes of widespread bank failures for additional variables, and shows that systemic bank runs predict a much worse decline in credit when they are accompanied by banking crises or widespread bank failures.

³⁷In Figure A.18 of the Online Appendix, we demonstrate that the macroeconomic aftermath of systemic bank runs is also not triggered by asset-side disruptions preceding the run.

bank runs: deposit insurance and the existence of central banks that can act as lenders of last resort.³⁸

Our large historical dataset is ideally suited for this purpose because many countries, in fact, did not have a central bank or deposit insurance for large parts of our sample. To begin our empirical analysis, we focus on whether a country had a central bank at the time an episode of runs occurred. While central banks have not always performed a lender of last resort function, their existence is nevertheless likely a good indication of the availability of a liquidity backstop.³⁹

For deposit insurance, we consider two separate variables. First, we simply consider whether a country has established an explicit deposit insurance scheme according to the inception dates collected by Demirgüç-Kunt et al. (2014). We code this variation into an indicator equal to one for all years after the inception and zero before. These dates also vary widely across countries: the United States was first to establish deposit insurance in 1933, but Sweden introduced it only in 1996, and Hong Kong only in 2004. Our second indicator also considers the introduction date of deposit insurance but only treats it as explicit (i.e., our dummy is set to one) if it is funded ex ante rather than ex post. While this is the case for 98 of 112 countries that have deposit insurance today, it creates additional variation in how credible such a potential backstop is, which may in turn affect the decision of depositors to run.

Institutional frameworks and the likelihood of bank runs. First, we evaluate whether the existence of central banks and deposit insurance is associated with a higher or lower probability of bank runs. For this purpose, we estimate a linear probability model on the country-year sample:

$$\mathbf{1}_{i,t}^{run} = \alpha_i + \beta_1 \mathbf{1}_{i,t}^{predictor} + X_{i,t} + \varepsilon_{i,t}, \quad (5)$$

where $\mathbf{1}_{i,t}^{run}$ denotes a dummy variable equal to 1 for a given bank run episode and 0 otherwise. We estimate equation (5) using two perturbations of the bank run indicator variable:

³⁸ Averting bank runs has historically been considered an important part of a central bank's responsibilities since Sir Francis Baring first mentioned it in his *Observations on the Establishment of the Bank of England* in 1797.

³⁹ As explained in Section 4.1, we classify the respective dates based on when the central bank in the territory of a modern-day country was first founded. These dates vary widely across countries and are not necessarily related to a country's year of independence. For example, we assign 1909 as the year of the central bank's founding for Burundi, based on the fact that the Banque du Congo Belge effectively functioned as a central bank. Similarly, the National Bank of Czechoslovakia was founded in 1926, which we use as the date for the Czech Republic despite the fact that the Czech National Bank was only founded in 1993.

(i) any bank run episode from our chronology and (ii) systemic runs, i.e., narrative bank runs coinciding with a contraction in aggregate total retail deposits. α_i denotes country fixed effects, $\mathbf{1}_{i,t}^{predictor}$ is a predictor variable defined at the time the run takes place, namely the existence of a central bank or deposit insurance in country i , and the vector variable $X_{i,t}$ includes the following lagged country-level controls: (i) the growth rate of real GDP, (ii) the change in credit-to-GDP, (iii) the change in deposits-to-GDP, and (iv) the change in bank equity returns, all calculated over the period from $t - 2$ to $t - 1$. Standard errors are clustered at the country level.

The top panel of Table 5 reports the estimates from specification (5) using the pre-2007 sample of narrative bank runs. Since many countries introduced deposit insurance around the Global Financial Crisis of 2007 (Demirgüç-Kunt et al., 2014), potentially rendering deposit insurance endogenous to the likelihood of runs, we exclude runs occurring in 2007 or later. As a robustness check below, we use the full sample of narrative bank runs. We find no statistically significant effect of the existence of a central bank on the probability of any narrative bank run occurring (column 1). The existence of a central bank also bears no statistically significant effect on the likelihood of the subset of systemic bank runs occurring (column 4). In contrast, deposit insurance is associated with a reduction in the likelihood of any narrative bank run by up to -0.008 (columns 2 and 3), i.e., less than one percentage point (albeit statistically insignificant), and systemic bank runs by at least -0.013 (columns 5 and 6), i.e., almost one and a half percentage points (significant at the 5% level).

Second, we scrutinize the extent to which the existence of central banks and deposit insurance can alleviate the severity of runs, as captured by the probability that a narrative run is also systemic, i.e., accompanied by an aggregate deposit contraction. For this purpose, we estimate a linear probability model at the level of an individual run episode where the unit of observation is all country-year observations that experienced any run:

$$\mathbf{1}_{i,t}^{sysrun} = \alpha_i + \beta_1 \mathbf{1}_{i,t}^{predictor} + \varepsilon_{i,t} \quad (6)$$

$$\mathbf{1}_{i,t}^{sysrun} = \alpha_i + \beta_1 \mathbf{1}_{i,t}^{predictor} + X_{i,t} + \varepsilon_{i,t}, \quad (7)$$

where $\mathbf{1}_{i,t}^{sysrun}$ is a dummy variable equal to 1 if a bank run is systemic and 0 otherwise, α_i denotes country fixed effects, $\mathbf{1}_{i,t}^{predictor}$ is a predictor variable defined at the time the run takes place, namely the existence of a central bank or deposit insurance in country i , and the vector variable $X_{i,t}$ includes the same country-level controls as in specification (5). Standard errors are clustered at the country level.

The bottom panel of Table 5 presents the results. In columns 1, 3, and 5, we estimate (6)

Table 5: Institutional Frameworks and the Likelihood of Runs

	Country-year-level regressions					
	$\mathbf{1}_{i,t}^{run} \in \{0, 1\}$			$\mathbf{1}_{i,t}^{sysrun} \in \{0, 1\}$		
	(1)	(2)	(3)	(4)	(5)	(6)
Central bank exists	-0.002 (0.012)			-0.011 (0.014)		
DI exists		-0.008 (0.007)			-0.013** (0.006)	
DI with ex-ante funding			-0.006 (0.008)			-0.015** (0.007)
Country-level controls	Y	Y	Y	Y	Y	Y
Country FE	Y	Y	Y	Y	Y	Y
Mean of DV	0.03	0.03	0.03	0.02	0.02	0.02
Observations	2,684	2,684	2,667	2,679	2,679	2,662
R ²	0.03	0.03	0.02	0.02	0.02	0.02
	Run-level regressions					
	$\mathbf{1}_{i,t}^{sysrun} \in \{0, 1\}$					
	(1)	(2)	(3)	(4)	(5)	(6)
Central bank exists	-0.301** (0.131)	-0.339** (0.156)				
DI exists			-0.277** (0.124)	-0.274** (0.128)		
DI with ex-ante funding					-0.305** (0.128)	-0.278** (0.127)
Country-level controls	N	Y	N	Y	N	Y
Country FE	Y	Y	Y	Y	Y	Y
Mean of DV	0.58	0.53	0.58	0.53	0.59	0.54
Observations	171	78	171	78	168	76
R ²	0.29	0.59	0.29	0.59	0.27	0.57

Notes: This table reports the role of institutional frameworks in (i) the likelihood of bank runs and (ii) the likelihood that runs become systemic using all observations from the country-year sample before 2007. The top panel reports estimated coefficients from specifications (5) using the country-level sample. In columns 1–3, the dependent variable is an indicator equal to one if any bank run occurs in the country-year. In columns 4–6, the dependent variable is an indicator equal to one for narrative bank runs that are systemic (i.e., accompanied by deposit contractions) and equal to zero otherwise. The bottom panel reports estimated coefficients from specifications (6) and (7) using the sample of narrative bank runs before 2007. The unit of observation is a narrative bank run in country i and year t , and the dependent variable is an indicator equal to one if the run becomes systemic. Columns 1, 3, and 5 report estimates from (6) (without country-level controls). Columns 2, 4, and 6 report estimates from (7) (including country-level controls). *Mean of DV* reports the sample mean of the dependent variable. Predictor variables are measured at the time of the bank run. Standard errors clustered at the country level are reported in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

without country-level controls, using as explanatory variables the existence of a central bank, deposit insurance, and ex-ante funded deposit insurance, respectively. The existence of a central bank is associated with a considerably lower likelihood of bank runs turning systemic. The coefficient of -0.301 in column 1 implies that the probability of a bank run becoming systemic drops from an average of 0.579 to 0.278 if a country has a central bank.

We also find negative and statistically significant coefficients for the existence of deposit insurance. For example, the coefficient of -0.305 in column 5 suggests that having a deposit insurance scheme with ex-ante funding is associated with a drop in the likelihood of a run being systemic from 0.589 to 0.285.

In columns 2, 4, and 6, we control for lagged country-level variables. Despite the significant drop in the sample size, the estimated coefficients are robust and quantitatively comparable to those in columns 1, 3, and 5. We also re-estimate all specifications on the full country-year sample, controlling for the same lagged country-level variables as in specification (5). The results in Table A.10 of the Online Appendix are broadly similar.

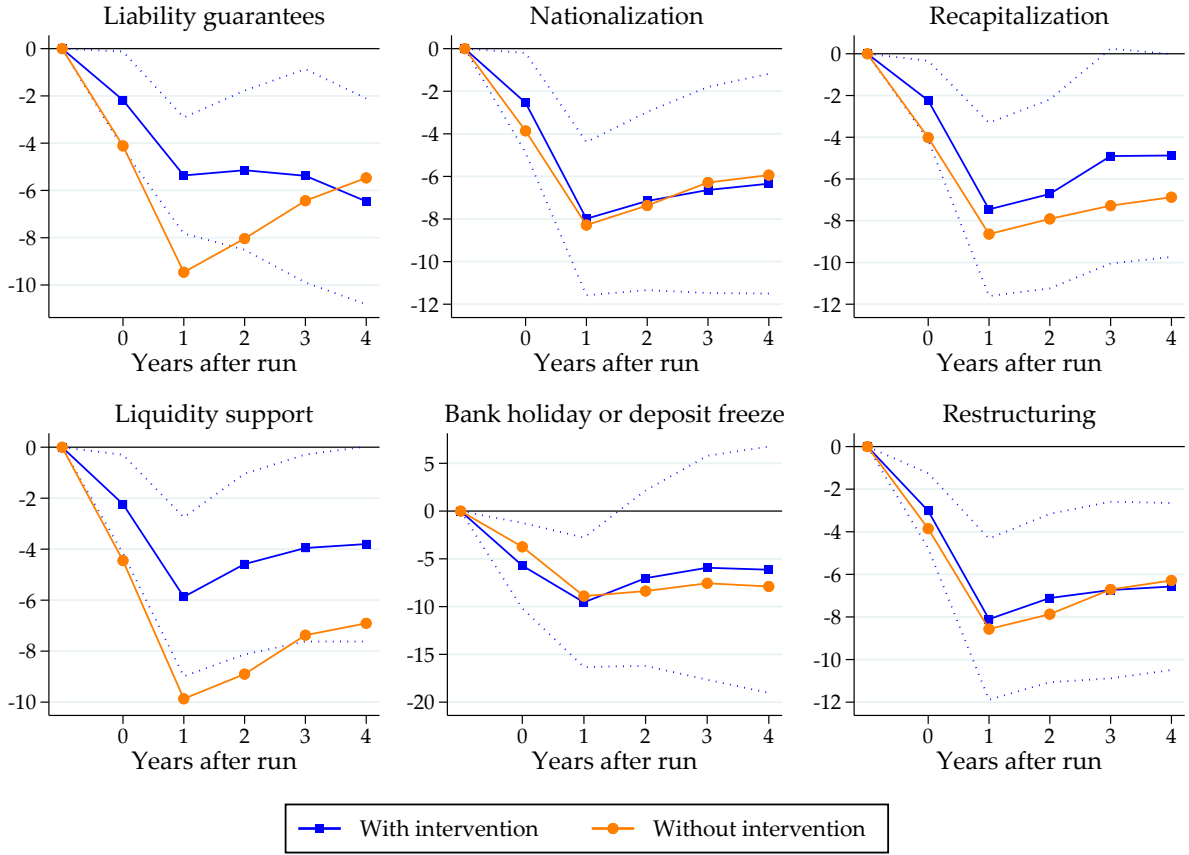
Institutional frameworks and output losses. The likelihood of a run turning systemic is partly predictable with the existence of deposit insurance and a lender of last resort. But do these institutions also matter for the output losses following systemic runs? To answer this question, we estimate regression specifications akin to (4) where we introduce interaction terms for the occurrence of a systemic bank run with the existence of a central bank or deposit insurance (instead of considering a country’s banking sector capitalization).

Figure A.26 in the Online Appendix suggests that, once a run becomes systemic, neither the existence of a central bank nor deposit insurance has a significant effect on output losses following the run. Nevertheless, since systemic runs are associated with considerably larger output losses, these institutions still matter for the aftermath of bank runs by reducing the probability of bank runs turning systemic in the first place. Furthermore, as their existence corresponds to different subperiods across countries, the fact that the macroeconomic aftermath of systemic runs is almost constant lends support to the notion that these runs exhibit a significant portion of time-invariant characteristics.

4.5 Ex-Post Government Interventions

Finally, we examine the role of ex-post government interventions in explaining the heterogeneous output losses accompanying bank runs. In particular, we consider six categories of government interventions designed to mitigate the consequences of systemic financial distress events: liability guarantees, nationalization, recapitalization, liquidity support, the existence of either bank holidays or deposit freezes, and banking sector restructuring (Metrick and Schmelzing, 2021). We estimate local projections with interaction terms of the systemic bank run indicator with one of these crisis interventions, as in specification (4). We set the indicator variables for the respective interventions to one if we observe them in the exact year of the systemic bank run, the year before, or the year after.

Figure 13: Systemic Bank Runs and Government Interventions



Notes: These figures plot the impulse response functions of real GDP around systemic runs without government interventions (orange lines) and around systemic runs accompanied by government interventions (blue lines), based on specification (4). We interact the systemic bank run indicator with one of the following intervention indicator variables: (i) liability guarantees, (ii) nationalization, (iii) recapitalization, (iv) liquidity support, (v) bank holiday or deposit freeze, and (vi) bank restructuring. The blue bands depict 95% confidence bands based on standard errors double-clustered by country and year.

It should be noted that these interventions are clearly endogenous to both the state of the economy and the severity of distress in the financial sector. As such, we cannot interpret the coefficients on the interaction terms as evidence that the respective interventions reduce the output losses of bank runs. Nevertheless, we still view these estimations as a useful descriptive device for understanding which intervention events have historically been associated with smaller output losses in the presence of runs.

Figure 13 plots the results. Systemic runs that coincide with liability guarantees or liquidity support are associated with an up to 4.3 percentage points smaller drop in output relative to the average run episode. This finding is consistent with the fact that these interventions are directly targeted at liquidity pressures stemming from deposit withdrawals, whereas the other interventions are more indirect, e.g., by bolstering the

banking system’s solvency. The limited ability of the other types of interventions to predict economic losses stemming from banking sector distress is consistent with the evidence of permanent capital losses in [Baron et al. \(2026\)](#). Our results complement theirs by pointing to the idea that, while a wide range of stabilization policies appears to be ex-post ineffective, policies targeted at liabilities have some potential to be successful, even though they cannot help to directly restore bank capital.

5 Conclusion

Bank runs have been widely studied in theory, but empirical evidence has been scarce, largely because an objective measure of bank runs is difficult to come by. We provide a comprehensive account of bank runs and their macroeconomic correlates around the globe. Our principal contributions are threefold. First, we construct a credible measure of bank runs by combining a qualitative narrative approach with a quantitative indicator of aggregate deposit withdrawals, and show that the combination helps identify runs with systemic and macroeconomic ramifications. Second, using a chronology with unprecedented coverage, we quantify the association between bank runs and outcomes at individual banks and in the macroeconomy across regions and periods. Third, we document that systemic bank runs are followed by sizable output losses even in episodes where we find no narrative evidence of fundamental triggers. While we cannot rule out unobserved fundamentals or isolate a causal channel, this pattern suggests that runs may not be merely a symptom of underlying distress.

Our findings carry important implications for financial stability policy. Crisis episodes are particularly damaging when a free fall in banking sector deposits is allowed to materialize. Recent events, including the 2023 Silicon Valley Bank episode, underscore the continued relevance of these dynamics. Our results support policies targeted directly at depositors in stabilizing the banking system during panic episodes, in addition to concerns about bank capitalization. As deposit dynamics may serve as an early warning system for banking sector distress, this warrants monitoring bank deposit flows as carefully as measures of credit market imbalances.

The new chronology of bank runs and the dataset on deposits we construct will hopefully enable future research in the fields of finance, macroeconomics, and economic history. With a coverage spanning nearly the universe of modern economies since 1800, these data help shed light on many unexplored dimensions of financial crises.

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Online Appendix
“Two Centuries of Systemic Bank Runs”

July 2026

A Main Appendix

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A.1 Full Bank Run Chronology

Table A.1: The JKMS Bank Run List

Country	Year	Fund. run	Systemic run	Total	Deposit growth	Time	Banking crisis	BVX panic	Country	Year	Fund. run	Systemic run	Total	Deposit growth	Time	Banking crisis	BVX panic
AFG	2010	Bank	No	> 4	> 0	> 0			AUT	1848	Macro					No	
	2021	Macro		> 4	> 0	> 0				1873	Bank					Yes	Yes
ALB	1997	Bank	No	> 4	-55.5	> 0	No			1924	Bank	No	> 4	> 0		Yes	No
	2008	Bank	No	2.8	> 0	> 0	No			1929	Bank	Yes	-15.7	-15.7		Yes	Yes
AND	2015	No	Yes	-2.0						1931	Bank	Yes	-31.0	-31.0		Yes	Yes
ARE	1990	Macro	Yes	-10.2	-14.4	-9.4			BEL	1838	Macro	Yes	-20.3	-39.2	-4.7	Yes	
	1876	No					No			1848	Macro	Yes	-22.7	> 0	-52.2	Yes	
ARG	1890	Macro					Yes			1870	Macro					Yes	Yes
	1914	Macro	Yes	-15.7	-15.7		Yes			1914	Macro	Yes	-24.5	-24.5		Yes	Yes
	1934	No	Yes	-5.1	-5.1		Yes			1925	Macro	Yes	-3.4	> 0		Yes	No
	1980	Bank	No	> 4	-19.1	> 0	Yes			1931	No	Yes	-12.6	> 0		Yes	Yes
	1985	Macro	No	> 4	> 0	> 0	Yes			1934	Bank	No	3.3	> 0		Yes	No
	1989	Macro	No	> 4	> 0	> 0	Yes		BGD	2024	Macro	No	> 4	> 0	> 0		
	1995	Macro	Yes	-0.2	> 0	-4.7	Yes			1931	Bank	Yes	-2.2				
	2001	Macro	Yes	-15.1	-6.9	-19.2	Yes		BGR	1996	Macro	No	> 4	> 0	> 0	Yes	
	2019	Macro	No	> 4	> 0	> 0	Yes			2014	No	Yes	0.8	> 0	-5.8	No	
ATG	2009	Bank	Yes	-10.3	-25.1	-2.7			BHR	1990	Macro	Yes	-14.7	> 0	-20.1		
	1828	Macro					Yes			2008	Bank	No	3.8	> 0	> 0	No	
AUS	1842	Bank	Yes	-13.8	-13.8		Yes		BLR	2011	Macro	No	> 4	> 0	> 0	No	
	1866	Bank	Yes	-8.4	-8.4		Yes			2020	Macro	No	> 4	> 0	> 0	No	
	1879	Bank	Yes	-6.4	-6.4		No		BLZ	2016	Macro	Yes	-0.9	> 0	-7.2	No	
	1884	Bank	Yes	-9.8	-9.8		No	No		1985	Macro	No	> 4	> 0	> 0	Yes	
	1891	Macro	Yes	-8.6	-8.6		Yes		BOL	1994	Bank	No	> 4	> 0	> 0	Yes	
	1893	Bank	Yes	-12.4	-12.4		Yes			1864	Bank	No	3.2			No	
	1931	Macro	Yes	-20.6	-20.6		Yes		BRA	1875	Macro	Yes	-5.8			No	No
	1974	Bank	No	> 4	-7.5	> 0	No			1900	Macro	Yes	-19.4			No	Yes
	1977	Bank	No	> 4	> 0	> 0	No			1914	Bank	Yes	-12.1	-18.1	> 0	Yes	Yes
	1979	No	No	> 4	> 0	> 0	No			1990	Macro	No	> 4	> 0	> 0	Yes	Yes
	1989	Bank	No	> 4	> 0	> 0	Yes			1995	Bank	No	> 4	> 0	> 0	Yes	Yes

Continued on the next page

Country	Year	Fund. run	Systemic run	Deposit growth			Banking crisis	BVX panic	Country	Year	Fund. run	Systemic run	Deposit growth			Banking crisis	BVX panic
				Total	Demand	Time							Total	Demand	Time		
CAN	1837	Bank	Yes	-6.7	-6.7		Yes			2014	No	No	3.8	> 0	> 0	No	
	1867	Bank	Yes				Yes			2019	No	No	3.6	> 0	> 0		
	1879	No	No	3.9	> 0		No	Yes		2022	Bank	No	0.0	> 0			
	1893	Bank	Yes	2.5	-8.7		No	No		2023	Bank	Yes	-4.2	-4.2			
	1914	Macro	Yes	-2.3	-8.1	> 0	Yes	No	CIV	2011	Macro	No	> 4	> 0	> 0	No	
	1921	Bank	Yes	-11.4	-17.7	-4.0	Yes	Yes	COD	1992	Macro	No	> 4	> 0	> 0	Yes	
	1924	No	Yes	1.9	> 0	-0.4	Yes	No		2007	Macro	No	> 4	> 0	> 0	No	
	1982	Bank	Yes	-1.4	> 0	> 0	Yes	Yes	COL	1923	No	No	> 4	> 0	> 0	No	No
	1996	Bank	No	> 4	> 0	> 0	No	No		1982	Bank	No	> 4	> 0	> 0	Yes	No
	2017	Bank	No	> 4	> 0	> 0	No			1998	Bank	No	> 4	> 0	> 0	Yes	Yes
	1859	No	No	> 4	> 0				CRI	1987	Bank	Yes	-4.7	-4.9	> 0	Yes	
	1865	Bank	Yes	-7.3	-7.3					2004	No	No	> 4	> 0	> 0	No	
	1870	Bank	Yes	-5.5	-5.5		Yes	Yes	CYP	1939	Macro	Yes	-11.8			Yes	Yes
CHL	1914	Macro	No	1.1	> 0	> 0	Yes	Yes	CZE	1923	Bank	Yes	-13.6			No	No
	1931	Bank	Yes	-24.5	> 0	-31.7	Yes	Yes		1931	Bank	Yes				No	No
	1991	Bank	Yes	2.5	-0.6	> 0	Yes	Yes		1939	Macro	No	> 4	> 0	-0.4	Yes	Yes
	2023	Bank	Yes	-1.6	-18.7	> 0				1994	Bank	No	0.2	> 0	-1.5	No	Yes
	1865	Macro	Yes	-50.9	-50.9		No			2000	Bank	Yes	0.2	> 0	> 0	Yes	Yes
	1878	Macro	Yes	-12.3	-12.3		Yes	Yes		2022	Macro	No	> 4	-6.0	> 0		
	1895	Macro	Yes	-15.5	-15.5		No	No	DEU	1873	Bank	Yes	-9.5			Yes	Yes
	1898	Bank	Yes	-2.4	-2.4		Yes	Yes		1891	Bank	Yes	-3.1			Yes	Yes
	1907	No	Yes	-8.0	-8.0		Yes	Yes		1901	Bank	Yes	-0.3			Yes	Yes
	1914	Macro	Yes	-2.3	-2.3		Yes	Yes		1911	Bank	No	0.2			No	No
	1976	Macro	No	> 4	> 0	> 0	Yes	Yes		1914	Macro	No	2.3			Yes	Yes
	1983	Macro	No	2.6	> 0	> 0	Yes	Yes		1929	Bank	Yes	-8.5			Yes	Yes
	1883	Bank					Yes		DNK	1876	Macro	Yes	-5.8	-5.8		Yes	Yes
	1903	Bank					No			1908	Bank	Yes	-2.3	-6.8		Yes	Yes
CHN	1907	Bank					No			1922	Bank	Yes	-11.8	-10.7		Yes	No
	1911	Macro					No			1992	Bank	Yes	-1.0	-1.4	-0.6	Yes	No
	1916	Macro					No		DOM	2003	Bank	No	> 4	> 0	> 0	Yes	
	1921	Macro					Yes		DZA	2003	Bank	No	> 4	> 0	-6.8	No	
	1928	No	No	> 4	> 0		No		ECU	1998	Bank	Yes	-60.1	-35.4	-66.5	Yes	
	1930	No	Yes	-12.7	-12.7		Yes		EGY	1907	Bank					Yes	Yes
	1997	Bank	No	> 4	> 0		Yes			1914	Macro					Yes	Yes

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Country	Year	Fund. run	Systemic run	Deposit growth			Banking crisis	BVX panic	Country	Year	Fund. run	Systemic run	Deposit growth			Banking crisis	BVX panic
				Total	Demand	Time							Total	Demand	Time		
ESP	1931	No					Yes	Yes		1866	Bank	Yes	-12.6			Yes	
	1848	Macro	Yes	-19.1			Yes			1878	Bank	Yes	-3.3			Yes	Yes
	1864	Macro	Yes	-15.8	-15.8		No			1914	Macro	No	> 4			Yes	Yes
	1866	Bank	No	> 4	> 0		No			1973	Bank	Yes	-4.9	-21.2	> 0	Yes	Yes
	1913	Macro	Yes	-10.9	-9.2	-13.8	Yes	Yes		2007	Bank	No	> 4	> 0	> 0	Yes	Yes
	1920	Bank	No	2.4	> 0	> 0	Yes	Yes		2019	No	No	2.6	> 0	> 0	No	
	1924	Bank	Yes	-8.3	-12.5	> 0	Yes	Yes	GEO	2008	Macro	No	> 4	> 0	> 0	No	
	1931	Macro	Yes	-17.8	-20.3	-13.8	Yes	Yes	GHA	2015	Bank	No	> 4	> 0	> 0	No	
	1994	Bank	No	> 4	> 0	> 0	No	No	GRC	1931	Macro	Yes	-11.2			Yes	Yes
	2012	Bank	Yes	-5.3	-1.4	-8.9	Yes	No		2015	Macro	Yes	-22.6	> 0	-47.6	No	No
	2015	No	Yes	2.7	> 0	-8.7	No	No	GTM	2006	Bank	No	> 4	> 0	> 0	Yes	
	1998	Bank	No	> 4	-8.3	> 0	No	No	HKG	1892	No	Yes	-12.5			Yes	Yes
EST	2008	Bank	Yes	3.7	-1.4	> 0	No	No		1914	Macro	No	0.1			No	No
	2016	Bank								1935	Macro	Yes	-21.8			No	No
	1900	Macro	No	2.5	> 0		Yes	Yes		1961	No	No	> 4	> 0	> 0	No	No
	1939	Macro	Yes	-0.4	-0.4		Yes	No		1965	Bank	No	> 4	> 0	> 0	Yes	Yes
	1805	Macro					Yes			1982	No	No	> 4	-2.9	> 0	Yes	Yes
	1814	Macro					No			1985	Bank	No	> 4	> 0	> 0	No	No
	1838	Bank					Yes			1991	Bank	No	> 4	> 0	> 0	Yes	Yes
	1847	Macro					Yes			1998	Bank	No	> 4	> 0	> 0	Yes	Yes
	1871	Macro					Yes	Yes		2008	Bank	No	3.2	> 0	> 0	No	No
	1881	Bank					Yes	Yes	HND	2015	No	No	> 4	> 0	> 0	No	
	1889	Bank					Yes	Yes	HRV	1931	Bank					No	
	1891	Bank					Yes	Yes		1998	Bank	Yes	-2.3	> 0	-3.0	Yes	
	1914	Macro		> 4	> 0		Yes	Yes	HTI	2002	No	No	> 4	> 0	> 0	No	
GBR	1930	Bank	Yes	-5.9	-5.9		Yes	Yes	HUN	1873	Bank					Yes	Yes
	1931	Bank	Yes	-5.9	-5.9		Yes	Yes		1914	Macro					No	No
	1938	Macro	No	> 4	> 0		Yes	Yes		1930	No	Yes	-18.8	-18.8		Yes	Yes
	1815	Bank					Yes			1931	Bank	Yes	-18.8	-18.8		Yes	Yes
	1820	Bank					No			1997	Bank	No	> 4	> 0	> 0	Yes	Yes
	1825	Bank					Yes		IDN	1991	No	Yes	2.2	-11.4	> 0	Yes	Yes
	1840	Macro	Yes	-26.0			No			1992	Bank	Yes	2.2	-11.4	> 0	Yes	Yes
	1847	Bank	Yes	-38.9			Yes	Yes		1997	Bank	No	> 4	> 0	> 0	Yes	Yes
	1857	Bank	Yes	-2.7			Yes	Yes		2008	Bank	No	> 4	> 0	> 0	No	No

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Country	Year	Fund. run	Systemic run	Deposit growth			Banking crisis	BVX panic	Country	Year	Fund. run	Systemic run	Deposit growth			Banking crisis	BVX panic
				Total	Demand	Time							Total	Demand	Time		
IND	1819	No					No			1973	No	No	> 4	> 0	> 0	No	No
	1828	Macro					No			1997	Bank	No	4.0	> 0	> 0	Yes	Yes
	1829	Bank					No			2003	No	Yes	0.4	> 0	-10.2	Yes	No
	1832	Bank					No		KAZ	2014	No	No	> 4	> 0	> 0	No	
	1913	Bank	Yes	-3.3	-3.3		Yes	Yes	KEN	1993	Bank	No	> 4	> 0	> 0	Yes	
	1938	No	Yes	-2.9	-2.9		No	No		1994	Bank	No	> 4	> 0	> 0	Yes	
	2001	Bank	No	> 4	> 0	> 0	No	No		2016	Bank	Yes	3.8	> 0	-9.7	No	
	2008	Bank	No	> 4	> 0	> 0	No	No		2022	No	No	> 4	> 0	> 0		
	2019	Bank	No	> 4	> 0	> 0			KGZ	2005	Macro	Yes	-0.3	-21.3	> 0	No	
	2020	Bank	No	> 4	> 0	> 0				2010	Macro	No	> 4	-3.1	> 0	No	
IRL	1820	Bank							KOR	1950	Macro		> 4	> 0	> 0	No	
	1856	Bank	Yes	-3.8						1961	Macro	No	> 4	> 0	-52.9	No	No
	2008	Bank	Yes	-0.0	-15.9	> 0	Yes	Yes		1997	Bank	Yes	2.9	-20.2	> 0	Yes	Yes
	2017	Bank		> 4	> 0	> 0	No			2011	Bank	No	> 4	> 0	> 0	No	No
IRN	2022	Macro							KWT	1990	Macro	Yes	-16.7	-16.7		No	
	2008	Bank	Yes	0.2	-1.6	> 0	Yes	Yes		2008	Bank	No	> 4	> 0	> 0	No	
ISL	1866	Macro					Yes		LBN	1966	No	Yes	-7.9	-12.5	-5.7		
	1893	Bank	Yes	-2.3			Yes	Yes		2019	Bank						
ITA	1907	Bank	No	> 4			Yes	Yes	LBZ	2011	Macro	Yes	3.9	> 0	-16.2	No	
	1914	Macro	Yes	-5.2			Yes	Yes	LTU	1995	Bank	Yes	-4.5	> 0	-14.0	Yes	
JAM	1921	Bank	No	3.2			Yes	Yes	LVA	1931	Bank						
	1930	Bank	Yes	-5.5			Yes	Yes		1995	Bank	Yes	-30.0	> 0	-43.8	Yes	
	2016	Bank	Yes	3.99	> 0	-4.3	Yes	No		2008	Bank	Yes	-4.0	-18.3	> 0	Yes	
	1847	Bank					Yes		MAC	2011	No	Yes	-3.8	> 0	-19.7	No	
JOR	1996	Bank	Yes	-1.3	-3.2	> 0	Yes			2005	Bank	No	> 4	> 0	> 0		
	1989	Bank	Yes	0.7	-2.7	> 0	Yes		MDA	2014	Bank	Yes	0.1	> 0	-3.1	Yes	
JPN	1871	No					Yes	Yes	MEX	1883	Bank					Yes	Yes
	1890	Bank	Yes	3.5	> 0	-12.6	Yes	Yes		1913	Macro					Yes	Yes
	1900	Bank	Yes	1.6	-1.4	> 0	Yes	Yes		1920	No					Yes	Yes
	1907	No	Yes	-3.4	-14.8	> 0	Yes	Yes		1931	Bank	Yes	-27.3	-27.3		Yes	Yes
	1920	Bank	Yes	0.5	> 0	-8.1	Yes	Yes	MLT	1972	Bank	Yes	-3.7	-20.1	> 0		
	1922	Bank	Yes	1.1	-2.6	> 0	Yes	Yes		1973	Bank	Yes	-3.7	-20.1	> 0		
	1923	Macro	Yes	1.1	-2.6	> 0	Yes	Yes	MMR	2003	Bank	Yes	-44.1	-74.4	-28.9	Yes	
	1927	Bank	Yes	-1.1	> 0	-3.2	Yes	Yes		2021	Macro		> 4	> 0	> 0		

Continued on the next page

Country	Year	Fund. run	Systemic			Banking crisis	BVX panic	Country	Year	Fund. run	Systemic			Deposit growth			Banking crisis	BVX panic
			Total	Demand	Time						Total	Demand	Time					
MNE	2008	Bank	Yes	-10.5	-27.1	> 0			1939	Macro				> 4	> 0		No	
MNG	2008	Bank	Yes	-10.3	-4.1	-12.9	Yes		2018	Bank	No			> 4	> 0	-7.6		
MUS	2015	Bank	No	> 4	> 0	> 0		PRT	1846	Bank							Yes	
MYS	1985	Bank	No	> 4	-1.7	> 0	Yes		1876	Bank	Yes			-36.6	-60.1	-10.9	Yes	Yes
	1997	No	Yes	3.99	-14.3	> 0	Yes		1891	Bank	Yes			-28.0			Yes	Yes
NGA	1996	Bank	No	> 4	> 0	> 0	Yes		1920	Macro	No			> 4			Yes	Yes
	2023	Macro	No	> 4	> 0	> 0			1923	Macro	Yes			-21.1			Yes	Yes
NIC	2000	Bank	Yes	2.7	-28.3	> 0	Yes		1930	Bank	No			> 4			Yes	Yes
NLD	1914	Macro	No	> 4			Yes		1935	No	No			> 4			No	No
	1921	No	Yes	-13.4			Yes		2014	Bank	Yes			3.6	> 0	-6.4	Yes	No
NOR	2009	No	Yes	0.6	> 0	-5.4	Yes		1995	Bank	No			> 4	> 0	> 0	Yes	
	1857	Bank	Yes	-1.9	-19.3		No	PRY	1997	Bank	No			> 4	> 0	> 0	Yes	
1899	Bank	No	No	> 4	> 0		Yes		2002	Bank	Yes			-0.1	> 0	-4.6	Yes	
	1914	Macro	No	> 4	> 0		Yes	QAT	2017	Macro	Yes			-6.6	-2.9	-7.7		
1923	No	Yes	Yes	-6.8	-9.6		Yes	ROU	1931	Bank	Yes			-43.3			Yes	
	1931	Bank	Yes	-5.6	-6.1		Yes		1999	Bank	No			> 4	> 0	> 0	Yes	
NPL	2006	Bank	No	> 4	> 0	> 0	No	RUS	1859	Bank							No	
	2011	No	No	> 4	-0.5	> 0	No		1875	Bank	Yes			-18.3	-18.3		Yes	Yes
NZL	1893	No	Yes	-3.5	-3.5		Yes		1899	No	Yes			-2.2	-2.2		Yes	Yes
	1988	Bank	No	> 4	> 0	> 0	Yes		1905	Macro	Yes			-13.5	-13.5		No	No
PAK	2008	No	Yes	3.7	-8.4	> 0	No		1914	Macro	No			> 4	> 0		No	No
PAN	1988	Macro	Yes	-27.1	-30.5	-26.3	Yes		1998	Macro	No			> 4	-7.8	> 0	Yes	Yes
PER	1875	Bank					Yes		2004	No	No			> 4	> 0	> 0	No	No
	1914	Macro	Yes	-33.7			Yes		2008	Bank	No			> 4	-2.7	> 0	Yes	Yes
PHL	1930	Macro	Yes	-44.3	-44.3		Yes		2014	Macro	No			> 4	-3.9	> 0	No	No
	1968	No	No	> 4	> 0	> 0	No		2022	Macro				> 4	> 0	> 0		
1974	Bank	No	No	> 4	> 0	> 0	No	SGP	1974	No	No			> 4	> 0	> 0	No	No
	1977	No	No	> 4	> 0	> 0	No	SRB	1993	Bank							No	
1981	Bank	No	No	> 4	-3.8	> 0	Yes		2008	Bank	No			> 4	-6.0	> 0	No	
	1983	Macro	No	> 4	-10.6	> 0	Yes	SUR	2017	Bank	No			> 4	> 0	> 0	No	
2000	Bank	No	No	> 4	-0.5	> 0	No	SWE	1808	Macro	No			2.2			No	
	1925	Macro	No	> 4	> 0		No		1817	Bank	Yes			-3.8			No	
POL	1931	Bank	Yes	-24.3	-24.3		Yes		1857	Bank	No			0.8			No	
	1935	Macro	Yes	-1.8	-1.8		Yes		1878	Bank	Yes			-4.1	-2.1		Yes	Yes

Continued on the next page

Country	Year	Fund. run	Systemic run	Deposit growth		Banking crisis	BVX panic	Country	Year	Fund. run	Systemic run	Deposit growth		Banking crisis	BVX panic
				Total	Demand							Total	Demand		
SYR	1907	Bank	No	> 4	> 0	Yes	Yes	USA	1814	Macro	Yes	-10.0		Yes	
	1912	Bank	No	> 4	> 0	No	No		1819	Macro	No	> 4		Yes	
	1932	Bank	Yes	0.9	-2.1	Yes	No		1833	No	No	> 4		No	
	1939	Macro	Yes	-0.6	-1.8	No	No		1837	Bank	Yes	-23.2		Yes	
	1992	Bank	No	3.3		Yes	Yes		1841	Bank	Yes	-18.5		Yes	
	2012	Macro	Yes	-17.5	-21.9	No	No		1854	Bank	Yes	-1.3		No	
THA	1984	Bank	No	> 4	-13.8	> 0	Yes		1857	Bank	Yes	-17.7		Yes	
	1996	Bank	No	> 4	> 0	> 0	Yes		1861	Macro	Yes	-5.5		Yes	
	2014	Bank	No	> 4	> 0	> 0	No		1873	Bank	No	> 4		Yes	Yes
	2016	Macro	Yes	-2.1	> 0	-17.6	No		1884	Bank	Yes	-1.2		Yes	Yes
TJK	1939	Macro							1893	Macro	Yes	-4.4		Yes	Yes
TTO	1988	Bank	Yes	0.7	-20.2	> 0	No		1896	Bank	Yes	-1.0		No	No
	2009	Bank	Yes	-0.7	> 0	-1.8	No		1907	Bank	Yes	-4.2	-4.2	Yes	Yes
TUR	1985	Bank							1929	Bank	Yes	-4.4	-6.7	Yes	Yes
	1914	Macro							1930	Bank	Yes	-18.6	-19.3	Yes	Yes
	1931	Bank	Yes	-1.9	-3.4	> 0	Yes		1931	Bank	Yes	-18.6	-19.3	Yes	Yes
TWN	1981	Bank	No	> 4	> 0	> 0	Yes		1932	No	Yes	-18.6	-19.3	Yes	Yes
	1991	Macro	No	> 4	> 0	> 0	Yes		1974	Bank	No	> 4	> 0	No	No
	2001	Bank	No	> 4	> 0	> 0	Yes		1982	Bank	Yes	3.3	-11.4	Yes	Yes
	1985	Bank	No	> 4	> 0	> 0	Yes		1983	Bank	No	> 4	> 0	Yes	Yes
	1995	Bank	No	> 4	> 0	> 0	Yes		1984	Bank	No	> 4	> 0	Yes	Yes
	1998	Bank	No	3.5	> 0	> 0	No		1985	No	No	> 4	> 0	Yes	Yes
	2000	Bank	No	3.9	> 0	> 0	Yes		1990	Bank	Yes	3.9	-3.0	Yes	No
	2007	Bank	Yes	-4.8	-1.8	-6.6	No		1991	Bank	Yes	-2.4	> 0	Yes	No
	1999	Bank	No	> 4	> 0	> 0	No		1992	No	Yes	-2.4	> 0	Yes	No
	1998	Bank	No	> 4	> 0	> 0	Yes		2007	Bank	No	> 4	> 0	Yes	Yes
UGA	2008	No	Yes	-8.6	> 0	-17.0	Yes		2008	Bank	No	> 4	-5.1	Yes	Yes
	2014	Macro	Yes	0.6	> 0	-8.1	Yes		2023	Bank	Yes	-6.0	-2.5	Yes	Yes
URY	1866	Bank						VCT	2013	Bank	No	> 4	> 0		
	1890	Bank						VEN	1993	Bank	No	1.8	> 0	Yes	Yes
	1898	Macro							2009	Macro	No	> 4	> 0	Yes	Yes
	1964	Bank	No	> 4	> 0	> 0	No	VNM	2012	No	No	> 4	> 0	No	
	1982	Macro	No	> 4	> 0	> 0	Yes		2022	No	Yes	-5.0	-5.0		
	2002	Macro	Yes	-16.1	> 0	-27.0	Yes	ZAF	1890	Bank				Yes	Yes

Continued on the next page

Country	Year	Fund. run	Systemic run	Deposit growth		Banking crisis	BVX panic	Country	Year	Fund. run	Systemic run	Deposit growth		Banking crisis	BVX panic
				Total	Demand							Total	Demand		
ZMB	1931	Bank	Yes	-16.7	-16.7	No	No	ZWE	2016	Bank	Yes	-6.5	> 0	-17.7	No
	1997	Bank	No	> 4	> 0	> 0	No		2003	No	No	> 4	> 0	> 0	No
	2002	Bank	No	> 4	> 0	> 0	No		2016	Macro	No	> 4	> 0	> 0	No
	1995	No	No	> 4	> 0	> 0	Yes								

Notes: This table reports all 405 bank run episodes for which we find narrative evidence. When a run episode spans two consecutive years, we report the first year. A run episode is defined as a series of bank runs indicating continuous liquidity pressure, for which all runs within one episode can be attributed to the same fundamental or non-fundamental cause. Runs in consecutive years that cannot be attributed to the same cause are reported as separate events. We use narrative coding to determine whether the cause of a bank run was macroeconomic, banking-related, or non-fundamental. Run causes classified as macroeconomic are those for which historical accounts attribute the trigger to factors such as a currency devaluation, a change in the monetary policy stance, or a non-financial recession. Runs with banking-related causes are triggered by systemic deterioration in aggregate banking sector fundamentals, a financial crisis, or bank-level causes. Non-fundamental runs are runs for which we neither find a macroeconomic cause nor a banking-related cause. Systemic bank runs are bank runs accompanied by a contraction in total retail deposits. Since growth rates in the adjusted total, demand, and time deposit series may contain measurement error, we additionally classify nominal contractions in either demand or time deposits as deposit contraction episodes when they coincide with total deposit growth of less than 4%. We report the largest total deposit contraction observed at any time between one year before and one year after the run and the accompanying growth rates of demand deposits and time deposits. For runs with positive growth rates, we report the largest contraction in either demand or time deposits in the same time window around the run. For each run, we also report whether it coincides with a broader banking crisis, as defined in Section 2.5, and whether it is part of the [Baron et al. \(2021\)](#) list of banking panics. We use a conservative time window of two years before and two years after a bank run to specify overlaps with banking crises and banking panics.

A.2 Characteristics of Bank Runs and Banking Crises

Table A.2: How Frequent Are Bank Runs?

	Pre-1933		Post-1933	
	Run prob.	Share systemic	Run prob.	Share systemic
<i>(all in percent)</i>				
Average	5.6	78.5	1.7	36.5
<i>By region:</i>				
East Asia and Pacific	5.3	89.5	3.0	22.0
Europe and Central Asia	5.7	71.4	2.2	49.2
Latin America and Caribbean	4.3	92.9	1.5	35.9
Middle East and North Africa	N/A	N/A	0.8	81.8
North America	11.6	82.6	7.6	42.9
South Asia	1.3	100.0	2.0	20.0
Sub-Saharan Africa	1.1	100.0	0.6	11.1
<i>By income level:</i>				
Advanced economies	7.3	85.5	2.2	45.3
Emerging economies	5.1	71.4	1.7	31.4
<i>By financial development:</i>				
Low	5.9	71.4	1.0	27.6
Medium	6.9	84.6	2.1	30.8
High	7.1	75.0	2.4	42.5
<i>By deposit insurance:</i>				
No	5.6	78.5	1.1	35.1
Yes	N/A	N/A	3.4	37.1

Notes: This table summarizes bank run probabilities for two subperiods: before 1933 (and, as such, before the introduction of deposit insurance) and after 1933. The share of systemic bank runs indicates the fraction of bank runs that are accompanied by a contraction in outstanding total retail deposits. Thus, all reported run probabilities are conditional on the availability of deposit data. We determine income levels based on real GDP per capita in PPP terms, where countries with median values in the top quartile in any given decade are treated as advanced economies and the remainder as emerging economies. Financial development is defined as the ratio of credit to GDP, where we split countries into the low, medium, and high categories based on the tercile they fall in for any given decade. All values are in percent.

A.3 Bank Runs and Deposit Contractions—Robustness

In this section, we study the dynamics of deposit contractions around bank runs in more detail. Section 3.2 of the paper shows that bank runs coincide with large contractions in total deposits (see Figure 2). Here, we zoom in on the dynamics of demand deposits and time deposits.

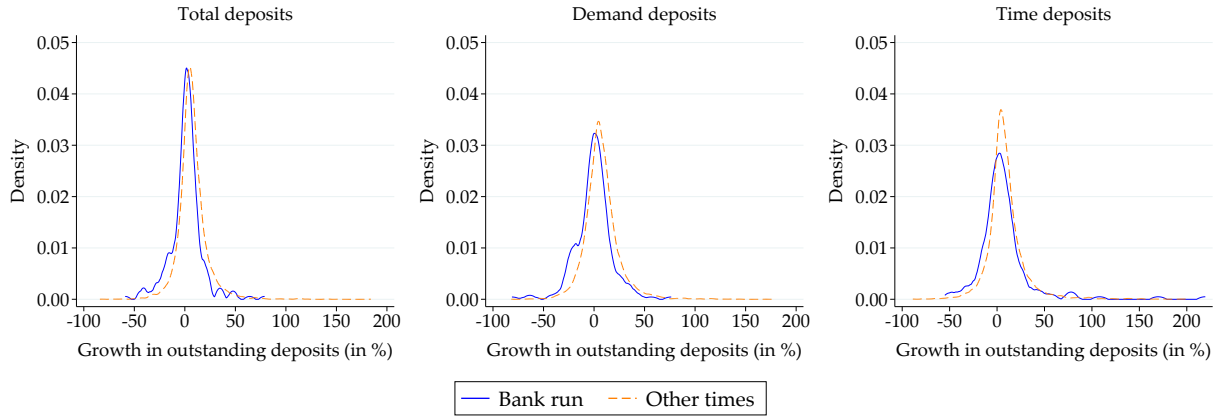
To test whether the deposit contractions around runs are driven by large deflationary episodes, Figure A.1 plots the density of real growth rates in total deposits, demand deposits, and time deposits. We again find a clear shift to the left for real deposit growth rates around bank run episodes. Bank runs coincide with contractions in both real and nominal deposits, which is further confirmed in Figure A.2, where we plot the impulse response functions of these different deposit growth rates. We show in Section A.10 that the macroeconomic aftermath of systemic runs is similar when classifying systemic runs using contractions in real, rather than nominal, deposits.

Furthermore, we visualize the density of nominal demand deposit growth rates and nominal time deposit growth rates. In Figure A.3, we plot the distribution of growth rates of both types of deposits around bank run episodes against the distribution of growth rates during normal, i.e., non-bank run, times. We observe a clear shift to the left in the distribution of demand and time deposit growth rates during run periods. Bank runs from our chronology thus coincide with runs on both types of deposits. During an average bank run, there is a 30.8% probability that nominal demand deposits contract, and a 19.9% probability that nominal time deposits contract.

To better understand the timing of these deposit contractions, we run an event study regression. In Figure A.4, we visualize the behavior of logged nominal demand deposits and logged nominal time deposits for a time window of ± 5 years around a run episode. Bank runs are accompanied by sudden and severe contractions in demand deposits. The timing of the withdrawal coincides with the reported year of the run. Demand deposits recover quickly in the years following the run. In contrast, the outflow of time deposits is more prolonged, and time deposits also expand significantly before the run. When the run begins, there is a steady decline in time deposits that is persistent, continuing until up to three years after the narrative year of the run. Below, we show that both runs on demand and time deposits are followed by large contractions in real GDP.

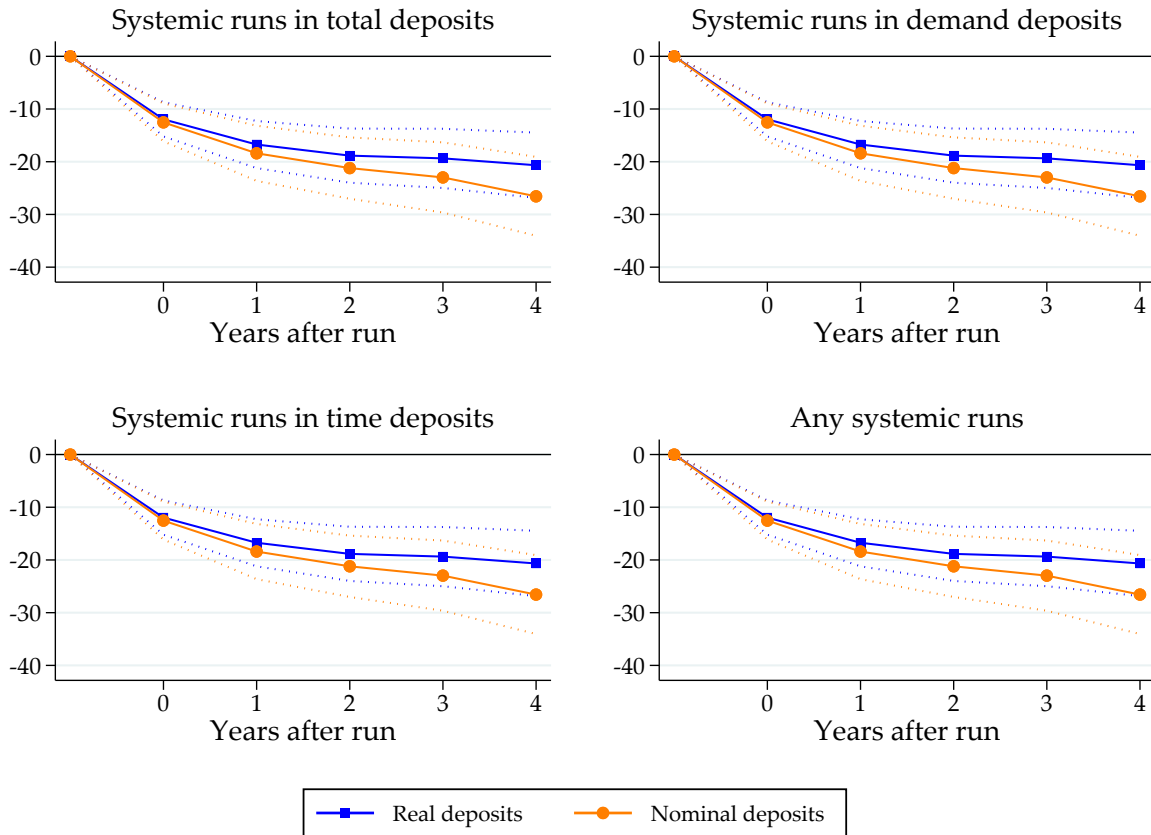
Taking stock, these results suggest that both demand and time deposits can exhibit runs.

Figure A.1: Distributions of Real Deposit Growth Rates



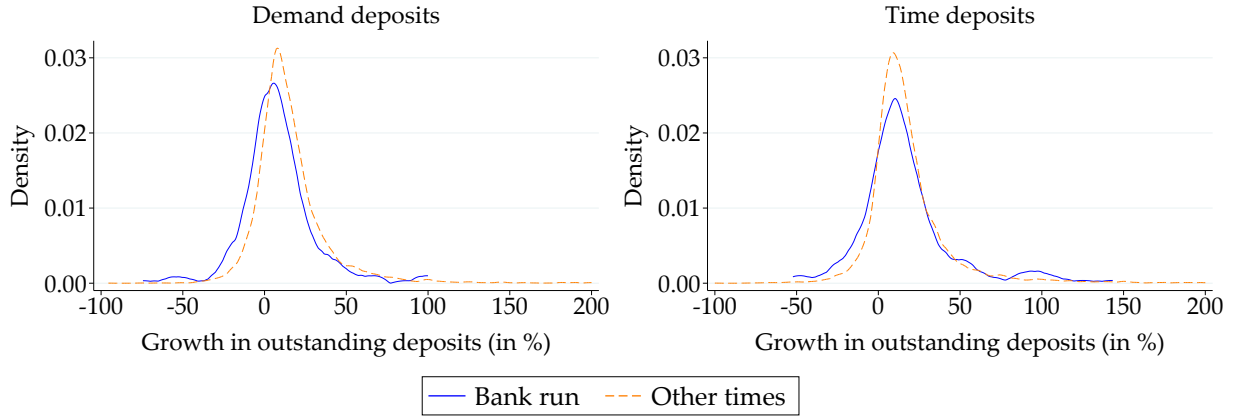
Notes: These figures plot the distributions of real growth rates of total deposits, demand deposits, and time deposits during periods of bank runs vs. other times.

Figure A.2: Real and Nominal Deposits Around Systemic Runs, By Category



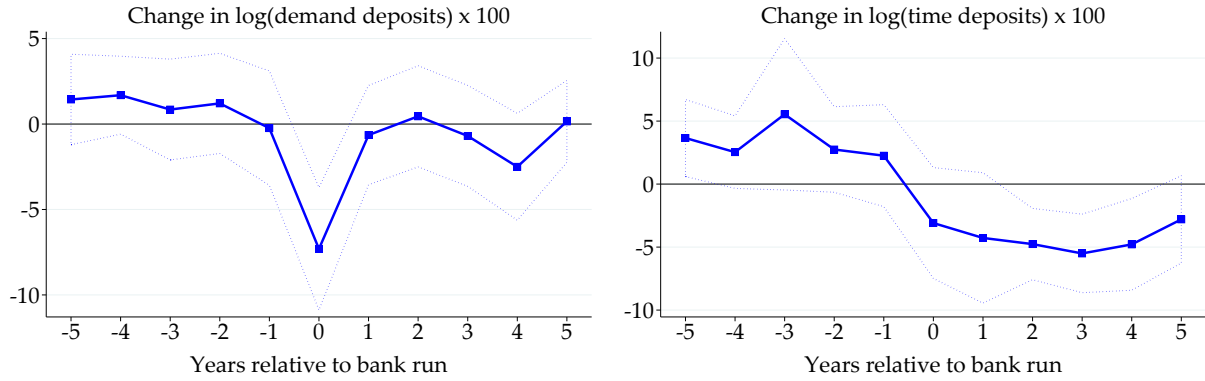
Notes: These figures plot the impulse response functions of total real deposits and total nominal deposits to a systemic bank run in either (i) total deposits, (ii) demand deposits, (iii) time deposits or (iv) any one of the three different deposit categories: total deposits, demand deposits, and time deposits. The dotted bands depict 95% confidence bands based on standard errors double-clustered by country and year.

Figure A.3: Distributions of Demand Deposit and Time Deposit Growth Rates



Notes: These figures plot the distributions of nominal growth rates for both demand deposits and time deposits during periods of bank runs vs. other times. We winsorize nominal growth rates at 200% to abstract from the influence of major inflation episodes.

Figure A.4: Contractions of Demand Deposits and Time Deposits Around Runs



Notes: These figures plot the estimates of an event study specification relating logged nominal demand deposits and logged nominal time deposits to the exact year a bank run starts. We specify the following event study regression: $\Delta Y_{i,t} = \alpha_i + \sum_{k=-5}^5 \beta^k \mathbf{1}_{i,t+k}^{run} + \epsilon_{i,t}$, where $\mathbf{1}_{i,t+k}^{run}$ is one for country-year observations for which we have evidence of bank runs from our run chronology. Standard errors are double-clustered by country and year.

A.4 Bank-Level Appendix

A.4.1 Bank-Level Data Description and Cleaning Steps

For the bank-level analysis outlined in Section 3.3, we rely on two different bank-level datasets for the United States. The first dataset contains balance sheet data originally published by the Office of the Comptroller of the Currency (OCC) from Carlson et al. (2022), and the second dataset are the modern-day Call Reports published by the Federal Deposit Insurance Corporation (FDIC) and now maintained by the Federal Financial Institutions Examination Council (FFIEC). What is more, we extend our bank-level analysis to non-U.S. banks using data from Compustat. In the following, we describe these three datasets in more detail and elaborate on how we cleaned the data step by step.

Office of the Comptroller of the Currency (OCC) data. The OCC dataset covers the period of the national banking era at the annual frequency. The data cover the years from 1867 to 1904 and include over 100,000 individual balance sheets of national banks. The bank balance sheets were digitized using the methodology outlined in Correia and Luck (2023) and first used in Carlson et al. (2022). We made the following adjustments to the original dataset to control the potential influence of outliers:

1. We exclude observations with bank equity or total liabilities smaller than or equal to zero.
2. We exclude observations for which the difference between the asset and the liability side of banks is larger than 5%.
3. We winsorize the log differences for the following variables at the 0.5th and 99.5th percentiles:
 - Total liabilities
 - Non-core funding (proxied by non-deposit liabilities)
 - Deposits
 - Total assets
 - Loans.
4. We winsorize the following ratios at the 0.5th and 99.5th percentiles:
 - Debt-to-assets ratio
 - Profits-to-assets ratio

- Non-core-funding-to-liabilities ratio.

Our final dataset contains 108,732 bank-year observations that cover 7,046 individual banks over 38 years.

Call Reports data. The second dataset are the Call Reports, covering the period between 1976 and 2020, which allow us to analyze the bank-level implications of more recent bank run episodes. We clean the raw data by applying the following steps:

1. We exclude observations with bank equity, total assets, total liabilities, or tier 1 capital smaller than or equal to zero.
2. We exclude negative observations in total loans, total deposits, time deposits, demand deposits, cash, non-core funding, interest income on loans, or interest expenses on deposits.
3. We only keep commercial banks in the dataset.
4. We winsorize the log differences for the following variables at the 1st and 99th percentiles:
 - Total liabilities
 - Non-core funding
 - Deposits
 - Demand deposits
 - Time deposits
 - Total assets
 - Loans.
5. We winsorize the following ratios at the 2nd and 98th percentiles:
 - Debt-to-assets ratio
 - Net-interest-income-to-assets ratio
 - Non-core-funding-to-liabilities ratio.

Finally, for the baseline analysis highlighted in Section 3.3, we annualize the Call Reports data to allow for a more straightforward comparison with the remainder of the analysis in the paper by keeping the fourth quarter values of all relevant stock variables. After applying these steps, our final dataset includes 424,066 bank-year observations with 20,622 unique banks.

Compustat data. The dataset we use is based on Compustat Bank and Compustat Global. We merge both Compustat datasets and restrict the set of firms in Compustat Global to banks (i.e., SIC codes 6000-6036). After applying the selection criteria that we describe in the following, the final quarterly dataset ranges from 1987Q1 to 2026Q1 . We entirely focus on banks and drop all other financial companies (non-banks). We then clean the raw dataset as follows:

1. We exclude observations with bank equity, total assets, total liabilities, or tier 1 capital smaller than or equal to zero.
2. We exclude negative observations in total loans, total deposits, time deposits, demand deposits, cash, non-core funding, interest income on loans, or interest expenses on deposits.
3. We only keep commercial banks in the dataset.
4. We winsorize the log differences for the following variables at the 1st and 99th percentiles:
 - Total liabilities
 - Non-core funding
 - Deposits
 - Demand deposits
 - Time deposits
 - Total assets
 - Loans.
5. We winsorize the following ratios at the 2nd and 98th percentiles:
 - Debt-to-assets ratio
 - Net-interest-income-to-assets ratio
 - Non-core-funding-to-liabilities ratio.

After applying these cleaning steps, we are left with 207,342 bank-quarter observations that include 3,615 unique banks across 109 countries. Out of these countries, 56 experienced a bank run between 1987Q1 and 2026Q1 .

A.4.2 Summary Statistics U.S. Banks and International Banks Outside the U.S.

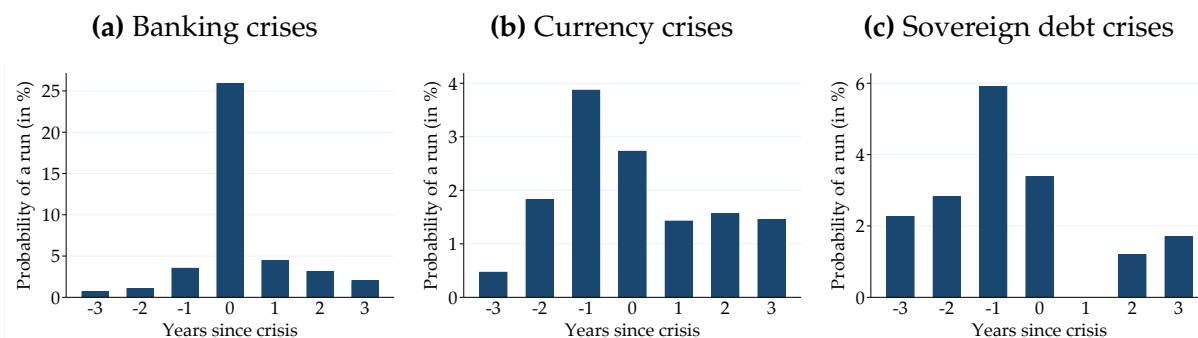
Table A.3: Bank-Level Summary Statistics

	Mean	Median	S.D.	P10	P90	Obs.
Panel A: OCC data on U.S. banks (1867-1904)						
Total assets gr.	6.47	4.48	15.50	-9.64	23.95	95,456
Loans gr.	8.13	4.87	22.63	-13.59	31.42	95,450
Total liabilities gr.	8.68	5.65	22.47	-14.55	33.95	95,457
Total deposits gr.	11.52	7.12	30.50	-19.81	45.66	95,435
Non-deposit liabilities gr.	9.85	2.93	38.93	-22.20	44.63	95,456
Bank size	13.06	12.92	0.91	11.99	14.32	100,673
Debt to assets	0.67	0.68	0.11	0.52	0.82	107,645
Panel B: Call Reports on U.S. banks (1976-2020)						
Total assets gr.	5.01	2.45	13.38	-6.48	17.83	387,201
Loans gr.	6.50	3.53	19.10	-11.01	24.38	335,484
Total liabilities gr.	5.32	2.40	14.97	-7.02	18.85	387,202
Total deposits gr.	2.77	0.61	17.18	-13.80	19.37	387,006
Demand deposits gr.	4.29	1.10	23.04	-18.46	28.47	386,077
Non-deposit liabilities gr.	13.36	4.19	49.41	-31.79	63.20	289,788
Bank size	10.70	10.60	1.08	9.37	12.14	380,183
Debt to assets	0.91	0.91	0.03	0.87	0.93	407,088
Panel C: Compustat multi-country dataset (1987Q1 -2026Q1)						
Total assets gr.	1.85	1.08	6.27	-3.56	7.64	200,557
Loans gr.	2.20	1.12	9.98	-4.35	8.92	146,650
Total liabilities gr.	1.84	1.00	7.09	-3.97	8.02	156,149
Total deposits gr.	2.12	0.97	9.96	-4.74	9.56	197,082
Demand deposits gr.	1.75	1.31	10.25	-9.61	12.58	12,111
Non-deposit liabilities gr.	4.38	0.24	29.86	-18.22	26.29	153,098
Bank size	9.51	8.98	2.95	6.07	13.90	184,154
Debt to assets	0.90	0.91	0.05	0.84	0.95	154,010

Notes: This table summarizes the bank-level variables for banks in the United States and non-U.S. countries. Panel A reports the statistics for the OCC dataset covering the period 1867-1904. Panel B reports the statistics for the Call Reports data for the period 1976-2020. Panel C reports the statistics for the international Compustat dataset covering the period 1987Q1 -2026Q1 . All growth rates are reported in real terms.

A.5 The Overlap of Bank Runs and Financial Crises

Figure A.5: The Probability of a Bank Run Around Financial Crises



Notes: These figures plot the probability of a bank run around periods of (other) financial crises. We define the dates of financial crises by combining several chronologies as described in Section 2.5. Banking crisis dates are taken from [Baron et al. \(2021\)](#), [Laeven and Valencia \(2018\)](#), [Jordà et al. \(2017\)](#), and [Reinhart and Rogoff \(2009\)](#), in that order of priority. Dates for currency and sovereign debt crises are from [Laeven and Valencia \(2018\)](#) and [Reinhart and Rogoff \(2009\)](#).

Table A.4: Bank Runs Conditional on Financial Crises—Different Crisis Measures

	Number of crises	Narrative bank run prob.	Deposit contraction prob.	Systemic bank run prob.	Non-systemic bank run prob.
Banking crises					
Combined chronology	355	0.58	0.70	0.37	0.25
Reinhart and Rogoff (2009)	303	0.58	0.64	0.37	0.24
Laeven and Valencia (2018)	151	0.40	0.58	0.17	0.29
Jordà et al. (2017)	88	0.65	0.86	0.49	0.22
Baron et al. (2021)	224	0.69	0.73	0.41	0.30
Baron et al. (2021) panics	192	0.76	0.75	0.46	0.33
Currency crises					
Combined chronology	543	0.20	0.53	0.12	0.12
Reinhart and Rogoff (2009)	628	0.19	0.50	0.11	0.13
Laeven and Valencia (2018)	239	0.22	0.38	0.08	0.18
Sovereign debt crises					
Combined chronology	271	0.21	0.58	0.16	0.12
Reinhart and Rogoff (2009)	247	0.23	0.54	0.18	0.14
Laeven and Valencia (2018)	140	0.26	0.46	0.11	0.17

Notes: This table summarizes the probabilities of narrative bank runs, deposit contractions, systemic runs (i.e., narrative runs accompanied by deposit contractions), or non-systemic runs (i.e., narrative runs without deposit contractions) within three years of a financial crisis. For each type of financial crisis, we report the probabilities for our three measures of combined chronologies and the probabilities when using the original chronologies from the literature. We define the dates of our three chronology measures by combining several chronologies as described in Section 2.5. Banking crisis dates are taken from Baron et al. (2021), Laeven and Valencia (2018), Jordà et al. (2017), and Reinhart and Rogoff (2009), in that order of priority. Dates for currency and sovereign debt crises are from Laeven and Valencia (2018) and Reinhart and Rogoff (2009). Banking panics are from Baron et al. (2021).

Table A.5: Banking Crises Conditional on Bank Runs—Different Crisis Measures

	Number of runs	Banking crisis JKMS	Banking crisis R&R	Banking crisis L&V	Banking crisis JST	Banking crisis BVX	Banking panics BVX
Narrative runs	405	0.66	0.66	0.50	0.62	0.78	0.74
Deposit contractions	1356	0.24	0.27	0.22	0.31	0.33	0.29
Systemic runs	181	0.75	0.76	0.53	0.66	0.82	0.78
Non-systemic runs	158	0.58	0.60	0.48	0.51	0.72	0.68

Notes: This table summarizes the probabilities of different types of banking crises within three years of either a narrative bank run, a deposit contraction, a systemic run (i.e., a narrative run accompanied by a deposit contraction), or a non-systemic run (i.e., a narrative run without a deposit contraction). We report the probabilities when using our measure of combined banking crisis chronologies, followed by the probabilities using the original banking crisis chronologies from the literature. We define the dates of our banking crisis chronology by combining several chronologies as described in Section 2.5. Banking crisis dates are taken from [Baron et al. \(2021\)](#), [Laeven and Valencia \(2018\)](#), [Jordà et al. \(2017\)](#), and [Reinhart and Rogoff \(2009\)](#), in that order. Banking panics are from [Baron et al. \(2021\)](#).

Table A.6: Predicting Bank Runs With Financial Crises

	Narrative bank run (1)	Systemic bank run (2)	Deposit contraction (3)	Non- systemic run (4)
Banking crisis	0.353*** (0.043)	0.242*** (0.034)	0.145*** (0.029)	0.107*** (0.019)
Currency crisis	0.015 (0.009)	0.004 (0.007)	0.000 (0.019)	0.011 (0.010)
Sovereign debt crisis	0.008 (0.011)	0.008 (0.011)	-0.010 (0.021)	0.008 (0.015)
Country FE	Y	Y	Y	Y
Observations	17,171	10,688	10,687	10,687
Countries	161	159	159	159
Run episodes	344	159	959	131
R ²	0.14	0.13	0.02	0.04
AUC	0.69	0.73	0.52	0.63

Notes: The table summarizes the estimated coefficients of the following panel regression: $\mathbf{1}_{i,t}^{run,j} = \alpha_i + \beta^{bcrisis} \mathbf{1}_{i,t}^{bcrisis} + \beta^{curr} \mathbf{1}_{i,t}^{curr} + \beta^{sovDebt} \mathbf{1}_{i,t}^{sovDebt} + \epsilon_{i,t}$, where α_i denotes country fixed effects and $\mathbf{1}_{i,t}^{run,j}$ is an indicator variable for a bank run of type j : narrative bank runs from our chronology, systemic runs (i.e., narrative runs accompanied by deposit contractions), deposit contractions, or non-systemic runs (i.e., narrative runs without deposit contractions). The indicator variables on the right-hand side are (i) any banking crisis, (ii) any currency crisis, and (iii) any sovereign debt crisis. Standard errors are double-clustered by country and year.

A.6 Comparing Precursors of Runs and Other Crises

A large literature studies the precursors of financial crises. Financial factors such as credit growth, capital inflows, or real exchange rate appreciations are widely considered to contribute to a build-up of vulnerabilities that can expose the financial system to shocks (see, e.g., Kaminsky and Reinhart, 1999; Gourinchas and Obstfeld, 2012; Schularick and Taylor, 2012). A related strand of literature links the outbreak of bank runs directly to the business cycle (see, e.g., Gorton, 1988; Calomiris and Gorton, 1991).

To understand how these patterns differ for the case of bank runs, we estimate a set of predictive panel regressions that take the following form:

$$\mathbf{1}_{i,t}^{event,j} = \alpha_i + \beta \Delta X_{i,t-4 \rightarrow t-1} + \epsilon_{i,t}, \quad (\text{A.1})$$

where $\mathbf{1}_{i,t}^{event,j}$ is an indicator variable that equals one for the first year a country i experiences an event of type j in year t . Events denoted by j include: narrative bank runs from our chronology, systemic runs (i.e., narrative runs accompanied by deposit contractions), or banking crises. $\Delta X_{i,t-4 \rightarrow t-1}$ is the predictor variable, where we consider the growth rate of real GDP, total nominal deposits, and nominal demand deposits between four years to one year before the run/crisis occurs, and the changes between four years to one year before the run/crisis in the following variables: bank equity returns, the credit spread, credit-to-GDP, and deposits-to-GDP. α_i denotes country fixed effects. We evaluate the performance of the predictors using univariate regressions. We double-cluster standard errors by country and year.

We are particularly interested in the ability of these different predictors to distinguish between periods of crisis and calm. We base our evaluation on the value of the Area Under the Curve of the Receiver Operating Characteristic (ROC) curve that we report in Table A.7. For our analysis, we use the list of bank runs from our chronology, systemic bank runs, and the list of banking crises as the events that we try to predict by using a given predictor $\Delta X_{i,t-4 \rightarrow t-1}$.

The ROC is defined as the ratio of predicted true positives to predicted false positives for a specific probability threshold setting when using one of the business cycle indicators. The area under the resulting ROC curve (AUC) measures the overall performance of the classifier. A model with an AUC of 0.5 suggests no ability to discriminate between crisis times and other periods, equivalent to flipping a coin. The higher the AUC value, the better the classifier performs.

Contractions in variables related to the financial cycle—such as the credit-to-GDP ratio or higher credit spreads—are relatively more important for predicting bank runs and in

Table A.7: What Predicts Runs, What Predicts Crises?

	Narrative bank runs AUC	Systemic bank runs AUC	Banking crises AUC
	(1)	(2)	(3)
Real GDP growth, $t - 4$ to $t - 1$	0.510	0.530	0.560
Bank equity returns change, $t - 4$ to $t - 1$	0.570	0.580	0.610
Credit spread change, $t - 4$ to $t - 1$	0.570	0.590	0.490
Credit-to-GDP change, $t - 4$ to $t - 1$	0.610	0.600	0.580
Total Deposits-to-GDP change, $t - 4$ to $t - 1$	0.540	0.540	0.550
Total deposits growth, $t - 4$ to $t - 1$	0.520	0.570	0.540
Demand deposits growth, $t - 4$ to $t - 1$	0.510	0.580	0.500

Notes: This table reports the estimated Area Under the Curve (AUC) for a variety of early warning models described by regression specification (A.1). We use different predictors $\Delta X_{i,t-4 \rightarrow t-1}$ for the classification of narrative bank runs, systemic bank runs (i.e., narrative runs accompanied by deposit contractions), or banking crises. These results are based on univariate specifications as in (A.1), such that each cell refers to the result of one empirical model.

particular systemic ones. Business cycle indicators such as the growth rate of real GDP or bank equity returns are relatively more informative about banking crises. These results indicate that bank runs and banking crises may have different drivers. We find evidence that bank runs tend to follow a withdrawal of funds from the banking system, in line with [Diamond and Dybvig \(1983\)](#) and [Gorton \(2012\)](#). For banking crises, in turn, our results can be interpreted as evidence that an erosion of bank equity results in distress in the banking system, which would be in line with [He and Krishnamurthy \(2013\)](#) and [Brunnermeier and Sannikov \(2014\)](#). The results on the role of deposit contractions also strongly support our strategy to use them for identifying periods of systemic bank runs, since these run periods are indeed more likely to be accompanied by changes in deposits than one would observe during banking crises identified in the literature.

A.7 Average Output Losses from Bank Runs—Robustness

In this section, we consider robustness checks for the macroeconomic aftermath of runs documented in Section 4.2. We focus on the robustness of the local projections from the baseline regression equation (1). Figure A.6 plots the results.

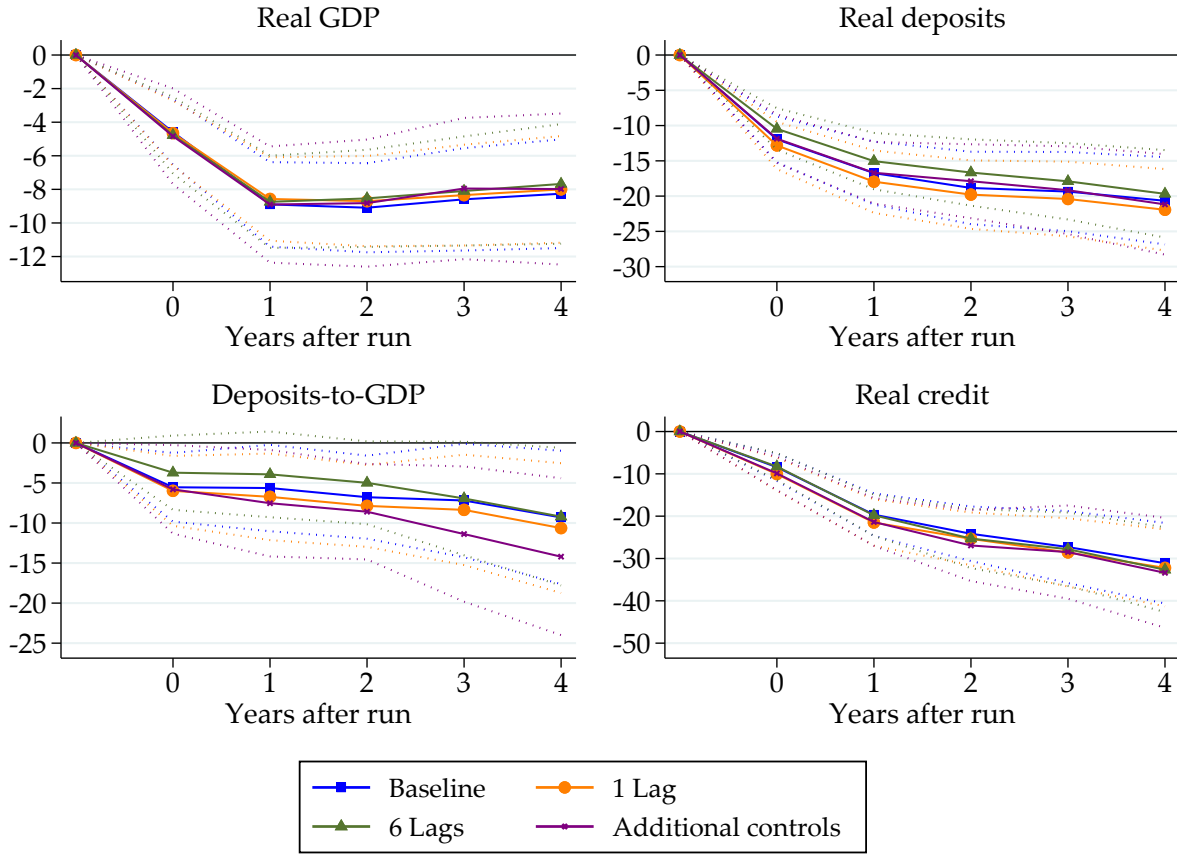
The blue lines depict the baseline results from the main body of the paper. The orange lines are based on the same set of control variables, but we only allow for one lag. The green lines refer to a specification with the same set of control variables but using six lags. For the specification visualized by the purple lines, we again use three lags of lagged macroeconomic control variables, as in our baseline specification, but extend the set of variables to include lagged values of real demand deposit growth rates, real time deposit growth rates, and changes in credit-to-GDP.

We find that the estimated macroeconomic aftermath of bank runs is robust to changes in the number of lags and the inclusion of the above-mentioned additional control variables. The persistent output losses shown in the local projections imply a trend shift in GDP after a systemic bank run. These findings are furthermore robust to the inclusion of year fixed effects (Figure A.7) and without controlling for lagged changes in log real credit (Figure A.8). The macroeconomic aftermath depicted in Figure A.8 by excluding real credit growth probes at the same time for robustness to the inclusion of additional systemic bank run episodes after 2016 and before 1870. The real credit variable covers 184 countries for the period 1870 to 2016. Excluding the lagged changes in logged real credit from regression (1) allows us to include twelve additional systemic bank runs.¹

In Figure A.9, we further consider in detail the path of real GDP around systemic bank runs depending on the type of deposits experiencing a contraction. We find that systemic bank runs are associated with similar output losses regardless of which deposit category experiences a run.

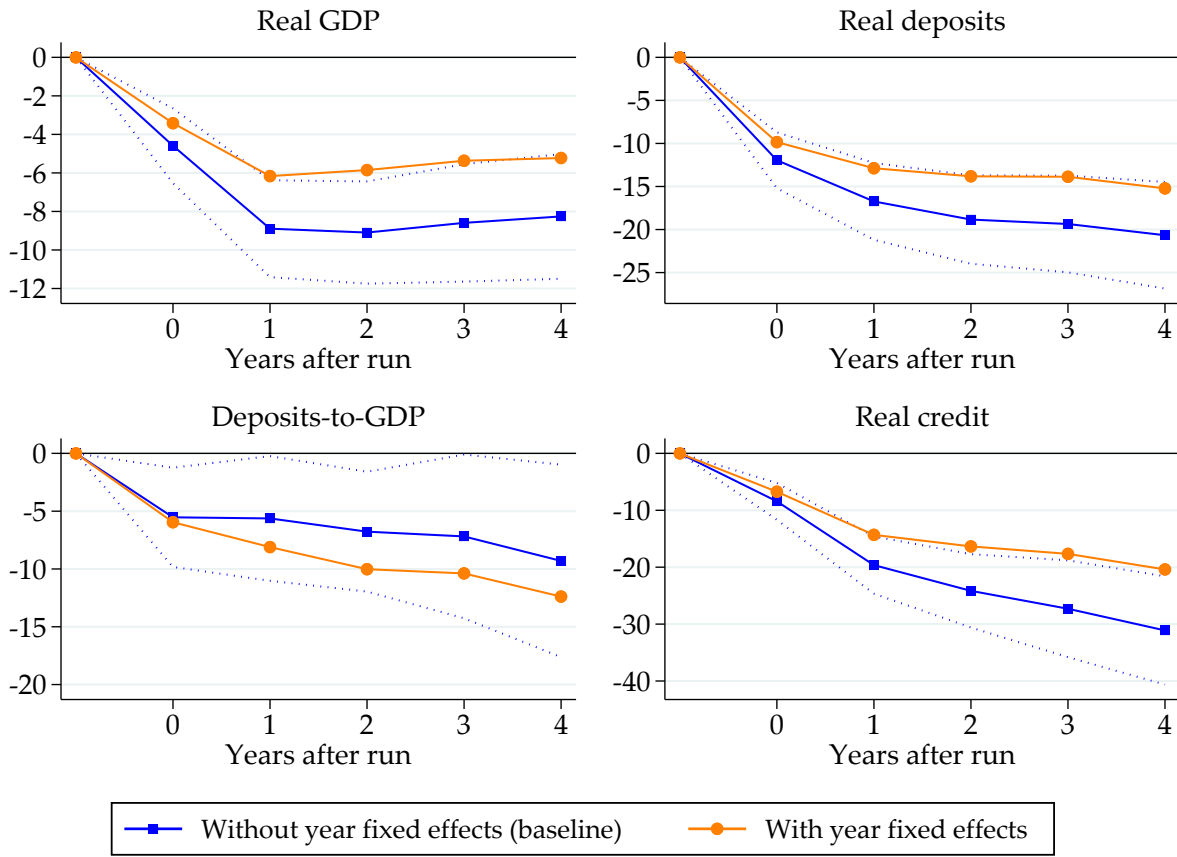
¹Excluding also the lagged change in logged real deposits and the lagged change in the deposits-to-GDP ratio as controls from regression equation (1) would allow us to include nine additional systemic runs on top.

Figure A.6: Macroeconomic Aftermath of Systemic Bank Runs—Robustness



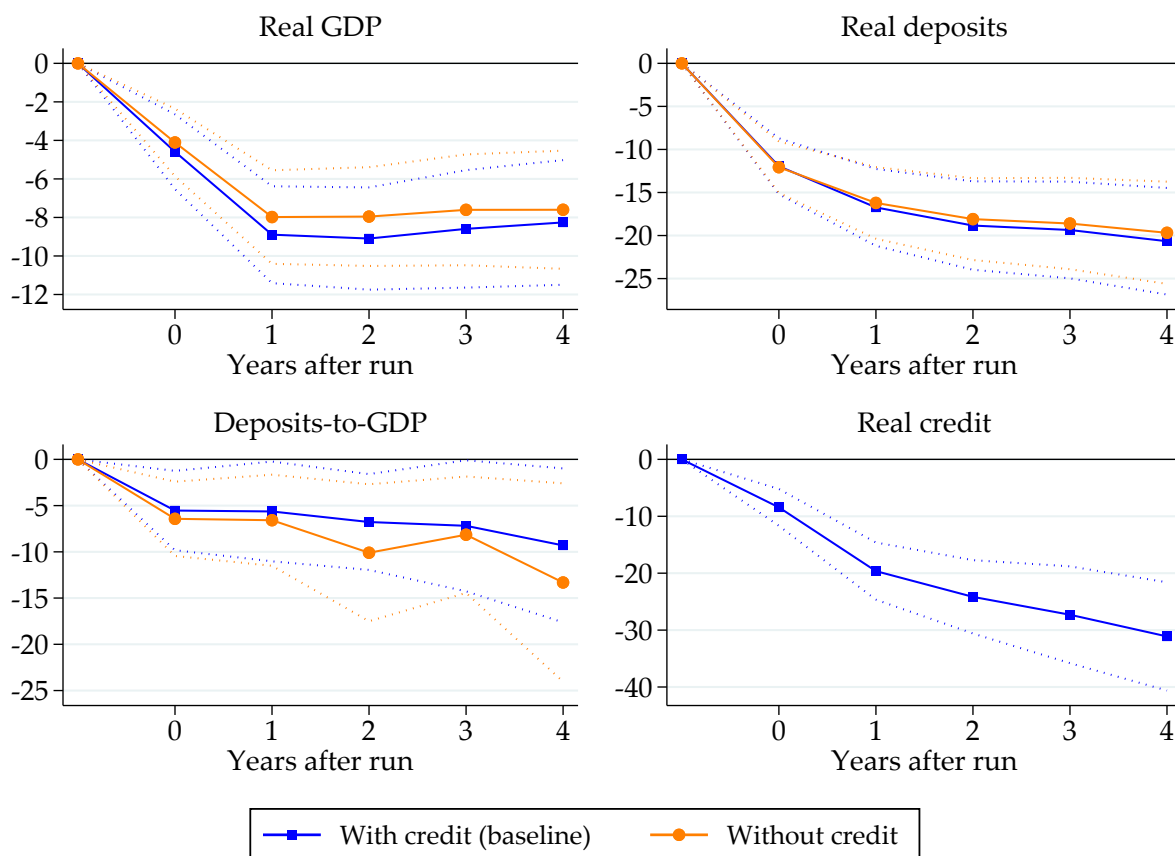
Notes: These figures plot the impulse response functions of real GDP, real deposits, real credit, and deposits-to-GDP to a systemic bank run. The estimates are based on the local projection specified in (1), and are probed for robustness to (i) the reduction of lags to one lag of real GDP growth rates, real deposit growth rates, real credit growth rates, and changes in deposits-to-GDP (orange lines), and (ii) an increase in the number of lags to six lags (green lines) of the same control variables. In addition, we show the impulse responses when (iii) including additional macroeconomic controls (purple lines). The set of additional controls includes three lags of real demand deposit growth rates, real time deposit growth rates, and changes in credit-to-GDP. The blue lines depict the baseline results from the main body of the paper, with three lags of the following variables: real GDP growth rates, real deposit growth rates, real credit growth rates, and changes in deposits-to-GDP. The dotted bands depict 95% confidence bands based on standard errors double-clustered by country and year.

Figure A.7: Macroeconomic Aftermath of Systemic Bank Runs—Year Fixed Effects



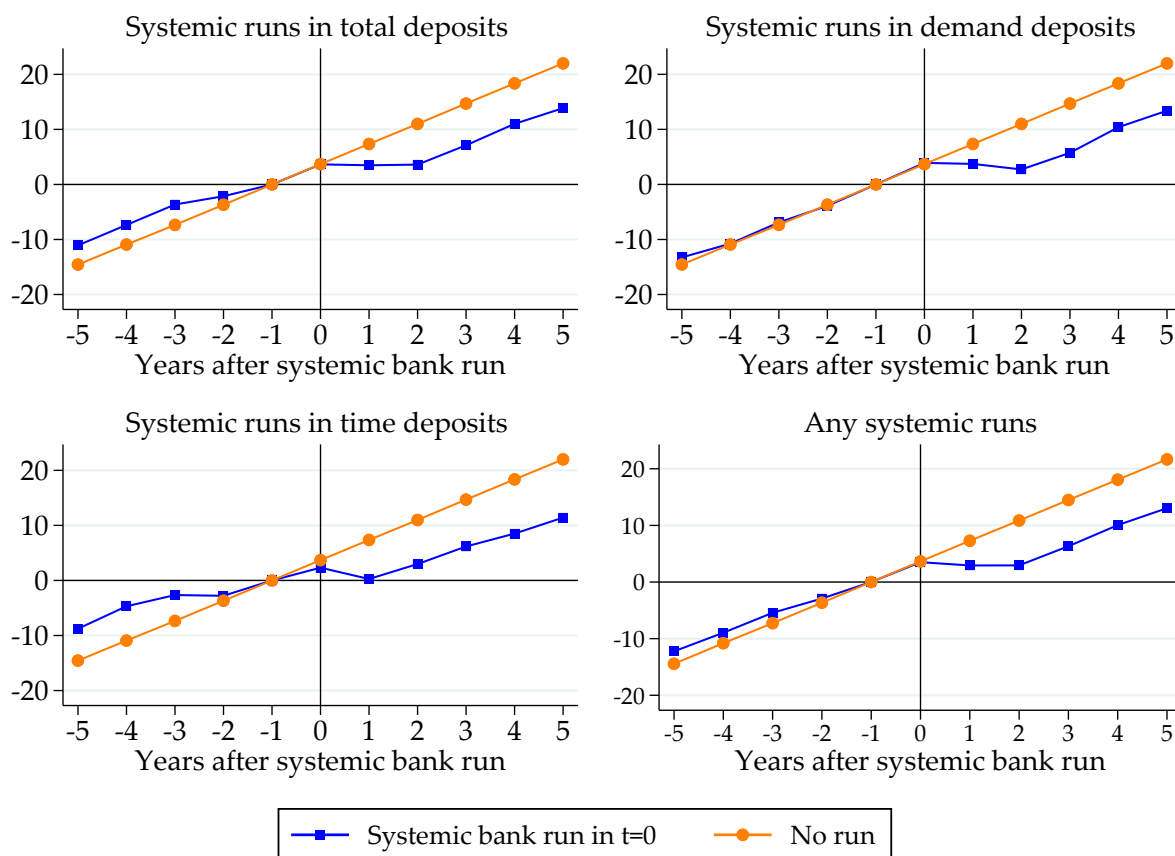
Notes: These figures plot the impulse response functions of real GDP, real deposits, real credit, and deposits-to-GDP to a systemic bank run. The estimates are based on the local projection specified in (1), and are probed for robustness to the inclusion of both country fixed effects and year fixed effects (orange lines). The blue lines depict the baseline results from the main body of the paper, without year fixed effects. The dotted bands depict 95% confidence bands based on standard errors double-clustered by country and year.

Figure A.8: Macroeconomic Aftermath of Systemic Bank Runs—Without Credit



Notes: These figures plot the impulse response functions of real GDP, real deposits, real credit, and deposits-to-GDP to a systemic bank run. The estimates are based on the local projection specified in (1), and are probed for robustness to the exclusion of three lags of credit growth rates as a control variable (orange lines). The blue lines depict the baseline results from the main body of the paper. The dotted bands depict 95% confidence bands based on standard errors double-clustered by country and year.

Figure A.9: Path of Output Around Systemic Bank Runs on Different Deposit Categories



Notes: These figures plot the path of real GDP around systemic bank runs. Blue lines visualize real GDP around bank runs. In the first three panels, we differentiate between systemic runs on the following three deposit categories: (i) total deposits, (ii) demand deposits, and (iii) time deposits. In the fourth panel in the bottom right, we plot the real GDP path around systemic runs in any one of the three different deposit categories: total deposits, demand deposits, and time deposits. The orange lines depict the counterfactual path based on periods when no runs occurred.

A.8 Banking Crisis Definitions in Canonical Papers

Baron et al. (2021)

Banking crisis

“Our conceptual definition of a banking crisis is an episode in which the banking sector’s ability to intermediate funds is severely impaired. Because equity holders are the first to suffer losses from a banking crisis that damages banks’ intermediation capacity, we assume that conceptually, a large bank equity decline is necessary for a banking crisis.”

Panics

“By panics, we mean episodes of severe and sudden withdrawals of funding by bank creditors from a significant part of the banking system.”

Bank equity crash

“We define a ‘bank equity crash’ as an annual bank equity decline of over 30%. We separate these bank equity crashes into panic versus non-panic episodes based on a systematic reading of the narrative evidence for each of these episodes. We define panics as episodes of severe and sudden withdrawals of funding by bank creditors from a significant part of the banking system, which could include withdrawals of funding from insolvent banks or illiquid but fundamentally solvent banks.”

Laeven and Valencia (2018)

Systemic banking crisis

“In a systemic banking crisis, a country’s corporate and financial sectors experience a large number of defaults and financial institutions and corporations face great difficulties repaying contracts on time. As a result, non-performing loans increase sharply and all or most of the aggregate banking system capital is exhausted. This situation may be accompanied by depressed asset prices (such as equity and real estate prices) on the heels of run-ups before the crisis, sharp increases in real interest rates, and a slowdown or reversal in capital flows. In some cases, the crisis is triggered by depositor runs on banks, though in most cases it is a general realization that systemically important financial institutions are in distress.”

Banking crisis

"[...] 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."

Reinhart and Rogoff (2009)

Banking crisis

"We mark a banking crisis by two types of events:

1. bank runs that lead to the closure, merging, or takeover by the public sector of one or more financial institutions and
2. if there are no runs, the closure, merging, take-over, or large-scale government assistance of an important financial institution (or group of institutions) that marks the start of a string of similar outcomes for other financial institutions."

Jordà et al. (2017)

Banking distress

"An episode of banking distress is coded as a systemic banking crisis if it is characterized by major bank failures, banking panics, substantial losses in the banking sector, significant recapitalization, and/or significant government intervention. Importantly, this definition excludes the failures or losses of individual/small banks without systemic implications from being coded as a crisis episode."

A.9 Comparison with Banking Panic Dates from **Baron et al. (2021)**

In this section, we explain any discrepancies between our bank run chronology and the **Baron et al. (2021)** chronology of banking panics. In short, these discrepancies mainly arise for three reasons. First, we sometimes identified unambiguous cases of runs, but they were not classified as such by **Baron et al.**, sometimes because their interpretation is that these runs were not widespread. Second, we sometimes find incidences of runs that do not overlap with their banking crisis definitions, and are thus outside of the scope of their classification. Third, they sometimes classify episodes as panics if they are wholesale (rather than retail) runs, which leads to a slight difference in classification.

Table A.8: Bank Runs in JKMS That Are *Not* Classified as Panics in Baron et al. (2021)

ISO	Year	Banking crisis in BVX (2021)	Description of discrepancy
ARG	1876		Sufficient evidence of a bank run.
AUS	1879		Sufficient evidence of a bank run.
AUS	1884		Sufficient evidence of a bank run.
AUS	1891		Sufficient evidence of a bank run.
AUS	1974	No	While recorded as an episode of a 30% or larger decline in bank equity prices by Baron et al. (2021), they do not treat it as a panic: "Although there was stress in the banking system, there is no further indication in the literature for a banking crisis (in the strict sense of a "bank") in or around 1974." We marked it as run because there is evidence of runs on building societies in New South Wales, Victoria, Queensland, and South Australia, according to a publication by the Reserve Bank of Australia.
AUS	1977	No	Sufficient evidence of a bank run.
AUS	1979	No	Sufficient evidence of a bank run.
AUT	1924	Yes	Baron et al. (2021) classified AUT 1924 as a banking crisis, but not as a panic.
BEL	1925		Sufficient evidence of a bank run.
BEL	1934		Sufficient evidence of a bank run.
BRA	1875		Sufficient evidence of a bank run.
CAN	1893		Sufficient evidence of a bank run.
CAN	1914		Sufficient evidence of a bank run.
CAN	1924		Sufficient evidence of a bank run.
CAN	1996		Sufficient evidence of a bank run.
CHL	1895		Sufficient evidence of a bank run.
COL	1923		Sufficient evidence of a bank run.
COL	1982	Yes	Sufficient evidence of a bank run.
CZE	1931		Sufficient evidence of a bank run.
CZE	1939		Sufficient evidence of a bank run.
DEU	1911		Sufficient evidence of a bank run.
DNK	1922		Sufficient evidence of a bank run.

Table A.8 (continued)

ISO	Year	Banking crisis in BVX (2021)	Description of discrepancy
DNK	1992	Yes	Baron et al. (2021) classified DNK 1992 as a banking crisis, but not as a panic. The episode is not classified as a panic because "a large scale run [on Unibank] had been prevented" by the intervention of the Danish central bank (Baron et al., 2021). We still count the episode as a bank run because of the run on Varda Bank in October 1992.
ESP	1994		Baron et al. (2021) classified ESP 1991 as a banking crisis, but not as a panic. The source cited by Baron et al. (2021) is The New York Times (1993) , which does not record the bank run in 1994. Baron et al. (2021) argue that, aside from Banesto's funding issues, there is no evidence of a broader banking panic, and the crisis was resolved with a government bailout.
ESP	2012		Sufficient evidence of a bank run.
ESP	2015		Sufficient evidence of a bank run.
FIN	1939	Yes	Baron et al. (2021) classified FIN 1939 as a banking crisis, but not as a panic. The sources cited by Baron et al. (2021) mention deposit withdrawals and bank runs.
FRA	1891		Sufficient evidence of a bank run.
FRA	1931		Baron et al. (2021) classified FRA 1930 as a panic. We found evidence for two distinct waves of runs in 1930 and 1931.
GRC	2015		Sufficient evidence of a bank run.
HKG	1914		Sufficient evidence of a bank run.
HKG	1935		Sufficient evidence of a bank run.
HKG	1961		Sufficient evidence of a bank run.
HKG	1985		Sufficient evidence of a bank run.
HKG	2008		Baron et al. (2021) mentioned that there was a "classic depositor run" on the Bank of East Asia in September 2008, but they do not treat that as either a crisis or panic because of relatively quick regulatory action by the Hong Kong Monetary Authority. Because the evidence of a run is clear, we treat it as a run episode.
HUN	1914		Sufficient evidence of a bank run.
HUN	1930		Baron et al. (2021) classified HUN 1931 as a panic. We found evidence for two distinct waves of runs in 1930 and 1931.

Table A.8 (continued)

ISO	Year	Banking crisis in BVX (2021)	Description of discrepancy
IDN	1992		Baron et al. (2021) classified IDN 1990 as a panic. We found evidence for two distinct waves of runs in 1991 and 1992. We treat the 1992 run as unrelated to the triggers of the first panic/runs in 1990/91.
IDN	2008		Sufficient evidence of a bank run.
IND	1938		Sufficient evidence of a bank run.
IND	2001		Sufficient evidence of a bank run.
IND	2008		Sufficient evidence of a bank run.
ITA	2016	Yes	Baron et al. (2021) classified ITA 2016 as a banking crisis, but not as a panic.
JPN	1973	No	Baron et al. (2021) record this as an episode of a 30% or larger decline in bank equity prices in 1974, but do not treat it as a narrative crisis or panic. We have evidence of a bank run in 1973.
JPN	2003		Sufficient evidence of a bank run.
KOR	1961		Sufficient evidence of a bank run.
KOR	2011		Sufficient evidence of a bank run.
NLD	1921	Yes	Baron et al. (2021) record this as a banking crisis but do not treat it as a panic. We have evidence of a bank run in 1921.
PHL	1968		Sufficient evidence of a bank run.
PHL	1977		Sufficient evidence of a bank run.
PHL	1983		Sufficient evidence of a bank run.
PHL	2000		Sufficient evidence of a bank run.
PRT	1935		Sufficient evidence of a bank run.
PRT	2014	No	Baron et al. (2021) record this as an episode of a 30% or larger decline in bank equity prices and an episode of widespread bank failures but do not treat it as a narrative crisis or panic. We have evidence of a bank run in 2014.
RUS	1905		Sufficient evidence of a bank run.
RUS	1914		Sufficient evidence of a bank run.
RUS	2004		Sufficient evidence of a bank run.
RUS	2014		Sufficient evidence of a bank run.
SGP	1974	No	Baron et al. (2021) record this as an episode of a 30% or larger decline in bank equity prices in 1973 but do not treat it as a narrative crisis or panic. We have evidence of a bank run in 1974.

Table A.8 (continued)

ISO	Year	Banking crisis in BVX (2021)	Description of discrepancy
SWE	1912		Sufficient evidence of a bank run.
SWE	1932	No	Baron et al. (2021) record this as an episode of a 30% or larger decline in bank equity prices but do not treat it as a narrative crisis or panic. We have evidence of a bank run in 1932.
SWE	1939		Sufficient evidence of a bank run.
THA	2014		Sufficient evidence of a bank run.
TUR	1895		Sufficient evidence of a bank run.
TWN	1998	Yes	Sufficient evidence of a bank run.
TWN	2000	Yes	Sufficient evidence of a bank run.
TWN	2007		Sufficient evidence of a bank run.
USA	1896		Sufficient evidence of a bank run.
USA	1929	Yes	Baron et al. (2021) classified USA 1929 as a narrative banking crisis, but the start of the panic to 1930. We found evidence for regional bank runs in Florida in July 1929, triggered by an increase in non-performing agricultural loans. The runs in Florida preceded the stock market crash and banking distress of October 1929 by several months.
USA	1931	Yes	Baron et al. (2021) dates the actual panic to 1930 and the narrative evidence for a banking crisis to 1929. We found evidence for two additional distinct waves of runs in 1931 and 1932.
USA	1932	Yes	Baron et al. (2021) dates the actual panic to 1930 and the narrative evidence for a banking crisis to 1929. We found evidence for two additional distinct waves of runs in 1931 and 1932
USA	1974		Sufficient evidence of a bank run.
USA	1982	Yes	Baron et al. (2021) report widespread bank failures throughout the 1980s, but date both the banking crisis and the banking panic to 1984. We found evidence for a run on Penn Square Bank on July 1982.
USA	1983	Yes	Baron et al. (2021) report widespread bank failures throughout the 1980s, but date both the banking crisis and the banking panic to 1984. We found evidence for regional runs in Nebraska on November 1983.
USA	1985	Yes	Baron et al. (2021) classified USA 1984 both as a banking crisis and a banking panic, and report widespread bank failures throughout the 1980s. We found evidence for a new wave of bank runs in May 1985, exactly one year after the run on Continental Illinois National Bank.

Table A.8 (continued)

ISO	Year	Banking crisis in BVX (2021)	Description of discrepancy
USA	1990	Yes	Baron et al. (2021) classified USA 1990 as a banking crisis, but not as a panic.
USA	1991	Yes	Baron et al. (2021) dated the banking crisis to 1990 and the failure of Bank of New England to January 1991, but classified the episode not as a panic. We classify the episode as a bank run due to the \$1 billion in withdrawn deposits.
USA	1992	No	Sufficient evidence of a bank run. The run episode happened 15 months after the run on the Bank of New England and the cause was unrelated to the runs in 1991.
USA	2008	Yes	Baron et al. (2021) dates the panic to 2007. We found evidence for two distinct waves of runs in both 2007 and 2008.
ZAF	1931		Sufficient evidence of a bank run.
ZAF	1997		Sufficient evidence of a bank run.
ZAF	2002		Sufficient evidence of a bank run.

Notes: This table reports all bank runs from our narrative chronology that [Baron et al. \(2021\)](#) do not classify as banking panics. In several cases, we identify separate run episodes that occur in close succession but have distinct triggers (i.e., within two years or less in the same country); see the notes to Table A.1 for how we distinguish run episodes in consecutive years. In such cases, we treat the run episode closest to the [Baron et al. \(2021\)](#) panic year as the country-year observation that belongs to both chronologies, and we report the remaining episodes in this table. As a result, a run episode can appear here as a new run that is missing from [Baron et al. \(2021\)](#) while still being flagged in Table A.1 as overlapping with a panic, since Table A.1 records such an overlap whenever a run falls within a conservative window of two years before or after a [Baron et al. \(2021\)](#) panic. Further, we report whether the run episode is coded as a banking crisis in [Baron et al. \(2021\)](#). If a country-year observation is not listed in their chronology, we leave the entry blank.

Table A.9: Banking Panics in Baron et al. (2021) That Are *Not* Classified as Bank Runs

ISO	Year	Wholesale funding run?	Description of discrepancy
ARG	1930		Baron et al. (2021) include Argentina in 1930 as a panic to be conservative. However, Conde (2010) explicitly states that bank runs were averted by early regulatory intervention. Due to the insufficient evidence of an actual run, we decided not to include this case in our database.
AUT	2008	Yes	Insufficient evidence of a retail bank run, despite clear issues with regard to interbank funding.
BEL	1876		Baron et al. (2021) included the Belgium 1876 case as a panic to be conservative. Only the fear of a run was recorded by Buyst and Maes (2008), and we have found no other evidence of a bank run.
BEL	1883		Insufficient evidence of a run
BEL	1939		Insufficient evidence of a run
BEL	2008	Yes	Insufficient evidence of a retail bank run, despite the global drying up of interbank liquidity.
BRA	1890		Demand deposits drop was due to withdrawal of notes out of circulation. The banking crisis was triggered by high inflation and a collapse of the exchange rate. Demand deposits plummeted by 50%, according to Triner (2000).
BRA	1929		Insufficient evidence of a run
BRA	1985		Insufficient evidence of a run
CHE	2008	Yes	Insufficient evidence of a retail bank run, despite the global drying up of interbank liquidity.
CHL	1925		Baron et al. (2021) included Chile 1925 case as a panic to be conservative, since the second largest bank Banco Español de Chile failed and was restructured in 1925-1926. However there is no sufficient evidence of a retail bank run during this time.
CHL	1931		Insufficient evidence of a run
COL	1931		According to White (2015), the confidence of local depositors was generally maintained, and the drop in deposits likely resulted from foreign outflows.
DNK	1885		Insufficient evidence of a run
DNK	2008	Yes	Insufficient evidence of a retail bank run, despite the global drying up of interbank liquidity.
ESP	1882		Insufficient evidence of a run
ESP	1890		Insufficient evidence of a run
FIN	1990	Yes	Insufficient evidence of a retail bank run, despite clear issues with regard to interbank funding.

Table A.9 (continued)

ISO	Year	Wholesale fund- ing run?	Description of discrepancy
FRA	2008	Yes	Insufficient evidence of a retail bank run, despite clear issues with regard to interbank funding.
GBR	1890		Insufficient evidence of a run, which was likely averted due to early regulatory action.
GBR	1991	Yes	According to Basel Committee on Banking Supervision (2004) , despite a reshuffling of deposits from smaller banks to larger ones, there is insufficient evidence of an all-out run. As such, any additional liquidity issues may also have stemmed from interbank funding issues.
GRC	2008		While Greece experienced a major financial crisis that would later be associated with bank runs (in 2015), we found no evidence that these runs already started in 2008. Instead, there was a drying up of wholesale funding liquidity around that time.
HUN	2008	Yes	Insufficient evidence of a retail bank run, despite the global drying up of interbank liquidity.
ISL	1920		Insufficient evidence of a run
ISL	1930		Insufficient evidence of a run
ITA	1873		Insufficient evidence of a run
ITA	1889		Insufficient evidence of a run
ITA	2008	Yes	Despite the drying up of global interbank liquidity, we have found no evidence of retail bank runs.
JPN	1882		Insufficient evidence of a run
LUX	2008	Yes	Despite the drying up of global interbank liquidity, we have found no evidence of retail bank runs.
MEX	1893		Insufficient evidence of a run
MEX	1981		Despite well-documented fears of a bank run (The New York Times (1981)), we did not find sufficient evidence of the actual occurrence of runs
NLD	1907		Insufficient evidence of a run
NOR	1987		Insufficient evidence of a run
NOR	2008	Yes	Despite the drying up of global interbank liquidity, we have found no evidence of retail bank runs.
NZL	1888		Insufficient evidence of a run
PRT	2008	Yes	Despite the drying up of global interbank liquidity, we have found no evidence of retail bank runs.
RUS	1995	Yes	Considerable evidence of a wholesale bank run and drying up of liquidity, but insufficient evidence of a retail bank run.
SWE	2008	Yes	Despite the drying up of global interbank liquidity, we have found no evidence of retail bank runs.

Table A.9 (continued)

ISO	Year	Wholesale fund- ing run?	Description of discrepancy
TUR	1994		Insufficient evidence of a run
USA	1890	Yes	Insufficient evidence of a retail bank run, despite clear issues with regard to interbank funding.
VEN	1981		Insufficient evidence of a run
ZAF	1881		Insufficient evidence of a run

A.10 Output Responses for Alternative Systemic Run Definitions

Our baseline definition of a systemic bank run is the intersection of narrative evidence of a bank run with an aggregate outflow of total nominal deposits from the banking sector within a one-year time window around the run. In this section, we evaluate the robustness of our baseline classification procedure by using alternative thresholds for quantifying drawdowns in aggregate deposits.

We first consider the responses of key macroeconomic outcomes to systemic runs when setting the quantitative threshold for determining systemic runs to be either (i) any contraction, (ii) a contraction of 5%, (iii) a contraction of 10%, or (iv) a contraction of 15%. Figure A.10 plots the set of impulse responses of real GDP growth, real deposit growth, real credit growth, and deposits-to-GDP to the respective alternative systemic bank run definitions using local projections. We make two observations. First, the adverse effects of systemic runs are stronger when conditioning on larger deposit contractions. Second, the magnitudes of the responses of all four variables are very similar and remain statistically significant.

In a second exercise, we define systemic runs by using the same four threshold values from the previous exercise, but using real instead of nominal deposit growth rates. Figure A.11 plots the results. The results do not meaningfully differ from those we obtain using nominal deposit growth rates.

One concern may be that conditioning on absolute values of negative growth rates (in percent) as threshold values for defining systemic runs may not account for heterogeneity in the volatility of deposit growth rates across countries. To address this concern, for the third exercise, we define systemic bank runs as the overlap of narrative run episodes with an indicator for growth in total nominal deposits that is (i) one standard deviation below the country mean, (ii) one-and-a-half standard deviations below the country mean, or (iii) two standard deviations below the country mean. Both the average deposit growth rate and its standard deviation can vary significantly across historical periods. To account for this, we compute each country's mean and standard deviation separately for each half-century.

Figure A.12 plots the results. The magnitudes of the macroeconomic effects in response to systemic runs are all very similar. Under all specifications, we observe a significant drop in real GDP. A run with narrative evidence and a deposit growth rate two standard deviations below the country mean is rare, however, which results in wider error bands on the medium-to-long horizon.

As a fourth exercise, we again use the same absolute threshold values in percent as in the first exercise ($< 0\%$, $< -5\%$, $< -10\%$, $< -15\%$), but now detrend nominal deposit

growth rates *by country*, using a three-year backward-looking moving average. The results in Figure A.13 show that the estimates are qualitatively similar.

For the fifth exercise, we vary the time window around bank runs that we use to classify systemic runs based on deposit contractions. We use two alternative definitions. The first alternative classifies a bank run as systemic only if there was a deposit contraction in the exact year for which we have narrative evidence of a run. The second alternative allows for a two-year window around the run (rather than a one-year window as in our baseline definition). Figure A.14 plots the set of impulse responses using the different definitions. We find somewhat stronger contractions in deposits when classifying runs as systemic when they are associated with a contemporaneous drop in deposits, but smaller effects in terms of GDP. The results for the systemic run definitions using a one-year or two-year window are nearly identical.

In our baseline systemicness definition, we classify deposit contraction episodes not only based on total nominal deposit contractions, but additionally treat nominal contractions in either demand or time deposits as deposit contraction episodes when they coincide with total deposit growth of less than 4%. This adjustment is motivated by the fact that growth rates in the adjusted total, demand, and time deposit series may contain measurement error. In the next exercise, we therefore test robustness using alternative classifications of deposit contractions, such as conditioning only on contractions in total deposits and excluding isolated contractions in demand or time deposits that coincide with positive total deposit growth below 4%. Figure A.15 plots the set of impulse responses for (i) systemic bank runs, (ii) non-systemic bank runs, and (iii) deposit contractions outside of run episodes, when conditioning the systemicness definition entirely on total nominal deposit contractions. Both point estimates and confidence bands are very close to our baseline results from the main body of the paper. If anything, we find slightly smaller effects in terms of output losses in Figure A.15.

In the next exercise, we evaluate the macroeconomic aftermath of shifts from demand to time deposits (and vice versa). To isolate these compositional shifts from overall funding outflows, we therefore condition only on contractions in demand deposits or time deposits that are not accompanied by contractions in total deposits. Importantly, such shifts from time to demand deposits (or vice versa) may occur for reasons unrelated to bank run episodes, for instance, due to changes in monetary policy. Figure A.16 plots the results.² We make some noteworthy findings. First, we find barely any output losses or credit contractions around demand or time deposit contractions when total deposits do

²For this exercise, we define non-systemic bank runs as narrative bank runs without any aggregate contractions in total, demand, and time deposits.

not contract simultaneously. This supports our interpretation that these isolated demand or time deposit contractions primarily reflect shifts between demand and time deposits (or vice versa), rather than episodes with broader macroeconomic consequences. Second, the estimated output losses and credit contractions associated with systemic runs are now much smaller. Third, the credit contractions around systemic and non-systemic runs are much closer together compared to our baseline results in the main body of the paper. This again suggests that shifts from demand to time deposits (or vice versa) are not a reliable indicator of runs becoming systemic.

Another concern may be that some periods of aggregate deposit withdrawals are only visible in higher-frequency deposit data. For example, a bank run from our chronology that coincides with an aggregate deposit contraction in the month of the run might still be associated with a positive deposit growth rate in our annual data if multiple months of larger deposit inflows preceded the run. To address this concern, we classify bank runs as systemic by using monthly deposit growth rates. We then compare the macroeconomic aftermath under our baseline definition, which uses annual data, with the macroeconomic aftermath of narrative bank runs that coincide with monthly deposit contractions. For our analysis, we define episodes of monthly deposit contractions in two different ways: either (i) an episode of negative nominal year-on-year total deposit growth rates or (ii) an episode of total nominal deposit growth rates below the 1st percentile of the deposit growth rate distribution.

We plot the results in Figure A.17. The macroeconomic aftermath of systemic runs classified using monthly deposit data does not differ much from that following systemic runs classified using annual deposit data.

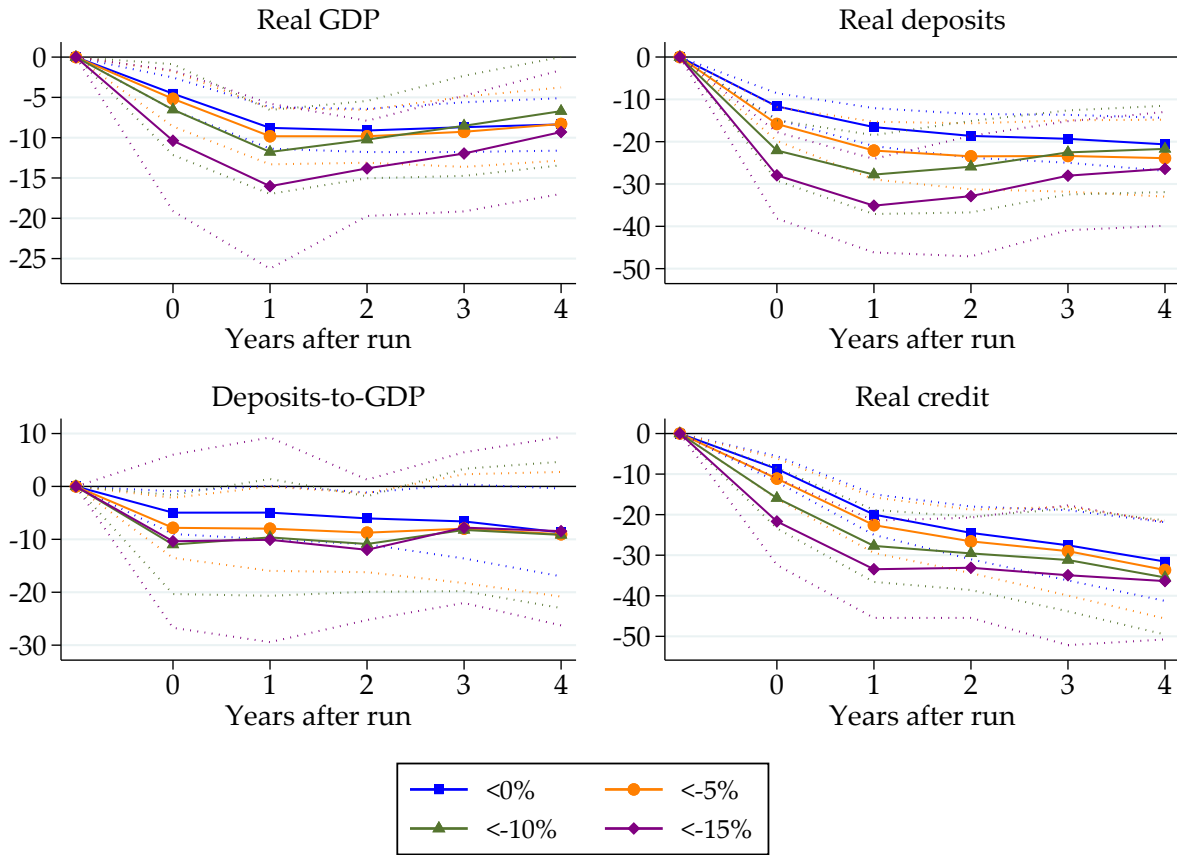
Next, we focus on the subset of bank runs that coincide with contractions in the credit-to-deposit ratio. One concern may be that the observed contraction in real credit around systemic runs is not caused by liability-side disruptions (i.e., outflows of deposits). Instead, one may argue that the observed deposit outflows might be preceded by contractions in credit. To rule out the possibility that our main results are driven by asset-side disruptions preceding the bank run, we define a new category of bank runs: a narrative bank run from our chronology that coincides with any contraction in the credit-to-deposit ratio within a one-year time window around the year of the run. Figure A.18 compares the macroeconomic aftermath of a run that coincides with credit-to-deposit contractions with our baseline definition of systemic bank runs. Bank runs that coincide with contractions in the credit-to-deposit ratio are characterized by deposit outflows and output losses that are 50% smaller compared to systemic runs that coincide with contractions in nominal deposits. We do not observe a significant difference in the contraction of real credit

between both run classifications. We take these findings as evidence that our systemic run definition—narrative bank runs from our chronology that coincide with contractions in aggregate deposits—indeed captures systemic liability-side disruptions of a country’s banking system that are not triggered by the asset side of banks.

Finally, we test the robustness of the differences in output losses around systemic runs and non-systemic runs by including potential false negatives in our set of 405 narrative bank runs. In particular, we add all banking crises for which we did not find evidence of a bank run as potential false negatives. We explicitly add country-year observations for which we document a banking crisis even when the crisis is preceded or followed by a run within a three-year window. We end up with a total number of 623 potential bank runs. As we discuss in Section 4, we then only keep the first bank run episode within a three-year window when estimating the local projections.

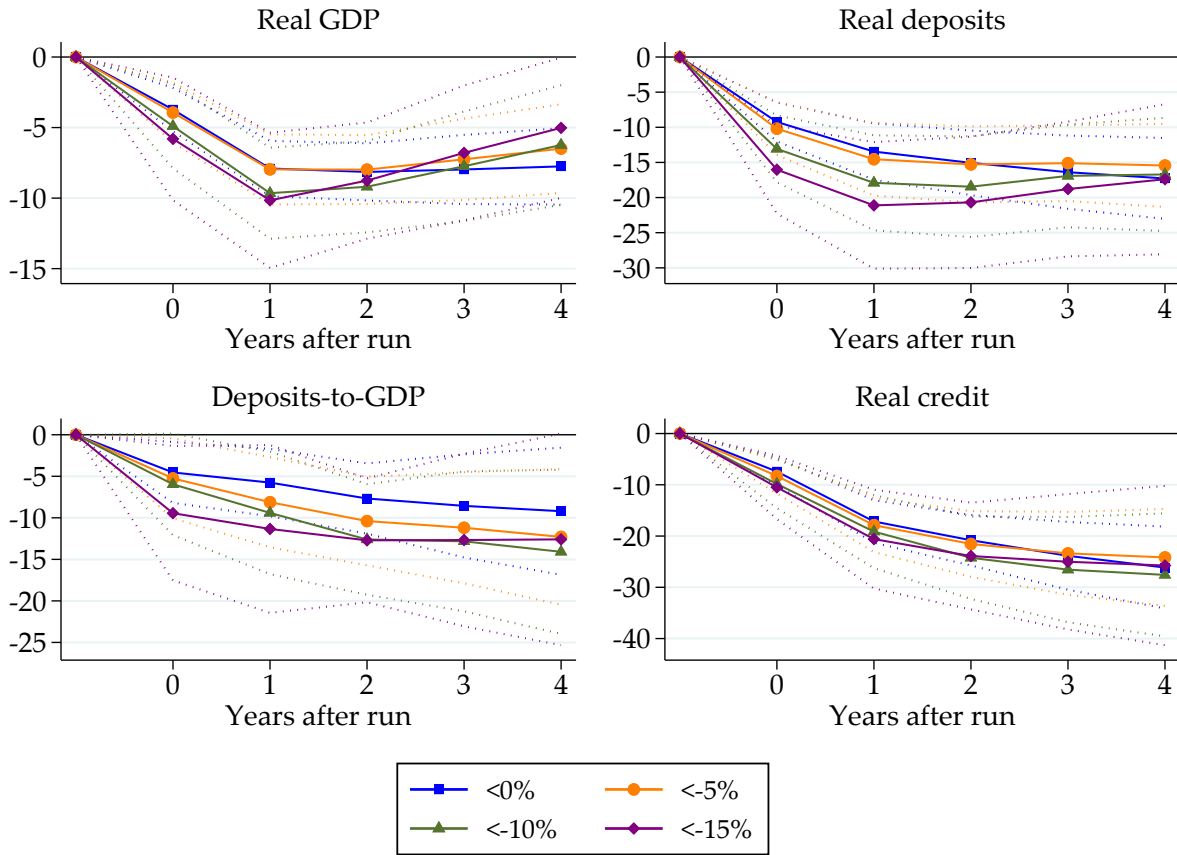
Figure A.19 visualizes the output losses around systemic bank runs and non-systemic bank runs. Under both definitions of narrative bank runs, output losses around systemic bank runs are always more severe than losses around non-systemic run episodes.

Figure A.10: Macroeconomic Aftermath of Systemic Bank Runs—Absolute Thresholds



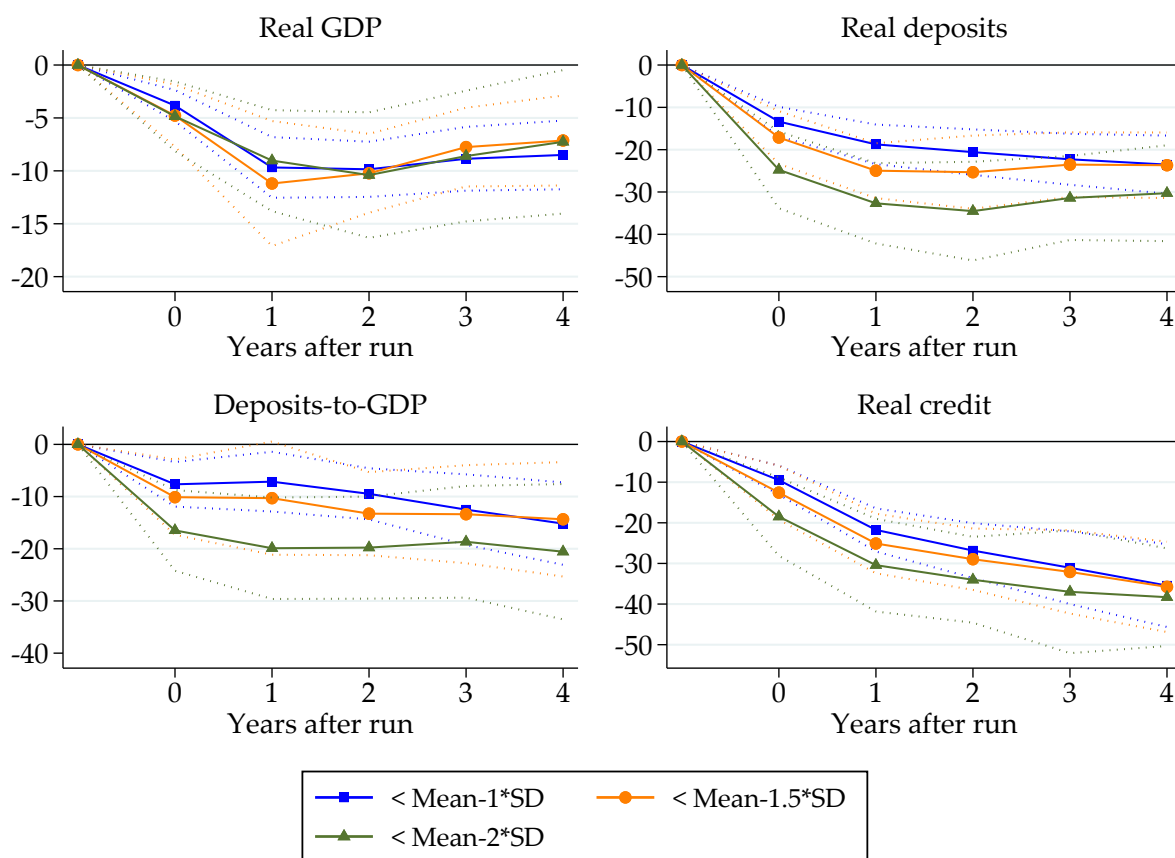
Notes: These figures plot the impulse response functions of real GDP, real deposits, real credit, and deposits-to-GDP to a systemic bank run in total nominal deposits. The estimates are based on the local projection specified in (1), and are probed for robustness to changes in our definition of systemic bank runs. We define systemic bank runs as a narrative run accompanied by either (i) a nominal deposit contraction (blue lines), (ii) a nominal deposit contraction larger than 5% (orange lines), (iii) a nominal deposit contraction larger than 10% (green lines), or (iv) a nominal deposit contraction larger than 15% (purple lines). The dotted bands depict 95% confidence bands based on standard errors double-clustered by country and year.

Figure A.11: Macroeconomic Aftermath of Systemic Bank Runs—Real Deposit Growth



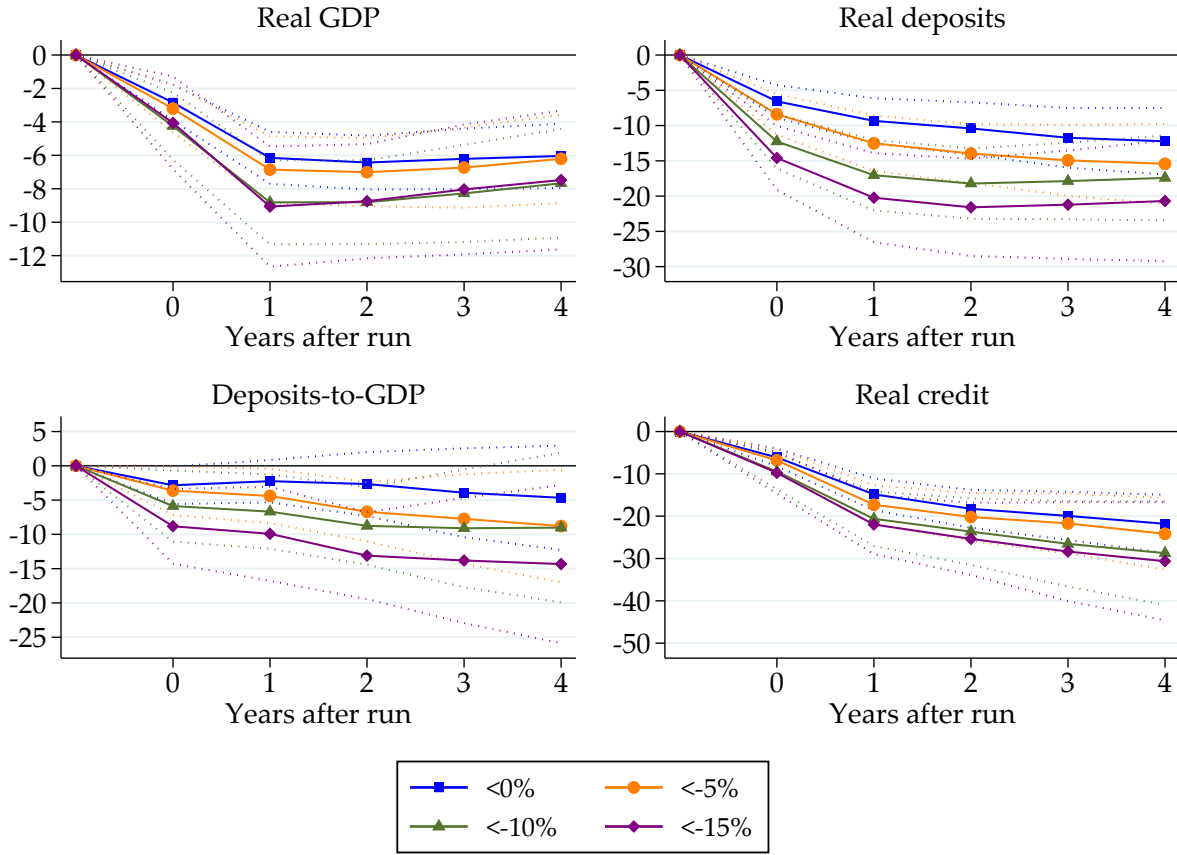
Notes: These figures plot the impulse response functions of real GDP, real deposits, real credit, and deposits-to-GDP to a systemic bank run in total real deposits. The estimates are based on the local projection specified in (1), and are probed for robustness to changes in our definition of systemic bank runs. We define systemic bank runs as a narrative run accompanied by either (i) a real deposit contraction (blue lines), (ii) a real deposit contraction larger than 5% (orange lines), (iii) a real deposit contraction larger than 10% (green lines), or (iv) a real deposit contraction larger than 15% (purple lines). The dotted bands depict 95% confidence bands based on standard errors double-clustered by country and year.

Figure A.12: Macroeconomic Aftermath of Systemic Bank Runs—Relative Thresholds



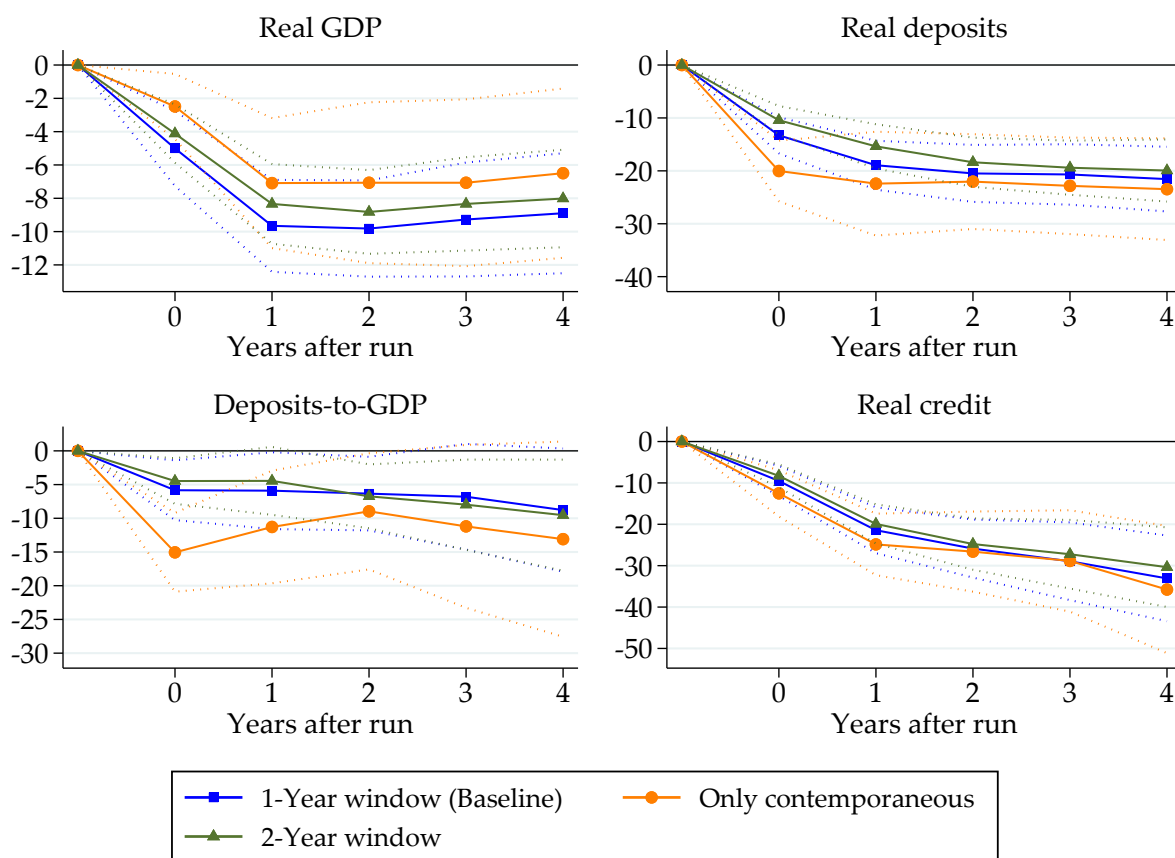
Notes: These figures plot the impulse response functions of real GDP, real deposits, real credit, and deposits-to-GDP to a systemic bank run in total nominal deposits. The estimates are based on the local projection specified in (1), and are probed for robustness to changes in our definition of systemic bank runs. We define systemic bank runs as a narrative run accompanied by either (i) a nominal deposit growth rate one standard deviation below the country's mean growth rate (blue lines), (ii) a nominal deposit growth rate one-and-a-half standard deviations below the country's mean growth rate (orange lines), or (iii) a nominal deposit growth rate two standard deviations below the country's mean growth rate (green lines). We calculate a country's mean and standard deviation for each half-century separately. The dotted bands depict 95% confidence bands based on standard errors double-clustered by country and year.

Figure A.13: Macroeconomic Aftermath of Systemic Bank Runs—Detrended Deposits



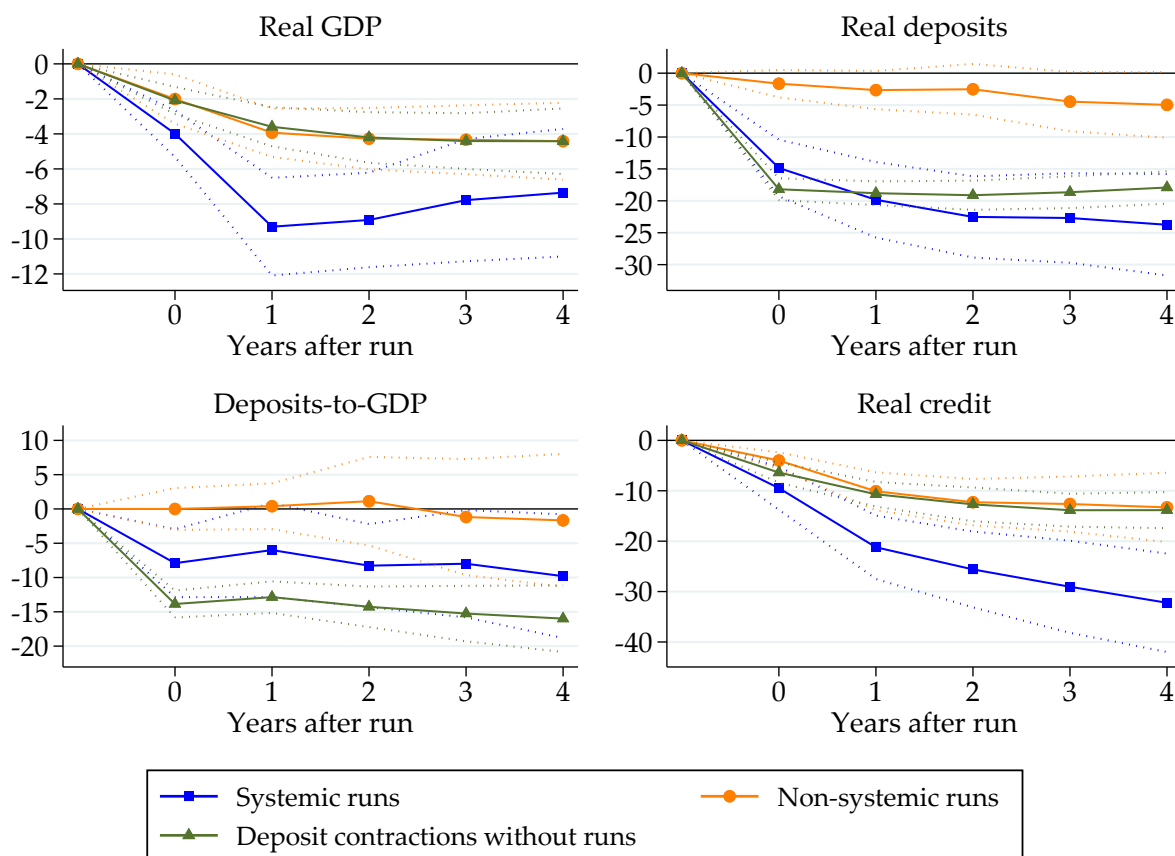
Notes: These figures plot the impulse response functions of real GDP, real deposits, real credit, and deposits-to-GDP to a systemic bank run in total nominal deposits. The estimates are based on the local projection specified in (1), and are probed for robustness to changes in our definition of systemic bank runs. We define systemic bank runs as a narrative run accompanied by either (i) a nominal contraction in detrended deposits (blue lines), (ii) a nominal contraction in detrended deposits larger than 5% (orange lines), (iii) a nominal contraction in detrended deposits larger than 10% (green lines), or (iv) a nominal contraction in detrended deposits larger than 15% (purple lines). We detrend nominal deposit growth rates by country by using a three-year backward-looking moving average. The dotted bands depict 95% confidence bands based on standard errors double-clustered by country and year.

Figure A.14: Macroeconomic Aftermath of Systemic Bank Runs—Alternative Windows



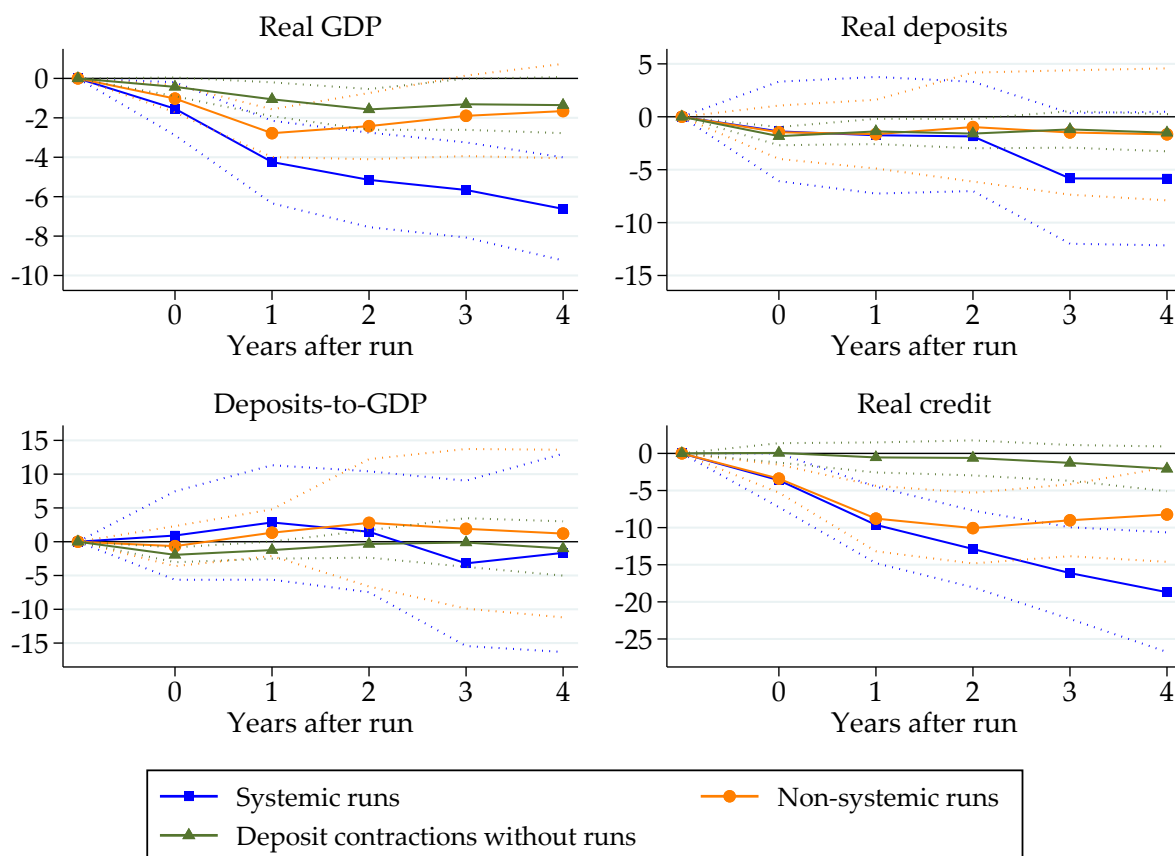
Notes: These figures plot the impulse response functions of real GDP, real deposits, real credit, and deposits-to-GDP to a systemic bank run in total nominal deposits. The estimates are based on the local projection specified in (1), and are probed for robustness to changes in our definition of systemic bank runs. We define systemic bank runs as a narrative run accompanied by either (i) a nominal deposit contraction within one year around the run (blue lines), (ii) a nominal deposit contraction in the same year of the run (orange lines), or (iii) a nominal deposit contraction within two years around the run (green lines). The dotted bands depict 95% confidence bands based on standard errors double-clustered by country and year.

Figure A.15: Macroeconomic Aftermath of Systemic Bank Runs—Based on Total Deposit Contractions Only



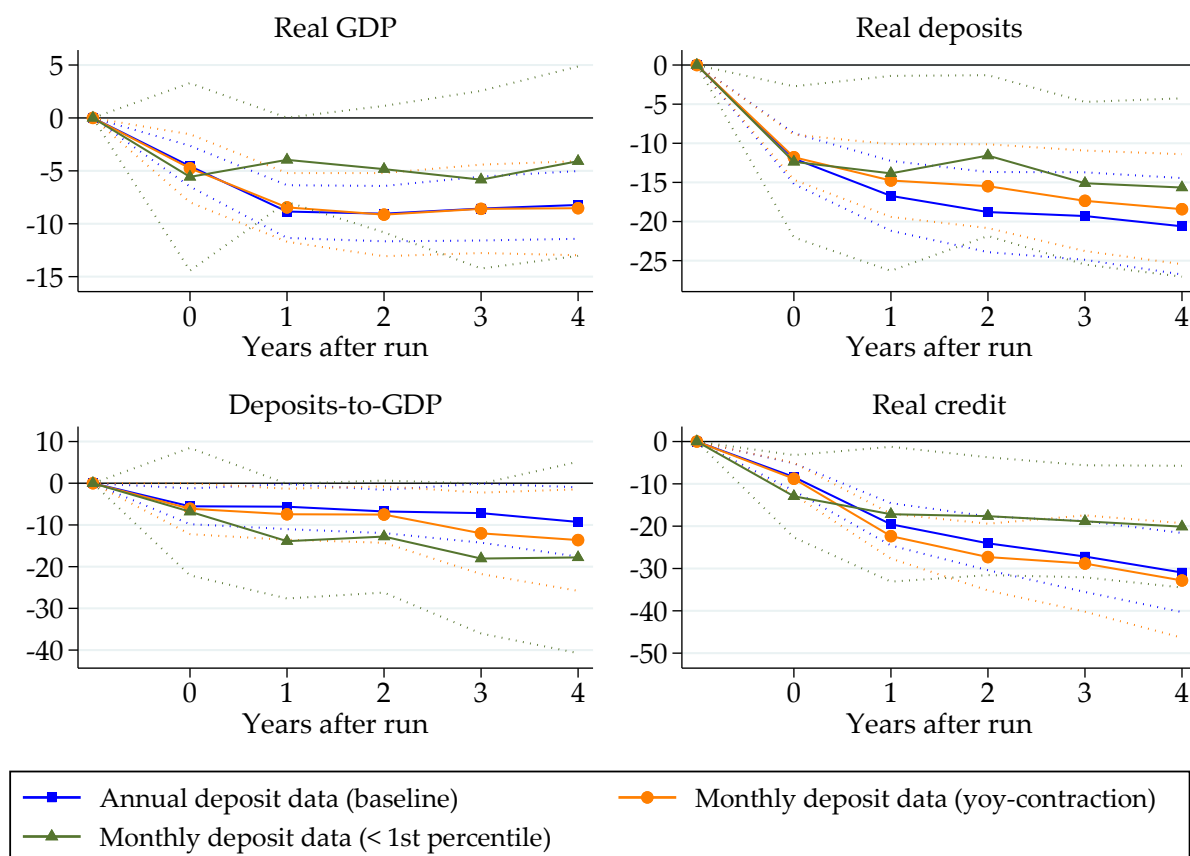
Notes: These figures plot the impulse response functions of real GDP, real deposits, real credit, and deposits-to-GDP for (i) systemic bank runs in total nominal deposits (blue line), (ii) non-systemic bank runs (orange line), and (iii) deposit contractions outside of run episodes (green line). The estimates are based on the local projection specified in (1), and are probed for robustness to the exclusion of isolated contractions in demand and time deposits that are not accompanied by contractions in total deposits. The dotted bands depict 95% confidence bands based on standard errors double-clustered by country and year.

Figure A.16: Macroeconomic Aftermath of Systemic Bank Runs—Based on Isolated Demand or Time Contractions Only



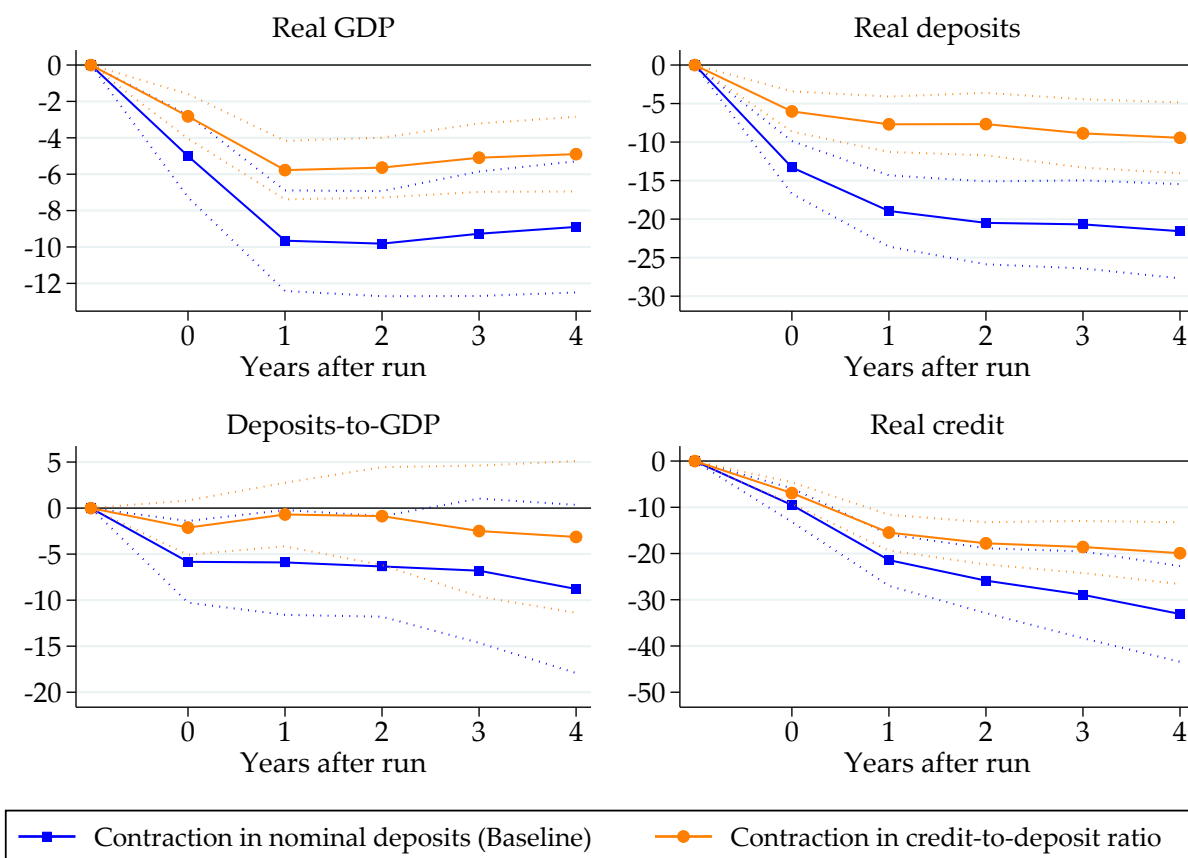
Notes: These figures plot the impulse response functions of real GDP, real deposits, real credit, and deposits-to-GDP to a systemic bank run in nominal demand deposits or nominal time deposits that is not accompanied by contractions in total nominal deposits (blue lines). The orange lines show impulse responses for non-systemic bank runs occurring outside of any aggregate deposit contractions, while the green lines display impulse responses for aggregate contractions in demand deposits or time deposits that are not accompanied by contractions in total nominal deposits and occur outside of run episodes. The estimates are based on the local projection specified in (1), and are probed for robustness to the exclusion of contractions in total deposits. The dotted bands depict 95% confidence bands based on standard errors double-clustered by country and year.

Figure A.17: Macroeconomic Aftermath of Systemic Bank Runs—Monthly Deposits



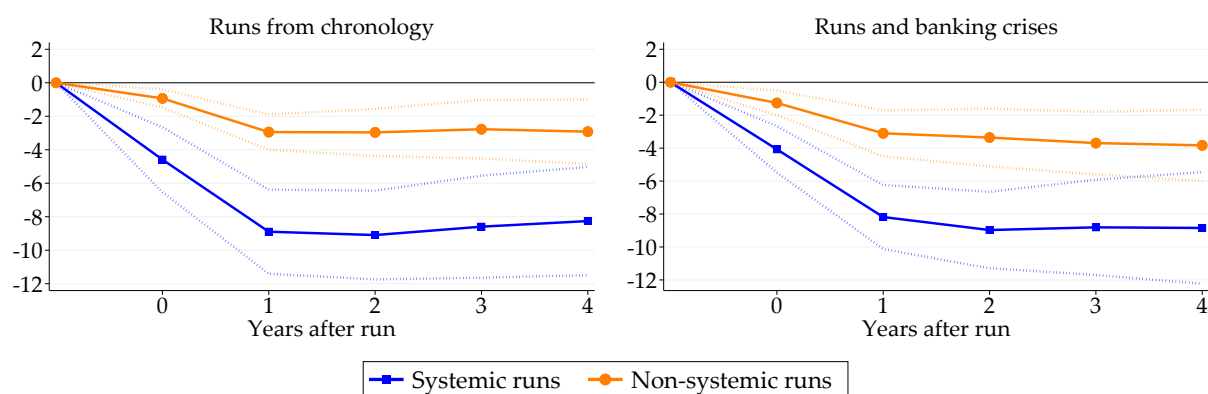
Notes: These figures plot the impulse response functions of real GDP, real deposits, real credit, and deposits-to-GDP to a systemic bank run in any one of the three different deposit categories: total deposits, demand deposits, and time deposits. The estimates are based on the local projection specified in (1), and are probed for robustness to changes in our definition of systemic bank runs. We define systemic bank runs as a narrative run accompanied by either (i) a nominal deposit contraction within one year using annual-frequency data (blue lines), (ii) a nominal year-on-year deposit contraction using monthly-frequency data (orange lines), or (iii) a nominal deposit growth rate below the 1st percentile using monthly-frequency data (green lines). The dotted bands depict 95% confidence bands based on standard errors double-clustered by country and year.

Figure A.18: Macroeconomic Aftermath of Systemic Bank Runs—Credit-to-Deposit



Notes: These figures plot the impulse response functions of real GDP, real deposits, real credit, and deposits-to-GDP to a systemic bank run. The estimates are based on the local projection specified in (1), and are probed for robustness to changes in our definition of systemic bank runs. We define systemic bank runs as narrative runs that are accompanied by either (i) a nominal contraction in total nominal deposits within one year (blue lines), or (ii) a contraction in the credit-to-deposit ratio within one year (orange lines). The dotted bands depict 95% confidence bands based on standard errors double-clustered by country and year.

Figure A.19: Output Losses Around Systemic Bank Runs—Testing for False Negatives



Notes: These figures plot the impulse response functions of real GDP growth rates for systemic bank runs (blue line) and non-systemic bank runs. The estimates are based on the local projection specified in (1), and are probed for robustness to the inclusion of potential false negatives into our bank run chronology. In the first panel, we use the 405 runs from our bank run chronology. In the second panel, we classify all 405 runs and all banking crises episodes as bank run candidates. We define systemic bank runs as a bank run candidate accompanied by a nominal deposit contraction within one year. The dotted bands depict 95% confidence bands based on standard errors double-clustered by country and year.

A.11 Where Does Money Flow During Bank Runs?

What happens to the overall flow of funds in the economy during bank runs, and where do withdrawn deposits end up? We now investigate these issues by analyzing three systemic bank run episode clusters in the United States: the Great Depression, the early 1990s recession, and the 2023 Silicon Valley Bank run. Leveraging higher-frequency data, we provide insights into the movement of funds during these pivotal events.

We focus on the exact timing of deposit contractions during the Great Depression. Because deposit insurance was not introduced until 1933, this episode also lends itself as a comparison group to more recent run episodes.

We obtain monthly and quarterly data on deposits, money market mutual fund investments, currency in circulation, and macroeconomic variables from FRED. The results below suggest that the inflow of deposits into the U.S. banking system slows down before a bank run. Runs on individual banks are then the starting point of massive aggregate deposit outflows. The outflow of funds out of the banking system, in turn, is accompanied by a flight into safer assets, meaning currency historically and money market funds in recent decades.

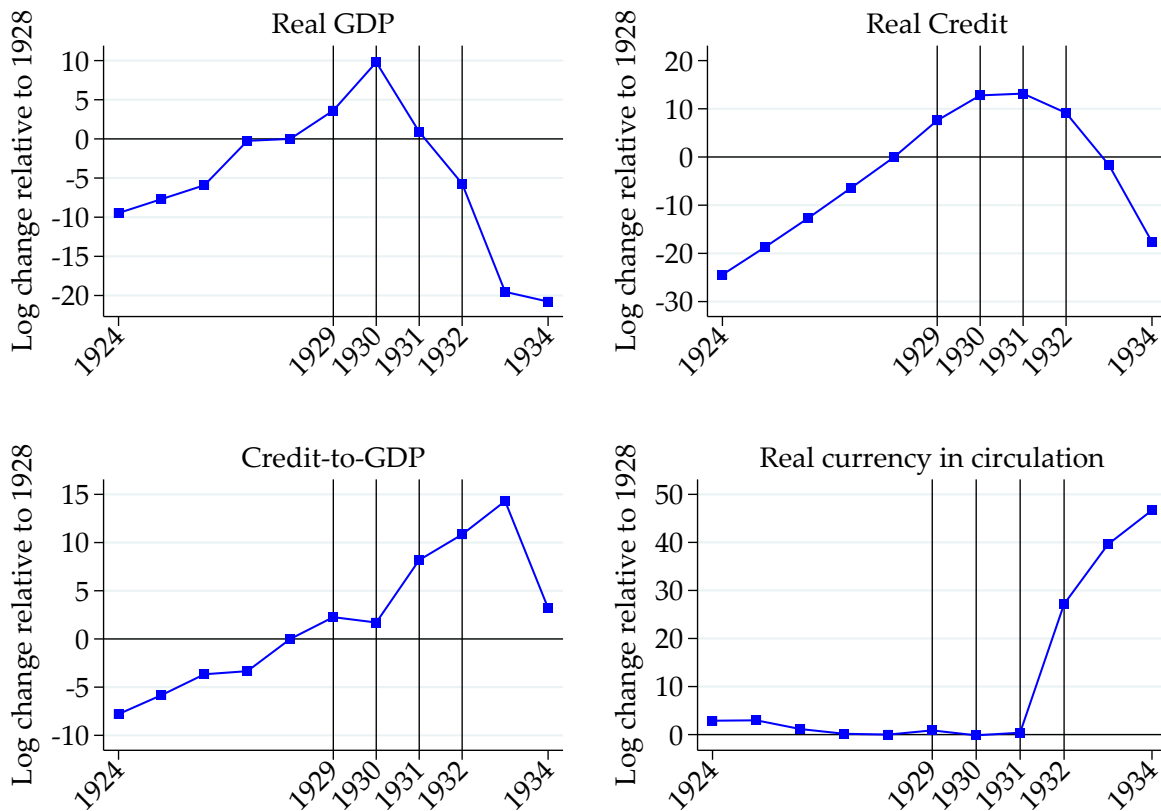
Bank runs during the Great Depression. We first study deposit flows around the four distinct bank run episodes in the wake of the Great Depression in the United States. While the bank runs in July 1929, November 1930, June 1931, and November 1932 follow each other closely, we consider them as separate run episodes. Figure A.21a plots the dynamics of deposits and currency in circulation around the various waves of bank runs.³ For a detailed description of these events, see Online Appendix B.

The first bank runs took place in July 1929, three months before the Great Crash in October 1929, when there were widespread runs in the Florida banking system due to the citrus crop failure. While we find limited changes in key macroeconomic variables around the Florida bank runs in July 1929, there is a noticeable slowing of inflows of aggregate deposits into the banking system after a longer expansionary phase. The month after Black Thursday in October 1929 marks a short period of inflows of demand deposits that reversed in 1930, turning into a total decline of about 5% until the end of 1930. It is not until November 1930 that we observe a contraction in total deposits, mainly because time deposits remained stable.

In November 1930, depositors ran on the bank Caldwell and Company of Nashville,

³Note that we do not have monthly data on real outcomes and credit. Figure A.20 shows output losses, credit, and real currency in circulation around the bank runs during the Great Depression at annual frequency.

Figure A.20: U.S. Macroeconomic Variables Around the Great Depression



Notes: The figure visualizes the path of real GDP, real credit, credit-to-GDP, and the real total currency in circulation around the four bank runs during the period of the Great Depression in the United States. The first wave of runs in 1929 within the banking system of Florida is visualized as a solid vertical line. The second wave of bank runs started with the run on the bank Caldwell and Company of Nashville in 1930, the third wave of bank runs started in Chicago in 1931, and the fourth wave of bank runs started in 1932. All events are marked as solid vertical lines. The data on real currency in circulation is obtained from FRED.

which was the starting point of widespread runs on multiple banks across the United States. This run event is visualized as an orange dashed line in Figure A.21a. After six months of relative calm between January 1931 and June 1931, a new wave of bank runs started in Chicago in June 1931, subsequently spreading across the entire United States. These two run episodes were accompanied by a massive contraction of deposits by more than 35% relative to mid-1929, and deposits only stabilized around this lower level in mid-1932. Immediately following the runs, and corresponding quantitatively to the outflow of deposits, there was an increase of currency in circulation, with annual growth rates in excess of 20% in 1931. This indicates that depositors withdrew their money in exchange

for cash.

November 1932 saw a fourth wave of bank runs following concerns about a devaluation of the dollar after the election of Franklin D. Roosevelt. Figure A.21a visualizes these runs with an orange dotted line. Again, we observe a strong decline in all types of deposits and an additional sharp increase in currency in circulation.

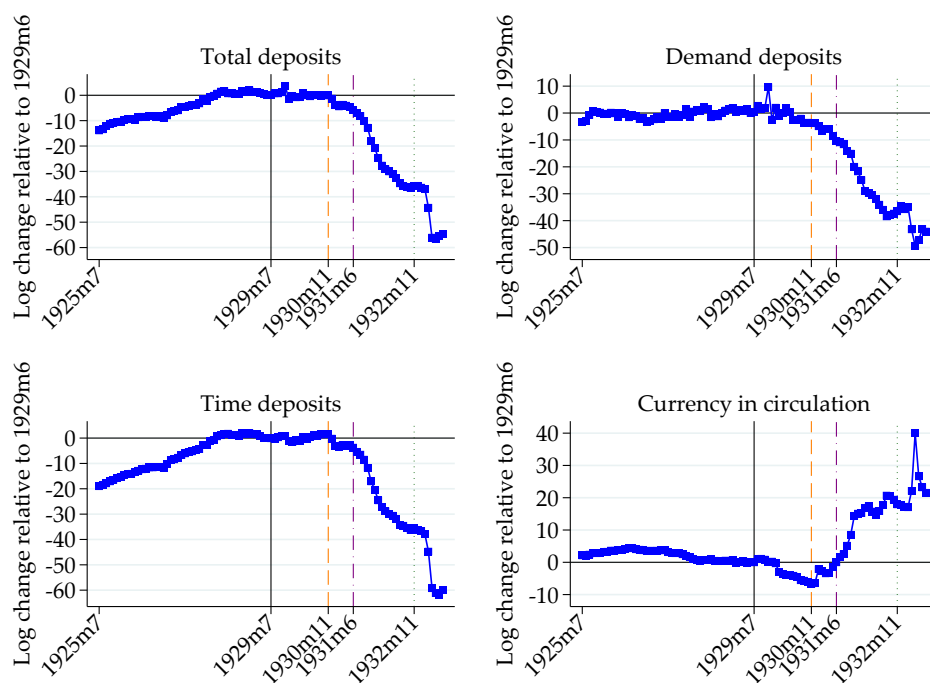
A key takeaway from the bank runs during the Great Depression is that runs can be preceded by a slowing of deposit inflows, or even an outflow of aggregate deposits, starting multiple months before the actual run events unfold. Bank runs are then followed by more severe contractions far surpassing the previous slowing of inflows. The increase in currency in circulation indicates that depositors flee into assets they perceive to be safer. In the specific setting of the Great Depression, it is unlikely that this increase in nominal currency in circulation is due to inflation, as the period from 1930 to 1932 was rather characterized by deflationary pressure. As depicted in Figure A.20, real currency in circulation increased even more in 1932. Our interpretation is instead that the increase in cash holdings is due to a depositor panic.

Modern-day runs. Next, we turn to two more recent bank run episodes as case studies of bank runs under the existence of a deposit insurance fund. First, we focus on the run on Silicon Valley Bank in March 2023. We visualize the aggregate flow of funds around the run in Figure A.21b. We find that the run was preceded by a withdrawal of time deposits starting around four months prior. Precisely one month before the run, we observe a withdrawal of demand deposits that accelerated in March 2023 when the run on Silicon Valley Bank occurred. Within a one-year time window around the run, total deposits declined by around 10% from peak to trough. We also observe a strong inflow into money market fund shares from both firms and households starting in the first quarter of 2023, the quarter of the Silicon Valley Bank run. Prior to the run, we observe that firms had reduced their money market fund positions. This U-shaped pattern lends support to the idea that the run on Silicon Valley Bank was a significant driving force underlying the inflow into money market mutual funds. See also Cipriani et al. (2024) for a high-frequency analysis of the 2023 regional banking crisis using daily data.

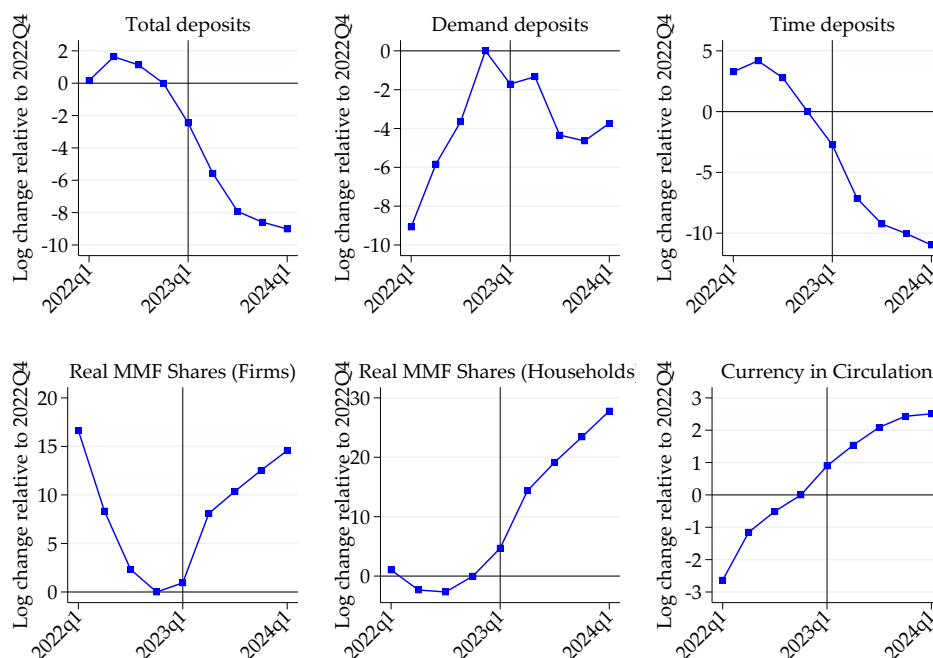
We also investigate an episode of two runs that occurred in the early 1990s. In January 1991, the Bank of New England faced a mass withdrawal of deposits. In Figure A.22, we plot the aggregate patterns of deposits, mutual fund shares, and currency holdings relative to the fourth quarter of 1990, the quarter before the run started. Demand deposits were already contracting around a year before the run on Bank of New England started, which was then accompanied by a clear further drop in time deposits. This further contraction

Figure A.21: Flight to Safety During Runs: The Great Depression vs. Silicon Valley Bank

(a) The Great Depression

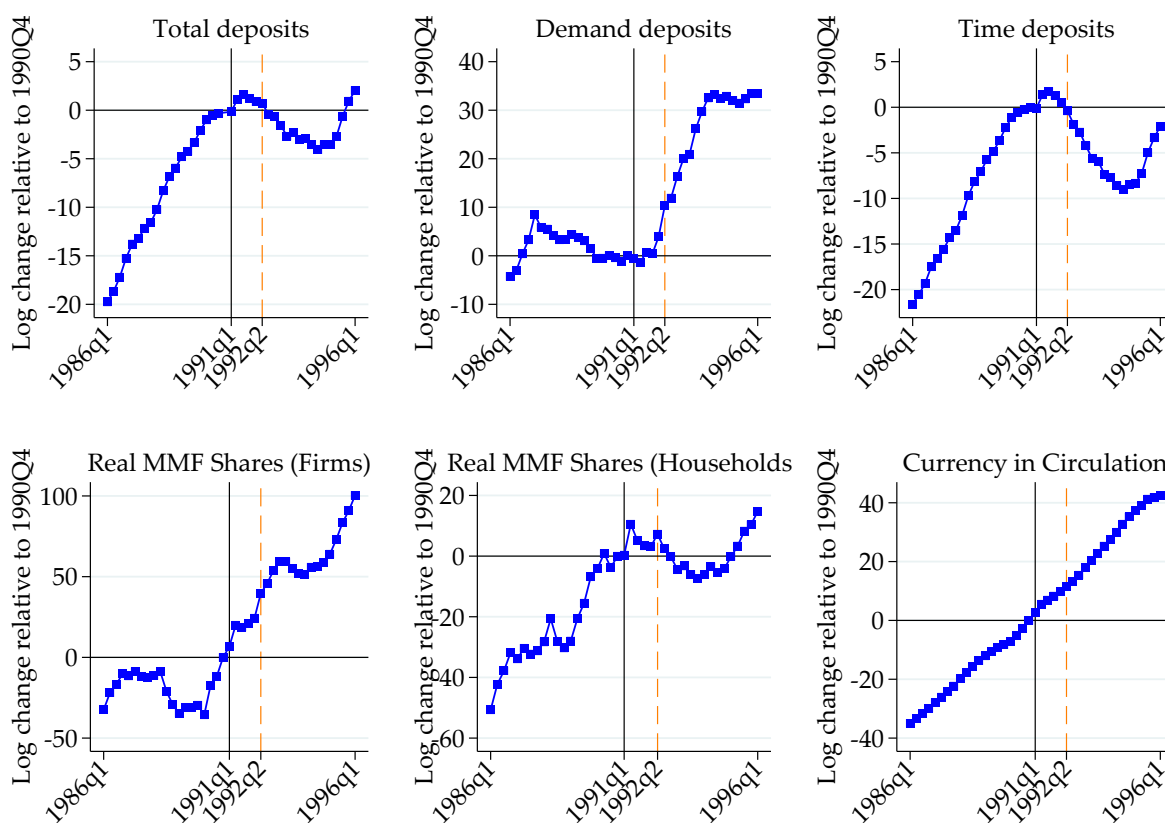


(b) The 2023 Run on Silicon Valley Bank



Notes: These figures visualize different measures of deposits, currency in circulation, and money market fund shares around bank runs during the Great Depression (Panel (a)) and on Silicon Valley Bank in 2023 (Panel (b)). For the Great Depression, the first wave of runs in July 1929 in Florida is visualized as a solid black line. The second wave of bank runs started with the run on the bank Caldwell and Company of Nashville in November 1930, marked as a dashed (orange) vertical line. The third bank run episode started in June 1931 in Chicago, marked as a dotted-dashed (purple) vertical line. The fourth wave of bank runs started in November 1932, marked as a dotted (orange) line. The run on Silicon Valley Bank is indicated by a solid black line in 2023Q1.

Figure A.22: The 1991 Run on the Bank of New England

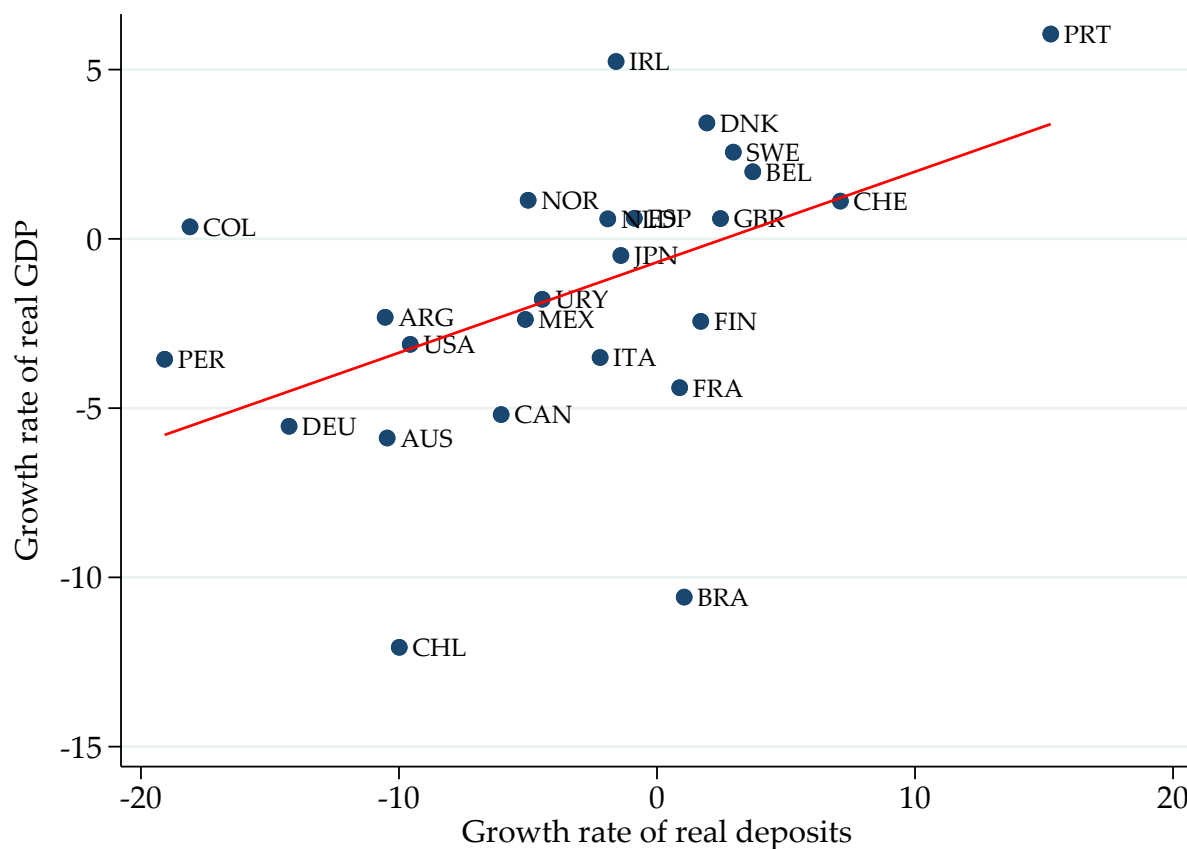


Notes: The figure visualizes the path of the following U.S. financial aggregates around the run on the Bank of New England in 1991: total deposits, demand deposits, time deposits, money mutual fund shares, and currency in circulation. The run event is shown as a solid vertical line in 1991Q1. In 1992Q2, there was a second bank run on the Metro North State Bank, marked as a dashed (orange) vertical line. The quarterly U.S. data are obtained from FRED, as described in Section A.11.

was likely amplified by a second bank run on Metro North State Bank in April 1992, indicated as an orange dashed line, following rumors that the bank would be closed by regulators. Strikingly, the deposit contraction is driven entirely by time deposits while demand deposits increase, as do firms' holdings of money market fund shares. Perhaps because of its lesser role relative to the Great Depression, we find limited movement in the amount of currency in circulation.

A.12 Case Study: The Great Depression Around the Globe

Figure A.23: Real Deposit Flows and Real GDP During the Great Depression



Notes: This figure plots the mean growth rate of real GDP against the growth rate of real total deposits for the period of the Great Depression (1929-1931).

A.13 Conflicts and Natural Disasters

One concern with our analysis of bank runs is that major unrelated events, such as wars between countries, intra-state conflicts, or major natural disasters, may be a confounding factor. The concern is that while we document large output contractions after bank runs, part of this pattern could originate from the aforementioned political and environmental shocks rather than a panic among depositors (see, e.g., [Baron and Dieckelmann, 2022](#)). In this section, we investigate the robustness of the macroeconomic outcomes after systemic runs when controlling simultaneously for (i) inter-state wars, (ii) intra-state conflicts (e.g., civil wars), and (iii) large natural disasters.

For this purpose, we construct an indicator variable $\mathbf{1}_{i,t}^{conflicts}$ measuring whether a country experienced either inter-state or intra-state conflicts based on the “Correlates of Wars” dataset ([Sarkees and Wayman, 2010](#)). This indicator variable takes the value of one if a country i experienced a conflict in a given year t or the previous two years. We also construct an indicator variable for whether a country experienced a large natural disaster in a specific year or the previous two years, $\mathbf{1}_{i,t}^{ndisasters}$, based on the EM-DAT database ([Delforge et al., 2025](#)).

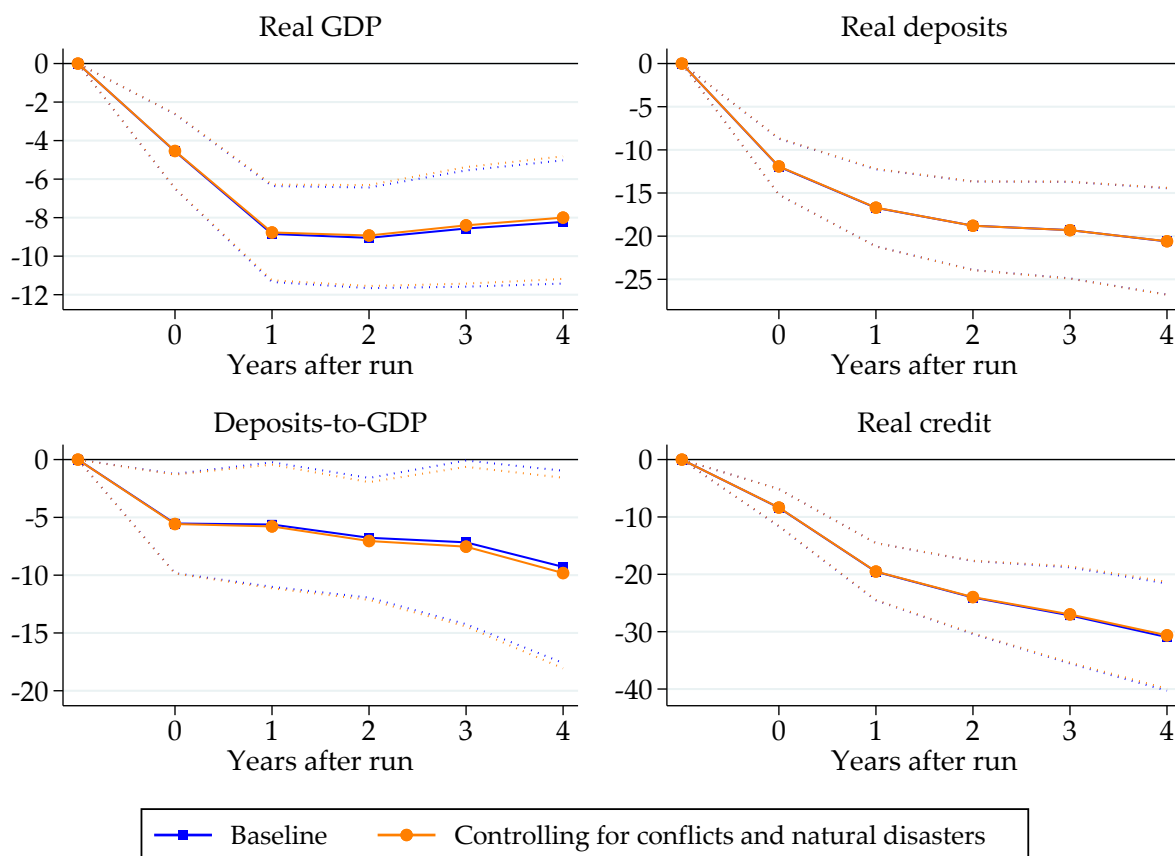
We extend the baseline local projection specification (1) from the main body of the paper by adding these indicator variables:

$$\Delta Y_{i,t+h} = \alpha_i^h + \beta^{run,h} \mathbf{1}_{i,t}^{run} + \beta^{confl,h} \mathbf{1}_{i,t}^{conflicts} + \beta^{ndis,h} \mathbf{1}_{i,t}^{ndisasters} + \sum_{k=1}^3 \gamma^{k,h} \Delta \mathbf{X}_{i,t-k} + \epsilon_{i,t}^h, \quad (\text{A.2})$$

with $h \in \{0, 1, 2, 3, 4\}$, i subscripts countries, and t years. $Y_{i,t}$ denotes an outcome of interest, such as real GDP. The indicator variable $\mathbf{1}_{i,t}^{run}$ is equal to one for any systemic bank runs in either one of the three different deposit categories: total deposits, demand deposits, or time deposits. α_i denotes country fixed effects.

Figure [A.24](#) plots the impulse responses of real GDP, real deposits, real credit, and deposits-to-GDP to a systemic bank run when controlling simultaneously for natural disasters and conflicts. There is almost no difference compared to our baseline specification.

Figure A.24: Macroeconomic Aftermath of Systemic Bank Runs—Controlling for Conflicts and Natural Disasters

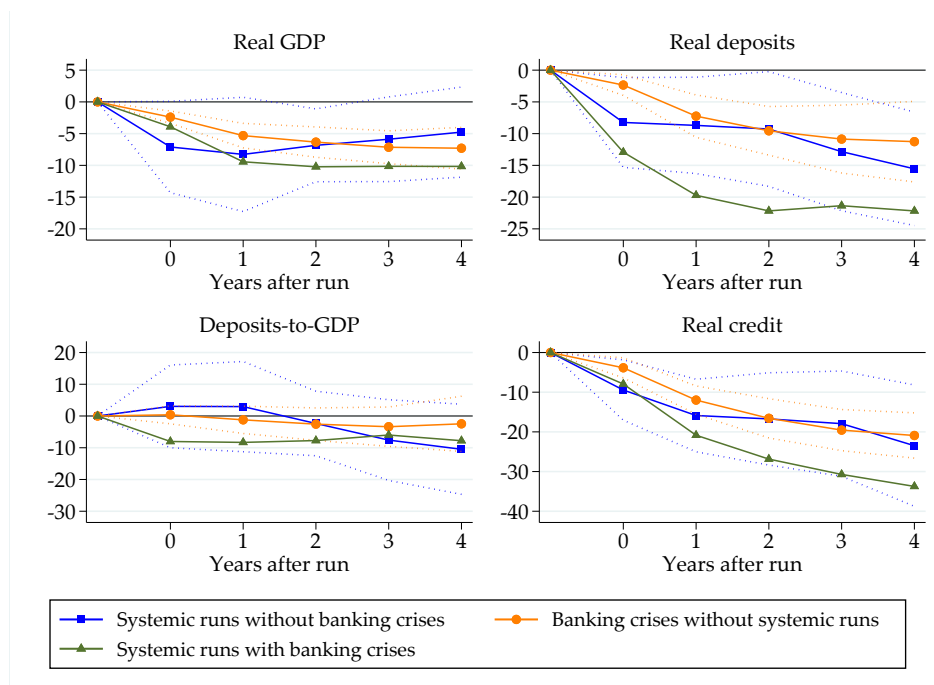


Notes: These figures plot the impulse response functions of real GDP, real deposits, real credit, and deposits-to-GDP to a systemic bank run. The estimates are based on the local projection specified in (A.2), including controls for large natural disasters and conflicts (orange lines). The blue lines depict the baseline results based on (1) from the main body of the paper, not controlling for conflicts and large natural disasters. The dotted bands depict 95% confidence bands based on standard errors double-clustered by country and year.

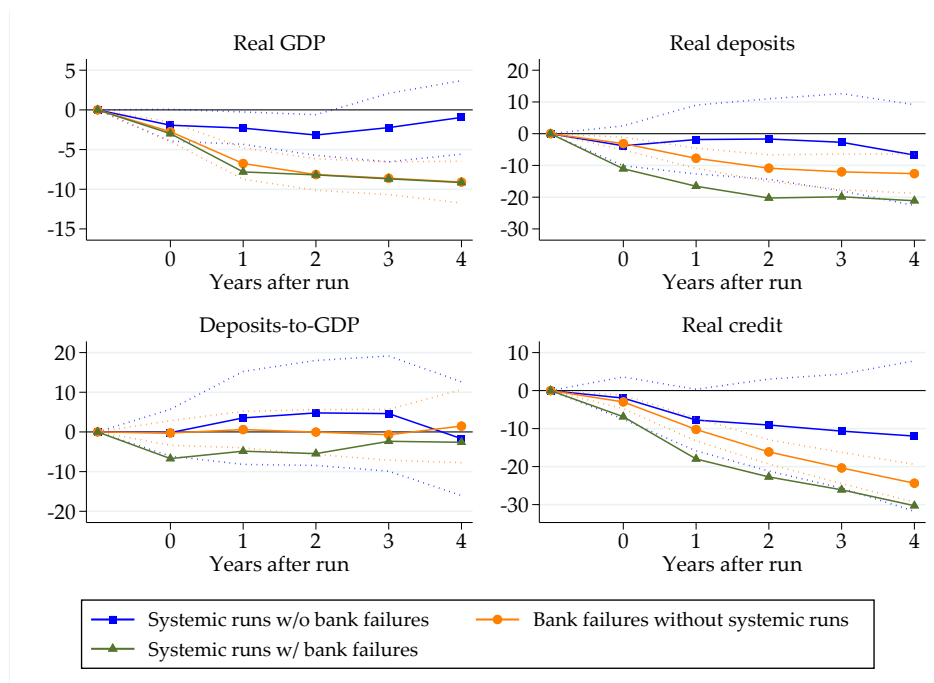
A.14 Comparing the Output Losses from Runs and Crises

Figure A.25: Macroeconomic Aftermath of Runs, Crises, and Failures

(a) Banking crises



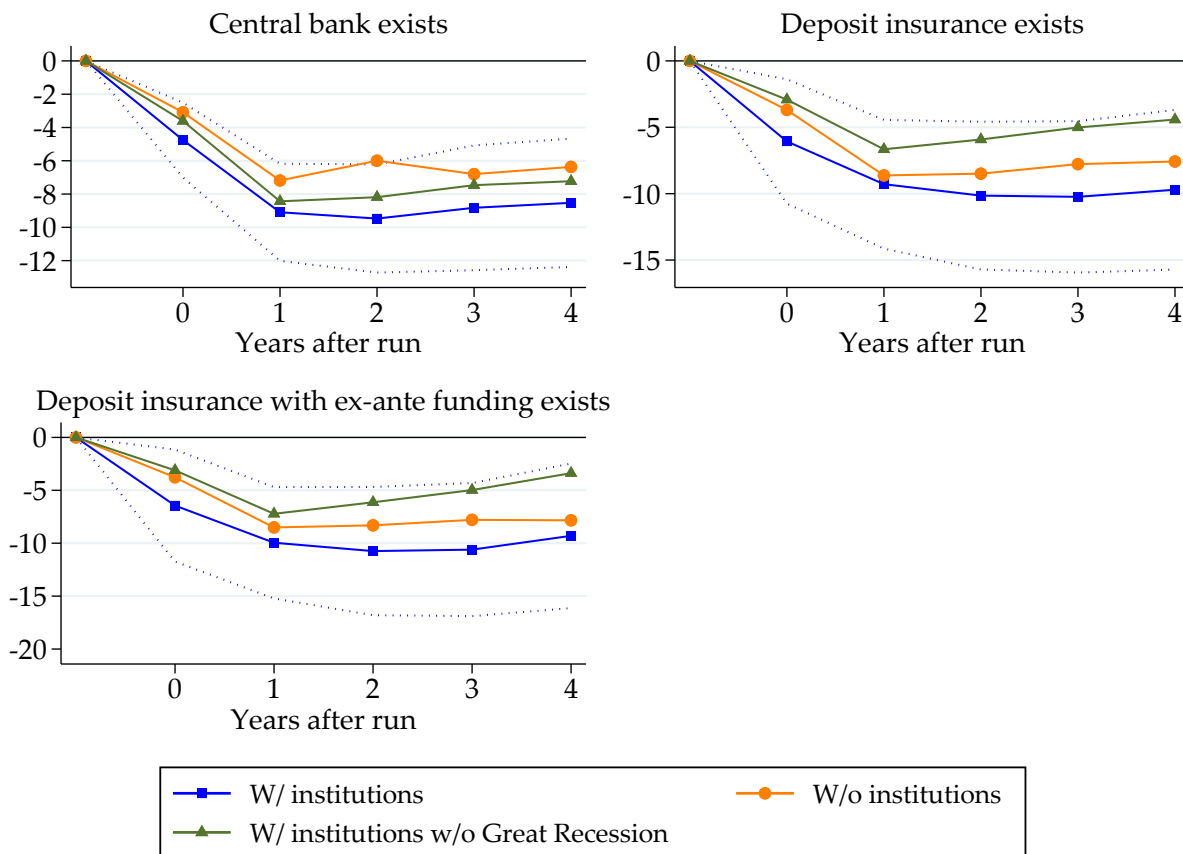
(b) Widespread bank failures



Notes: These figures plot the impulse response functions of real GDP, real deposits, real credit, and deposits-to-GDP both within and outside of episodes of low levels of bank solvency. Panel (a) focuses on the overlap of systemic bank runs with episodes of banking crises. Panel (b) focuses on the overlap of systemic bank runs with episodes of widespread bank failures based on estimations from equation (1), where each line comes from a separate regression.

A.15 Deposit Insurance, Central Banks, and Output Losses from Runs

Figure A.26: Effectiveness of Deposit Insurance and the Lender of Last Resort



Notes: These figures plot the impulse response functions of real GDP around systemic runs (orange lines) and around systemic runs when a specific institution exists (blue and green lines), based on estimating specification (4). We interact the systemic bank run indicator with one of the following institutional framework indicators: central bank existence, the existence of a deposit insurance, and the existence of deposit insurance that requires ex-ante funding. When excluding the years around the Great Recession, we exclude all observations ± 5 years around 2007 (green lines). The blue bands depict 95% confidence bands based on standard errors double-clustered by country and year.

Table A.10: Institutional Frameworks and the Likelihood of Runs—Full Sample

	Country-year-level regressions					
	$\mathbf{1}_{i,t}^{run} \in \{0, 1\}$			$\mathbf{1}_{i,t}^{sysrun} \in \{0, 1\}$		
	(1)	(2)	(3)	(4)	(5)	(6)
Central bank exists	-0.004 (0.010)			-0.013 (0.012)		
DI exists		-0.006 (0.005)			-0.010* (0.005)	
DI with ex-ante funding			-0.007 (0.007)			-0.013** (0.006)
Country-level controls	Y	Y	Y	Y	Y	Y
Country FE	Y	Y	Y	Y	Y	Y
Mean of DV	0.03	0.03	0.03	0.02	0.02	0.02
Observations	3,134	3,134	3,117	3,129	3,129	3,112
R^2	0.02	0.02	0.02	0.02	0.02	0.02
	Run-level regressions					
	$\mathbf{1}_{i,t}^{sysrun} \in \{0, 1\}$					
	(1)	(2)	(3)	(4)	(5)	(6)
Central bank exists	-0.310** (0.117)	-0.316** (0.140)				
DI exists			-0.279*** (0.089)	-0.166 (0.133)		
DI with ex-ante funding					-0.293*** (0.087)	-0.183 (0.142)
Country-level controls	N	Y	N	Y	N	Y
Country FE	Y	Y	Y	Y	Y	Y
Mean of DV	0.54	0.50	0.54	0.50	0.54	0.51
Observations	232	96	232	96	228	94
R^2	0.30	0.56	0.31	0.55	0.31	0.54

Notes: This table reports the role of institutional frameworks in (i) the likelihood of bank runs and (ii) the likelihood that runs become systemic using all observations from the full country-year sample. The top panel reports estimated coefficients from specifications (5) using the country-level sample. In columns 1–3, the dependent variable is an indicator equal to one if any bank run occurs in the country-year. In columns 4–6, the dependent variable is an indicator equal to one for narrative bank runs that are systemic (i.e., accompanied by deposit contractions) and equal to zero otherwise. The bottom panel reports estimated coefficients from specifications (6) and (7) using the sample of narrative bank runs. The unit of observation is a narrative bank run in country i and year t , and the dependent variable is an indicator equal to one if the run becomes systemic. Columns 1, 3, and 5 report estimates from (6) (without country-level controls). Columns 2, 4, and 6 report estimates from (7) (including country-level controls). *Mean of DV* reports the sample mean of the dependent variable. Predictor variables are measured at the time of the bank run. Standard errors clustered at the country level are reported in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively.

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B.1 Afghanistan

September, 2010

In 2010, Afghanistan experienced a bank run. Around \$155 million in deposits were withdrawn from Afghanistan’s largest bank in just two days. Afghan government employees, including teachers, soldiers, and policemen, lined up outside Kabul Bank branches across the country to demand their money amid rumors that Kabul Bank had violated the country’s banking laws by providing hundreds of millions of dollars in loans to influential insiders, including President Hamid Karzai and others with close ties to his government. The bank’s chairman admitted that more than \$160 million of the bank’s assets had been used to buy luxury villas and two residential towers in Dubai, according to an article on NBC News.

Sources: McLeod (2016), *The Guardian* (2011a), *NBC News* (2010), *The New York Times* (2010b), *The New York Times* (2010a)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by fraudulent behavior by the CEO of the Kabul Bank (bank-level cause).

August, 2021

In August 2021, following the collapse of the Afghan government and the Taliban takeover, the banking system experienced a severe liquidity crisis as depositors rushed to withdraw cash amid uncertainty and loss of confidence in the financial system. Banks quickly ran short of physical currency as international reserves were frozen and foreign cash shipments stopped, forcing authorities to impose strict withdrawal limits and temporary bank closures to prevent a full collapse of the financial system.

Sources: [Worldbank \(2022\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the Taliban takeover.

B.2 Albania

January, 1997

In January 1997, the collapse of several large Albanian pyramid investment schemes triggered panic among investors, causing deposits in the schemes to dry up and prompting widespread attempts to withdraw funds. As companies such as Sude, Gjallica, and others stopped making payments, the loss of confidence led to riots, the fall of the government, and severe economic disruption. The schemes' liabilities had reached roughly half of Albania's GDP, and their collapse affected a large share of the population.

Sources: [Jarvis \(2000\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The collapse of several Ponzi schemes triggered the runs.

October, 2008

In 2008, Albania experienced a bank run that wiped several hundred million euros of deposits from the banking system. The global financial crisis had previously affected the credibility of the banking system in Albania, according to [BalkanInsight \(2009a\)](#). Many experts blame the bad loans on poor lending practices in the past, arguing the global financial crisis had only exacerbated the situation. Following the collapse of Lehman Brothers in the US, Albania faced a bank run. Outstanding bank deposits fell from 700 billion leks (€5.7 billion) in September 2008 to 638 billion leks (€4.9 billion) in February 2009.

Sources: [Fullani \(2010\)](#), [BalkanInsight \(2009a\)](#), [BalkanInsight \(2009b\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by bad loans, poor lending behavior, and the spillovers of the Global Financial Crisis on Albania.

B.3 Algeria

March, 2003

In March 2003, the collapse of Khalifa Bank, Algeria's largest private bank, triggered a wave of depositor withdrawals amid revelations of massive fraud and mismanagement within the Khalifa Group. Depositors reallocated deposits away from private banks toward foreign and public banks ([International Monetary Fund, 2004](#)). Authorities placed the bank under administration and later revoked its license.

Sources: [International Monetary Fund \(2014\)](#), [Special Immigration Appeals Commission \(2011\)](#), [International Monetary Fund \(2004\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by fraud and mismanagement within Khalifa Bank.

B.4 Andorra

March, 2015

In March 2015, the U.S. Treasury's Financial Crimes Enforcement Network (FinCEN) designated Banca Privada d'Andorra (BPA) a financial institution of "primary money-laundering concern," triggering a loss of confidence among depositors. Authorities intervened in the bank and imposed withdrawal limits as clients rushed to withdraw funds, while the crisis spread to its Spanish subsidiary Banco Madrid, which suffered large deposit withdrawals and entered insolvency proceedings.

Sources: [Financial Crimes Enforcement Network \(2015\)](#), [Reuters \(2015\)](#), [Associated Press \(2015\)](#), [El País \(2015\)](#), [Buckingham et al. \(2019\)](#)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

B.5 Antigua

February, 2009

In 2009, the Bank of Antigua suffered a classic bank run in February 2009. Hundreds of customers lined up outside the bank to withdraw their money. Texas billionaire Allen

Stanford and his Bank of Antigua were under investigation for an \$8 billion fraud. The US Securities and Exchange Commission (SEC) filed civil charges against Stanford for what it called a fraud “of shocking proportions” in the sale of \$9.2 billion in securities that “promised ... improbably high interest rates”, according to a report of [CNN \(2009\)](#).

Sources: [International Monetary Fund \(2010a\)](#), [CNN \(2009\)](#), [The Guardian \(2009\)](#), [Reuters \(2009a\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the detected bank-level fraud case at the Bank of Antigua.

B.6 Argentina

May, 1876

In 1876, Argentina experienced a severe bank run, primarily in Buenos Aires and Santa Fe. The crisis led the Banco de La Provincia to suspend the convertibility of its notes, reflecting a deep liquidity crisis. At the same time, the Rosario government liquidated the local branch of the London Bank. In response to these financial upheavals, the Argentine government declared the notes of Banco Nacional and Banco de la Provincia as legal tender, an emergency measure to restore financial stability.

Sources: [Metrick and Schmelzing \(2021\)](#), [Goodhart and Delargy \(1998\)](#)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

March, 1890

In March 1890, Argentina experienced bank runs. Banco Nacional, Italian Bank of the River Plate, Banco de La Provincia de BA, and Banco Hipotecario Nacional failed. By 1890, Argentina was heavily indebted and unable to roll over existing debt, most of which was only repayable in gold. A severe public debt crisis ensued. In the first quarter of 1890, the Banco de La Provincia and the Banco Nacional were hit by a run that finally triggered a full-fledged banking crisis. In 1891, the Bank of the River Plate suffered severe runs and later failed. The Bank of the River Plate also suffered a run, but received liquidity from Baron Rothschild, as described by [Baron et al. \(2021\)](#).

Sources: Baron et al. (2021), Metrick and Schmelzing (2021), Reinhart and Rogoff (2009), Mitchener and Weidenmier (2008), Goodhart and Delargy (1998)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the Argentine debt crisis.

July, 1914

In July 1914, Argentina experienced bank runs when the outbreak of the war at the end of July 1914 was accompanied by a dramatic flight to liquidity around the globe. Many Argentine banks faced severe pressure as international depositors demanded liquidity. According to Nakamura and Zarazaga (2001), “total deposits at Argentine banks fell by nearly 20 percent. The brunt of the hardship fell on the private banks, which lost over 45 percent of their deposits.” The crisis was precipitated by a land price boom fueled by heavy speculation and increasing private indebtedness. Large amounts of credit were extended by European banks. Banco Frances failed in August 1914 (Lough and Field, 1916). In 1912, depositors started to withdraw up to 20% of total deposits from banks in response to real economic disturbances (Nakamura and Zarazaga, 2001). Paolera and Taylor (2001) call this crisis “the worst recession in Argentine history” (p. 190), as described in Baron et al. (2021).

Sources: Baron et al. (2021), Nakamura and Zarazaga (2001), Paolera and Taylor (2001), Lough and Field (1916)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the real economic disturbances in 1912 and the outbreak of World War I in 1914.

September, 1934

In 1934, Argentina experienced bank runs. There was a government-induced merger of four smaller banks after these runs, according to Metrick and Schmelzing (2021)’s description. The book “The Political Economy of Argentina in the Twentieth Century” by Cortés (2009) dates bank runs to have occurred in July 1934.

Sources: Metrick and Schmelzing (2021), Baron et al. (2021), Laeven and Valencia (2018), Cortés (2009)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

March, 1980

In March 1980, Argentina experienced bank runs following the failure of the Banco de Intercambio Regional, according to the description of [Reinhart and Rogoff \(2009\)](#). Banco de Intercambio Regional, Banco de los Andes, Banco Oddone, Banco International, and at least 64 more banks failed.

Sources: [Baron et al. \(2021\)](#), [Laeven and Valencia \(2018\)](#), [Sims and Romero \(2013\)](#), [Reinhart and Rogoff \(2009\)](#), [Baliño \(1991\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of the Banco de Intercambio Regional.

May, 1985

In May 1985, Argentina experienced bank runs when the first half of the 1980s saw an inflation and public debt crisis that forced the government to adopt drastic reform measures in 1985, known as the “Plan Austral”. In late 1983, Argentina received IMF loans, but these were suspended in March 1985 when Argentina failed to meet several economic targets. The resulting economic turmoil and hyperinflation led to severe banking distress and bank runs, forcing the Central Bank of Argentina to close several banks in May 1985. As a result, dollar deposits were frozen for 120 days.

Sources: [Baron et al. \(2021\)](#), [Sims and Romero \(2013\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the debt crisis and hyperinflation.

April, 1989

In April 1989, Argentina experienced bank runs. [Laeven and Valencia \(2018\)](#) say this was a banking crisis and date the panic to December 1989 when deposits were frozen. Stabilization policies caused a public debt crisis and hyperinflation that resulted in major bank distress ([Beckerman, 1992](#)). As a result, “nonperforming assets accounted for 27

percent of the aggregate portfolio and 37 percent of the portfolios of state banks. Failed banks held 40 percent of financial system assets”, according to the description in [Baron and Dieckelmann \(2022\)](#).

Sources: [Baron and Dieckelmann \(2022\)](#), [Laeven and Valencia \(2018\)](#), [Sims and Romero \(2013\)](#), [Beckerman \(1992\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run coincided with a public debt crisis.

January, 1995

In 1995, Argentina experienced bank runs. Following the devaluation of the Mexican peso in late 1994, there was a wave of uncertainty concerning the sustainability of the currency board in Argentina. This uncertainty, in turn, led to widespread deposit runs and large capital outflows. Peso deposits fell by more than 15 per cent between late December and January 1995. Private sector deposits were used to fund illiquid banks via public Banco de la Nación. Throughout this episode, at least 40 banks failed (almost one third of total banks).

Sources: [Baron et al. \(2021\)](#), [Laeven and Valencia \(2018\)](#), [Guidotti et al. \(2016\)](#), [Reinhart and Rogoff \(2009\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the currency devaluation.

June, 2001

In mid-2001, Argentina had accumulated significant fiscal imbalances and was experiencing competitiveness problems following the Brazilian crisis. The restructuring of public debt and the announcement of a change in the parity under the convertibility plan (from a peg to the dollar to a basket of the US dollar and the euro) triggered bank runs, which intensified in the second half of the year, leading to a deposit freeze, a bank holiday, riots and major political instability in December 2001, as described by [Laeven and Valencia \(2018\)](#).

Sources: [Laeven and Valencia \(2018\)](#), [Guidotti et al. \(2016\)](#), [Ennis and Keister \(2009\)](#), BBC

(2001a), [BBC \(2001b\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the fiscal problems of the Argentine government.

August, 2019

Following the shock result of the August 11, 2019, primary elections, fears of currency depreciation and financial instability triggered a sharp withdrawal of dollar deposits from Argentine banks. Depositors withdrew roughly \$11.8 billion of total dollar deposits, as savers moved funds out of the banking system amid rising uncertainty. Despite these large outflows, banks remained liquid, and the authorities imposed capital controls to stabilize markets and limit further pressures.

Sources: [Pinto \(2019\)](#), [Bloomberg \(2019b\)](#), [Bloomberg \(2019a\)](#), [Grupo Clarín \(2019\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the fear of currency depreciation following the Argentinian primary elections in August 2019.

B.7 Australia

December, 1828

In 1828, Australia experienced a run on the Bank of New South Wales, and the bank sought government assistance. In late 1827 and early 1828, divisions among the Bank of New South Wales's management and shareholders further undermined the bank and public confidence in it. In its weakened state, the Bank of New South Wales was ill placed to withstand the colony's slide into depression in late 1827, according to [Fitz-Gibbon and Gizycki \(2001\)](#).

Sources: [Metrick and Schmelzing \(2021\)](#), [Fitz-Gibbon and Gizycki \(2001\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the slide into depression in 1827, that the bank was not able to withstand.

December, 1842

In 1842, Australia experienced bank runs when the Colonial Bank's losses in the first half of 1842 led its owners to question whether the bank should be wound up. This triggered a run that cut the bank's note circulation by half and deposits by a third. In an environment where shareholders themselves were under pressure to get cash, they opted to cut their losses and close the bank. In early 1843, the Port Phillip Bank and the Sydney Banking Company failed. In each case, note holders and depositors were quickly repaid. The panic reemerged in May 1843, when the Savings Bank of New South Wales experienced a bank run because of rumors that the Governor, after examining the bank's securities, had declared them to be worthless (Fitz-Gibbon and Gizycki, 2001). There was also concern that the trustees had lost money in the failure of the Bank of Australia.

Sources: Fitz-Gibbon and Gizycki (2001)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by heavy bank losses and an aggregate environment in which shareholders themselves were under pressure.

July, 1866

In 1866, news of the Overend, Gurney crisis in Britain triggered widespread depositor withdrawals in Brisbane, with generalized runs on banks, particularly government-backed savings banks. The Bank of Queensland, which held about 15% of the colony's deposits, suspended operations amid the panic, though the Colonial Treasurer's public assurances helped stabilize confidence and contain the broader run. The bank was later liquidated, and all depositors were repaid by July 1867.

Sources: Fitz-Gibbon and Gizycki (2001)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The spillovers of the collapse of Overend, Gurney and Co. in Britain triggered the run.

June, 1879

In June 1879, the suspension of the Australian and European Bank in Melbourne triggered widespread alarm and crowds gathering at the bank's offices, as news of its closure spread rapidly through the city. The failure was linked to financial weakness and the inability to

secure emergency advances to strengthen reserves, raising fears of a depositor run. The panic spread to the City of Melbourne Bank, where depositors began withdrawing funds, but the run subsided after the Associated Banks publicly declared their willingness to support the bank and meet its obligations.

Sources: *The Argus* (1879), Fitz-Gibbon and Gizycki (2001)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the financial weakness of the Australian and European Bank.

May, 1884

In May 1884, news that the Oriental Bank Corporation had suspended payments after heavy losses abroad triggered concern among depositors in Australia. The collapse was attributed to large losses in overseas operations and declining reserves that undermined the bank's credit.

Sources: Fitz-Gibbon and Gizycki (2001), Ovens and Murray Advertiser (1884), The Camperdown Chronicle (1884)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. Heavy losses of the Oriental Bank triggered the run.

December, 1891

In December 1891, Australia experienced bank runs, causing the failure of the Metropolitan Bank and the Standard Bank of Australasia. The runs were preceded by a collapse in house prices and agricultural depositors withdrawing deposits to meet their obligations (Goodhart and Delargy, 1998).

Sources: Goodhart and Delargy (1998)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by a collapse in house prices and deposit withdrawals to meet debt obligations.

April, 1893

In April 1893, the London Chartered Bank of Australia suffered a £300,000 bank run as part of the 1893 banking crisis. This run caused the bank to close abruptly on 26 April, although it was generally considered to be in a satisfactory position and had just announced a proposed dividend. A voluntary winding-up order was granted in London in mid-May, while discussions on reconstruction continued. The process of negotiating and approving a reconstruction plan, which would see a new institution, the London Bank of Australia, take over the assets, liabilities and operations of the Bank, continued through June and July. It reopened under the new name and structure in Australia on 7 August and in London on 8 August, according to [The Sydney Morning Herald \(1893c\)](#).

Sources: [Reinhart and Rogoff \(2009\)](#), [Goodhart and Delargy \(1998\)](#), [The Sydney Morning Herald \(1893a\)](#), [The Sydney Morning Herald \(1893b\)](#) [The Sydney Morning Herald \(1893c\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the 1893 banking crisis in Great Britain.

April, 1931

In April 1931, Australia experienced bank runs amid a balance of payments crisis, according to the description of [Baron and Dieckelmann \(2022\)](#). The Federal Deposit Bank and State Savings Bank of Western Australia suffered runs following a run on another government savings bank.

Sources: [Baron and Dieckelmann \(2022\)](#), [Cava and Price \(2021\)](#), [Fitz-Gibbon and Gizycki \(2001\)](#), [The Advertiser \(1931\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by a balance of payment crisis.

October, 1974

In October 1974, the failure of multiple property financiers precipitated runs on building societies in several states, particularly in South Australia and Queensland.

Sources: [Metrick and Schmelzing \(2021\)](#), [Fitz-Gibbon and Gizycki \(2001\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of property financiers.

September, 1977

In September 1977, the Queensland Permanent Building Society failed after suffering a run. The run was triggered after several Queensland building societies experienced losses due to bad loans.

Sources: Fitz-Gibbon and Gizycki (2001)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of building societies and bad loans.

March, 1979

In March 1979, the St. George Permanent Building Society experienced a bank run. The run was triggered by a radio broadcast spreading rumors of its imminent collapse.

Sources: Fitz-Gibbon and Gizycki (2001)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

February, 1989

In 1989, Australia experienced runs on several non-bank institutions. The banking industry experienced its worst losses since the 1890s. The State Bank of Victoria and the State Bank of South Australia suffered large losses, and state governments provided significant capital injections in the resolution of these problems, according to the description in Baron and Dieckelmann (2022). Several banks began to suffer large depositor withdrawals, but the Reserve Bank issued statements declaring that it believed the banks were generally safe and that it was prepared to intervene to provide “liquidity” and deposit guarantees, which then effectively stopped the runs.

Sources: Baron and Dieckelmann (2022), Dieckelmann (2021)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by heavy losses within the entire banking sector.

B.8 Austria

March, 1848

In March 1848, amid the revolutionary upheavals, confidence in the monetary system collapsed, and noteholders rushed “in crowds” to the Austrian National Bank to redeem banknotes for specie, reducing its coin reserve from about 70 million to 35 million florins within days (Conant, 1915). Driven by political instability and fears over government finances and convertibility, this run forced the authorities to suspend specie payments in June 1848 and grant legal tender status to banknotes.

Sources: Conant (1915), Österreichische Nationalbank (n.d.)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the 1848 revolution and the following loss of confidence in the financial system of Austria.

May, 1873

In May 1873, Austria experienced bank runs with massive depositor withdrawals according to the description in Baron and Dieckelmann (2022). The number of banks and banking firms dropped from 141 in 1873 to 45 in 1878. Depending on the source, it is reported that up to 100 banks failed or disappeared during this time. This is the well-known “Gründerkrach” banking crisis. Reinhart and Rogoff (2009) date it to May 1873. Jobst and Rieder (2016) reports massive depositor withdrawals and bank runs.

Sources: Baron and Dieckelmann (2022), Jobst and Rieder (2016), Rieder (2014), Reinhart and Rogoff (2009), Goodhart and Delargy (1998)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by a stock market crash and a high number of defaulting borrowers (Jobst and Rieder, 2016).

May, 1924

In May 1924, Austria experienced a bank run when the Allgemeine Depositenbank ran into difficulties due to speculation on the French franc, which led to its liquidation after heavy withdrawals. Some 40,000 savers lost part of their deposits according to the description of [Baron and Dieckelmann \(2022\)](#) and [Eigner et al. \(2018\)](#). [The League of Nations \(1931\)](#) dates the failure of the Allgemeine Depositenbank to 1923. However, since the cause of the failure was the speculations on the French Franc ([Baron and Dieckelmann, 2022](#); [Eigner et al., 2018](#); [Time Magazine, 1924](#)) and the speculation took place in the winter of 1923/24 ([Eichengreen, 1982](#)), we date the run to 1924. The Austro-Polnische Bank, Austro-Orientbank, and the private Union Bank failed. Later, in 1927, Unionbank and Verkehrsbank failed and were merged with Creditanstalt. Biedermannbank failed in 1927. In 1924, the number of joint stock banks in Vienna dropped from 66 to 36.

Sources: [Baron and Dieckelmann \(2022\)](#), [Kangas \(2019\)](#), [Eigner et al. \(2018\)](#), [Time Magazine \(1924\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run cause was specific to the speculation on the French Franc in winter 1923/24, which the Allgemeine Depositenbank was engaged in.

October, 1929

In 1929, the Allgemeine Bodencreditanstalt, Austria's second-largest bank, became insolvent after absorbing the troubled Unionbank and suffering large depositor withdrawals amid growing doubts about its solvency ([Eigner and Melichar, 2008](#)). Creditanstalt took over the failing bank, creating an even larger bank intended to stabilize the financial system. However, the forced absorption transferred large hidden losses to Creditanstalt and later became a major contributing factor to its collapse in May 1931, which triggered the broader Austrian banking crisis.

Sources: [Eigner et al. \(2018\)](#), [Jobst and Rieder \(2016\)](#), [Eigner and Melichar \(2008\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run on Allgemeine Bodencreditanstalt was caused after absorbing the troubled Unionbank.

May, 1931

In 1931, Austria experienced a bank run. When Creditanstalt, the country's largest bank, announced financial difficulties, foreign creditors and domestic depositors started a run on the bank. With all potential sources of liquidity exhausted, the only remaining source was the state. Bodencreditanstalt, the second largest bank, failed in 1929 and was merged with Creditanstalt. When it became clear to the management of Creditanstalt in early 1931 that the pyramid scheme that the Austrian banking sector had become could no longer be sustained, they turned to the authorities for support. They did not do so because they had lost the confidence of their foreign or domestic creditors and depositors, and the flight of capital had triggered this reaction. They were forced to do so because there was no new liquidity behind which to hide the years of insolvency. Creditanstalt failed on May 11, 1931.

Sources: Baron and Dieckelmann (2022), Kangas (2019), Bernanke and James (1990), Kindleberger (1986)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by substantial aggregate problems in the Austrian banking sector in the late 1920s.

B.9 Bahrain

August, 1990

In August 1990, Bahrain experienced significant deposit withdrawals due to the Iraqi invasion of Kuwait and the cutting of vital Western and Japanese credit lines. In Bahrain, private customers are believed to have sent abroad 30 to 40 percent of their deposits in commercial banks, or \$1.1 billion to \$1.5 billion, according to *The New York Times* (1990)

Sources: *The New York Times* (1990)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the invasion of Kuwait.

B.10 Bangladesh

April, 2024

In April 2024, a series of shocks triggered a prolonged loss of confidence in Bangladesh's banking system. In April, the government's announcement of forced mergers of weak banks sparked panic withdrawals at BASIC Bank and National Bank, with depositors withdrawing about Tk 2,000 crore within days. Following the July political upheaval and the fall of the government, concerns about banks linked to the S Alam Group led to a broader wave of withdrawals, as depositors shifted funds to safer institutions. By August, 11 banks had lost around Tk 23,700 crore in deposits, prompting central bank liquidity support and government intervention.

Sources: [The Daily Star \(2025\)](#), [The Daily Star \(2024a\)](#), [The Daily Star \(2024b\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the July political upheaval and the announcement of forced mergers of weak banks.

B.11 Belarus

May, 2011

In 2011, a severe currency crisis triggered mass withdrawals from Belarusian banks as depositors rushed to convert savings from rubles into foreign currency amid fears of devaluation. In May 2011 alone, depositors withdrew about \$469 million (12.6% of total foreign-currency deposits), and withdrawals during the spring totaled \$969 million (26% of FX deposits) as the ruble rapidly lost value and inflation surged.

Sources: [The Washington Post \(2011\)](#), [Cyrus et al. \(2012\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by a currency crisis.

August, 2020

In August 2020, disputed presidential elections and the ensuing political crisis triggered panic withdrawals from Belarusian banks as depositors sought hard currency. ATMs and exchange offices in Minsk quickly ran out of dollars as citizens queued to withdraw

savings, causing widespread liquidity shortages across banks and forcing institutions to restrict lending.

Sources: IntelliNews (2021), The Banker (2021)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the disputed presidential election.

B.12 Belgium

December, 1838

In 1838, Belgium experienced a significant bank run that primarily affected the Banque de Belgique, the country's second largest financial institution. This crisis, triggered by the threat of war with the Netherlands and exacerbated by the Banque de Belgique's mismanagement of its note issuance and investments in illiquid assets, reached a critical point in December 1838. Unable to redeem its bank notes during the panic, the bank was compelled to suspend payments on December 17, 1838, and subsequently had to close its doors. Troops were deployed amid fears of the bank being plundered by angry depositors (Buyst and Maes, 2008). The government eventually stepped in with a bailout to prevent the bank's liquidation. Accordingly, we classify this episode as a bank run, in alignment with the view of Ugolini (2021).

Sources: Ugolini (2021), Mardini and Schuler (2014), Reinhart and Rogoff (2009), Buyst and Maes (2008)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the threat of war between the Netherlands and Belgium.

February, 1848

The revolutionary crisis in France triggered a loss of confidence in Belgium's banking system, leading to runs on major commercial banks and severe liquidity pressure. The value of Société Générale's bank notes fell by more than one third (Buyst and Maes, 2008). To stabilize the system, the government suspended the convertibility of banknotes and granted them legal-tender status.

Sources: Buyst and Maes (2008)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the 1848 revolution in France and the subsequent loss of confidence in Belgium's banking system.

1870

In 1870, Belgium experienced a bank run triggered by fears of war between France and Prussia. The Belgian Finance Minister and the governor of the National Bank of Belgium (NBB) hastily relocated the bank's metal reserves, inciting a public panic. This led to a surge of people demanding to convert their notes into coins at the NBB, which reacted by closing most of its counters and significantly reducing discount transactions, causing widespread public outrage.

Sources: Buyst and Maes (2008)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the war between France and Prussia.

July, 1914

In 1914, Belgium experienced bank runs when the country's invasion by German troops caused panic and a significant demand for cash. The result of this panic was people losing faith in banknotes and wanting to exchange them for coins, causing a run on National Bank branches in late July 1914, according to Luyten (2014).

Sources: Baron and Dieckelmann (2022), Dieckelmann (2021), Luyten (2014)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by World War I.

1925

In 1925, Belgium experienced a bank run triggered by fears of currency devaluation. This crisis was compounded by the continued depreciation of the Belgian franc, which led to severe financing issues for firms and banks, prompting the government to secure loans in

US dollars to back the faltering currency and banking system.

Sources: Jordà et al. (2017)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the currency devaluation risk and speculation against the French Franc.

May, 1931

In 1931, Belgium experienced bank runs caused by rumors about the potential failure of Banque de Bruxelles, the country's second largest bank. This event triggered significant withdrawals from all banks in Belgium, according to Bernanke and James (1990).

Sources: Baron and Dieckelmann (2022), Jordà et al. (2017), Bernanke and James (1990)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

December, 1934

According to Jordà et al. (2017), there is narrative evidence of a wave of deposit withdrawals following the bankruptcy of Banque Belge du Travail. Towards the end of 1934, rumors about further bank failures led to mass deposit withdrawals.

Sources: Jordà et al. (2017)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of Banque Belge du Travail.

B.13 Belize

April, 2016

In 2016, Belize experienced a bank run triggered by a US tax evasion crackdown on banks around the world, including on Belize Bank International (BBI). According to The Guardian (2016b), in April, BBI management informed the supreme court of Belize it had received unprecedented withdrawal requests. Tough US anti-tax evasion laws had

increased compliance costs for BBI's partners, prompting Bank of America and Commerzbank to terminate relationships with the bank. The departure of these partner banks in many instances left BBI struggling to maintain basic services for account holders, and ultimately triggered a run on its deposits.

Sources: [The Guardian \(2016b\)](#), [Carribean News \(2016\)](#), [Reuters \(2016\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the US tax evasion crackdown.

B.14 Bolivia

January, 1985

In 1985, Bolivia experienced a bank run triggered by the “de-dollarization” program, which consisted of converting all obligations contracted in dollars or with value maintenance into national currency, including deposits in the banking system, at the exchange rate determined by the government on a given day. This measure created a mismatch in the banking system, hurting creditors and those with deposits in foreign currency in the banking system, but favoring debtors. The policy of de-dollarization failed because dollar transactions actually increased, and the government had to refinance debts and deposits in dollars with currency creation, thus increasing inflation, according to [Kehoe et al. \(2019\)](#). The program also generated a bank run and a subsequent government bailout of the banks.

Sources: [Kehoe et al. \(2019\)](#), [The New York Times \(1985b\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the dedollarization of all debt obligations into local currency.

November, 1994

In 1994, Bolivia experienced a bank run as two banks, comprising 11% of the total banking system assets, shut down. Subsequently, in 1995, 4 out of the 15 domestic banks, accounting for 30% of the banking system assets, encountered liquidity issues and grappled with a substantial increase in nonperforming loans. The initial trigger was a corruption scandal at the International Banking Corporation, a subsidiary of the Banco Boliviano Americano, according to [Latin America Digital Beat \(1995\)](#).

Sources: Laeven and Valencia (2018), Reinhart and Rogoff (2009), Guerschank Calvo (2005), Latin America Digital Beat (1995)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the scandal at the International Banking Corporation.

B.15 Bosnia and Herzegovina

October, 2008

The 2008 Bosnia and Herzegovina bank run, a significant financial crisis, occurred amidst economic stress and declining financial stability. In October 2008, about 12% of bank deposits were withdrawn, causing substantial financial strain. This crisis was a part of wider economic challenges, including unsustainable growth, fiscal imbalances, and vulnerability to the global financial crisis. Stability was restored quickly through liquidity support from foreign parent banks and effective central bank measures like reducing minimum reserve requirements, highlighting the financial system's fragility in economic downturns.

Sources: Commission of the European Communities (2009)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by aggregate financial instability in course of the Global Financial Crisis in 2008.

B.16 Brazil

September, 1864

In 1864, Brazil experienced a bank run due to the fall of Souto and Company (a bank) which prompted runs on all the banking houses, according to Marchant (1950). The streets in Brazil were full of people trying to withdraw their money. The panic's effects were so considerable that the Bank of Brazil lost its right to issue paper money, which henceforth became a function exclusively of the Treasury.

Sources: Banco do Brasil (2004), Marchant (1950)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by failure of Souto and Company.

May, 1875

In 1875, a financial crisis struck Brazil as international economic turmoil and domestic monetary tightening triggered liquidity shortages in the banking system. Several banks experienced financial distress and failures, prompting the imperial government to intervene with emergency support amid heavy withdrawals and loss of confidence in Rio de Janeiro's banking sector.

Sources: Gambi (2021)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by economic turmoil and domestic monetary tightening.

September, 1900

In 1900, Brazil experienced bank runs due to the withdrawal from circulation and devaluation of domestic currency. This reduction in the money supply in the economy provoked a bank panic in 1900 that considerably damaged the Brazilian banking system that had slowly evolved since mid-century, according to Topik (2007). A run on banks in Rio de Janeiro in September and October of that year led many financial institutions to fail.

Sources: Metrick and Schmelzing (2021), Reinhart and Rogoff (2009), Topik (2007), Triner (1999)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by a currency devaluation.

August, 1914

In July 1914, deposit runs led to the closure of stock exchanges across countries in Latin America, including Brazil, according to Baron et al. (2021).

Sources: Baron et al. (2021), Metrick and Schmelzing (2021), Roberts (2014), Reinhart and Rogoff (2009)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run coincided with the start of World War I. According to Roberts (2014), World War I caused a financial crisis in Brazil by interrupting foreign capital flows.

March, 1990

In March 1990, Brazil experienced a bank run due to economic instability and hyperinflation, eroding public confidence in the financial system. The government responded by freezing bank accounts and implemented reforms aimed at curbing hyperinflation by reducing the money supply. These measures temporarily stopped the bank run but caused significant public dissatisfaction and severe economic disruptions, according to **Ennis and Keister (2009)**.

Sources: **Ennis and Keister (2009)**

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by economic instability and hyperinflation.

November, 1995

Following the stabilization of inflation under the Real Plan, several Brazilian banks lost important sources of income, and underlying weaknesses in their balance sheets became apparent. As confidence deteriorated, depositors withdrew funds from troubled institutions, triggering runs that led the government to implement the PROER bank-restructuring program.

Sources: **Maia (1999)**

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The deterioration of bank profits triggered the run.

B.17 Bulgaria

July, 1931

In July 1931, Bulgaria experienced a bank run as the international financial turmoil following the Central European banking crisis spread to the country. Depositors began withdrawing funds from Credit Bank (Kreditna banka), creating a severe liquidity crisis that threatened the stability of the entire banking system. The crisis was contained after the Bulgarian National Bank intervened with emergency support, preventing the closure of major institutions and stopping the run from spreading further.

Sources: [Marinova and Nenovsky \(2023\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by spillovers of the 1931 European banking crisis.

January, 1996

In 1996, Bulgaria experienced bank runs due to the depreciation of its currency amid failure of the government to heed the foreign debt deferment deal that had been negotiated by the previous administration. The ensuing plummeting of Bulgaria's credit rating caused runs on its banks.

Sources: [Laeven and Valencia \(2018\)](#), [The Sofia Globe \(2018\)](#), [Kovatchevska \(2000\)](#), [Bulgarian National Bank \(1996\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by a currency crisis.

June, 2014

In 2014, Bulgaria experienced runs on two of its banks according to an article from [The New York Times \(2014\)](#). The first was KTB bank, a bank with strong political connections involved in a feud of its majority stakeholder Tsvetan Vassilev with Delyan Peevski. The trigger of the run at KTB was the unfolding of a latent war between the two individuals and Peevski deciding to withdraw his funds from KTB. Allies of Vassilev retaliated by spreading rumors about FiB's solvency, which then caused another run on FiB.

Sources: [The New York Times \(2014\)](#)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

B.18 Canada

March, 1837

In 1837, Canada experienced runs when banks were ordered to suspend convertibility beyond the value of their own capital stock until 1839, amid runs in Canada and New

York. Lower Canadian banks had already suspended deposits before this government intervention in May, according to [Metrick and Schmelzing \(2021\)](#). The causes were related to the failure to renew the charter of the Second Bank of the United States and failures of banks in the South of the US, according to [Redish \(1983\)](#).

Sources: [Metrick and Schmelzing \(2021\)](#), [Foot and Buckner \(2016\)](#), [Bunbury \(1995\)](#), [Calomiris and Gorton \(1991\)](#), [Redish \(1983\)](#), [Breckenridge \(1895\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by uncertainty in the banking sectors of Canada and the US.

September, 1867

In September 1867, Canada experienced a run on the Commercial Bank of Canada which acquired \$1,770,000 in 30-year bonds in 1866 but delayed their sale, leading to suspicions about the bank's stability, especially after learning it provided security to major depositors. This distrust culminated in a deposit run. More bank runs occurred in October, according to [Breckenridge \(1895\)](#) and [Artemiw \(2017\)](#).

Sources: [Artemiw \(2017\)](#), [Breckenridge \(1895\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by bank-level solvency issues.

May, 1879

In May 1879, Canada experienced a series of bank runs and failures, primarily concentrated in Montreal. These runs began with the suspension of the Mechanics' Bank on May 28th, followed by La Banque Jacques Cartier on June 16th. The situation worsened in August when the Consolidated Bank suspended payments on August 1st, leading to a domino effect. The Exchange Bank and La Banque Ville Marie followed suit on August 7th and 8th, respectively. Panic spread to other banks, notably in Hamilton and Sarnia, with the Exchange Bank of Canada and the City and District Savings Bank in Montreal experiencing significant runs, the latter seeing withdrawals estimated at \$500,000. Additional banks like the Banque de St. Hyacinthe, Banque de St. Jean, Banque d'Hochelaga, Molson's Bank, and the Bank of Hamilton were also affected by rumors or actual runs. This series of events culminated in October with the failure of the Bank of Liverpool.

Sources: Baron et al. (2021), Breckenridge (1895), The New York Times (1879)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

May, 1893

In July 1893, Canada experienced a significant bank run, specifically targeting the Commercial Bank of Manitoba. Supported initially by a guarantee fund, other banks in Manitoba continued accepting its notes after suspension, averting public panic and note devaluation. However, the bank's risky business practices and susceptibility to local economic conditions led to a steady increase in debts from 1892. A major withdrawal of deposits began in May 1893, escalating in June, with the bank attempting to manage this by issuing notes to depositors. By mid-September, the public had redeemed most of the bank's notes, but with circulation reduced from \$419,135 in July to just \$31,835 by November's end, and only \$4,130 left in its vaults, the bank could no longer redeem its paper and was compelled to suspend operations. This collapse was a culmination of the bank's risky strategies, mounting debts, and a severe run on deposits (Breckenridge, 1895).

Sources: Breckenridge (1895)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the risky lending practice of the Commercial Bank of Manitoba.

August, 1914

In 1914, Canada experienced multiple bank runs at the onset of World War I. The Home Bank of Canada experienced runs on August 4, 1914 before the war was declared. The Bank of Vancouver suspended payments on 14 December 1914, according to Baron et al. (2021) and other sources.

Sources: Baron et al. (2021), Metrick and Schmelzing (2021), Powell (2010), CBC News (2008), Canada War Museum (2008), Turley-Ewart (2004), Curtis (1947)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by World War I.

December, 1921

In December 1921, the small bank La Banque Nationale faced large difficulties with the result of sporadic bank runs and millions of deposits that were withdrawn. It was not until the end of 1923 that the situation became more quiet.

Sources: Baron et al. (2021), Metrick and Schmelzing (2021), Carr et al. (1995)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the bank-level losses of La Banque Nationale (Carr et al., 1995).

October, 1924

In 1924, some solvent Canadian banks, such as the Dominion and the Imperial Bank, experienced runs. Between October 12 and 15, hundreds of depositors crowded into Dominion Bank branches in Toronto to shut down their accounts and rescue their money. The banking system was in great difficulty as a result of sporadic bank runs and millions of deposits were withdrawn.

Sources: Baron et al. (2021), Metrick and Schmelzing (2021), Bordo and Redish (1996)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

July, 1982

In July 1982, the failures of the Canadian Commercial Bank of Edmonton and the Northland Bank coincided with deposit runs. The Mercantile Bank of Canada also suffered a run and was taken over by the National Bank. The Canadian Commercial Bank of Edmonton and the Northland Bank ultimately failed in 1985. Over 20 trust companies and mortgage corporations failed as well. In 1986 the Bank of British Columbia had to be rescued and was bought by HSBC.

Sources: Baron et al. (2021), Powell (2010)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of two Canadian banks.

June, 1996

In June 1996, Canada experienced bank runs when the Calgary-based Security Home Mortgage Corporation failed. The failure affected some 2,600 Canadians and \$42 million in deposits. The company closed its doors, and customers were alarmed to learn that they would not have immediate access to their savings, according to an article by the [Canada Deposit Insurance Corporation \(2022\)](#).

Sources: [Hardbacon \(2023\)](#), [Canada Deposit Insurance Corporation \(2022\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of the Security Home Mortgage Corporation.

April, 2017

In 2017, Canada experienced a bank run on the mortgage lender Home Capital, which resulted in deposit withdrawals of about 1.6 billion Canadian dollars. The run was triggered by allegations from the Ontario Securities Commission that Home Capital had misled investors by failing to disclose information about fraudulent loans ([Bloomberg, 2017](#)).

Sources: [Bloomberg \(2017\)](#), [Vice \(2017\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the Home Capital's failure to disclose its fraudulent loans.

B.19 Chile

1865

In September 1865, Chile experienced a run on Banco de Chile and five other deposit-taking institutions due to Chile's declaration of alliance with Peru in a war against Spain, according to [Brock \(2016\)](#).

Sources: [Metrick and Schmelzing \(2021\)](#), [Brock \(2016\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the declaration of war against Spain.

July, 1878

In July 1878, Chile experienced a run on Banco Nacional de Chile. A potential reason might have been comments made by the Finance Minister in front of Congress. These comments indicated that, in the event of a bank's collapse, demand deposits could be considered as subordinated debt, according to Brock (2016). The government declared all banknotes legal tender amid a run on Banco Nacional de Chile. The run was preceded by a politically contested loan arrangement between the government and several banks, including the Banco Nacional de Chile, and fears of a currency devaluation (Briones, 2016).

Sources: Brock (2016), Briones (2016)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by fears of a currency devaluation after the government arranged a contested loan with several banks.

February, 1895

According to Metrick and Schmelzing (2021), Chile experienced widespread bank runs in 1895 amid the country's transition to the gold standard, which prompted considerable uncertainty about the value of the currency.

Sources: Metrick and Schmelzing (2021), Brock (2016)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the transition to the Gold Standard.

July, 1898

In 1898, Chile experienced a bank run in Santiago triggered by mounting financial distress. By early July, panic among depositors led to a massive withdrawal of funds from Santiago's banks. This crisis forced the government to declare a moratorium on July 11th, and by August, the government guaranteed all bank note issuance.

Sources: Brock (2016)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by mounting financial stress in Santiago's banking sector.

December, 1907

In 1907, Chile saw widespread bank runs, including on Mobiliario Bank. To stem these runs, the government intervened with “grant facilities” and further liquidity support.

Sources: Baron et al. (2021), Metrick and Schmelzing (2021)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

July, 1914

In July 1914, Chile experienced bank runs that led to the closure of stock exchanges across several countries in Latin America, according to the description of Baron et al. (2021). Reinhart and Rogoff (2009) also consider this to be a systemic banking crisis. Exports and economic activity contracted heavily in the early months of World War I, causing deposit withdrawals, according to Roberts (2014).

Sources: Baron et al. (2021), Roberts (2014), Reinhart and Rogoff (2009), Bordo et al. (1999)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the macroeconomic repercussions of World War I.

June, 1976

According to Kaufman (1992), the sharp fall in world copper prices led to a recession in Chile in 1975 and a significant withdrawal of deposits from the financial system, particularly impacting SINAP (Sistema Nacional de Ahorros y Préstamos), a key financial intermediary. This crisis arose partly because the government’s financial stability was questioned, leading to a loss of depositor confidence and SINAP’s insolvency caused by an inability to cover withdrawals with the sale of long-term loans. The government’s response to SINAP’s crisis included freezing 60-day deposits and allowing only limited monthly withdrawals of US\$ 100 per account, offering the remainder in long-term bonds at a reduced market value.

Sources: Baron et al. (2021), Kaufman (1992)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the decline of the copper price and the recession in Chile.

January, 1983

Chile experienced bank runs in 1983 shortly after Chile inked a deal with the IMF for urgent financial support, which led depositors to rapidly withdraw cash from Chilean banks. The liquidity crisis forced the government to place seven banks and one financier, which jointly accounted for 40% of Chilean deposits, under temporary resolution.

Sources: Laeven and Valencia (2018)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the debt crisis in Chile and the following support by the IMF.

B.20 China

November, 1883

On 2 November 1883, the collapse of Hu Xueyan's Fukang Qianzhuang in Shanghai, after heavy losses from attempts to corner the silk trade, triggered a cascading crisis among native banks (qianzhuang). The failure reportedly bankrupted dozens of institutions in Shanghai, and the outbreak of the Sino-French War further eroded confidence, prompting public panic and widespread cash withdrawals that forced additional qianzhuang to close.

Sources: Sheehan (2018a)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the collapse of Hu Xueyan's Fukang Qianzhuang.

February, 1903

In February 1903, Tongshang Bank faced a severe bank run after the discovery of counterfeit notes. After the news of counterfeit currency spread, money houses refused to accept Tongshang Bank's notes. Despite efforts to reassure the public by displaying the fake notes and extending business hours, the panic persisted. Sheng Xuanhuai, overseeing the situation from Beijing, directed immediate cash withdrawals and obtained 700,000 yuan from HSBC using gold and silver as collateral. The crisis deepened when a Japanese

individual was caught with counterfeit notes at HSBC, leading to an investigation that uncovered a larger counterfeiting ring in Osaka, Japan. The incident significantly undermined Tongshang Bank's credibility, leading to massive financial losses and the closure of several branches. The crisis culminated in Tongshang Bank withdrawing and destroying all existing notes and issuing new notes in early 1905.

Sources: Rodrigo and Rodrigo (2021), Goh (2020), Sheng (2014), Yan and Yi (2008), *The Straits Times* (1903)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by an idiosyncratic fraud case at the Tongshang Bank.

1907

In 1907, a financial crisis struck parts of China's traditional banking sector when several large qianzhuang (native banks) in Hankou collapsed, triggering panic among merchants and depositors. The failure of three major Jiangxi-owned qianzhuang caused a severe local market disruption, forcing other banks and financial guilds to halt trading temporarily while depositors rushed to withdraw funds. The crisis spread through the commercial community, producing a broader loss of confidence and liquidity shortages until collective intervention by the banking guild helped stabilize the system.

Sources: Liu (2016)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the collapse of several banks in Hankou.

1911

Amid the political upheaval of the 1911 Revolution, China's indigenous banking system came under acute pressure. Numerous native banks (qianzhuang) and remittance banks (piaohao) suspended operations, failed, or went into liquidation as political authority collapsed and financial linkages deteriorated. (Moazzin, 2020) explicitly states that "a consequence of the revolution was runs on the Chinese banks in different treaty ports, including Shanghai, Hankou, and Tianjin".

Sources: Moazzin (2020), Global Times (2013)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the 1911 Revolution.

May, 1916

Confronted with a major fiscal crisis, the Republican government in Beijing resorted to the printing press for fiscal revenue and ordered the government banks, namely Bank of China and Bank of Communications, to suspend paper note conversion to silver. To avert a potential financial crisis, the Bank of China Shanghai Branch managers instructed several shareholders and depositors to file a symbolic law suit against the bank. As a result, the Shanghai branch of Bank of China, along with other Western banks in the International Settlement, maintained full convertibility throughout the note suspension period, while other governmental banks had to accede to the order and suffer bank runs.

Sources: Ma (2012)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the fiscal problems of the government.

November, 1921

On November 15, 1921, both the Bank of China and the Bank of Communications in Beijing faced a bank run, largely due to the Beiyang government's financial policies and the repercussions of the 1916 suspension of currency convertibility, according to **China Banking and Insurance News** (2021).

Sources: Gou (2016), Hao (2019), Pan (2014), China Banking and Insurance News (2021), Ma (2012), Kan (2012)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by financial government policies and the suspension of currency convertibility.

December, 1928

On December 10, 1928, the Sino-Japanese joint venture, Zhonghua Huiye Bank, suspended operations after experiencing a bank run, leading to widespread panic, rumors, and subsequent runs on several other banks in Beijing and Tianjin, according to [Gou \(2016\)](#).

Sources: [Gou \(2016\)](#), [Ma \(2012\)](#)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

1930

According to [Viana \(2022\)](#) and [Metrick and Schmelzing \(2021\)](#), there were bank runs on several institutions between 1930 and 1932, including the Sinhua Trust Savings in 1930, SHCS in 1931, and the National Industrial Bank of China in 1932. We assign these events to the first year, which is 1930.

Sources: [Viana \(2022\)](#), [Metrick and Schmelzing \(2021\)](#)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

1997

In the wake of the 1997 Asian Financial Crisis, there were widespread runs on banks in Guangdong province that quickly spread nationwide. The trigger for these runs was a series of scandals involving local officials and a manager at the China Construction Bank, as well as concerns about the financial situation of rural credit cooperatives. Up to 70% of the banking system's assets were deemed insolvent and banks faced severe liquidity issues. 50% of all loans became underperforming, causing severe liquidity problems for banks.

Sources: [Caprio and Klingebiel \(2002\)](#), [China Ministry of Finance \(2014\)](#), [Cousin \(2011\)](#), [The Washington Post \(1997\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by spillovers of the Asian Financial Crisis.

March, 2014

In 2014, a three-day bank run hit Jiangsu Sheyang Rural Commercial Bank in Yancheng, China. The run was reportedly triggered by a rumor that the small local bank had refused a customer's request to withdraw deposits (Reuters, 2014b). The run then spilled over to another local lender, the Rural Commercial Bank of Huanghai, which reportedly experienced elevated deposit withdrawals as well (CNBC, 2014a).

Sources: Reuters (2014b), CNBC (2014a)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

November, 2019

In November 2019, two bank runs were recorded by articles published by Reuters. In the first case at Yichuan Rural Commercial Bank in Henan Province, the investigation of the bank's former chairman led to a wave of depositors withdrawing their funds due to concerns over the bank's stability. The second bank run at Yingkou Coastal Bank was sparked by rumors of a crisis at the bank, leading to a surge in customers withdrawing their deposits. Yingkou Coastal Bank, a small financial institution predominantly reliant on customer deposits, faced heightened depositor anxiety. This situation mirrored wider concerns affecting small Chinese banks, partly due to the government's previous takeover of Baoshang Bank. In response, Yingkou Coastal Bank increased its deposit interest rates to attract and retain customers, a move that raised questions about its long-term financial stability. The bank also visibly stacked bundles of cash at teller counters to manage withdrawals and reassure customers. Local government officials intervened to ease concerns and stabilize the situation, marking a shift from the central government's direct involvement in similar past incidents. This incident at Yingkou Coastal Bank reflected the broader challenges faced by small banks in China amid rumors and fears about their solvency.

Sources: Reuters (2019)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

April, 2022

According to [Foreign Policy \(2022\)](#), China experienced a wave of bank runs in April 2022 triggered by a freezing of deposits worth 40 billion yuan (\$6 billion) and affecting 400,000 depositors. These bank runs started from three rural village and town banks (VTBs) in Henan province. Three more runs on VTBs happened within a month, including two in the neighboring Anhui province. Five of the six troubled VTBs have the same major shareholder bank, Xuchang Rural Commercial Bank. Not being able to withdraw their life savings led to protests by depositors, triggered panic over the solvency of small banks, and increased the nationwide risk of runs on small banks.

Sources: [Foreign Policy \(2022\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the inability to withdraw money from frozen accounts.

October, 2023

In October 2023, a bank run occurred at Cangzhou Bank, a regional bank in Cangzhou, Hebei Province, China, driven by concerns over the debt crisis of Evergrande Group, a major real estate company that defaulted in 2021. The situation was aggravated by circulating images and videos of depositors queuing for withdrawals, which led to a panic. Local authorities responded by arresting several individuals for allegedly spreading false rumors about the bank's financial troubles related to Evergrande. The Cangzhou government also released statements to reassure the public about the safety of their deposits. This incident is indicative of the broader challenges facing China's financial sector amid an ongoing real estate crisis.

Sources: [Radio France International \(2023\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by concerns about the effects of the failure of the real estate company Evergrande on local Chinese banks.

B.21 Colombia

July, 1923

In 1923, Colombia experienced several bank runs. This episode was triggered by an initial run on Banco Lopez on July 15, 1923. Banco Lopez had only been founded in 1919 and took heavy losses due to its exposure to the highly volatile coffee export market. This event gave rise to the founding of the Banco de la Republica, the country's central bank.

Sources: [La Opinión \(2023\)](#), [Metrick and Schmelzing \(2021\)](#)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

July, 1982

In July 1982, Colombia experienced a bank run on Banco Nacional. The bank ran into financial difficulties in 1981 when the companies and owners of Grupo Colombia began to default on their debts. Despite this, the bank continued to lend money to the same companies and owners. When the fraud at Financiera Furatena was discovered in June 1982, the public launched a run on Banco Nacional. The run forced the bank into liquidation later that year. Another run began on the Banco del Estado in August 1982, forcing its bailout and nationalisation in October 1982. This episode is also classified as a banking crisis by [Laeven and Valencia \(2018\)](#), [Baron et al. \(2021\)](#), and [Reinhart and Rogoff \(2009\)](#), although [Baron et al. \(2021\)](#) do not classify it as a banking panic.

Sources: [Laeven and Valencia \(2018\)](#), [Baron et al. \(2021\)](#), [Reinhart and Rogoff \(2009\)](#), [Hernandez et al. \(2022\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by idiosyncratic fraud cases and financial difficulties of Banco Nacional.

June, 1998

Colombia experienced a systemic banking crisis in 1998 that was also accompanied by a bank run, according to [Steiner and Barajas \(2000\)](#). We follow the timing in [Laeven and Valencia \(2018\)](#) and [Baron et al. \(2021\)](#) who date the start of the systemic crisis to June

1998 when the first bank failure occurred. **Steiner and Barajas (2000)** reports unfounded rumors spread over the internet as the cause of the run in May 1999. **Laeven and Valencia (2018)** reports financial losses for Colombian banks in 1998 as the cause of the banking crisis.

Sources: **Laeven and Valencia (2018)**, **Baron et al. (2021)**, **Reinhart (2002)**, **Steiner and Barajas (2000)**

Run Cause Classification: We classify the cause of the run episode as **banking-related**. We find evidence that the run was caused by unfounded rumors about a bank's solvency. However, since the run episode was preceded by aggregate distress in the banking sector, we classify the episode as caused by fundamentals.

B.22 Democratic Republic of the Congo

1992

In September and October 1991, Zaire (modern-day Democratic Republic of the Congo) experienced substantial violent unrest, as several Zairian Armed Forces units mutinied and rioted, soon joined by civilian protesters and looters. This triggered a massive loss of confidence in the banking system and the currency (the zaïre), leading to widespread bank runs as depositors rushed to withdraw funds before banks collapsed or were looted. In 1992, depositors were unable to mobilize their bank balances, except through transfers or checks at a steep discount.

Sources: **Beaugrand (1997)**

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run episode was triggered by violent unrest.

2007

The first democratic elections in four decades were successfully held in 2006, bringing to an end the mandate of the transitional government and leading to the formation of a new government in February 2007. The new government took steps to reestablish macroeconomic discipline. Strong revenue collection and expenditure restraint reduced net bank credit to the government. This tightened liquidity conditions and contributed to a decline

in base money, leading to an appreciation of the Congo franc, a decline in the rate of inflation, and an increase in gross international reserves to US\$190 million. State savings bank Caisse d'Epargne du Congo ceased to function; depositors could not withdraw funds as resources were being consumed by operating expenses.

Sources: Kar et al. (2008)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run episode was triggered by a reduction in credit to the government, appreciation of the Congo franc, and a decline in inflation.

B.23 Costa Rica

November, 1987

In 1987, Costa Rica experienced bank runs following the collapse of Consorcio Cretiticia, which triggered a wider financial crisis. Reinhart and Rogoff (2009) also consider this to be a systemic banking crisis.

Sources: Reinhart and Rogoff (2009), Metrick and Schmelzing (2021), Bordo et al. (2001)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the collapse of Consorcio Cretiticia.

August, 2004

In August 2004, Costa Rica experienced a bank run on BAC San José due to a false rumor that regulators had intervened with the bank because of solvency issues, according to El Financiero (2023) and S. and D. (2004). The rumors were apparently spread on purpose to hurt the business of what was then Costa Rica's largest bank.

Sources: El Financiero (2023), S. and D. (2004)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

B.24 Croatia

1931

The First Croatian Savings Bank faced massive deposit withdrawal in the autumn of 1931, and at its request was placed under moratorium by decree of 21 April 1932, a measure subsequently extended to other financial institutions under stress. Yugoslavia as a whole was severely affected during the European banking crisis of 1931. By end of 1930, none of Yugoslavia's twelve largest banks, which in aggregate represented half of the system's total assets, was headquartered in Serbia. Faced with major turmoil, the National Bank announced on 8 August 1931 that it would not grant any new funding to any bank, focusing instead on defending the currency.

Sources: Nikolic (2016)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the 1931 European banking crisis.

March, 1998

In March 1998, Croatia experienced bank runs as a result of the failure of the country's fifth largest bank, Dubrovacka (5% of total assets). The problems at Dubrovacka bank triggered political turmoil, which in turn triggered runs on other banks perceived to be indirectly related to the institution. In July 1998, the sixth largest bank ran into problems, and several medium and small institutions also experienced liquidity problems in the autumn of 1998 and early 1999.

Sources: Laeven and Valencia (2018)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of Dubrovacka.

B.25 Cyprus

1939

The outbreak of World War II resulted in massive deposit withdrawals (Pafitou et al., 2010). Cyprus experienced localized bank runs and uncertainty regarding the position of

the Bank of Cyprus, prompting the government to order banking holidays.

Sources: Metrick and Schmelzing (2021), Pafitou et al. (2010)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the outbreak of World War II.

B.26 Czech Republic

May, 1923

In May 1923, Czechoslovakia experienced bank runs when bank failures led to widespread withdrawals of deposits from smaller banks across the country.

Sources: Baron et al. (2021)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by widespread bank failures.

May, 1931

The Creditanstalt Bank of Vienna's collapse in May 1931 started the Great Depression in Europe, triggering runs on Austrian Banks, and spread to banks in Hungary, Czechoslovakia, Romania, Poland and Germany. Bernanke and James (1990) also report deposit withdrawals.

Sources: Baron et al. (2021), Reinhart and Rogoff (2009), Bernanke and James (1990)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by spillovers from the banking crisis in Austria.

March, 1939

In March 1939, in the immediate context of the German destruction of the remaining Czechoslovak state, bank runs in Czechoslovakia triggered a restrictive moratorium by the authorities, according to Metrick and Schmelzing (2021).

Sources: Metrick and Schmelzing (2021), Klemann and Kudryashov (2011)

Run Cause Classification: We classify the run episode as **macroeconomic**. The run was triggered by the destruction of the remaining Czechoslovak state.

June, 1994

The Czech Republic experienced multiple bank runs between 1994 to 2000 during its transformation to market economy. The first notable bank run occurred in 1994 following the collapse of Banka Bohemia, due to fraudulent activities. This incident exposed the financial system's fragility and led to the establishment of partial deposit insurance. Subsequently, the failures of Česká Banka and AB Banka in 1995 prompted further runs. These events triggered a broader restructuring aimed at small banks, which were a significant source of vulnerability within the banking sector.

Sources: Baron et al. (2021), Laeven and Valencia (2018)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the collapse of Banka Bohemia after the detection of fraud.

June, 2000

In 2000, the Czech Republic experienced a significant bank run involving Investiční a Poštovní Banka (IPB), the third-largest bank at that time. Operational troubles led to a swift run on deposits, and the Czech National Bank was compelled to place IPB under forced administration, followed by a hasty sale to Československá obchodní banka (ČSOB). This event marked a critical point in the Czech banking sector's post-communist transformation, highlighting the ongoing need for regulatory improvements and effective governance to sustain depositor confidence.

Sources: Baron et al. (2021), Dubská (2013)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by bank-level losses of the Investiční a Poštovní Banka between 1998-1999 (Dubská, 2013).

February, 2022

In February 2022, the Czech subsidiary of the Russian bank Sberbank experienced massive deposit withdrawals. As a result, Sberbank CZ was unable to meet its obligations to its customers and was shut down by Czech regulators ([Czech National Bank, 2022](#)). The bank run was triggered by the outbreak of the war between Russia and Ukraine.

Sources: [Czech National Bank \(2022\)](#), [Reuters \(2022\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the invasion of Ukraine.

B.27 Denmark

1876

In 1876, several Danish savings banks suffered heavy losses and faced an outflow of deposits ([Abildgren, 2018](#)). The Savings Bank Crisis of 1876-1878 coincided with a depression of the global economy starting in 1873 ([Abildgren, 2017](#)).

Sources: [Baron et al. \(2021\)](#), [Abildgren \(2018\)](#), [Abildgren \(2017\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the global depression in 1873.

February, 1908

According to [Baron et al. \(2021\)](#), [Metrick and Schmelzing \(2021\)](#), and [Jordà et al. \(2017\)](#), Denmark experienced bank runs starting in February 1908 following the failure of Københavns Grundejerbank.

Sources: [Baron et al. \(2021\)](#), [Metrick and Schmelzing \(2021\)](#), [Jordà et al. \(2017\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of Københavns Grundejerbank.

September, 1922

According to [Baron et al. \(2021\)](#), Denmark experienced a bank run following the collapse of the major bank Landmandsbanken in September 1922.

Sources: [Baron et al. \(2021\)](#), [Metrick and Schmelzing \(2021\)](#), [Jordà et al. \(2017\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of Landmandsbanken.

October, 1992

In 1992, Varde Bank in Denmark was the target of a bank run after suffering losses of about kr. 700 million ([Andersen and Dalsgaard, 2005](#)).

Sources: [Andersen and Dalsgaard \(2005\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by losses at the Varde Bank.

B.28 Dominican Republic

April, 2003

In April 2003, the Dominican Republic experienced bank runs triggered by the collapse of Banco Intercontinental (BANINTER), the country's second largest commercial bank at the time. BANINTER was involved in a fraud and corruption scandal involving several politicians and businessmen, including former President Hipólito Mejía. The bank run led to a wider banking crisis and severe recession, including a sharp devaluation of the Dominican peso.

Sources: [Metrick and Schmelzing \(2021\)](#), [Laeven and Valencia \(2018\)](#), [The Dominican Republic \(2006\)](#), [Freedom House \(2003\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of Banco Intercontinental.

B.29 Ecuador

April, 1998

In April 1998, Ecuador experienced deposit runs following the closure of Solbanco, a smaller institution. The closure led to runs on other banks including two of the three largest banks. The resulting systemic liquidity crunch due to the contagion developed into a full-fledged banking crisis in August 1998. The situation worsened through 1999, compelling the government to freeze bank deposits and ultimately adopt the U.S. dollar as the official currency in 2000. [Metrick and Schmelzing \(2021\)](#) additionally report bank runs in early 2000, but these seem to be part of the same episode.

Sources: [Metrick and Schmelzing \(2021\)](#), [Laeven and Valencia \(2018\)](#), [Reinhart and Rogoff \(2009\)](#), [Ennis and Keister \(2009\)](#), [Jácome \(2004\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of Solbanco.

B.30 Egypt

May, 1907

In May 1907, Egypt experienced bank runs that triggered a panic, according to [Baron et al. \(2021\)](#) and [Metrick and Schmelzing \(2021\)](#). [Noyes \(1909\)](#) reports a stock market panic in March 1907.

Sources: [Baron et al. \(2021\)](#), [Metrick and Schmelzing \(2021\)](#), [Hu \(2020\)](#), [Noyes \(1909\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by a financial crisis starting in January 1907 and culminating in a stock market panic in March 1907 ([Noyes, 1909](#)).

July, 1914

In July 1914, Egypt experienced bank runs after the closure of the stock exchange following the beginning of World War I.

Sources: [Baron et al. \(2021\)](#), [Metrick and Schmelzing \(2021\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by World War I.

July, 1931

In July 1931, Egypt experienced bank runs on the Cairo and Alexandria branches of the Deutsche Orientbank. The bank could not obtain funds from Berlin; its customers “stormed Barclays Bank,” and Deutsche Orientbank was closed at the end of August 1931 (Schwanitz, 2021).

Sources: Baron et al. (2021), Schwanitz (2021), Reinhart and Rogoff (2009), Bernanke and James (1990)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

B.31 Estonia

October, 1998

The shutdown of EVEA Bank and ERA Bank in 1998, with EVEA Bank collapsing due to its significant investments in Russian eurobonds and the ensuing major losses amid the Russian financial market’s downfall, involved bank runs. EVEA Bank’s collapse, followed by a swift loss of depositor confidence in ERA Bank, prompted a rush of withdrawals that led to ERA Bank’s subsequent closure, demonstrating a classic liquidity crisis triggered by a rapid erosion of trust among depositors.

Sources: International Monetary Fund (1999a)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by severe losses within the Estonian banking system.

September, 2008

In September 2008, Swedbank’s Estonian branch experienced a bank run triggered by depositor concerns over the bank’s financial stability. These concerns were fueled by a regional financial crisis, notably in the real estate market, and the broader global financial crisis which eroded trust in financial institutions. Swedbank’s high exposure to real estate

loans heightened fears of potential defaults as property prices fell. In response, Sweden's central bank, Riksbank, expanded acceptable collateral for Swedbank, helping stabilize the subsidiary.

Sources: Metrick and Schmelzing (2021), OECD (2011), International Monetary Fund (2009)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by concerns about the financial situation of Swedbank amid the ongoing Global Financial Crisis.

B.32 Ethiopia

January, 2016

In January 2016, Ethiopia experienced a bank run after the Commercial Bank of Ethiopia (CBE) approved a \$2 billion letter of credit request. In such cases, importers are required to deposit a certain percentage in birr with the bank. Over the next few weeks, a bank run occurred as individuals withdrew large sums of money from other banks to deposit in the CBE, according to Kflip (2023).

Sources: Kflip (2023)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by a decision of the Commercial Bank of Ethiopia to approve a \$2 billion letter of credit request. The cause for the run episode was at the bank level.

B.33 Finland

November, 1900

In November 1900, Finland's Maanviljelyspankki bank experienced a bank run triggered by the recession at the beginning of the century, which was exacerbated by the bank's reckless expansion, aggressive interest rate competition, and fraudulent practices. The resulting bankruptcy marked the first time depositors in a Finnish commercial bank faced losses. The crisis prompted the Finnish state to stabilize the banking sector by depositing funds in banks, according to Herrala (1999).

Sources: Baron et al. (2021), Metrick and Schmelzing (2021), Jordà et al. (2017), Reinhart and Rogoff (2009), Herrala (1999)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by a recession.

November, 1939

In 1939, the outbreak of the Winter War, triggered by the unexpected aggression of the Soviet Union, led to widespread bank runs in Finland. This financial turmoil escalated into a banking panic, prompting the Bank of Finland to impose restrictions on deposit withdrawals.

Sources: Baron et al. (2021), Metrick and Schmelzing (2021), Reinhart and Rogoff (2009), Herrala (1999)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the Winter War against Russia.

B.34 France

August, 1704

In August 1704, reports of the French military's defeat at the Battle of Blenheim triggered a bank run on the Caisse d'Escompte, exacerbating a severe liquidity crisis following currency devaluations. In response, a royal decree suspended the operations of the Caisse d'Escompte until April 1705 and recapitalised the bank through new tax allocations.

Sources: Metrick and Schmelzing (2021), Félix (2018)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the defeat at the Battle of Blenheim.

May, 1720

In 1715, under the regency of the Duke of Orléans, France was on the verge of financial collapse and turned to the Scottish economist John Law for solutions. Law founded the Banque Générale Privée in 1716, advocated a switch from metallic to paper currency,

and acquired the Mississippi Company, an integral part of France's colonial trade. He proposed to issue shares in the company in exchange for government bonds to reduce the public debt inherited from the reign of Louis XIV, sparking speculative investment and a surge in public interest. The French government printed vast amounts of paper money to capitalise on this trend, which soon led to severe inflation and the devaluation of both currency and bonds. The stock of the Mississippi Company, which was tied to the national economy, collapsed in 1720, triggering a market crash in France and a widespread bank run that eventually led to a significant market collapse.

Sources: Beattie (2023), Metrick and Schmelzing (2021), Narron and Skeie (2014), Encyclopaedia Britannica (1998)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the fiscal collapse of France and the subsequent currency devaluation and inflation episode.

October, 1783

At the beginning of the French financial and debt crisis (1783-1788), the Caisse d'Escompte experienced a bank run in October 1783. An official decree allowed the Caisse to suspend convertibility until 1 January 1784. This crisis in France was due to the large debts incurred during its participation in the Seven Years' War (1756-1763) and the American Revolution (1775-1783), which led to severe financial turmoil.

Sources: Metrick and Schmelzing (2021)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the French debt crisis.

September, 1789

According to White (1995), France experienced bank runs due to further instability at the Caisse d'Escompte. Finance Minister Necker authorised the bank to suspend payments in the event of a run, and both the run and the suspension occurred in September 1789.

Sources: Metrick and Schmelzing (2021), White (1995)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the instability at the Caisse d'Escompte. This is a bank-level cause.

September, 1805

In September 1805, the Banque de France faced a bank run triggered by rumors of a depletion of French silver reserves due to Napoleon's military campaigns. The bank was faced with a substantial debt of 68 million francs and only 0.782 million francs in specie. This crisis forced the Banque de France into partial suspension. In response, Napoleon nationalised the bank's operations, injected 45 million francs of private capital and received some support from the treasury to stabilise it. The victory at Austerlitz in December 1805 helped to restore confidence in France's financial stability.

Sources: Metrick and Schmelzing (2021), Reinhart and Rogoff (2009)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by rumors of a depletion of French silver reserves due to Napoleon's military campaigns.

January, 1814

During the Allied invasion of France, the Bank of France borrowed 6000000 francs, without which it would have been obliged to suspend payments entirely. The general council restricted redemptions to 500000 francs per day beginning January 20, 1814 (Liesse, 1909).

Sources: Liesse (1909), Conant (1915)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run coincided with the invasion of France.

1838

According to Buyst and Maes (2008) and Reinhart and Rogoff (2009), there were several bank runs in Paris in 1838 and 1839 following the failure of the Banque de Belgique.

Sources: Reinhart and Rogoff (2009), Buyst and Maes (2008)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of the Banque de Belgique.

February, 1847

In 1847, bank runs occurred against a backdrop of economic challenges in France, including an agricultural and cyclical crisis, which caused overstocked businesses to accumulate debt and delay payments. The runs were triggered by an increased demand for credit and a decline in debt payments to banks, leading some banks, such as Bontoux and Delhante in Lyon, to suspend payments. Other bank runs took place during the revolutions of 1848, when France was already facing a deep financial crisis and weakened money markets. The outbreak of the revolution caused panic, the stock exchange was closed and share prices plummeted, leading to a widespread withdrawal of funds from banks. Some 250 banks suspended payments between February and April, and the Bank of France had to suspend cash payments on its banknotes. Despite measures to restore confidence, financial fragility persisted and the subsequent recovery was slow.

Sources: Alessio Moro and Tedde (2013), Reinhart and Rogoff (2009), Bonin (2000)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by a recession.

1871

In 1871, France experienced bank runs during the Franco-Prussian War, according to Baron et al. (2021).

Sources: Baron et al. (2021)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the war between France and Prussia.

January, 1881

In 1881 and 1882, France experienced bank runs due to the collapse of the Banque de Lyon and the Union Generale. The crisis was primarily caused by a credit boom driven by stock market speculation but Baron et al. (2021) also considers this as a banking crisis.

Sources: Baron et al. (2021)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of the Banque de Lyon and the Union Generale. The failure were caused by a credit boom.

March, 1889

In 1889, a speculative bubble in the copper market led to a bank run in France. Led by the industrialist Secrétan, who sought to monopolise the market, speculation relied heavily on bank loans and guarantees. The collapse in copper prices led to significant losses for banks, particularly Comptoir d'Escompte (CdE), which faced insolvency and a subsequent bank run following the suicide of its chairman. To alleviate the crisis, the Bank of France provided a 100 million franc loan to the CdE, which helped to prevent a wider financial disaster.

Sources: Baron et al. (2021), Jordà et al. (2017), Hautcoeur et al. (2014), Reinhart and Rogoff (2009)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the collapse of the copper market and the severe losses of the Comptoir d'Escompte.

March, 1891

In March 1891, the Société des Dépôts et Comptes Courants collapsed after engaging in excessively risky and opaque operations that undermined confidence once losses became public. The revelation of its financial weakness triggered a panic among depositors, who withdrew more than 19 million francs within four days, forcing the bank into failure.

Sources: Liesse (1909)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by risky bank operations (bank-specific cause).

July, 1914

In 1914, France's financial sector was severely disrupted by the outbreak of World War I in July and the closure of the Paris stock exchange. The crisis worsened when Germany declared war on France on 3 August 1914, and the French government suspended the conversion of banknotes into gold. According to the International Encyclopedia of the First World War, France also experienced bank runs during this period.

Sources: Mastin (2023), Baron et al. (2021)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the outbreak of World War I.

November, 1930

In November 1930, the beginning of the French banking crisis was marked by runs on provincial banks, signalling wider systemic financial instability. This turmoil was part of the wider global economic downturn that began with the stock market crash in the United States in 1929. The crisis in France was exacerbated by the country's adherence to the gold standard until 1936, which led to a deep recession, falling prices, rising unemployment and a deterioration in the competitiveness of French firms. Notable failures included local banks such as Banque Adam, and the Oustric Group, as well as the regional Banque d'Alsace-Lorraine and the national Banque Nationale de Crédit between 1930 and 1931. This first wave of bank runs subsided in February 1931.

Sources: Mitchener and Monnet (2023), Baron et al. (2021), Jordà et al. (2017), Reinhart and Rogoff (2009), Lacoue-Labarthe (2005), Bernanke and James (1990)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the global stock market crash.

September, 1931

In September 1931, France experienced a second wave of bank runs when depositors began withdrawing their funds from the BNC (Banque Nationale de Crédit) due to the shaky situation of Comptoir Lyon-Alemand, another bank, according to Lacoue-Labarthe (2005). The BNC was forced to close following another bank run in February 1932, reducing its deposits by 53.7%, leading to its amicable liquidation and the creation of a

new bank, the National Bank of Commerce and Industry. This run on BNC triggered a panic that affected several other banks, including the Comptoir d'escompte de Reims and the Banque syndicale de Paris, leading to their closure. By November, several long-established provincial banks had failed, and by the end of 1931, according to [Lescure \(2005\)](#), some 230 banks had failed in these financial panics. Rumors of heavy losses at the Banque de l'Union Parisienne because of investments in Hungary led to withdrawals of 600 million francs in 1932, and the bank merged with the Crédit Mobilier Français in May 1932. In January 1933, the Banque Renault failed. Crédit du Nord also took over the troubled Banque Générale du Nord in May 1934, a move that ultimately strengthened the bank. The crisis also led to the closure of branches throughout the country, with the total number of branches falling by more than 15% between 1931 and 1932.

Sources: [Baron et al. \(2021\)](#), [Reinhart and Rogoff \(2009\)](#), [Lacoue-Labarthe \(2005\)](#), [Lescure \(2005\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by solvency issues at a variety of French banks.

September, 1938

According to [Baron et al. \(2021\)](#), France experienced bank runs in 1938 during the Sudetenland Crisis. Fears of an imminent war prompted French savers to withdraw their deposits on a massive scale, particularly from savings banks ([Jelic, 2009](#)). There is evidence of large deposit withdrawals of around 4 billion francs in numerous bank runs on savings banks in the month of September alone ([Tournié, 2013](#)). The concentrated wave of withdrawals placed severe liquidity pressure on the financial system and forced the Banque de France to provide extraordinary support, injecting billions of francs into circulation to meet the surge in cash demand ([Jelic, 2009](#)).

Sources: [Baron et al. \(2021\)](#), [Tournié \(2013\)](#), [Jelic \(2009\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the fear of another great war in Europe in the course of the Sudetenland Crisis.

B.35 Georgia

August, 2008

In August 2008, during the Russia–Georgia war, fears of further military escalation triggered panic withdrawals from Georgian banks as households and firms rushed to secure their savings. Within a few days, roughly \$500 million in deposits were withdrawn, creating acute liquidity pressure across the banking system. The episode was driven primarily by political and military uncertainty, and although part of the withdrawn funds later returned, the shock exposed the vulnerability of the banking sector to confidence-driven runs.

Sources: Papava (2008)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the Russian invasion.

B.36 Germany

October, 1873

The “Gründerkrach” of 1873 was characterised by significant funding withdrawals and numerous bank failures. Rieder (2017) provides a detailed discussion of these events, including the failure of Quistorpsche Vereinsbank. Other banks that failed during this period include Allgemeine Depositenbank, Elberfelder Disconto- und Wechselbank, Unionbank, Dresdner Handelsbank, Sächsischer Bankverein, Sächsische Kreditgesellschaft, Thüringische Bank, and Stuttgarter Bank. The Berliner Bankverein, Berliner Wechslerbank, Frankfurter Bankverein, and the Niederlausitzer Bank were liquidated between 1876 and the 1880s.

Sources: Baron et al. (2021), Metrick and Schmelzing (2021), Jordà et al. (2017), Rieder (2017), Friedman and Schwartz (1963)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the Gründerkrach crisis, which coincided with a stock market crash.

September, 1891

In September 1891, Germany experienced bank runs as part of a broader banking crisis. According to [Baron et al. \(2021\)](#), such deposit withdrawals occurred in Berlin specifically, likely related to the failures of C. W. Schnöckel, Hirschfeld & Anton Wolf, Hermann Friedländer & Sommerfeld, and Eduard Maass. This interpretation is also supported by the description of this episode in [Metrick and Schmelzing \(2021\)](#).

Sources: [Baron et al. \(2021\)](#), [Metrick and Schmelzing \(2021\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of the two banks.

June, 1901

In June 1901, Germany experienced bank runs. Two mortgage banks failed in the autumn of 1900. Pommersche Hypotheken Bank, Mortgage Bank of Mecklenburg-Strelitz failed and were saved by discount banks in 1901. Preussische Hypothekenaktienbank, Deutsche Grundschuldbank, Dresdner Creditanstalt and Leipziger Bank failed in 1901 as well, followed by some other smaller banks. The trigger of the banking crisis was bank losses of German banks on their Russian investments and mortgage speculations in 1900, according to [Conant \(1915\)](#).

Sources: [Baron et al. \(2021\)](#), [Conant \(1915\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by bank losses and mortgage speculation.

September, 1911

In September 1911, Germany experienced bank runs during the Agadir Crisis, which sparked a severe stock market plunge in Berlin. The Reichsbank assisted banks with considerable resources, but two banks in Goettingen still failed. The exact extent of the crisis is unclear, but it is estimated to have been far above 4 million Mark, according to the description by [Metrick and Schmelzing \(2021\)](#).

Sources: [Metrick and Schmelzing \(2021\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by a stock market crash.

July, 1914

According to [Baron et al. \(2021\)](#), who cite [Holtfrerich \(1980\)](#), German banks experienced severe bank runs at the beginning of World War I in July 1914, although these runs were not associated with major bank failures.

Sources: [Baron et al. \(2021\)](#), [Holtfrerich \(1980\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by World War I.

August, 1929

According to the description of [Baron et al. \(2021\)](#), Germany experienced a severe banking crisis in the summer of 1931, which worsened the economic slump caused by the Great Depression. The crisis was triggered by the collapse of Danatbank, one of Germany's four big universal banks, which had invested heavily in foreign bonds and suffered huge losses. The failure of Danatbank sparked a wave of panic and withdrawals from other banks, leading to the closure of more than 40 banks and the suspension of payments by the Reichsbank, Germany's central bank. [Bernanke and James \(1990\)](#) report the first bank runs and failures of smaller banks in August 1929, which we treat as the start date of the run. [Jordà et al. \(2017\)](#) also report widespread deposit withdrawals in 1930 and 1931, starting in June 1930.

Sources: [Baron et al. \(2021\)](#), [Jordà et al. \(2017\)](#), [Bernanke and James \(1990\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the collapse of Danatbank.

B.37 Ghana

2015

Ghana experienced bank runs from 2015 to 2018. This phase was characterized by a substantial number of bank failures, with 20 percent of banks collapsing between August

2017 and August 2018. The financial turmoil incurred a significant cost to the nation, amounting to 9.9 billion Cedi (about \$2.2 billion), which represented approximately 3.5% of Ghana's GDP, according to Antwi (2020).

Sources: Antwi (2020)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by ongoing solvency issues in the aggregate banking sector, coinciding with high shares of non-performing loans (Antwi, 2020).

B.38 Greece

September, 1931

In September 1931, Greece experienced bank runs. During this period, 17 of the smaller banks failed or closed, but the larger banks survived. The panic started when the pound sterling abandoned the Gold Exchange Standard resulting in a currency devaluation in Greece.

Sources: Baron et al. (2021), Christodoulakis (2012)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by a currency devaluation.

January, 2015

In 2015, Greece experienced bank runs when people withdrew their money due to the political and economic uncertainty caused by the debt crisis and the referendum on the terms of the government bailout. The Greek government imposed capital controls in June 2015 to prevent the banking system from collapsing, limiting the amount of cash withdrawals and transfers. The Bank of Greece reported that household and business deposits fell to €133.7 billion in April 2015, the lowest level in a decade. Greek banks also relied heavily on emergency liquidity assistance from the European Central Bank, which reached €86.7 billion by the end of June 2015.

Sources: Financial Times (2015), The Guardian (2015), Forbes (2015b), HuffPost (2015)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the sovereign debt crisis and political instability.

B.39 Guatemala

October, 2006

In October 2006, panicked depositor withdrawals triggered the collapse of Banco del Café (Bancafé), Guatemala's fourth-largest bank, after losses of more than \$200 million linked to the Refco scandal. Regulators intervened and began liquidation, and the crisis was followed by the failure of Banco de Comercio in early 2007.

Sources: [Euromoney \(2007\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the Refco scandal.

B.40 Haiti

October, 2002

In October 2002, Haiti experienced a bank run amid political instability and rumors that authorities might force the conversion of U.S.-dollar deposits into gourdes. Depositors rushed to withdraw funds from commercial banks, and IMF estimates indicate that bank deposits fell by about \$90 million (roughly 20 percent of deposits) during the month. Confidence stabilized after official reassurances, and deposits recovered in the following month.

Sources: [Tucker and Tellis \(2005\)](#) [International Monetary Fund \(2005\)](#), [The Washington Post \(2002\)](#)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

B.41 Honduras

October, 2015

In October 2015, the Honduran government closed Banco Continental, the country's eighth-largest bank, after U.S. authorities accused its owners, the Rosenthal family, of laundering money for drug traffickers. The announcement sparked concern among depositors and prompted withdrawals, leading regulators to place the bank into forced liquidation while authorities began reimbursing more than 220,000 account holders.

Sources: [InSight Crime \(2015\)](#)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

B.42 Hong Kong

March, 1892

In March 1892, Hong Kong experienced a bank run on the New Oriental Bank Corporation, which failed three months later, triggering a second wave of bank runs on other banks.

Sources: [Baron et al. \(2021\)](#), [Sheehan \(2018b\)](#), [Matlach \(2010\)](#)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

1914

In 1914, the outbreak of World War I triggered financial panic in Hong Kong, leading depositors to withdraw funds from banks. Contemporary reports described a “run upon the banks,” largely driven by nervous depositors who feared instability in the financial system. Authorities and newspapers emphasized that the banks remained solvent and that withdrawing deposits in silver would likely impose losses on depositors ([Roberts, 2014](#)).

Sources: [Roberts \(2014\)](#)

Run Cause Classification: We classify the run episode as **macroeconomic**. The bank run was triggered by World War I.

1935

In 1935, Hong Kong experienced bank runs that generated widespread panic and threatened to destabilize the colony's economy. According to [Goodstadt \(2007\)](#), the runs were severe enough that officials in London and local business leaders called for sweeping reforms of the banking system, including the introduction of professional banking regulation. The episode was closely linked to global monetary instability: between 1933 and 1935, rising international silver prices more than doubled and triggered large silver outflows from China and the region, tightening liquidity and undermining confidence in the currency and banking system ([Bank of China, n.d.](#)).

Sources: [Goodstadt \(2007\)](#), [Bank of China \(n.d.\)](#)

Run Cause Classification: We classify the run episode as **macroeconomic**. The bank run coincided with large silver outflows from China and a currency crisis.

June, 1961

In June 1961, Hong Kong experienced a bank run on the Liu Kong Hing Bank that lasted for several days. The run was blamed on malicious rumors spread by rivals of the bank's managing director, Liu Po-sang. The basis of the rumors was that the bank was under police investigation.

Sources: [South China Morning Post \(2008\)](#)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

January, 1965

In January 1965, Hong Kong experienced a bank run after new prudential regulations and a property downturn hit local Chinese banks with large exposures to unfinished property projects and other illiquid assets. The bank run continued in phases throughout the year, with one in January, three in April and four in November.

Sources: Hoffner (2022), Chan (1998), Cole et al. (1995)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by a regulatory change affecting all Chinese banks.

September, 1982

In September 1982, Hong Kong experienced a significant bank run on the Hang Lung Bank, triggered by public misperceptions and rumors. The incident began when an elderly woman, mistakenly believing that she could cash in a gold certificate from a local jeweller at any bank, was refused at Hang Lung Bank, leading her to publicly claim that the bank had run out of money. This caused widespread panic and a rush to withdraw funds, despite the bank's strong financial position with a liquidity ratio well above the required regulatory threshold. The situation was eventually stabilised by swift actions by the bank and the Hong Kong authorities, who worked hard to dispel rumors and restore public confidence.

Sources: South China Morning Post (2008), The Business Times (1982)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

June, 1985

In June 1985, the Overseas Trust Bank (OTB), the third largest local bank in Hong Kong at the time, collapsed due to loan losses and heavy exposure to a speculative property market. The crisis heightened concerns about the stability of Hong Kong's banking system, causing a loss of confidence among investors and depositors (South China Morning Post, 2008). Following the collapse of OTB, 'other banks ... became the targets of deposit withdrawal' (Dodsworth and Mihaljek, 1997). In response, the Hong Kong government took over OTB to prevent a broader economic crisis, leading to significant reforms in the banking sector to enhance regulatory oversight and improve risk management practices.

Sources: South China Morning Post (2008), Bruner (2008), Li (1999), Dodsworth and Mihaljek (1997)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by loan losses at the Overseas Trust Bank.

July, 1991

In July 1991, Hong Kong experienced bank runs, following the failure of the BCCI Group subsidiary on Standard Chartered Bank, Dao Heng Bank, International Bank of Asia, First Pacific Bank, and Citibank Hong Kong and protests by depositors (no deposit insurance scheme). These runs subsided after several days, according to [Baron et al. \(2021\)](#).

Sources: [Baron et al. \(2021\)](#), [Metrick and Schmelzing \(2021\)](#), [Li \(1999\)](#), [Los Angeles Times \(1991\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of the BCCI Group.

January, 1998

In January 1998, Hong Kong experienced bank run on Peregrine Investment Holdings, following the spread of rumors triggered by the Asian financial crisis in 1997 adversely affected confidence in individual banks and the system as a whole, resulting in a short and temporary run on a local bank, according [Baron et al. \(2021\)](#)

Sources: [Baron et al. \(2021\)](#), [Metrick and Schmelzing \(2021\)](#), [International Monetary Fund \(1998\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the uncertainty accompanying the Asian Financial Crisis.

September, 2008

In September 2008, Bank of East Asia, Hong Kong's fifth-largest bank by assets, experienced a bank run after rumors spread about the bank's financial health given its exposure to the ongoing US financial crisis. The run eased after reassurances from officials and the purchase of shares by a high-profile tycoon helped calm panicked depositors, according to [China Daily \(2008\)](#).

Sources: [China Daily \(2008\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the uncertainty accompanying the Great Financial Crisis 2007/08.

B.43 Hungary

July, 1873

In July 1873, Hungary experienced bank runs and massive withdrawals by depositors during the Austria-Hungarian “Gründerkrach”. Also see [B.8](#).

Sources: [Rieder \(2017\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the Gründerkrach crisis in Austria.

July, 1914

In late July 1914, as the outbreak of World War I triggered financial panic across Europe, depositors in Austria-Hungary began withdrawing funds from banks. Authorities responded by proclaiming a moratorium on bank accounts on 31 July and limiting withdrawals to 3 percent of deposits or 200 crowns per day to halt the runs and stabilize the banking system ([Roberts, 2014](#)). These emergency measures, together with the suspension of the gold-cover requirement for banknotes on 4 August, were intended to contain the panic and restore financial stability.

Sources: [Roberts \(2014\)](#), [Roberts \(2011\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the outbreak of World War I.

October, 1930

In October 1930, Hungary experienced a smaller bank run than the one that followed in 1931, but it seems to have been large enough to be considered a separate panic, according to the documentation in [Baron et al. \(2021\)](#). The run was triggered by either the Hungarian prime minister’s announcement to introduce fiscal austerity or an increase in political

uncertainty associated with the Reichstag election in Germany (Ágnes Pogány, 2014).

Sources: Baron et al. (2021), Ágnes Pogány (2014)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

July, 1931

In July 1931, Hungary faced significant bank runs, particularly in Budapest, as a result of the collapse of the Creditanstalt bank in Vienna, which marked the spread of the Great Depression in Europe. The crisis centred on the General Credit Bank, with depositors rapidly withdrawing their funds amid growing financial uncertainty. This led the Hungarian government to declare a bank holiday to stop all banking operations and stabilise the situation. The crisis was further intensified by the withdrawal of foreign investments, leading to a standstill agreement with foreign creditors to manage the escalating financial instability.

Sources: Macher (2015), Ágnes Pogány (2014), Bernanke and James (1990)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of the Creditanstalt bank in Vienna.

February, 1997

According to Barisitz (2007), Hungary experienced a depositor run on the sixth largest bank Postabank in 1997, which later failed and was partially privatized. The CEO of the bank was fired immediately after the run for his fraudulent behavior.

Sources: Baron et al. (2021), Barisitz (2007)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the fraudulent behavior of the CEO of the bank (Barisitz, 2007).

B.44 Iceland

September, 2008

In 2008, Iceland experienced a major banking crisis, which also featured bank runs. In March 2008, runs occurred at Landsbanki's Icesave and Kaupthing's Edge. In late September 2008, Glitnir Bank received a capital injection from the government, which was strongly opposed by a major shareholder, a media magnate, and the resulting media campaign against the bailout triggered a bank run. On 3 October 2008, there were further runs after Professor Gylfi Magnusson said in a radio interview that Iceland's banks were "technically bankrupt".

Sources: [Coin Telegraph \(2021\)](#), [University of Iceland \(2018\)](#), [BBC \(2016a\)](#), [Einarsson et al. \(2015\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the global financial crisis starting in 2007 in the US.

B.45 India

1819

In 1819, the Bank of Hindostan in Calcutta experienced a bank run after a malicious rumor spread that the bank could not redeem its notes for specie. Alarmed depositors rushed to withdraw their funds.

Sources: [Madras Courier \(2025\)](#)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

1828

In 1828, an economic crisis in Calcutta triggered a run on the Calcutta Bank, as depositors rushed to withdraw funds amid fears about the stability of early private banks. The panic forced the bank to merge with the Commercial Bank to form the Union Bank, reflecting the fragility of the colonial banking system at the time. The crisis was part of a broader period of instability among Calcutta banks, which culminated in the severe banking failures of

the early 1830s.

Sources: [Groklopedia \(2025\)](#), [Scutt \(1904\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the 1828 economic crisis in the region of Calcutta.

1829

In 1829, the failure of the agency house Palmer & Co. in Calcutta triggered panic withdrawals from the Bank of Hindostan, one of the earliest banks in India. Depositors rushed to withdraw funds amid fears that the bank would be unable to redeem its notes for specie.

Sources: [Madras Courier \(2025\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of the agency house Palmer & Co.

1832

In 1832, a broader commercial crisis led to the collapse of several agency houses and banks in Calcutta, triggering renewed depositor withdrawals. Although the Bank of Hindostan had survived earlier runs, the crisis ultimately forced the bank to close that year.

Sources: [Madras Courier \(2025\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the collapse of several agency houses which suffered heavy losses due to the decline of the indigo price ([Madras Courier, 2025](#)).

November, 1913

In 1913, India experienced a major bank run that had a significant impact on the country's financial system. This event, often referred to as the "Indian Banking Panic of 1913", was triggered by the failure of the Bank of Bombay and the subsequent rumors and panic that led to a widespread crisis.

Sources: Agrawal (2018), Indian Vagabond (2019), Palat (2011), Punjab National Bank (n.d.)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of the Bank of Bombay.

April, 1938

In April 1938, the Travancore National and Quilon Bank (TNQB) experienced a severe bank run triggered by a coordinated rumor campaign and political intervention, including false claims about large government deposit withdrawals and public warnings against dealing with the bank. These rumors rapidly undermined confidence and led depositors to rush to withdraw their funds en masse, effectively attempting to empty the bank of deposits. The resulting liquidity crisis forced the bank into collapse later in 1938.

Sources: Maddy's Ramblings (2022)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

March, 2001

In March 2001, a significant bank run occurred in Gujarat, India, primarily involving a large cooperative bank. This event was triggered by a fraud case where the bank had extended loans to stockbrokers without appropriate collateral. The immediate aftermath saw a ripple effect as the panic spread, leading to runs on other cooperative banks in the region.

Sources: Iyer and Puri (2012)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by a bank-level fraud case.

March, 2008

Following the failure of Bear Stearns and Lehman Brothers in the United States, India experienced a series of runs on private banks between 2008 and 2009. Triggered by a change in risk perception during the Global Financial Crisis, Indian depositors migrated

from private banks to state-owned banks. [Acharya et al. \(2025\)](#) date the start of the run episode to March 2008 after Bear Stearns failed in the United States.

Sources: [Acharya et al. \(2025\)](#), [Acharya et al. \(2019\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the spillovers of the Global Financial Crisis 2007/2008.

September, 2019

In September 2019, the Reserve Bank of India imposed restrictions on the operations of Punjab and Maharashtra Co-operative Bank after uncovering financial irregularities. The move triggered panic among depositors, who rushed to bank branches and formed long queues to withdraw their savings while protesting the withdrawal limits imposed by the authorities. The panic followed the announcement of strict withdrawal caps and concerns about the safety of deposits, prompting widespread distress among customers.

Sources: [Manorama Yearbook \(2025\)](#), [Nayak and Chandiramani \(2022\)](#), [Financial Times \(2020\)](#), [Deccan Chronicle \(2019\)](#), [The Times of India \(2019\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the announcement of strict withdrawal caps following the discovery of financial irregularities.

March, 2020

In March 2020, India experienced a bank run at Yes Bank after the Reserve Bank of India imposed a moratorium on the troubled lender and capped withdrawals at 50,000 rupiah per account. The announcement triggered panic among depositors, who rushed to withdraw funds and queued outside branches and ATMs. In November 2020, the Reserve Bank of India rescued another Indian bank, the Lakshmi Vilas Bank, which suffered heavy losses.

Sources: [Gupta \(2025\)](#), [Sachdeva \(2021\)](#), [Financial Times \(2020\)](#), [Reuters \(2020b\)](#), [Reuters \(2020a\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by fundamental troubles at Yes Bank.

B.46 Indonesia

July, 1991

In July 1991, Indonesia experienced a bank run at Bank Danamon. The event was triggered by rumors of operational difficulties at the bank. This situation led to a small run on the bank as customers withdrew their funds due to concerns about the bank's stability. In order to stabilise the situation, the Indonesian government had to step in. This incident was part of a series of financial difficulties experienced by various banks in Indonesia in the early 1990s, which pointed to underlying weaknesses in the country's financial sector.

Sources: Simorangkir (2012), Moreno et al. (1998), Montgomery (1997)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

November, 1992

In November 1992, Bank Summa became insolvent due to a significant portion of its loans turning non-performing, with a notable concentration in the real estate sector. Alarmingly, 70% of these bad loans were made to related parties, far exceeding legal lending limits. The situation at Bank Summa led to a severe liquidity crisis by 1992, necessitating emergency liquidity support from Bank Indonesia. Despite efforts to stabilize the bank, including a memorandum of understanding in which the owners committed to repay nonperforming connected loans and recapitalize the bank, the owners failed to meet their commitments. The bank's financial condition continued to deteriorate, leading to Bank Indonesia's decision not to grant any additional liquidity support and eventually to revoke Bank Summa's license in December 1992.

Sources: Baron et al. (2021), Reinhart and Rogoff (2009), Enoch et al. (2001), South China Morning Post (1999)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the bank-level losses at Bank Summa.

November, 1997

During 1997-1999, Indonesia experienced bank runs during the Asian Financial Crisis. We date the beginning of these runs as November 1997 as reported by [Euromoney \(2019a\)](#), which is also supported by data on bank-level deposit outflows reported in [Simorangkir \(2012\)](#). This event is also classified as a systemic banking crisis by [Reinhart and Rogoff \(2009\)](#).

Sources: [Baron et al. \(2021\)](#), [Euromoney \(2019a\)](#), [Laeven and Valencia \(2018\)](#), [Simorangkir \(2012\)](#), [Reinhart and Rogoff \(2009\)](#), [Enoch et al. \(2001\)](#), [Watanabe \(1998\)](#), [BBC \(1998\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the Asian Financial Crisis.

September, 2008

In September 2008, Indonesia experienced a bank run at Bank Century amid the global financial crisis. Depositors began withdrawing funds rapidly in September 2008, creating severe liquidity pressures and bringing the bank close to collapse. The government responded with emergency liquidity support and a bailout to prevent contagion to other banks.

Sources: [Arnold \(2025\)](#), [Antara News \(2013\)](#), [The United States-Indonesia Society \(2010\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by spillovers of the 2008 financial crisis.

B.47 Iran

2017

In 2017, several Iranian credit institutions collapsed after attracting large deposits by promising unusually high interest rates. When these institutions stopped repaying depositors, customers attempted to withdraw their savings and staged protests across the country demanding their money back. Demonstrations by depositors occurred in many cities, with people gathering outside financial institutions and government offices after they were unable to recover their deposits.

Sources: National Council of Resistance of Iran (2017), The Iran Observer (2017), Radio Farda (2017)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by several banks unable to repay their depositors.

December, 2022

In 2022, Iran experienced bank runs due to a severe currency devaluation, which led to customers withdrawing their money from banks (widely supported by nationwide protests).

Sources: Nova News (2022), Iran International (2022a), Iran International (2022b), Witte (2022)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by a currency devaluation.

B.48 Ireland

May, 1820

In May 1820, a banking panic began in Cork after the failures of local private banks, triggering widespread depositor withdrawals (Munn, 1983). The crisis quickly spread across southern Ireland, leading to the closure of several banks in towns such as Limerick, Clonmel, Waterford, and Kilkenny, and eventually provoking runs on private banks in Dublin. The wave of withdrawals and bank failures reflected the fragility of Ireland's provincial banking system and caused a severe disruption of credit across the country.

Sources: The Old Currency Exchange (2017), Munn (1983)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of several local private banks.

February, 1856

In February 1856, the Tipperary Joint-Stock Bank collapsed after its chairman, John Sadleir, secretly diverted customer funds to finance speculative investments. When Sadleir com-

mitted suicide on 17 February 1856, the bank's London agents refused to honor its drafts, triggering a depositor run as confidence evaporated. The bank soon failed with liabilities of about £430,000 against assets of only about £35,000, leaving depositors and creditors facing severe losses.

Sources: *The Irish Times* (2020), *The Old Currency Exchange* (2017), Ó Gráda (2012)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the chairman of the Joint-Stock Bank diverting funds.

September, 2008

In 2008, Ireland experienced a severe financial crisis that led to significant upheaval in the banking sector. There is evidence of runs on, among others, Anglo Irish Bank, where “depositors made massive withdrawals” (Chu, 2014). Baudino et al. (2020) also stress the widespread nature of runs on Irish banks and cite September as the beginning of deposit withdrawals. This episode is also classified as a systemic banking crisis by Jordà et al. (2017), Laeven and Valencia (2018), and Reinhart and Rogoff (2009). Baron et al. (2021) treat this as a banking panic.

Sources: Baron et al. (2021), Baudino et al. (2020), International Monetary Fund (2018a), Laeven and Valencia (2018), Jordà et al. (2017), Chu (2014), Whelan (2013), Reinhart and Rogoff (2009), Raidió Teilifís Éireann (2009)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was coinciding with the Great Financial Crisis.

B.49 Italy

1866

In 1866, Italy experienced a financial crisis during the Third Italian War of Independence and the international panic following the 1865–1866 credit contraction. Depositors withdrew funds and demanded conversion of banknotes into specie, putting pressure on banks' metallic reserves and forcing them to restrict lending (Gigliobianco and Giordano, 2010). To prevent a broader banking collapse, the government suspended convertibility of banknotes and effectively turned them into fiat currency (Conant, 1915).

Sources: Gigliobianco and Giordano (2010), Conant (1915)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run episode was triggered by the financial crisis during the Third Italian War of Independence.

January, 1893

In 1893, Italy experienced a banking panic following the Banca Romana scandal, which erupted at the end of 1892 when a previously secret government report revealed large losses and illegal note issuance by the bank. The revelations undermined confidence in the Italian banking system and triggered widespread concern about the solvency of the country's banks of issue, contributing to withdrawals and financial instability. The crisis had major repercussions: the Credito Mobiliare failed in 1893, Banca Generale collapsed in 1894, and the government responded with a new banking law in 1893 that created the Bank of Italy, which absorbed the losses of Banca Romana.

Sources: Baron et al. (2021), Bartoletto et al. (2018), Jordà et al. (2017), Gigliobianco and Giordano (2010), Reinhart and Rogoff (2009)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run episode was triggered by losses and illegal note issuance by the Banca Romana.

September, 1907

According to Vercelli (2022), the 1907 banking crisis in Italy was accompanied by bank runs on the large mixed banks Banca Commerciale Italiana, Credito Italiano, and Società Bancaria Italiana. That said, these runs were relatively isolated, as there were no runs on cooperative banks, ordinary credit banks, and postal banks. Baron et al. (2021) date a banking panic to occur in September 1907. A stock market crash preceded the banking crisis between April and early summer 1907, according to Vercelli (2022). Especially, the Società Bancaria Italiana suffered large losses during the global stock market crash. When depositors became aware of the situation of Società Bancaria Italiana, they withdrew significant amounts of deposits.

Sources: Vercelli (2022), Metrick and Schmelzing (2021), Baron et al. (2021), Jordà et al. (2017), Reinhart and Rogoff (2009)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by a large-scale stock market crash and the following banking crisis.

July, 1914

At the beginning of World War I, Italy experienced widespread bank runs as part of a broader banking panic as classified by [Baron et al. \(2021\)](#). [Reinhart and Rogoff \(2009\)](#) also report this event as a systemic banking crisis.

Sources: [Baron et al. \(2021\)](#), [Reinhart and Rogoff \(2009\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by World War I.

November, 1921

According to [Baron et al. \(2021\)](#) and [Jordà et al. \(2017\)](#), the runs on Banca Italiana di Sconto and Banco di Roma triggered a larger financial panic, leading to the liquidation of the former and the bailout of the latter. Banca Italiana di Sconto experienced an increase in the share of non-performing loans before the run, according to [Bartoletto et al. \(2018\)](#). Banca Italiana di Sconto was the third-largest Italian bank in 1921.

Sources: [Baron et al. \(2021\)](#), [Bartoletto et al. \(2018\)](#), [Jordà et al. \(2017\)](#), [Gigliobianco and Giordano \(2010\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the increase in non-performing loans.

December, 1930

According to [Bernanke and James \(1990\)](#) and [Jordà et al. \(2017\)](#), in December 1930, Italy experienced a bank run involving its three largest banks. This financial turmoil was set against the backdrop of the international financial crisis that began in the United States in 1929, and Italy's adherence to the gold standard, which facilitated substantial capital outflows and deflation. The bank run caused widespread panic, leading to a significant reorganization and takeover of frozen industrial assets by the government in April 1931,

aimed at stabilizing the situation.

Sources: Baron et al. (2021), Jordà et al. (2017), Gigliobianco and Giordano (2010), Bernanke and James (1990)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by capital outflows and deflation caused by the global Great Depression.

October, 2016

In 2016, Italy's banking system faced severe stress centered on Monte dei Paschi di Siena, which was burdened with large non-performing loans. Concerns about the bank's solvency led depositors and investors to withdraw funds, worsening its liquidity position (Geopolitical Future, 2016). After the bank failed to raise private capital, the Italian government intervened in December 2016 with a €20 billion rescue fund to stabilize the banking system (The Guardian, 2016a).

Sources: Geopolitical Future (2016), The Guardian (2016a)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by solvency concerns about Monte dei Paschi di Siena due to a high share of non-performing loans.

B.50 Ivory Coast

February, 2011

In February 2011, Ivory Coast experienced bank runs amid rumors of a cash shortage in a political crisis in the country, according to an article from The Guardian (2011c). The British bank Standard Chartered suspended operations in Ivory Coast, joining two other banks, BICICI and Citibank, and the regional stock exchange. Two months after a contested presidential election that led the incumbent leader Laurent Gbagbo to refuse to cede power, international financial pressure supported his opponent, Alassane Ouattara, after troops seized the regional stock exchange.

Sources: The Guardian (2011c), CBS News (2011), The Guardian (2011b)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by a political crisis.

B.51 Jamaica

December, 1847

In 1847, Jamaica experienced financial distress linked to the wider Panic of 1847 in Britain, which spread through the colonial financial system and undermined confidence in banks across the British Empire. Concerns about the adequacy of specie reserves led depositors to withdraw funds from local institutions such as the Bank of Jamaica, creating pressure on bank liquidity and forcing banks to restrict lending and conserve reserves.

Sources: [Armstrong \(2010\)](#), [Wai \(2010\)](#), [Callender \(1965\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by spillovers of the 1847 panic in Britain.

May, 1996

Jamaica experienced severe bank runs in 1996-97 in the context of a systemic banking crisis. Depositors withdrew their savings from weak local institutions and placed them in branches of foreign banks. Banks that experienced runs included Century National Bank, Citizens Bank, and Eagle Bank. The previous boom had been accompanied by rapid growth in the less regulated parts of the financial sector and poor supervision. The runs were preceded by tight monetary policy, weak governance, poor supervision, and poor management of the banks, according to [Swaby \(2011\)](#).

Sources: [George \(2022\)](#), [Swaby \(2011\)](#), [International Monetary Fund \(1999b\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by lax supervision and poor management of banks.

B.52 Japan

August, 1871

According to [Shizume and Tsurumi \(2016\)](#), the “exchange companies” (kawase-gaisha) were a prototype of modern commercial banks and started operating in 1869. However,

they soon experienced runs, and all but one institution (in Yokohama) closed down. Because [Shizume and Tsurumi \(2016\)](#) do not explicitly date this event, only specifying that the runs happened “soon” after the kawase-gaisha were set up in 1869, we stick with the dating in [Baron et al. \(2021\)](#), who classify this episode as narrative evidence for bank runs in 1871. This is also consistent with the crisis dating in [Jordà et al. \(2017\)](#).

Sources: [Baron et al. \(2021\)](#), [Jordà et al. \(2017\)](#), [Shizume and Tsurumi \(2016\)](#)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

1890

In 1890, Japan experienced its first modern banking panic after the collapse of a speculative boom in equities and real estate during the late 1880s. The crisis began in Osaka and western Japan, where rumors about bank solvency triggered depositor withdrawals and runs on several institutions, forcing a number of banks to suspend payments. Contemporary accounts note that numerous banks failed or suspended operations during the panic. In response, the Bank of Japan conducted large-scale purchases of securities to stabilize financial markets, marking what has been described as the first instance of unconventional monetary policy among major industrial economies ([Shizume and Tsurumi, 2016](#)).

Sources: [Nakabayashi \(2017\)](#), [Shizume and Tsurumi \(2016\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the bust of the equity and real estate market in the late 1880s.

December, 1900

In December 1900, a suspension at Kyushu Ninth Bank was associated with localized bank runs in the Kyushu area, followed by further runs and a full-fledged banking crisis in early 1901. Both [Metrick and Schmelzing \(2021\)](#) and [Jordà et al. \(2017\)](#) classify this as an episode characterized by runs and panic, which is further supported by the discussion in [Smitka \(1998\)](#) and [Juro Teranishi \(1978\)](#).

Sources: [Metrick and Schmelzing \(2021\)](#), [Jordà et al. \(2017\)](#), [Smitka \(1998\)](#), [Juro Teranishi \(1978\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the suspension of payment by the Kyushu Ninth Bank.

February, 1907

According to [Baron et al. \(2021\)](#) and [Jordà et al. \(2017\)](#), a run on Nagoya Bank in February 1907 triggered a broader panic, which was associated with subsequent failures of several banks, including the One Hundred Thirty-Eight Bank. In total, 42 banks were affected by runs.

Sources: [Baron et al. \(2021\)](#), [Jordà et al. \(2017\)](#), [Juro Teranishi \(1978\)](#)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

April, 1920

After the end of the First World War, the Japanese wartime boom ended with major banking sector disruptions. According to [Metrick and Schmelzing \(2021\)](#), bank runs started in April 1920 following the collapse of Masuda Bank in Osaka, which triggered bank runs in several other regions. Both [Jordà et al. \(2017\)](#) and [Baron et al. \(2021\)](#) also discuss the prevalence of bank runs.

Sources: [Metrick and Schmelzing \(2021\)](#), [Baron et al. \(2021\)](#), [Jordà et al. \(2017\)](#), [Shizume \(2009\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of the Masuda bank.

February, 1922

According to [Baron et al. \(2021\)](#), the failure of Ishii Corporation, a lumber company, triggered a wave of bank runs. First concentrated in Kochi Prefecture and the Kansai region, the runs spread across the country starting in October and developed into a broader banking crisis ([Shizume, 2009](#)). This episode is also classified as a systemic banking crisis in 1923 by [Reinhart and Rogoff \(2009\)](#).

Sources: Baron et al. (2021), Shizume (2009), Reinhart and Rogoff (2009)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of a lumber company.

September, 1923

The Great Kantō earthquake devastated Tokyo's financial infrastructure, destroying 121 of the city's 138 bank head offices (Iyo Bank, 1992). In the immediate aftermath, widespread panic among depositors triggered a wave of withdrawals. Smaller banks and also some large local banks experienced large deposit declines (Okazaki et al., 2023). To contain the crisis, the government declared a moratorium on September 7, while the Bank of Japan intervened by discounting special "earthquake bills" to provide liquidity and stabilize the financial system (Okazaki et al., 2023).

Sources: Okazaki et al. (2023), Iyo Bank (1992)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the Great Kantō Earthquake.

March, 1927

In 1927, following the Great Kanto Earthquake, the Japanese banking sector experienced several bank runs following a spike in disaster-related non-performing loans. Several sources mention the occurrence of bank runs, including Baron et al. (2021) and Jordà et al. (2017).

Sources: Baron et al. (2021), Jordà et al. (2017), National Graduate Institute for Policy Studies (n.d.)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the increase in aggregate non-performing loans.

December, 1973

In December 1973, a rumor about the imminent bankruptcy of the Toyokawa Shinkin Bank triggered a run on the bank. The groundless rumor was spread by a high school student in a conversation with friends, claiming that "Shinkin banks are dangerous" (Kawasaki,

2025).

Sources: Kawasaki (2025), The Asahi Shimbun (2023), Japan Knowledge (2023), Sekiya (2023), Takemura et al. (2011)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

November, 1997

According to several sources, the 1997 banking crisis in Japan was accompanied by runs. Nippon News (2017) states that, after the failures of Hokkaidō Takushoku Bank, Sanyō Securities, and Yamaichi Securities, “on November 26 the run on banks followed”. The occurrence of runs is also mentioned several times in a “post-mortem” document on the crisis by the BIS (Nakaso, 2001). Also in line with this interpretation, Enoch et al. (2001) mentions that “the perception of weakness in other banks in the system prompted depositors to more aggressively withdraw their funds from weakened depository institutions”.

Sources: Nippon News (2017), Nakaso (2001), Enoch et al. (2001)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by multiple failures of Japanese banks during the 1997 banking crisis.

December, 2003

In December 2003, Saga Bank experienced a depositor run triggered by a rumor falsely claiming the bank’s bankruptcy, although the bank’s fundamentals were sound (Monolith Law Office, 2022; Takemura et al., 2011). Depositors withdrew over 50 billion yen during the run (Monolith Law Office, 2022).

Sources: Japan Knowledge (2023), Monolith Law Office (2022), Takemura et al. (2011)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

B.53 Jordan

August, 1989

According to [Laeven and Valencia \(2018\)](#), Jordan experienced a bank run in 1989 after the country's third-largest bank failed. The failure of Petra Bank was triggered when the central bank tightened liquidity and foreign exchange regulations, requiring banks to deposit 30% of their foreign currency holdings. Petra Bank was unable to meet the obligation. This regulatory action exposed underlying solvency problems, including overstated assets and large bad debts ([The Guardian, 2003](#)). The bank was "besieged by depositors" ([Los Angeles Times, 2003](#)) and ultimately collapsed.

Sources: [Laeven and Valencia \(2018\)](#), [Los Angeles Times \(2003\)](#), [The Guardian \(2003\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of the country's third-largest bank.

B.54 Kazakhstan

February, 2014

In 2014, Kazakhstan experienced bank runs when large numbers of depositors gathered outside Kaspi Bank, Alians Bank, and Centrcredit Bank to withdraw their money. According to media reports, the initial trigger was general worries about currency devaluation, fueled by rumors on social media about the health of the three banks.

Sources: [International Monetary Fund \(2018b\)](#), [Radio Free Europe/Radio Liberty \(2014\)](#), [Eurasianet \(2014\)](#)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

B.55 Kenya

1993

In 1993, Kenya experienced a bank-specific depositor run during the Goldenberg financial scandal, which severely undermined confidence in the banking sector. After authorities withdrew the licenses of several institutions and placed Post Bank Credit into liquidation

in May 1993, adverse media reports about the National Bank of Kenya's deteriorating loan portfolio triggered a depositor run on the bank. The government intervened to stabilize the situation, recapitalizing the bank with KSh 0.5 billion in equity and KSh 1.5 billion in loans to restore confidence and prevent wider contagion in the financial system. According to [Nyambura \(2019\)](#), thirteen banks collapsed in 1993.

Sources: [Nyambura \(2019\)](#), [Medium \(2016\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the Goldenberg financial scandal, one of the largest corruption and financial fraud cases in Kenya.

March, 1994

In March 1994, Kenya experienced a bank run at Export Bank of Africa Ltd. after negative publicity surrounding a KSh 100 million cheque drawn in favor of the Central Bank of Kenya undermined confidence in the bank. Depositors rushed to withdraw funds, and the bank attempted to meet withdrawals through heavy interbank borrowing and irregular clearinghouse transactions. As the situation deteriorated, the Central Bank of Kenya placed the bank under statutory management on 12 April 1994.

Sources: [Nyambura \(2019\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the negative publicity surrounding a KSh 100 million cheque.

April, 2016

In 2016, Chase Bank Kenya, a mid-sized bank unrelated to the US bank with the same name, experienced a run due to "inaccurate social media reports" after chairman Zafrullah Khan and group managing director Duncan Kabui stepped down following concerns over the credibility of the bank's financials. The fallout was prompted by a restatement of financial results showing a more than doubling of "insider loans" made by the bank. The bank was put into receivership.

Sources: [Quartz \(2019\)](#), [Gathaiya \(2017\)](#), [Business Daily \(2016\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the step-down of the managing directors of the bank after it became public that the managers were engaged in issuing insider loans.

October, 2022

In 2022, First Community Bank (FCB) experienced a bank run when a large number of customers withdrew their money. The run followed reports of a disruption in the bank's services, prompting FCB to halt withdrawals. FCB was eventually acquired by Premier Bank.

Sources: *Citizen Digital* (2022), *Business Daily* (2022)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

B.56 Kuwait

August, 1990

In August 1990, Iraq's invasion of Kuwait triggered financial panic and large deposit withdrawals across the Gulf banking system. Within two weeks of the invasion, about \$15 billion of deposits was withdrawn from regional banks, reflecting attempts by depositors to move funds abroad (*Euromoney*, 1990). The occupation effectively shut down much of Kuwait's domestic banking system.

Sources: *Euromoney* (1990)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered the invasion of Kuwait.

October, 2008

In October 2008, Kuwait's Gulf Bank experienced a bank run after suffering losses on derivatives trading caused by the fall of the euro against the dollar. The bank was subsequently bailed out by the government, as were several other banks.

Sources: Euromoney (2009), Financial Times (2008a)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by bank-level losses at the Gulf Bank.

B.57 Kyrgyzstan

March, 2005

In March 2005, Kyrgyzstan experienced deposit withdrawals during the political upheaval of the Tulip Revolution, which triggered a sharp loss of confidence in the financial system. As uncertainty intensified, depositors attempted to withdraw funds and pressure on banks increased. According to Nyawata (2007), deteriorating private-sector confidence led to pressures on deposits and the currency, prompting the authorities to freeze most bank deposits before reopening banks to stabilize the financial system.

Sources: Nyawata (2007)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the Tulip Revolution.

April, 2010

In 2010, Kyrgyzstan experienced a banking panic during the political upheaval that followed the April 2010 revolution. The unrest and subsequent investigations into financial links to the previous regime undermined confidence in AsiaUniversalBank (AUB), one of the country's largest banks, which held about a quarter of the banking system's deposits. As uncertainty spread, depositors withdrew funds and the banking system came under severe stress.

Sources: Tovar-García and Kozubekova (2016), Eurasianet (2010)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the 2010 revolution.

B.58 Latvia

July, 1931

In 1931, Latvia experienced runs on the Bank of Liepaja and the Riga International Bank, mainly as a result of the ongoing Great Depression of 1930. Latvia saw an increase in enterprise bankruptcies between January 1931 and the end of 1932. The bankruptcies resulted in huge losses in the Latvian banking system. Depositors withdrew their money in response to the observed aggregate difficulties in the banking system, according to [Karnups \(2012\)](#).

Sources: [Metrick and Schmelzing \(2021\)](#), [Karnups \(2012\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by a series of bankruptcies of borrowing companies.

May, 1995

In May 1995, Latvia experienced a retail bank run following the collapse of Banka Baltija, the country's largest commercial bank. The bank had attracted a large share of household deposits by offering exceptionally high interest rates, but concerns about its solvency led to a sudden loss of confidence. As news of the bank's problems spread, large numbers of depositors attempted to withdraw their savings, with crowds gathering outside branches demanding access to their funds ([Organized Crime and Corruption Reporting Project, 2011](#)). The failure of Banka Baltija triggered a broader banking crisis, ultimately leading to the collapse of several banks and losses affecting a large share of the Latvian banking system.

Sources: [Organized Crime and Corruption Reporting Project \(2011\)](#), [Fleming and Talley \(1996\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the collapse of the Banka Baltija.

October, 2008

In October 2008, following the Lehman collapse, Parex Bank experienced a rapid deposit run as domestic and non-resident clients withdrew funds amid rising liquidity pressures

and loss of wholesale funding. Deposits fell by about 34% by year-end, prompting government nationalization in November and withdrawal restrictions in December, alongside substantial state support Blanchard et al. (2013); Baudino et al. (2022).

Sources: Baudino et al. (2022), Blanchard et al. (2013)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by spillovers of the collapse of Lehman Brothers.

December, 2011

In 2011, rumors of financial instability led to bank runs at Latvia's Swedbank and Latvijas Krajbanka Bank. This came at the heels of large-scale depositor withdrawals following the failure of Parex Bank during the Global Financial Crisis, which left the financial sector in a vulnerable state.

Sources: Foreign Policy in Focus (2012), Business Insider (2011), The Wall Street Journal (2011)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

B.59 Lebanon

October, 1966

On 13 October 1966, Lebanon's largest bank, Intra Bank, collapsed after depositors rushed to withdraw their money amid rumors about the bank's solvency. At the time, Intra had a market share of 38% of all deposits, owned nine other banks and controlled 35 other companies. When the bank lost \$70 million in one day, leaving only \$330,000 in its vaults, the run spread to other banks, prompting the Lebanese cabinet to declare a bank holiday and the stock exchange to close. The bank's founder, Yousef Beidas, blamed the Lebanese government's slow response and the central bank's unwillingness to provide liquidity support on the fact that he had made powerful political enemies.

Sources: The Beirut (2023), Time Magazine (1966)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

October, 2019

In late 2019, Lebanon experienced a retail bank run amid a deepening financial and currency crisis. As confidence in the banking system deteriorated and foreign-currency shortages intensified, deposit withdrawals accelerated, prompting banks to impose informal capital controls and restrict access to deposits. Banks severely limited withdrawals—especially from U.S.-dollar accounts—and many depositors were effectively prevented from accessing their savings, marking the start of a prolonged banking crisis.

Sources: Snaije (2022), *Organized Crime and Corruption Reporting Project* (2022)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the 2019 financial and currency crisis.

B.60 Libya

February, 2011

During the Libyan revolution, which began in February 2011, there were widespread bank runs across the country. To counter this, the Central Bank of Libya imposed a cash withdrawal limit of LD750 per person per month. The Central Bank of Libya reported that the total amount of cash withdrawn reached LD7 billion.

Sources: *World Bank Group* (2020), *The Banker* (2012)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the revolution in 2011.

B.61 Lithuania

December, 1995

In 1995, during Lithuania's transition period, and following the introduction of a currency board the previous year, the country experienced a systemic banking crisis, including runs on struggling private banks. The first and third largest private banks, Innovation Bank

and Litimpeks Bank, were closed in December 1995, triggering large deposit withdrawals from other institutions. The long-term result of the 1995 episode was that three large Nordic banking groups ended up owning most of the banking sector (SEB, Swedbank and Luminor).

Sources: Eriksonas (2020), Laeven and Valencia (2018), Barisitz (2007)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of multiple banks during the transition period in the 1990s.

B.62 Macao

September, 2005

In September 2005, Macao experienced a bank run following the announcement of impending US sanctions against Banco Delta Asia, a Macao-based bank owned by the Delta Asia Financial Group. As a result, the Macao government invoked a banking law to replace the bank's board with government appointees.

Sources: South China Morning Post (2005), The Economist (2005)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by financial sanctions against the Banco Delta.

B.63 Malaysia

July, 1985

According to Sheng (1989), Malaysia experienced bank runs on branches of a large domestic bank, following the collapse of the Overseas Trust Bank (OTB) in Hong Kong. The failure of Setia Timor Credit and Leasing in September and closure of the stock exchange in December prompted further runs.

Sources: Baron et al. (2021), Reinhart and Rogoff (2009), Sheng (1989)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of the Overseas Trust Bank.

September, 1997

In September 1997, Malaysia experienced a bank run on MBF Finance after news spread throughout Malaysia that the elderly Mr Loy, the founder of MBF Finance, was ill. The company experienced a run on its 120 branches across Malaysia.

Sources: *The New York Times* (1999), *The Wall Street Journal* (1999), *Central Bank of Malaysia* (1999), *Kaplan and Ke* (1998)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

B.64 Malta

November, 1972

In November 1972, Malta's BICAL Bank experienced a depositor run after government officials signaled that the bank would be closed amid allegations of financial irregularities and political conflict. The bank had already been identified by the Central Bank of Malta as financially fragile due to liquidity shortages and highly concentrated lending to businesses linked to its owners (*Business Now*, 2022). Over 20% of depositor funds still unpaid as of 2011.

Sources: *Business Now* (2022)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered following allegations of financial irregularities.

December, 1973

In December 1973, Malta experienced a run on the National Bank of Malta (NBM) as concerns about its financial condition triggered depositor withdrawals. Confidence in the banking system had already been weakened by the collapse of BICAL Bank in 1972. A televised address by Prime Minister Dom Mintoff further accelerated the withdrawals, which peaked at about Lm900,000 on 10 December. The government subsequently nationalized NBM and established the Bank of Valletta in March 1974.

Sources: Vella (2024)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by concerns about National Bank of Malta's financial condition following the collapse of BICAL Bank one year before.

B.65 Mauritius

March, 2015

In March 2015, Bramer Banking Corporation in Mauritius experienced a bank run as concerns mounted about the financial condition of its parent conglomerate, the BAI Group, which authorities suspected of operating a large Ponzi-type investment scheme. As rumors and investigations intensified, depositors began withdrawing funds in large amounts, creating severe liquidity pressure on the bank (Ponzi Tracker, 2015).

Sources: Lexpress (2015), Ponzi Tracker (2015)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by concerns about the financial health of the parent company BAI Group, which authorities suspected of operating a large Ponzi-type investment scheme.

B.66 Mexico

March, 1883

In March 1883, Mexico experienced a bank run on the Banco Nacional Mexicano amid mounting pressures in the financial system, marking the beginning of the panic.

Sources: Baron et al. (2021), Metrick and Schmelzing (2021), Reinhart and Rogoff (2009), Maurer (2002), Conant (1909)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by financial pressure in the Mexican banking sector.

November, 1913

In November 1913, Mexico experienced a bank run following the imposition of a compulsory war tax on deposits. The banks were hit even harder because they were the main

creditors of the federal government, which defaulted on its debts in 1913. The panic was well under way by the time specie convertibility was suspended in November 1913, as documented in [Baron et al. \(2021\)](#).

Sources: [Baron et al. \(2021\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by a government default and the introduction of war taxes.

December, 1920

[Baron et al. \(2021\)](#) describe a significant systemic banking crisis in Mexico beginning in December 1920, when the Compañía Bancaria de París y México suffered a severe outflow of deposits. "The trigger was a rumor that the Compañía Bancaria de París y México had made important advances to cotton growers" ([Maurer, 2002](#)). Bank runs spread to other banks, and on January 7, the Mercantile Banking Corporation failed after experiencing large-scale deposit withdrawals. The trigger was again a rumor about misbehavior of the bank manager, according to [Maurer \(2002\)](#). This financial instability continued with a subsequent wave of panic and bank runs following the collapse of the Banque Française du Mexique in November 1922.

Sources: [Baron et al. \(2021\)](#), [Reinhart and Rogoff \(2009\)](#), [Maurer \(2002\)](#)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

July, 1931

In July 1931, Mexico experienced a significant bank run, notably affecting Credito Español de Mexico and Banco Nacional de México. This event occurred during the global economic downturn of the Great Depression, which led to widespread financial instability. According to the documentation in [Bernanke and James \(1990\)](#), payments were suspended after a deposit run on these major banks.

Sources: [Baron et al. \(2021\)](#), [Bernanke and James \(1990\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**.

The run coincided with widespread global financial instability in the course of the Great Depression.

B.67 Moldova

November, 2014

In November 2014, Moldova experienced a severe banking crisis after approximately \$1 billion was siphoned from three major banks—Banca de Economii, Unibank, and Banca Socială—through fraudulent loans and transfers. As the scheme unraveled, confidence in the banks collapsed and depositors began withdrawing funds, putting the institutions under acute liquidity pressure. To prevent a systemic collapse, the Moldovan government and central bank intervened with emergency loans and placed the banks under special administration.

Sources: *Organized Crime and Corruption Reporting Project (2016)*, *International Monetary Fund (2016)*, *Forbes (2015a)*

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the detection of fraudulent business at Banca de Economii, Unibank, and Banca Socială.

B.68 Mongolia

December, 2008

In December 2008, Mongolia experienced a bank run centered on Anod Bank, the country's fourth-largest bank, during the global financial crisis and a sharp downturn in commodity prices (*Mongolian Studies, 2008*). Concerns about the bank's financial condition triggered rapid withdrawals of deposits and a loss of confidence in the banking system. According to (*International Monetary Fund, 2011*), confidence in banks weakened and deposits were withdrawn from the banking system, prompting authorities to introduce a blanket deposit guarantee and place Anod Bank under central-bank control to contain the crisis and prevent wider contagion.

Sources: *International Monetary Fund (2011)*, *The World Bank (2009)*, *Mongolian Studies (2008)*

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by spillovers of the 2008 Global Financial Crisis.

B.69 Montenegro

September, 2008

In September 2008, a substantial bank run occurred in Montenegro, triggered by the global financial crisis following the collapse of Lehman Brothers, leading to depositors withdrawing about 30% of their holdings from Montenegrin banks. The impact was notably severe on Prva Banka, a major lender. To stabilize the financial system, the Montenegrin government guaranteed all personal and business deposits without limit and provided Prva Banka with a 44 million euros emergency liquidity loan in December 2008.

Sources: Reuters (2011), Central Bank of Montenegro (2010)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the spillovers of the Great Financial Crisis in 2007/08.

B.70 Myanmar

February, 2003

In February 2003, Myanmar experienced a bank run on Asia Wealth Bank, which spread to other major private banks. These runs began following the collapse of small finance companies and widespread rumors about the liquidity of major banks. It led banks to experience liquidity issues and an outright shortage of kyat (the national currency).

Sources: The Economist (2003), Turnell (2003)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by a series of collapses of smaller finance companies.

February, 2021

In February 2021, Myanmar experienced a bank run following a military coup. Branches of Myawaddy Bank in Yangon saw unusually high numbers of customers withdrawing money this week, despite only being open for a few hours in the morning, after anti-coup

protesters called for a boycott of military-related businesses. There was widespread concern that the demand for cash across the country could cause the bank to collapse.

Sources: [The Irrawaddy \(2021\)](#), [Central Banking \(2021\)](#), [Asia Times \(2021\)](#), [Pakistan Today \(2021\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by a military coup.

B.71 Nepal

November, 2006

In November 2006, Nepal experienced a bank run when depositors flocked to branches of the Nepal Bangladesh Bank Limited across the country to withdraw their money following newspaper reports that the bank was on the verge of bankruptcy. In two days, the bank's Nepalgunj branch paid out 80 million rupees in cash to its depositors, according to [The Himalayan \(2016\)](#) and [Niraula \(2020\)](#).

Sources: [Niraula \(2020\)](#), [The Himalayan \(2016\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by newspaper coverage about the bank-level solvency issues of the Nepal Bangladesh Bank.

June, 2011

In June 2011, a liquidity crisis severely affected five financial institutions in Nepal, including People's Finance Limited (PFL) and Vibor Bikas Bank (VBB). PFL had to close due to insufficient liquidity to pay depositors. VBB faced a crisis when it was unable to secure interbank funding, but was supported by Nepal Rastra Bank (NRB) with a loan of 500 million rupees. VBB's move to seek support from NRB caused panic among depositors and policymakers, who feared a Lehman Brothers-like collapse amid concerns about excessive credit exposure to the real estate and construction sectors.

Sources: [The World Bank \(2014a\)](#)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

B.72 Netherlands

July, 1914

In July 1914, the Netherlands experienced a bank run following the outbreak of the First World War. At the Rijkspostspaarbank, the national postal savings bank, more than a million guilders were withdrawn on 30 July. On the following two days, the figure rose to two and a half and almost five million guilders respectively. Banks responded by refusing to accept deposits. The government extended the period within which a bank had to honour a request for payment of deposits from two weeks to six months and allowed interim withdrawals of no more than 25 guilders per week.

Sources: Baron et al. (2021), Euwe (2012), van Zenden (1998)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the outbreak of World War I.

1921

A significant number of banks failed between 1921 and 1922, including reports of runs on smaller banks in 1921 (Stellinga et al., 2021). To avert a potential system-wide collapse, the authorities intervened to rescue several banks and prevent a more widespread bank run in 1922.

Sources: Baron et al. (2021), Stellinga et al. (2021)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes. The Dutch economy stagnated after 1920, but there is no evidence of a larger macroeconomic crisis that explains the series of runs.

October, 2009

In October 2009, the Dutch bank DSB experienced a major bank run when customers withdrew about one sixth of the institution's deposits. The run was triggered when Pieter

Lakeman, a lawyer claiming to represent a collective of aggrieved clients in financial distress due to their investments in DSB financial products, appeared on Dutch public television and urged all depositors to participate in a mass withdrawal from the bank. In response to Lakeman's appeal, thousands of depositors heeded the call and withdrew their liquid deposits en masse.

Sources: Dutchnews (2009)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

B.73 New Zealand

September, 1893

In September 1893, New Zealand experienced a run on the Auckland Savings Bank. Customers withdrew more than £41,000, the equivalent of about \$8 million in today's money, because of unfounded rumors about the bank's bad investments. According to [The New Zealand Herald \(2015\)](#), the rumors were started by an eccentric woman called Margaret Sanders, who was ridiculed by young people for her peculiar behaviour and clothing. When she stumbled outside the bank after being pushed by youths and a large crowd gathered, it was falsely assumed there was a run on the bank, which triggered an (actual) run by depositors.

Sources: [Baron et al. \(2021\)](#), [The New Zealand Herald \(2015\)](#), [Hunt \(2009\)](#), [The Star Newspaper \(1893\)](#)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

August, 1988

New Zealand experienced a bank run in August 1988, when the United Building Society faced heavy deposit withdrawals, according to [Hunt \(2009\)](#). The run on United Building Society was preceded by a stock market crash in 1987 that impaired the health of New Zealand's banking sector. This event is also reported as a crisis by [Baron et al. \(2021\)](#), [Reinhart and Rogoff \(2009\)](#) and [Metrick and Schmelzing \(2021\)](#).

Sources: Baron et al. (2021), Metrick and Schmelzing (2021), Reinhart and Rogoff (2009), Hunt (2009)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was preceded by a stock market crash in 1987 and the poor condition of New Zealand's banking sector.

B.74 Nicaragua

August, 2000

In August 2000, Interbank, the largest bank in Nicaragua, was seized due to the finding the management had committed fraud. Despite the announcement of full depositor protection, a bank run on other institutions occurred and continued until the Interbank was resolved in October 2000. Bank deposits heavily declined, contributing to a cumulative loss of \$90 million in international reserves ([International Monetary Fund, 2000a](#)).

Sources: [Laeven and Valencia \(2018\)](#), [International Monetary Fund \(2000a\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by a bank-level fraud case.

B.75 Nigeria

March, 1996

In 1996, Nigeria experienced a bank run on the Allied Bank of Nigeria after the clearing system was suspended due to the bank's overdrawn current account with the Central Bank of Nigeria, non-performing loans, and large-scale fraud. This triggered a run on the bank as most branches were bombarded by depositors trying to withdraw their funds.

Sources: [Nigeria Deposit Insurance Corporation \(2020\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by non-performing loans and fraud cases at the Allied Bank of Nigeria.

February, 2023

In 2023, Nigeria experienced a bank run due to a shortage of new banknotes as the central bank replaced old notes. Restrictions on cash withdrawals and businesses refusing to accept old notes led to long queues outside banks waiting for new notes.

Sources: [Bloomberg \(2023\)](#), [PYMNTS \(2023\)](#), [Context News \(2023\)](#), [BBC \(2023b\)](#), [BBC \(2023a\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by a shortage of bank notes and restrictions on cash withdrawals.

B.76 Norway

1857

In 1857, several banks experienced runs and banks curtailed lending. Following the bursting of the railway bubble in the United States in 1857, many banks had been hit because of low liquidity and high discount rates. When a Norwegian commercial bank increased its deposit rates, Norwegian savings banks were unable to compete and faced large-scale deposit withdrawals.

Sources: [Gerdrup \(2007\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the bursting of a railroad bubble and high discount rates.

June, 1899

In the summer of 1899, Norway experienced significant bank runs as part of a wider banking crisis. The immediate trigger for these runs was a combination of factors: the failure of Chr. Christophersen, a large, highly leveraged non-financial company, which triggered a crash in asset markets, and the resulting rumors about the financial health of Oslo's banks. This was compounded by the fact that Norges Bank had low banknote reserves as a result of an extensive credit expansion and vulnerability to gold outflows. These events undermined public confidence in the banking system and caused depositors to rush to withdraw their funds from banks, especially those perceived as weak, thereby

exacerbating the crisis.

Sources: Gerdrup (2007)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by a crash in the asset market after the failure of Chr. Christopherse.

August, 1914

According to Eitrheim et al. (2016), the onset of World War I triggered bank runs in Norway in July and August. Withdrawals began in an orderly fashion but quickly escalated into a bank run, particularly noticeable on August 1, with significant queues forming outside banks like Christiania Sparebank before opening hours. Despite the panic, the system-wide impact was minimized due to commercial and savings banks imposing withdrawal limits. The situation stabilized following the declaration of a general debt moratorium on August 4, which helped to subside the panic throughout the month.

Sources: Baron et al. (2021), Eitrheim et al. (2016)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by World War I.

April, 1923

In April 1923, Den norske Handelsbank experienced a renewed run. The run followed earlier withdrawals in late 1922, which had been triggered by rumors of large, unrecognized loan losses, and was amplified by the March 1923 Bank Administration Act, which encouraged depositors to move funds from unsafe-looking banks into banks under public administration or foreign banks, according to Baron et al. (2021) and Metrick and Schmelzing (2021). Handelsbanken survived the April 1923 withdrawal wave only with state support, including a secret government deposit of NOK 25 million to prevent bankruptcy.

Sources: Baron et al. (2021), Metrick and Schmelzing (2021)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

October, 1931

Following the abandonment of the gold standard in 1931, Norway's banking system experienced stress, triggering a bank run on Den norske Creditbank (DnC). Initially, DnC was believed to be experiencing liquidity problems, but by November 5, 1931, it became evident that the bank was also facing solvency issues. This revelation led the bank to propose a comprehensive rescue plan to Norges Bank, including measures such as a write-down of share capital to NOK 11 million. The bank requested a deposit of NOK 50 million from Norges Bank, without collateral and uncalled for three years, to stabilize its operations. Additionally, DnC sought a public declaration to secure the bank's operation, indicating the severity of its financial distress and the need for substantial support to avert failure.

Sources: Baron et al. (2021), Metrick and Schmelzing (2021), Lie (2020), Jordà et al. (2017)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by stress and solvency issues in the Norwegian banking system after the abandonment of the gold standard.

B.77 Pakistan

September, 2008

In September 2008, Pakistan experienced bank runs following rumors in the media about the potential failure of several financial institutions, according to an IMF working paper by Farooq and Zaheer (2015). Depositors also feared that the government might seize the contents of bank accounts and vaults, a fear based on unfounded rumors according to Pakistan Today (2018). The deposit withdrawals led to a severe liquidity crunch. Demand deposits in the banking sector continuously fell over a period of seven weeks. In just three weeks, demand deposits declined by 4 percent or 131 billion Pakistani Rupees. The panic was contained within about two months through central bank interventions aimed at restoring liquidity in the banking sector. The panic in Pakistan was unrelated to the global Financial Crisis in 2007/08. Since the banking sector in Pakistan was not well connected, the Great Financial Crisis did not affect Pakistani banks much, according to Pakistan Today (2018).

Sources: Pakistan Today (2018), Farooq and Zaheer (2015)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

B.78 Panama

March, 1988

In March 1988, Panama experienced a run on its banks, following the U.S. move to increase financial pressure on the regime of Gen. Manuel Antonio Noriega. Private Panamanian banks decided not to open next day because they lacked the cash to handle an expected surge in withdrawals. One of the few banks that opened for business, Citibank, experienced a run as customers lined up to make withdrawals.

Sources: *The Washington Post* (1988b), *The Washington Post* (1988a), *Los Angeles Times* (1988), *The New York Times* (1988)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the freezing of the Panamanian government account by the United States.

B.79 Paraguay

April, 1995

In April 1995, the banking sector of Paraguay was hit by several bank runs after it became public knowledge that the Bancopar and Banco General were close to collapse (*Garcia et al., 1999*)

Sources: *Garcia et al. (1999)*

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the collapse of Bancopar and Banco General.

June, 1997

In 1997, a series of bank failures triggered a systemic bank run (IMF, 2000). Depositors transferred their deposits from riskier domestic institutions to safer foreign institutions (*International Monetary Fund, 2000b; Garcia et al., 1999; Ostalecka, 2008*). Several domestic banks such as the Banco Union, Ahorros Paraguayos, and BIPSA failed. After a period

of relative stability without bank failures from 1996 to mid-1997, unresolved structural issues in Uruguay's banking sector led to the reemergence of a systemic crisis (Garcia et al., 1999). Due to the period of relative calm between 1996 and mid-1997, we treat the 1995 banking crisis and the 1997 banking crisis as separate events in this chronology.

Sources: Ostalecka (2008), International Monetary Fund (2000b), Garcia et al. (1999)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by a series of bank failures.

July, 2002

In July 2002, Paraguay experienced a severe bank run following the collapse of Banco Aleman, according to an IMF Article IV consultation report. The run on Banco Aleman, owned by an Argentine-Uruguayan consortium, was triggered following reporting of losses at a Paraguayan mutual fund affiliated with the group. During the period from June to August, dollar deposits declined by more than 20% and local currency deposits by 12%. Although the central bank intervened to provide liquidity support, there were widespread banking issues, including at the state-owned national development bank (BNF).

Sources: International Monetary Fund (2003)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the collapse of Banco Aleman.

B.80 Peru

August, 1875

The 1875 Peruvian banking crisis involved a run on banknotes and deposits as the public demanded redemption in specie. The run was triggered by specie outflows and declining bank reserves, and was intensified by government regulation that weakened bank liquidity, ultimately leading to the suspension of specie payments in August 1875 (Zegarra, 2013).

Sources: Zegarra (2013)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was preceded by specie outflows and declining bank reserves.

August, 1914

According to [Baron et al. \(2021\)](#), who cite [Roberts \(2014\)](#), on July 31 and August 1, 1914, Peru experienced significant bank runs at both Banco del Peru y Londres and the German Bank. In an effort to avert the collapse of these financial institutions, the Peruvian government declared a moratorium and implemented additional measures which ultimately prevented the banks from failing.

Sources: [Baron et al. \(2021\)](#), [Roberts \(2014\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the outbreak of World War I in Europe, according to [Roberts \(2014\)](#).

October, 1930

In 1930, Peru experienced a banking crisis amid political upheaval and the global economic downturn of the Great Depression. In August 1930, a military coup led by Luis Miguel Sánchez Cerro overthrew President Augusto B. Leguía, triggering significant political and financial uncertainty. In this context, “the Banco del Perú y Londres faced a massive run on its deposits in October 1930” ([Zendejas, 2021](#)). The run forced the bank to suspend payments and contributed to broader instability in the Peruvian banking system ([Eichengreen and Portes, 1987](#)).

Sources: [Zendejas \(2021\)](#), [Eichengreen and Portes \(1987\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by political upheaval and spillovers of the Great Depression.

B.81 Philippines

August, 1968

According to [Patrick and Moreno \(1982\)](#) and several newspaper articles at the time, there were widespread bank runs in the Philippines in 1968, including on many savings banks

(such as Provident Savings Bank). The run on the Overseas Bank of Manila, which ultimately closed in August 1968, although it was later re-opened under a different name. The run was accompanied by a widespread panic, prompting President Marcos to call for calm among the population. The runs were triggered adverse publicity in the newspapers, radio and television (Philippine Supreme Court, 1981).

Sources: Business World (2017), Lamberte (1989), Patrick and Moreno (1982), Philippine Supreme Court (1981), The New York Times (1968)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

June, 1974

In 1974, the collapse of Continental Bank precipitated a system-wide bank run, which later spread to other banks. Continental Bank had borrowed heavily in the money market and was involved in lending to affiliates and real estate projects. When the bank's president was arrested for alleged misappropriation of deposits and other irregularities, a run ensued, and the central bank decided to close the institution entirely. To avert a broader crisis, the central bank extended emergency loans and assured the public it would cover any liquidity problems.

Sources: Baron et al. (2021), Lamberte (1989), Dohner and Ponciano Intal (1989), Patrick and Moreno (1982)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the collapse of the Continental Bank.

March, 1977

In March 1977, General Bank and Trust Company (Genbank) experienced a run and was subsequently declared insolvent. The bank had already experienced a severe liquidity crisis during the time of the Continental Bank failure. Genbank was subsequently sold off and quickly reopened as Allied Bank.

Sources: Lamberte (1989), Patrick and Moreno (1982)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

January, 1981

In January 1981, the Philippines experienced a bank run following the disappearance of well-known business magnate Dewey Dee, who had borrowed heavily in the commercial paper market and left behind an estimated P500-800 million of debt. These news sent a wave of panic through the system, especially among money market investors and small depositors, causing commercial paper borrowers to default on a large scale. Small depositors shifted their deposits to large commercial banks, perceived as sounder financial institutions. The panic also spread to the thrift banking system that, while small, saw an increase in the number of failed institutions.

Sources: Nascimento (1991), Dohner and Ponciano Intal (1989), Lamberte (1989)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the disappearance of Dewey Dee, who left behind a large amount of debt.

October, 1983

In October 1983, Philippines experienced widespread bank runs following the announcement of a moratorium on external debt payments to foreign commercial banks. This came at the heels of the panic that had affected other parts of the financial system starting in 1981 at the heels of the “Dewey Dee affair”. By the end of this bank run episode, the largest government-owned banks DBP and PNB were among the hardest hit and had to be restructured; several private banks were shut down completely. These banking problems lasted several years, which included bank runs on Marcos-connected banks as reported by the L.A. Times at the time, as well as the collapse of PISO Bank and Manila Bank in 1987.

Sources: Nascimento (1991), Lamberte (1989), Los Angeles Times (1986)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the moratorium on external debt payments to foreign commercial banks.

April, 2000

In 2000, Urban Bank faced a bank run and was closed by the central bank on April 26, 2000. Following the Urban Bank closure, two medium-sized banks, International Exchange Bank (iBank) and the Philippine Bank of Communications (PBCom) in Davao City were also hit by bank runs. The run occurred because Urban Bank was downgraded to a thrift bank after failing to fulfill the increased capital requirements (The Philstar Global, 2000a).

Sources: Business Asia (2000), Philippine Daily Inquirer (2000), The Philstar Global (2000b), The Philstar Global (2000a)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of Urban Bank to fulfill the increased capital requirements.

B.82 Poland

1793

In 1793, political turmoil surrounding the Second Partition of Poland triggered a liquidity crisis among Warsaw banking houses. Depositors rushed to withdraw funds from the banking house of Piotr Fergusson Tepper, which overwhelmed the bank and contributed to a broader wave of failures among Warsaw bankers.

Sources: Rogowski (2025), Jezierski (2001)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the Second Partition of Poland.

September, 1925

In 1925 Poland experienced a severe banking and currency crisis. Poor harvests in 1924 forced large grain imports in 1925, while the trade balance deteriorated further after the outbreak of a tariff war with Germany in June 1925 (International Bank for Reconstruction and Development, 1947). In July 1925, the Bank of Poland suspended convertibility, and the złoty began to depreciate (Don-Siemion, 2024). According to International Bank for Reconstruction and Development (1947), “a run on the banks” occurred, causing many

banks to default, and that by October 1925 the Bank of Poland had lost practically all of its foreign-exchange holdings. Between August and October banks lost about 44% of sight deposits and 36.6% of time deposits (Landau and Morawski, 1995). The crisis led to widespread bank failures—about 58% of private banks went bankrupt (Landau and Morawski, 1995). According to Bernanke and James (1990), bank runs caused three large banks to suspend payments, causing a crisis that continued through to 1927.

Sources: Don-Siemion (2024), Landau and Morawski (1995), Bernanke and James (1990), International Bank for Reconstruction and Development (1947)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the slump of the zloty and a tariff war with Germany.

July, 1931

During the global banking crisis of 1931, Poland experienced declining deposits in private joint-stock banks and localized withdrawals, though the country avoided a systemic banking panic. The Bank of Poland provided liquidity support to banks facing withdrawals, and the impact was relatively mild compared with the severe banking crises in Germany and Austria.

Sources: Don-Siemion (2022), Allen (2020)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by spillovers of the global banking crisis of 1931.

June, 1935

In June 1935, a bank run occurred in the Free City of Danzig amid political and monetary instability linked to the growing influence of the Nazi government. Following currency turmoil and the devaluation of the Danzig gulden, depositors rushed to withdraw funds, prompting a run on local banks and emergency measures by the authorities.

Sources: The Canberra Times (1935)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by political and monetary instability in Danzig.

September, 1939

In 1939, Poland experienced a run on bank deposits amid rising geopolitical tensions before the outbreak of the Second World War, which led to a sharp increase in currency in circulation. [Narodowy Bank Polski \(2014\)](#) notes that on the eve of the German invasion in September 1939 the central bank evacuated its gold reserves abroad. Following the invasion, Polish banks and credit institutions were closed and their assets nationalized.

Sources: [Leszczyńska \(2023\)](#), [Narodowy Bank Polski \(2014\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the geopolitical tension prior to the German invasion.

November, 2018

According to several news reports and a press release by the European Union, Getin Noble Bank experienced a bank run in 2018. In the run-up to the event, the bank had been struggling with low profitability since 2016, leading to the depletion of its capital base. In 2018, the bank experienced a run when around €2.25 billion (PLN 10.7 billion) in deposits were withdrawn in less than three weeks, partially because of worries about risks associated with its mortgage loans denominated in Swiss francs. Both the Getin Noble Bank collapse and failure of Idea Bank were tied to allegations of corruption against the financial regulator KNF, involving Leszek Czarnecki, the owner of both Getin Noble and Idea Bank.

Sources: [European Commission \(2022\)](#), [S&P Global \(2022\)](#), [Bloomberg \(2018b\)](#), [Bloomberg \(2018a\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the low profitability of Getin Noble Bank.

B.83 Portugal

May, 1846

In 1846, Portugal experienced a monetary and banking crisis centered on the near-collapse of the Banco de Lisboa, which had issued large quantities of banknotes. As confidence deteriorated and convertibility of banknotes was suspended, the banking system came under severe pressure ([Silva, 2019](#)). The crisis culminated in November 1846 with the

creation of the Banco de Portugal through the merger of the Banco de Lisboa and the Companhia Confiança Nacional (Nunes et al., 2007).

Sources: Silva (2019), Nunes et al. (2007)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the near collapse of the Banco de Lisboa.

May, 1876

Following strong growth in the number of banks over the preceding decades, Portugal experienced a banking crisis in 1876. The crisis, initially triggered by bank losses on Spanish securities that depreciated in value during the preceding Spanish Financial Crisis, gradually spread from the North of the country. The resulting liquidity shortage caused bank runs starting in May 1876 (Silva, 2019, p. 8). Baron et al. (2021) classify this as a banking crisis reaching its climax in August 1876 that also featured bank runs.

Sources: Silva (2019)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by aggregate losses in the Spanish banking sector.

May, 1891

Portugal experienced a systemic banking crisis starting in 1890, beginning with problems at one of the country's largest banks, Montepia Geral. By May 1891, the "whole banking system was facing a bank run" (Branco et al., 2012, p. 6). Baron et al. (2021) classify this as a banking crisis, as do Reinhart and Rogoff (2009) and Jordà et al. (2017). The problems at Montepia Geral in 1890 were enhanced by the failure of Baring Brothers in Great Britain (the so-called Baring Crisis), according to Branco et al. (2012).

Sources: Baron et al. (2021), Jordà et al. (2017), Branco et al. (2012), Reinhart and Rogoff (2009)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the problems at the Montepia Geral and the Baring Crisis in Great Britain.

1920

In 1920, Portugal experienced a banking crisis amidst high inflation following the First World War. [Reinhart and Rogoff \(2009\)](#), [Jordà et al. \(2017\)](#), and [Baron et al. \(2021\)](#) all classify this episode as a banking crisis. [Baron et al. \(2021\)](#) explicitly mention the incidence of bank runs.

Sources: [Baron et al. \(2021\)](#), [Jordà et al. \(2017\)](#), [Reinhart and Rogoff \(2009\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by high inflation following World War I.

1923

Portugal experienced a banking crisis that also featured bank runs in 1923, as outlined by [Baron et al. \(2021\)](#). [Jordà et al. \(2017\)](#) call this episode a “banking panic”. Several factors, including foreign demand shocks and tight monetary policy, were associated with the panic and a subsequent recession.

Sources: [Baron et al. \(2021\)](#), [Jordà et al. \(2017\)](#), [Reis \(1995\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by foreign demand shocks and contractionary monetary policy.

November, 1930

In November 1930, the banking house of Henrique Figueira da Silva on the island of Madeira suspended payments, which created widespread panic and bank runs. The ensuing crisis, largely caused by the global Great Depression that started in the United States, was accompanied by several bank failures.

Sources: [Baron et al. \(2021\)](#), [Jordà et al. \(2017\)](#), [Reinhart and Rogoff \(2009\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the Great Depression in the US and the failure of the bank on Madeira.

January, 1935

In January 1935, Portugal experienced bank run on the Banco Micaelense. Shortly after, Banco do Faial suspended payments in April 1935. There was also a temporary suspension of payments by the Caixa Económica and further bank closures. While these events unfold in the Azores, we count them as a Portuguese bank run.

Sources: Lopes and Sequeira Dias (2010)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

July, 2014

During the collapse of Banco Espírito Santo, depositors withdrew roughly €1-1.9 billion in deposits as confidence deteriorated (Gupta and Brandon, 2024). According to da Silva Costa (2014), the bank suffered heavy losses of €3,577 million in the first half of 2014. Authorities resolved the bank in August 2014 and transferred deposits and viable assets to Novo Banco, preventing a broader banking panic (da Silva Costa, 2014).

Sources: Gupta and Brandon (2024), da Silva Costa (2014)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by heavy bank-level losses.

B.84 Qatar

October, 2017

In October 2017, Qatar experienced major deposit outflows of non-residents in the aftermath of the economic blockade imposed by Saudi Arabia, Bahrain, the United Arab Emirates, and Egypt. Until the end of 2017, these outflows amounted to around 13% of Qatar's GDP, and the share of non-resident to total deposits dropped from 25 to 17 percent in a short time period. The Qatari banking sector was swiftly downgraded by rating agencies such as Moody's, but quickly recovered because of a large-scale liquidity injection by the government.

Sources: Ali (2020), The Banker (2019), Financial Times (2018)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the economic blockade by several Arab countries.

B.85 Romania

May, 1931

In 1931, Romania experienced bank runs at the heels of the German banking crisis, which spread from Austria to Hungary but also Romania. We date the start of runs as May 1931, in line with the descriptions in Schuker (1974) and Dominique and Nikolay (2022). Several banks experienced runs, including the Banca de Scont, Banca de Credit Roman, Marmorosch Blank, and Banca Romaneasca.

Sources: Dominique and Nikolay (2022), Reinhart and Rogoff (2009), Temin (2008), Ferguson and Temin (2001), Schuker (1974), Gavrilă (n.d.)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the spread of the banking crisis in Austria (the failure of Creditanstalt) in 1931.

April, 1999

Bancorex was Romania's largest bank and had accumulated an estimated 70% in non-performing loans (Consiglio, 2014). In April 1999, Bancorex collapsed as depositors lined up to get their savings out of the bank (Österreichische Nationalbank, 2001).

Sources: Consiglio (2014), Österreichische Nationalbank (2001)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by a high share of non-performing loans.

B.86 Russia

June, 1859

In June 1859, Russia experienced "panic and a run on deposits" (Hoch, 1991) when the 1857 crisis led to the collapse of the banking system and a wave of defaults. The Russian

State Bank was founded in 1860 coming out of the liquidation of the State Loan Bank and Credit Note Bureau.

Sources: Metrick and Schmelzing (2021), Hoch (1991)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the ongoing banking crisis of 1857.

October, 1875

In October 1875, Russia experienced bank runs, according to both Baron et al. (2021) and Metrick and Schmelzing (2021). The Moscow Commercial Loan Bank failed in 1875, and the Merchant Bank and Mutual Credit Society were rescued by the government. This episode is also coded as a systemic banking crisis by Reinhart and Rogoff (2009). The run was triggered by bank-level losses related to the railroad business, according to The Argus (1876).

Sources: Baron et al. (2021), Metrick and Schmelzing (2021), Reinhart and Rogoff (2009), The Argus (1876)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by bank-level losses related to the railroad business.

August, 1899

According to Lychakov (2018), 23 out of 40 banks experienced “acute retail and wholesale depositor runs” in 1899, including the Russian Trade and Industrial Bank, which had to be rescued by the State Bank. Petersburg Private Commercial Bank failed and was restructured by a consortium of foreign banks. Petersburg-Azov Bank collapsed in 1902 and Petersburg-Moscow Bank failed in 1904. Moscow International Trade Bank, Orel Commercial Bank, and South Russian Industrial Bank were deemed too important to fail and were also put under control of the State Bank. The run on the Russian Trade and Industrial Bank was triggered by the bank owner becoming insolvent, preceding the stock market crash in September 1899 and the broader banking distress in 1900.

Sources: Baron et al. (2021), Lychakov (2018)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

1905

During the Russian revolution in 1905, there were runs on savings banks and government orders to limit gold withdrawals, according to [Metrick and Schmelzing \(2021\)](#).

Sources: [Metrick and Schmelzing \(2021\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the Russian Revolution of 1905.

July, 1914

In July 1914, Russia experienced bank runs with the outbreak of World War I, characterized by massive deposit withdrawals, according to [Metrick and Schmelzing \(2021\)](#).

Sources: [Metrick and Schmelzing \(2021\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the outbreak of World War I.

August, 1998

Russia experienced bank runs starting in August 1998 after a massive devaluation of the Ruble. Through a variety of measures, the authorities were able to ultimately stop the run. Nevertheless, nearly 720 banks, representing half of those in operation, ultimately ended up insolvent.

Sources: [Baron et al. \(2021\)](#), [Laeven and Valencia \(2018\)](#), [Pyle et al. \(2013\)](#), [Reinhart and Rogoff \(2009\)](#), [Schoors \(2003\)](#), [Niinimäki \(2002\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the devaluation of the Russian Ruble.

July, 2004

Following a longer period of banking sector issues that had started with the 1998 crisis, Russia experienced bank runs in July 2004, starting with massive withdrawals from Gута Bank, Russia's then-22nd largest bank. Within less than a month, depositors had withdrawn 10bn roubles (£188m), causing a liquidity crunch that quickly spread to other private institutions. The runs were triggered by the withdrawal of the license of a medium-sized bank on charges of money laundering in May. Rumors spread that the licenses of other banks might be withdrawn as well, causing a panic targeting a variety of banks, according to [European Central Bank \(2004\)](#).

Sources: [Chernykh and Mityakov \(2016\)](#), [European Central Bank \(2004\)](#), [The Guardian \(2004\)](#), [Los Angeles Times \(2004\)](#), [Financial Review \(2004\)](#), [Bloomberg \(2004\)](#)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

October, 2008

In October 2008, Russia experienced bank runs triggered by massive deposit withdrawals of 3.5 billion roubles (\$134.2 million) in only two weeks at Globex bank. Russian banks found themselves almost completely cut off from external sources of funds, and experienced a sharp drop in the value of their financial assets. Russian banks were adversely affected by the global financial crisis in 2007/08. Russian banks were cut off from external funding and their value of assets deteriorated, according to [Bank of Russia \(2009\)](#). [Baron et al. \(2021\)](#) also classify this as a “panic”, and it is classified as a banking crisis in [Laeven and Valencia \(2018\)](#) and [Reinhart and Rogoff \(2009\)](#).

Sources: [Baron et al. \(2021\)](#), [Reinhart and Rogoff \(2009\)](#), [Bank of Russia \(2009\)](#), [The Economist \(2008\)](#), [Reuters \(2008d\)](#), [Financial Times \(2008b\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the spillovers of the Great Financial Crisis 2007/08 on the Russian banking sector.

December, 2014

In December 2014, Russia experienced symptoms of bank runs, with several banks imposing withdrawal limits (Karpia, 2015). The episode was triggered by a sharp depreciation of the Russian ruble, which lost 58.2% of its value against the U.S. dollar by the end of 2014 relative to December 2013, with the most pronounced decline occurring in December (Viktorov and Abramov, 2020). Turmoil in the foreign exchange market culminated in a severe exchange rate collapse on 16 December, undermining confidence in the banking system.

Sources: Viktorov and Abramov (2020), Karpia (2015), Scholarly Community Encyclopedia (n.d.)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the devaluation of the Russian Ruble.

February, 2022

In February 2022, Russia experienced bank runs after the ruble dropped dramatically at the beginning of Russia's invasion of Ukraine. There were reports of lines at ATMs and around buildings in Moscow as well as at Russian banks in Europe as depositors rushed to withdraw cash.

Sources: CNBC (2022), Schilling et al. (2022)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the invasion of Ukraine and the following devaluation of the Russian Ruble.

B.87 Saint Vincent and the Grenadines

January, 2013

A World Bank report states that the Saint Vincent Building and Loan Association (BLA), the largest mortgage lender in Saint Vincent and the Grenadines, "was able to weather a run on its deposits in 2013". The event occurred in January 2013 and followed the publication of a news report in The Vincentian highlighting governance and financial problems

at the institution.

Sources: *The World Bank* (2014b), *The Vincentian* (2013)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by a report about bank-level problems at the Vincent Building and Loan Association.

B.88 Serbia

March, 1993

In March 1993, Serbia experienced a bank run when thousands of Serbs queued to retrieve their funds from Dafiment Private Bank. The run followed a deposit freeze by another private bank, Jugoskandik, after its president, Jezdimir Vasiljevic, fled the country. In both cases, the banks had initially lured depositors with sky-high deposit rates, which subsequently turned out to be unsustainable.

Sources: *The Washington Post* (1993a)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by a deposit freeze by Jugoskandik, after its president fled Serbia.

October, 2008

According to an IMF country report, Serbia experienced a bank run in October 2008 when depositors quickly withdrew around 18% of the banking sector's total deposits (mostly savings deposits) within a time span of only six weeks. The run was predominantly due to "retail" depositors. Many Serbian banks were subsidiaries of European banks. Depositors lost confidence in the Serbian banking sector, fearing spillovers from European parent banks after the failure of Lehman Brothers in the US and the financial crisis in other European countries.

Sources: *International Monetary Fund* (2010b)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by spillovers of the Great Financial Crisis 2007/08.

B.89 Singapore

October, 1974

In October 1974, Singapore experienced a bank run on Chung Khiaw Bank Limited, then part of The United Overseas Bank Limited (UOB) Group. Due to rumors that the financial health of banks in Singapore had taken a hit, Chung Khiaw was rumored to face liquidity issues and could run out of money soon. Bank officials had to reassure the crowds not to panic, but it was not until 10.30pm before the last customer made a successful withdrawal of deposits.

Sources: Remember Singapore (2014), The Straits Times (1974a), The Straits Times (1974b), The Straits Times (1974c)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

B.90 South Africa

September, 1890

In 1890, there was a bank run on South Africa's The Natal Bank, once a major independent bank, triggered by the collapse of the Cape of Good Hope Bank. This initial run put further pressure on all banks. The Cape of Good Hope Bank's failure had followed a major bank robbery, which had caused the bank to suspend all payments.

Sources: Baron et al. (2021), Metrick and Schmelzing (2021), Reinhart and Rogoff (2009), The Mercury (1890), The Bathurst Free Press and Mining Journal (1890)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of the Cape of Good Hope Bank.

September, 1931

In 1931, South Africa experienced deposit withdrawals and localized banking distress amid the global financial crisis and pressures from maintaining the gold standard. The crisis was driven by external shocks—particularly the international collapse of confidence following the European banking crises and the strain on gold convertibility—which placed

significant pressure on banks and contributed to withdrawal behavior and financial instability.

Sources: Bordiss et al. (2021), Higginson (2014), Saville et al. (2006), Frankel (1933)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by spillovers of the 1931 European banking crisis.

September, 1997

In 1997, South Africa's The Islamic Bank Ltd (IBL) faced a bank run and ultimately collapsed, following a longer history of regulatory breaches and loan losses. These problems, along with adverse publicity, led to a bank run due to liquidity concerns.

Sources: Rahman and Zada (2016), Taliep et al. (2012), Nathie (2010)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the bank-level reasons such as regulatory breaches and loan losses.

January, 2002

In January 2002, South Africa experienced bank runs associated with the failures and closures of several small and medium-sized banks, including Regal Treasury Bank, New Republic Bank, and Saambou Bank. The latter in particular, South Africa's seventh largest bank at the time, faced a run by "desperate clients", as did the Board of Executors (BoE), the fifth largest bank. According to Havemann (2021), the 2002-03 crisis led to the closures of half of South Africa's banks.

Sources: Metrick and Schmelzing (2021), Havemann (2021), Havemann (2019), Tjiane (2015), Independent Online (2008), News24 (2002)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by multiple bank failures.

B.91 South Korea

June, 1950

In 1950, South Korea experienced a “heavy run on deposits” following the outbreak of the Korean War. The immediate trigger was the outbreak of the Korean War. In response, the newly established Bank of Korea limited deposit withdrawals to 10,000 won per week and 30,000 won per month per household.

Sources: Metrick and Schmelzing (2021), Lee (2010)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the outbreak of the Korean War.

May, 1961

In 1961, South Korea experienced “massive bank runs” after the May coup, according to Metrick and Schmelzing (2021). After the coup, the military government of Park Chung-Hee gradually nationalised commercial banks.

Sources: Metrick and Schmelzing (2021), Lee (2010)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by a *Coup d’État*.

December, 1997

In December 1997, amid the Asian financial crisis, corporate failures and rising non-performing loans undermined confidence in Korean banks, while foreign creditors withdrew short-term funding. Korea First Bank and Seoul Bank experienced runs during this period, and the authorities suspended operations of 14 of 30 merchant banks, reflecting widespread financial distress.

Sources: Decker (2022), Lee (2010), Baliño and Ubide (1999)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the Asian financial crisis.

February, 2011

In February 2011, South Korean authorities suspended seven savings banks due to severe capital shortages and losses related to real estate lending, triggering depositor panic amid fears about the stability of the sector. On the eve of the suspensions, insiders allegedly tipped off select customers, leading to after-hours withdrawals totaling about 107.7 billion won (\$100 million) from the affected banks, including Busan Savings Bank ([Korea JoongAng Daily, 2011](#)). Subsequent investigations and additional bank distress prompted further localized runs, with tens of billions of won withdrawn from individual institutions and spillovers to other savings banks ([FinancialMirror, 2011](#)).

Sources: [The Korea Herald \(2011\)](#), [Korea JoongAng Daily \(2011\)](#), [FinancialMirror \(2011\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by bank losses related to mortgage loans.

B.92 Spain

May, 1848

In 1848, amid the broader European revolutionary turmoil, weak backing of banknotes at the Banco de Isabel II triggered a loss of confidence and a rush by note-holders to convert paper into specie. In May, crowds gathered at the bank in Madrid demanding redemption, and unrest escalated into riots, prompting authorities to suspend convertibility ([Martín-Aceña, 2017](#)). The crisis culminated in the forced merger of Banco de Isabel II with Banco Español de San Fernando.

Sources: [Martín-Aceña \(2017\)](#), [Alessio Moro and Tedde \(2013\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the revolutionary turmoil.

June, 1864

In 1864, the Bank of Spain experienced a bank run after the government involved it in the sale of public properties. Concerns about the solvency of the government led to a tumultuous run, leading the Bank to limit the convertibility of banknotes into specie.

Sources: Alessio Moro and Tedde (2013)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by concerns about the solvency of the Spanish government.

May, 1866

The underlying Spanish vulnerability predates Overend Gurney. The main cause of the Spanish crisis was low realized returns on railroad investments. In May 1866, when news about the failure of Overend in London arrived, the panic extended to many Spanish cities, especially Barcelona. On May 12th, the Catalana General de Crédito and the Crédito Mobiliario Barcelonés suspended payments (Nuño et al., 2011). During the crisis, outstanding bank deposits fell considerable and the Spanish banking system collapsed (Nuño et al., 2011).

Sources: Nuño et al. (2011)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of Overend Gurney in London.

December, 1913

Starting in December 1913, Spain experienced a series of bank runs, including on the Credito de la Union Minera. These runs were triggered by concerns surrounding the outbreak of World War I.

Sources: Baron et al. (2021), Metrick and Schmelzing (2021), Jordà et al. (2017)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by concerns about the outbreak of World War I.

December, 1920

In 1920, there is a run on the Banco de Barcelona, which ultimately failed, triggering a further wave of runs on other institutions requiring intervention by the authorities. The run on Banco de Barcelona started after the bank announced heavy losses (Martín-Aceña, 1995).

Sources: Baron et al. (2021), Metrick and Schmelzing (2021), Jordà et al. (2017), Martín-Aceña (1995)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the heavy losses of the Banco de Barcelona.

September, 1924

In September 1924, Spain experienced bank runs that began in the summer of 1924, became acute towards the end of 1924 and lasted until September 1925, according to Baron et al. (2021) and Jordà et al. (2017). Preceding the runs, banks accumulated heavy losses and high shares of non-performing loans, according to Martín-Aceña (1995).

Sources: Baron et al. (2021), Jordà et al. (2017), Martín-Aceña (1995)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run coincided with a deterioration in aggregate lending conditions.

April, 1931

In April 1931, Spain experienced bank runs that forced considerable central bank intervention, according to Baron et al. (2021) and Metrick and Schmelzing (2021). Jordà et al. (2017) also call this a “panic”. The run episode was caused by a crisis of confidence around the proclamation of the republic and the announcement of the finance minister to block all bank accounts of financiers and industrialists, according to Martín-Aceña (1995)

Sources: Baron et al. (2021), Metrick and Schmelzing (2021), Jordà et al. (2017), Martín-Aceña (1995)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by political instabilities.

January, 1994

In January 1994, Spain experienced a bank run after Banco Espanol de Credito Banesto was taken over by the Bank of Spain when it discovered a huge capital shortfall in the bank’s finances. Thousands of customers rushed to withdraw their money, according to

[The Independent \(1994\)](#).

Sources: [The Independent \(1994\)](#), [The Washington Post \(1993b\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by a bank-level capital shortfall.

May, 2012

In May 2012 the credit ratings of several Spanish banks were downgraded, some to “junk” status. The Bankia bank, the country’s largest mortgage lender, was nationalized on 9 May, and on 25 May it announced that it would require a bailout of €23.5 billion to cover losses from failed mortgages. Bankia had been hit with more than €1 billion of withdrawals since the government announced the takeover—equivalent to all withdrawals made from Bankia in the first three months of the year.

Sources: [The San Diego Union-Tribune \(2012\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by losses from failed mortgages dating back to the burst of the Spanish mortgage bubble in 2008.

March, 2015

In March 2015, Spanish authorities intervened in Banco Madrid and its management resigned, triggering a sharp loss of confidence, following the U.S. Treasury’s designation of its parent, Banca Privada d’Andorra, as a “primary money laundering concern”. Depositors withdrew €124 million within three days, with a further €52.3 million in pending orders and potential withdrawals of up to €150 million, leading to a severe liquidity crisis. In view of this situation, the bank suspended operations and filed for voluntary insolvency on March 16, 2015.

Sources: [Financial Crimes Enforcement Network \(2015\)](#), [Reuters \(2015\)](#), [Associated Press \(2015\)](#), [El País \(2015\)](#), [Buckingham et al. \(2019\)](#)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

B.93 Suriname

November, 2017

In November 2017, concerns about the financial condition of De Surinaamsche Bank triggered rising depositor withdrawals and fears of a bank run. The run was triggered by the bank's solvency ratio that had fallen below regulatory requirements and the panic was further amplified by social media. As customers began withdrawing funds, the Central Bank of Suriname warned against panic and called on other banks to provide liquidity support through an emergency fund to stabilize the institution.

Sources: [NOS \(2017\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by weak bank solvency ratios, which fueled panic amplified through social media.

B.94 Sweden

1709

In 1709, a deposit outflow at the lending bank forced the Riksbank to suspend convertibility of the lending bank deposits. The cause was the Swedish loss in 1708 at the battle against the Russians at Poltava in present-day Ukraine.

Sources: [Metrick and Schmelzing \(2021\)](#), [Rodney Edvinsson \(2018\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by a loss in the Sweden-Russian War.

1745

In 1745, Sweden experienced a bank run. As described by [Metrick and Schmelzing \(2021\)](#), a bank run forces the Riksbank's exchange bank to make deposits and banknotes inconvertible. The run coincided with a war between Sweden and Russia.

Sources: [Rodney Edvinsson \(2018\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run coincided with the Swedish-Russian War between 1741 and 1743.

February, 1808

In February 1808, at the onset of the Finnish War, a conflict between Russia and Sweden over the control of Finland, Sweden experienced bank runs in Stockholm, and spread across the country upon news of the Russian attack reaching the depositors, and more severe runs were recorded in 1809. The war lasted until 1809 and resulted in Russia's annexation of Finland, leading to the creation of the Grand Duchy of Finland as an autonomous buffer state.

Sources: [Metrick and Schmelzing \(2021\)](#), [Kuusterä and Tarkka \(2011\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the Swedish-Finnish.

1817

In 1817, a government audit revealed that Malmoe Diskont was insolvent, triggering a bank run that also spread to Gothenburg Diskont and Gota kanälsbolaget. Malmoe was granted an emergency loan by the central bank but was ultimately shut down. While [Metrick and Schmelzing \(2021\)](#) date this event to occur in 1815, a Riksbank publication dates it to 1817, and we use this date.

Sources: [Fregert \(2022\)](#), [Metrick and Schmelzing \(2021\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by bank-level losses at the Malmoe Diskont.

December, 1857

In 1857, Sweden experienced a bank run on the country's first savings bank, Stockholms Enskilda Bank. The bank had been the first in Europe to issue banknotes in 1661. This triggered widespread deposit withdrawals among other savings bank. The trigger was an increase in interest rates in the informal market around the time when news about the US panic of 1857 reached the European continent ([Fregert, 2022](#)).

Sources: Fregert (2022), Wetterberg and Mikiver (2018)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by an increase in interest rates and by the global panic of 1857, starting in August 1857 the US.

December, 1878

Sweden experienced a major banking crisis in 1878 at the heels of the economic boom of the 1870s. Sweden's largest commercial bank at the time, Stockholms Enskilda Bank, suffered a run because of its large exposure to railway bonds in 1878. Ögren (2003), Baron et al. (2021), and Jordà et al. (2017) agree that the crisis featured bank runs and failures; Reinhart and Rogoff (2009) also count this as a banking crisis.

Sources: Baron et al. (2021), Jordà et al. (2017), Reinhart and Rogoff (2009), Ögren (2003)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by losses in railway bonds and deregulation of the banking system in the 1860s.

October, 1907

In October 1907, Sweden experienced bank runs, in the process of which 16 banks went bankrupt or were reorganized. Among the failed banks were Aktiebolaget Stockholms Kreditbank (1907), AB Sundsvalls Köpmansbank (1910), AB Sundsvalls folkbank (1910), AB Hudiksvalls Folkbank (1910), AB Linköpingsbank (taken over, 1910), AB Gäfle handelsbank (reorganized, 1910), Halmstads Bankaktiebolag (taken over, 1911), AB Sollefteå folkbank (merged, 1911), and Bankaktiebolaget Stockholm Öfre Norrland (taken over, 1911). The banking crisis was preceded by an increase in international interest rates following the US stock market crash and the US recession in 1907, according to Grodecka-Messi et al. (2021).

Sources: Baron et al. (2021), Grodecka-Messi et al. (2021), Jordà et al. (2017), Reinhart and Rogoff (2009)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the spillovers of the US stock market crash of 1907.

1912

In 1912, Sweden's Aktiebolaget Stockholms folkbank experienced a bank run and a subsequent payment suspension. The bank was eventually liquidated in 1914. The bank's ultimate failure was attributed to continuous losses.

Sources: Kenny et al. (2023)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by bank-level losses. Kenny et al. (2023) does not specify the duration of the continuous losses. We classify this run episode conservatively as a bank run with fundamental causes, by assuming that the losses might have caused the run in 1912.

March, 1932

In March 1932, Skandinaviska Kreditaktiebolaget faced a bank run following losses on its exposure to the Kreuger industrial and financial group. The bank had been the group's largest creditor. Jordà et al. (2017) also count this as a crisis, although they do not mention runs.

Sources: Baron et al. (2021), Jordà et al. (2017), Lonnborg et al. (2011), Reinhart and Rogoff (2009)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by bank-level losses.

September, 1939

According to Metrick and Schmelzing (2021), there were "minor bank runs" in September 1939 after the outbreak of war in Europe, and banks turned to the Riksbank for emergency discounts. There was a jump in Riksbank discounting from 13 million to 197 million SEK during Sep-Dec 1939. We still count this as an episode of bank runs, because we use deposit data to quantify how "minor" the runs were.

Sources: Metrick and Schmelzing (2021)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the outbreak of World War II.

April, 1992

In April 1992, Gota Bank, the fourth largest bank in Sweden, experienced a bank run when SEK 2 billion, or 5% of its deposits, were withdrawn in one week, triggered by an announcement from its parent company that it was unwilling and unable to support the bank any further. This episode is also classified as a systemic banking crisis by [Baron et al. \(2021\)](#), [Jordà et al. \(2017\)](#), [Laeven and Valencia \(2018\)](#), and [Reinhart and Rogoff \(2009\)](#). The run was preceded by two years of continuous aggregate losses in the Swedish banking sector, according to [Englund \(2015\)](#).

Sources: [Makhija \(2022\)](#), [Baron et al. \(2021\)](#), [Laeven and Valencia \(2018\)](#), [Jordà et al. \(2017\)](#), [Englund \(2015\)](#), [Reinhart and Rogoff \(2009\)](#), [Urwitz \(1998\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by aggregate banking losses.

B.95 Switzerland

April, 1859

In 1859, there was a run on Banque Générale Suisse in Geneva; the bank faced withdrawals of 75% of all deposits. The bank had to suspend payments in 1859 and was liquidated in 1869.

Sources: [Metrick and Schmelzing \(2021\)](#), [Gerlach and Kugler \(2018\)](#), [Jöhr \(1915\)](#)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

1865

In 1865, Banque Cantonale du Valais faced liquidity problems. The eventual run and closure happened in 1870. According to [Gerlach and Kugler \(2018\)](#), the run on Banque Cantonale du Valais was caused by bad investments, causing a political scandal involving

the resignation of several local government members.

Sources: Gerlach and Kugler (2018), Jöhr (1915)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by bank-level causes such as bad investments.

July, 1870

There was a banking crisis in Switzerland in 1870, caused by the inability to obtain supply of coin from France, leading to runs and a rush to convert notes for coin. Both Baron et al. (2021) and Metrick and Schmelzing (2021) consider this to be an episode characterized by runs.

Sources: Baron et al. (2021), Metrick and Schmelzing (2021), Conant (1915)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the inability to obtain coins from France.

July, 1914

In July 1914, Switzerland experienced bank runs amid a panic caused by the outbreak of World War I, which led to large-scale deposit withdrawals until the central bank intervened.

Sources: Baron et al. (2021), Reinhart and Rogoff (2009), Bachmann et al. (1932)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by World War I.

July, 1931

In July 1931, the failure of Banque de Geneve caused deposit runs in Geneva. Many banks were restructured. 3 major Swiss banks required direct assistance from the government and SNB. Federal government directly deposited CHF 20M at Diskontbank to provide assistance due to lack of liquidity.

Sources: Baron et al. (2021), Baumann (2007)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of Banque de Geneve.

June, 1991

In 1991, amid a major banking crisis, regional savings banks such as Spar & Leihkasse Thun in particular faced bank runs. Jordà et al. (2017) consider this as a systemic banking crisis, characterized by a regional bank crisis fund and large-scale interventions by the central bank. By the end of the crisis episodes, around half of the 200 regional banks had disappeared.

Sources: Jordà et al. (2017), Basel Committee on Banking Supervision (2004)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by a collapse of house prices, causing large losses on mortgage loans within the Swiss banking sector (Basel Committee on Banking Supervision, 2004).

March, 2023

In March 2023, Switzerland experienced a significant bank run involving Credit Suisse, one of its major financial institutions. The run was triggered by a combination of factors, including deep concerns about the bank's financial stability and a series of internal scandals. These internal issues, which involved a spying scandal and the collapse of significant investment funds like Archegos Capital and Greensill Capital, eroded investor and customer confidence. Additionally, the broader financial market instability, particularly following the collapse of Silicon Valley Bank in the U.S., further heightened the sense of insecurity among the bank's customers, leading to the massive withdrawal of 61 billion Swiss francs (about £55 billion) in the first quarter of the year. This situation ultimately led to a rescue takeover by UBS, another Swiss banking giant, in a deal overseen by Swiss authorities to stabilize the financial system.

Sources: Wionews (2023), The Independent (2023), BBC (2023c), CNN (2023)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by bank-level financial stability concerns and a series of internal

scandals.

B.96 Syria

2012

In 2012, following the outbreak of the Syrian civil war, growing insecurity and economic disruption triggered large-scale deposit withdrawals from domestic banks, as households and firms moved funds abroad—particularly to Lebanon. During the first year of the uprising, bank deposits declined by roughly one-third, reflecting widespread loss of confidence and capital flight from the financial system.

Sources: Reuters (2012)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the Syrian civil war.

B.97 Taiwan

February, 1985

In February 1985, a corruption scandal involving Tenth Credit Cooperative revealed that the chairman was using deposits to speculate in stocks and real estate. Announcements questioning the solvency of the institution led to a run, causing a drop of 6.18 billion yuan in only 5 days (The Central News Agency, 2023). This initial run had knock-on effects and caused massive deposit withdrawals at other institutions. The Cathay Investment and Trust Company, also owned by Cathay, also suffered from withdrawals as a result of involvement in a wider corruption scandal. Baron et al. (2021) further document runs on Overseas Chinese Trust and Asia Trust, which they date to August 1985.

Sources: United Daily News Taiwan (2023), The Central News Agency (2023), Baron et al. (2021), Lee (1998), The New York Times (1985c)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by bank-level fraud, a scandal, and a rumor about losses.

July, 1995

In July 1995, Taiwan experienced bank runs following the failure of the Chanuga Fourth Credit Union. Ye Chuanshui, general manager of Changhua Fourth Credit Cooperative, misappropriated more than NT\$2.8 billion in members' deposits, the news about which triggered a run that also spread to several other institutions. The Chanuga Cooperative was ultimately taken over by the Cooperative Bank of Taiwan.

Sources: Baron et al. (2021), Lee (1998), Chinese Television News (1995), Commonwealth Magazine (1995)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of the Chanuga Fourth Credit Union.

November, 1998

Starting in November 1998, Taiwan experienced bank runs, starting with massive withdrawals at Central Bill Finance Company, Hung-Fu Bill Finance Company, and Taichung Business Bank. Sporadic runs continued to occur in 1999, and several failures were largely resolved through arranged mergers. The runs were preceded by an increase in the aggregate share of non-performing loans, according to Montgomery (2002) and Montgomery (2003).

Sources: Baron et al. (2021), Montgomery (2003), Montgomery (2002)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by aggregate distress in the banking sector.

January, 2000

Taiwan experienced several bank runs in 2000. In April, it was revealed that Zhongxing Bank had engaged in illegal over-lending, leading to a run by its depositors. The amount of abnormal withdrawals exceeded 13 billion. Other institutions that experienced runs were Taiwan Development and Trust Corporation as well as Overseas Chinese Bank. Although these runs came at the heels of a previous episode of banking problems starting in November 1998, they appear to be a separate episode, and we thus classify them as a distinct event.

Sources: [Montgomery \(2002\)](#), [CommonWealth Magazine \(2000\)](#), [Chinese Television News \(2000\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by illegal lending behavior of the Zhongxing Bank.

January, 2007

In January 2007, Taiwan experienced a bank run when Rebar and Jiashihua, two companies under the Rebar Group, filed a petition for reorganization on December 29, 2006. These news were delayed until January 4, 2007, and then triggered a run on Rebar Group's subsidiary China Commercial Bank. In order to avoid a systemic crisis, the government provided liquidity to support the withdrawal of cash by drawers. However, the amount of withdrawals within a single week still amounted to NT\$50 billion.

Sources: [Wei et al. \(2007\)](#), [Risk \(2007\)](#), [Financial Times \(2007\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of two financial companies under the Rebar Group.

B.98 Tajikistan

March, 2016

In 2016, amid a deep economic downturn driven by a sharp fall in remittances from Russia following the ruble crisis, several major Tajik banks faced acute liquidity shortages, leaving depositors unable to withdraw funds ([eurasianet, 2019](#); [The Diplomat, 2016](#)). From spring onward, thousands of customers were placed on waiting lists to access their deposits, reflecting a de facto freeze on withdrawals rather than immediate payouts ([The Diplomat, 2016](#)). The crisis prompted government intervention, including a \$500 million bond issuance to support the banking sector, while affected banks were later restructured or liquidated, with around 31,000 clients still awaiting access to their funds years later ([eurasianet, 2019](#)).

Sources: [eurasianet \(2019\)](#), [The Diplomat \(2016\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by an economic downturn following the depreciation of the Russian

ruble.

B.99 Thailand

August, 1984

In August 1984, Thailand experienced a bank run on The Asia Trust Bank, following mismanagement and internal conflicts, which prompted the Ministry of Finance to take over the ownership and management of the bank. Reinhart and Rogoff (2009) explicitly mention the incidence of runs starting in 1983.

Sources: Baron et al. (2021), Laeven and Valencia (2018), Reinhart and Rogoff (2009), Sundaravej and Trairatvorakul (1989), Johnston (1989)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by bank-level mismanagement.

May, 1996

In May 1996, Thailand's Bangkok Bank of Commerce experienced a bank run and the Ministry of Finance took control of the institution. Further runs ensued, including on the finance companies that had fueled the rapid increase in real estate credit. Quickly after these events evolved into the Asian financial crisis when Thailand floated its currency in July 1997, sparking panic across Asia by October 1997. The Bank of Commerce already ran into trouble in 1994 after the banking sector in Thailand experienced an aggregate decline in asset values, according to Moreno et al. (1998).

Sources: Baron et al. (2021), Laeven and Valencia (2018), Vanikkul (2007), Laplamwanit (1999), Moreno et al. (1998), Adams et al. (1998)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by bank losses and an aggregate decline in asset values in 1994.

February, 2014

In February 2014, Thailand experienced a bank run when the Government Savings Bank (GSB) lent 5 billion baht to the Bank for Agriculture and Agricultural Cooperatives, a bank that runs the government's rice programme, and was nearing insolvency. This decision led

to a run on the GSB as depositors were either worried about the stability of the GSB or unwilling to see their money used to help the government, according to an article by Reuters.

Sources: Reuters (2014a), Bangkok Post (2014), The Nation (2014)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by government lending to a bank nearing insolvency.

B.100 Trinidad and Tobago

1939

According to Wai (2010), Trinidad and Tobago's Barclays Bank DCO suffered a run on its San Fernando operations after the announcement that Britain was going to war with Germany in 1939.

Sources: Wai (2010)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the outbreak of World War II.

1988

In 1988, Trinidad and Tobago experienced a bank run following the closure of the Worker's Bank (WB), according to Wai (2010). The run was prompted by a rumor about the impending collapse of the National Commercial Bank of Trinidad and Tobago (NCB), which led to an abrupt withdrawal of approximately TT\$100 million within ten days. The chairman of NCB speculated that this bank run was deliberately instigated by the established banking hierarchy to eliminate the last remaining "black" bank.

Sources: Wai (2010)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the closure of the Worker's Bank and the spread of rumors about the impending collapse of NCB.

January, 2009

In January 2009, amid growing concerns about the financial condition of the CL Financial Group, unusually high level of withdrawal requests triggered a liquidity crisis (Williams, 2009). The run was preceded by depositors' concern about the impact of the sharp decline in methanol and real estate prices on CL Financial's overall financial situation and extremely high leverage position of the bank. On January 30, the government announced a bailout, and the following day the central bank placed the bank under emergency control, halting operations (Williams, 2010). The episode generated broader regional stress, with spillovers to affiliated institutions across the Caribbean (Williams, 2010).

Sources: Williams (2010), Williams (2009)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by concerns about the bank's financial situation after a sharp decline in methanol and real estate prices.

B.101 Turkey

October, 1895

During October 1895, the Ottoman Imperial Bank (the country's only local bank) faced a major run after the bank's shares had tumbled in London and then the Galata Bourse due to the firm's exposure to crashing South African gold mining stocks. Fear of an insolvency of the bank triggered the run, which may have been related to what has been called the "Armenian crisis", although this is not entirely clear.

Sources: Davutyan (2023), Metrick and Schmelzing (2021), The Argus (1895)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by bank-level losses of the Ottoman Imperial Bank.

July, 1914

The outbreak of World War I triggered bank runs in the Ottoman Empire. Triggered by an initial run on the local branches of the Wiener Bankverein, panic ensued, leading to runs on other banks as well, including Imperial Ottoman Bank, Oriental Deutschebank, Credit Lyonnais, Bank of Salonika, and the National Bank of Turkey. The run on several

of these institutions, including Imperial Ottoman Bank, was caused by the fact that they were majority-owned by French and British interests.

Sources: Baron et al. (2021), Autheman (2018), Roberts (2014)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the outbreak of World War I.

July, 1931

In July 1931, the Turkish branches of Deutsche Bank experienced a run in response to developments in Germany, according to the company's historical documents and Bernanke and James (1990). This incident is also documented by Reinhart and Rogoff (2009) and Baron et al. (2021), while Metrick and Schmelzing (2021) speak of "financial volatility".

Sources: Historical Association of Deutsche Bank (2009)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the banking crisis in Germany.

December, 1981

Turkey experienced a systemic banking crisis around 1980-82, with existing chronologies disagreeing about the exact dates. An interest rate liberalization in 1980 created a large industry of brokers, which also attracted fraudsters. When Cevher Özden, owner of Turkey's largest brokerage house Banker Kastelli, fled to Switzerland in late June 1982 following the impending collapse of the institution, this caused widespread runs. By 1984, several major banks had failed.

Sources: Gormez (2022), Silverman (2022), Metrick and Schmelzing (2021), Kaminsky (2006), The Washington Post (1982), The New York Times (1982a)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the collapse of Banker Kastelli.

January, 1991

In January 1991, following the start of the Gulf War in the previous year, Turkey experienced severe bank runs. As a reaction, the government guaranteed all deposits.

Sources: Reinhart and Rogoff (2009), Kaminsky (2006)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the outbreak of the Gulf War.

February, 2001

Turkey experienced banks runs in February 2001 following failure of the largest “Special Finance House”, Ihlas Finance. The immediate trigger was an announcement that the deposits of special finance houses would not be covered by the Deposit Insurance Fund, which led depositors to withdraw their funds. Kuwait Turk Evkaf Special Finance House (KTEFH) saw the largest amount of withdrawals among these.

Sources: Baron et al. (2021), Laeven and Valencia (2018), Reinhart and Rogoff (2009), Starr and Yilmaz (2007)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the announcement that the deposits of special finance houses would not be covered by the deposit insurance.

B.102 Uganda

May, 1999

In May 1999, Uganda experienced a bank run on the Housing Finance Company of Uganda (HFCU), a non-bank financial institution partly owned by the government, which followed the closure of four insolvent institutions. Brownbridge (2002) stresses that this was the only serious run on a (sound) financial institution during this period, and even this run was quickly brought under control by the government’s public announcement that HFCU was safe.

Sources: Brownbridge (2002)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the insolvency of four finance companies.

B.103 Ukraine

August, 1998

Starting in August 1998, Ukraine experienced bank runs as public confidence in the banking system deteriorated following the Russian crisis. In December, some banks imposed a \$500 per day withdrawal limit to stem deposit outflows.

Sources: Laeven and Valencia (2018), Taran (2012)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the banking crisis in Russia.

September, 2008

In September 2008, Ukraine experienced a bank run on its sixth largest bank, Prominvestbank. After experiencing internal problems, there were rumors about the bank's insolvency, causing massive deposit withdrawals and a panic among customers. As a result, several other banks (both large and small) faced runs. One reason for the internal problems was a dispute among shareholders about the solvency of the bank, according to Shestak (2013). The National Bank of Ukraine mentioned an informative attack on the bank associated with a hostile takeover attempt.

Sources: Shestak (2013), Taran (2012)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related cause. Instead the run is associated with manufactured rumors.

February, 2014

In February 2014, Ukraine experienced bank runs accompanied by a drop in bank deposits by 7 per cent of deposits, or 30 billion hryvnias (\$3.3 billion), between 18 and 20 February. Because of these runs, central bank reserves dwindled, and the central bank considered lending to five of the country's banks to prevent further runs when a large number of

customers withdraw money at the same time. The runs happened against the backdrop of violent insurgencies especially in the Donetsk and Luhansk regions.

Sources: Metrick and Schmelzing (2021), The Banker (2020), CNBC (2014b), NBC News (2014), Reuters (2014c)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the war in the Eastern provinces.

B.104 United Arab Emirates

August, 1990

In August 1990, the United Arab Emirates experienced a bank run. Between 15 and 30 per cent of customer deposits were transferred out of the UAE as a result of the uncertainty following Iraq's invasion of Kuwait in August 1990, according to a report on photius.com. At least two banks required cash injections from the central bank to maintain liquidity, but confidence and deposits gradually returned. A further crisis rocked the UAE banking sector in 1991 when the Luxembourg-registered Bank of Credit and Commerce International (BCCI) was closed in most of the sixty-nine countries in which it operated.

Sources: Euromoney (2019b), Coutsoukis (2004), U.S. Congress (1992)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the invasion of Kuwait.

B.105 United Kingdom

May, 1696

In May 1696, Britain experienced a bank run when goldsmiths ran on the newly established Bank of England.

Sources: Metrick and Schmelzing (2021)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

1707

In 1707, the Bank of England experienced a bank run triggered by rumors of a French invasion, as described by [Metrick and Schmelzing \(2021\)](#).

Sources: [Metrick and Schmelzing \(2021\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the threat of a French invasion during the War of the Spanish Succession.

November, 1745

In 1745, as described by [Metrick and Schmelzing \(2021\)](#), England experienced bank runs as a result of the Highlanders' advance.

Sources: [Metrick and Schmelzing \(2021\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the rebellion in the Scottish Highlands during the Jacobite rising of 1745.

June, 1772

In June 1772, banks in Scotland, particularly the Ayr Bank, experienced significant bank runs, which quickly spread to England and other parts of Europe, signaling a broader financial crisis. The economic background was characterized by speculative investments in East India Company stock, among other ventures. The immediate trigger was the collapse of Neale, James, Fordyce, and Down, a London bank, due to the heavy losses incurred by partner Alexander Fordyce in stock speculations.

Sources: [Kenny et al. \(2021\)](#), [van der Geest \(2021\)](#), [Neal \(1991\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by aggregate banking sector distress. The immediate causes were the speculative investments in East India Company stocks that caused a broader financial crisis, resulting in the collapse of Neale, James, Fordyce, and Down.

May, 1815

According to [Kenny et al. \(2021\)](#), banks in the United Kingdom experienced severe bank runs from 1815 to 1816. This financial crisis occurred during a period of economic adjustment following the end of the Napoleonic Wars, transitioning the economy from wartime to peacetime conditions. [Reinhart and Rogoff \(2009\)](#) date the crisis from 1815-1817, noting speculation in agriculture, a general depression in property prices, and widespread bank failures.

Sources: [Kenny et al. \(2021\)](#), [Reinhart and Rogoff \(2009\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by aggregate banking-related causes. The immediate causes were speculation in agriculture, a general depression in property prices, and widespread bank failures.

May, 1820

In 1820 and 1821, the United Kingdom experienced several episodes of bank runs and a wider banking crisis, according to [Kenny et al. \(2021\)](#). We date the start of this episode to May 1820. [Kenny and Turner \(2019\)](#) find that the crisis in Ireland began in late May with the closure of Roches' Bank and Leslie's Bank, which quickly triggered a run on the Cork Savings Bank. In June 1820, the Caledonian Mercury reported bank runs in Scotland. This episode is not mentioned in [Reinhart and Rogoff \(2009\)](#).

Sources: [Kenny et al. \(2021\)](#), [Kenny and Turner \(2019\)](#), [Reinhart and Rogoff \(2009\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the closure of Roches' Bank and Leslie's Bank, resulting in a broader banking crisis.

December, 1825

The Panic of 1825 has been described as one of the world's first international financial crises (see, e.g., [Olmstead-Rumsey, 2019](#)). It followed a major boom in credit and speculation in the preceding years, which came to a crashing halt with the drying up of money market liquidity in mid-December, followed by runs on many London banks. Specifically, the panic began on 12 December 1825, when the London bank Pole, Thornton &

Co. suspended payments, which in turn triggered panic among depositors at Pole's correspondent banks. By the end of that year, these spillovers were particularly damaging to small "country banks", 30 of which were declared bankrupt by the end of December (and 41 more the following year). [Reinhart and Rogoff \(2009\)](#) also date this as a banking crisis, referring to it as the "Panic in London".

Sources: [Fulmer \(2022\)](#), [Olmstead-Rumsey \(2019\)](#), [Reinhart and Rogoff \(2009\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the drying up of money market liquidity in mid-December.

December, 1840

There are several reports of runs during the banking crisis of the late 1830s. [Kenny et al. \(2021\)](#) refer to this episode as the "crisis of 1840-41", while others date it to the late 1830s (e.g., [Turner, 2014](#)). [Reinhart and Rogoff \(2009\)](#) put the starting date at 1837. While there were several newspaper reports of bank runs in 1840 and 1841, we date the start of this episode to December 1839, when the Truro & St. Columb Bank (Turner & Co) experienced a run and was subsequently taken over, according to [Kenny et al. \(2021\)](#). [Kenny et al. \(2021\)](#) reports "poor economic conditions preceded the bank failures of 1840 and 1841" as the cause of the series of bank runs.

Sources: [Kenny et al. \(2021\)](#), [Turner \(2014\)](#), [Reinhart and Rogoff \(2009\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by "poor economic conditions preceded the bank failures of 1840 and 1841" ([Kenny et al., 2021](#)).

October, 1847

The United Kingdom experienced a banking crisis in 1847, caused by the collapse of a speculative boom in railway shares. The crisis led to bank runs that "accelerated" in October, according to [Metrick and Schmelzing \(2021\)](#). After lending freely between January and September, the Bank of England (BoE) stopped lending against shares and treasury bills in October. The Panic of 1847 led to a bank run in London in October 1847, when several large merchant banks and discount houses faced liquidity problems and could not meet their obligations. As described in detail on the basis of primary sources in [Kenny](#)

et al. (2021), the bank run spread to other cities and regions, causing many banks to fail or suspend payments.

Sources: Kenny et al. (2021), Metrick and Schmelzing (2021)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the collapse of a speculative boom in railway shares.

November, 1857

In 1857, the United Kingdom experienced bank runs. Private assistance was given to the Western Bank, but it failed along with the City Bank of Glasgow (which was temporarily suspended), as described by Metrick and Schmelzing (2021). These events “caused a run on the other banks”, according to an article in the Liverpool Mail at the time, as quoted in the appendix by Kenny et al. (2021). The incidence of runs is also mentioned by Reinhart and Rogoff (2009) to have happened in Glasgow, Liverpool, and London.

Sources: Metrick and Schmelzing (2021), Kenny et al. (2021), Riddiough and Thompson (2012), Reinhart and Rogoff (2009)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of the Western Bank and the City Bank of Glasgow.

May, 1866

In 1866, the UK experienced bank runs following the unexpected failure of Overend, Gurney & Co, which triggered a systemic banking crisis. Overend & Gurney had been the largest player in the London interbank market at the time. An article in the Banker’s Magazine at the time, quoted in Xu (2022), provides clear evidence of runs: “It is impossible to describe the terror and anxiety that seized men’s minds ... a run immediately began on all the banks, the magnitude of which ... can hardly be imagined.” Overend & Gurney’s failure followed a speculative boom in the 1860s. The bank’s surprise collapse was due to the fact that it had expanded away from its core business as a discount house rather than a retail bank, into riskier investments without adequate collateral, and had systematically misled its investors about its financial position.

Sources: Xu (2022), Kenny et al. (2021), The House of Commons (2008)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of Overend, Gurney & Co after the bank's fundamentals deteriorated.

September, 1878

In 1878, the United Kingdom experienced bank runs starting in late September, when the collapse of the City of Glasgow Bank triggered a wider panic that affected several other banks. While Kenny et al. (2021) do not classify this episode as a systemic banking crisis, their appendix reports clear evidence of runs in, among others, the South Wales Daily News, the Belfast Telegraph and the Cardiff Times.

Sources: Baron et al. (2021), Kenny et al. (2021), The House of Commons (2008)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of the City of Glasgow Bank.

July, 1914

In 1914, the UK faced bank runs as part of a wider financial crisis triggered by the outbreak of World War I. Austria's ultimatum to Serbia on 23 July was a key triggering event, likely causing a stock market crash and runs on savings banks. The ensuing panic also led to a run on the Bank of England as depositors sought to exchange their notes for gold. A major campaign in the run-up to the opening of the banks on 7 August helped to prevent a further escalation of the runs. Although not counted as a banking crisis by Kenny et al. (2021), who describe the savings bank runs in the Appendix, evidence of runs is also discussed in Roberts (2014) and Baron et al. (2021). Reinhart and Rogoff (2009) also treat this episode as a banking crisis.

Sources: Kenny et al. (2021), Baron et al. (2021), Roberts (2014), Reinhart and Rogoff (2009)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the outbreak of World War I.

July, 1973

In 1973, the UK experienced the so-called “Secondary Banking Crisis” and there is some evidence that this episode was accompanied by bank runs. As described by [Baron et al. \(2021\)](#), there were bank runs at “some of the fringe banks”. [Bank of England \(1978\)](#) also mentions “a run on deposits”. In the course of the crisis, many finance companies and secondary banks failed or were rescued, amid widespread intervention such as Operation Lifeboat. 1973 is also marked as a banking crisis by [Jordà et al. \(2017\)](#) and [Duca et al. \(2017\)](#).

Sources: [Baron et al. \(2021\)](#), [Duca et al. \(2017\)](#), [Jordà et al. \(2017\)](#), [Turner \(2014\)](#), [Reid \(1982\)](#), [Bank of England \(1978\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the resignation of “a respected city banker [...] who had been appointed to strengthen the banking division” at London and County ([Bank of England, 1978](#)). The resignation caused a liquidity dry-up in the money market, enhancing the liquidity problems of London and County. The problems of London and County triggered runs on other secondary banks ([Turner, 2014](#)).

September, 2007

In September 2007, the UK experienced a bank run on mortgage lender Northern Rock. The run followed a report on the BBC evening news that the bank had asked the Bank of England for help, and the central bank announced emergency liquidity support the next day. The bank was eventually nationalized in February 2008. In the course of the wider banking crisis that followed, several other banks received government bailouts.

Sources: [Baron et al. \(2021\)](#), [Jordà et al. \(2017\)](#), [Shin \(2009\)](#), [The House of Commons \(2008\)](#), [Reuters \(2008c\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by a broader global banking crisis starting in the subprime mortgage market in 2007 in the US.

May, 2019

In May 2019, Metro Bank in the United Kingdom experienced a bank run following the spread of false rumors on WhatsApp. Messages circulating on the platform falsely claimed

that Metro Bank planned to take ownership of customers' deposits. The panic intensified after photos showing people queuing outside Metro Bank branches were shared online ([The Independent](#), 2019).

Sources: [The Independent](#) (2019), [ITV](#) (2019)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

B.106 United States of America

April, 1814

According to [Reinhart and Rogoff](#) (2009) and [Metrick and Schmelzing](#) (2021), there were widespread bank runs in New Orleans, including on the Planter's Bank, Bank of New Orleans, and Louisiana Bank; also see [Calomiris and Gorton](#) (1991). Panic ensued among merchants, planters, and other citizens as they rushed to exchange paper bank notes for specie. The panic was likely related to the ongoing trade embargoes and blockades during the War of 1812. [Bordo and Wheelock](#) (1998) quote [Thorp](#) (1926) as describing this episode as being characterized by "financial chaos".

Sources: [Metrick and Schmelzing](#) (2021), [Keyes](#) (2013), [Reinhart and Rogoff](#) (2009), [Bordo and Wheelock](#) (1998), [Calomiris and Gorton](#) (1991), [Thorp](#) (1926)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the trade embargoes during the War of 1812.

May, 1819

In 1819, the contractionary monetary policies of the Second Bank of the United States amplified the effects of declining crop prices and land values. State banks throughout the nation suspended specie redemptions and many were forced into insolvency. The Second Bank lacked the ability to serve as a lender of last resort, which allowed bank runs to spread. [Bordo and Wheelock](#) (1998) quote [Smith and Cole](#) (1935) in stressing that "[b]anks with extended loans to speculators were now confronted with a demand for specie". According to [Rothbard](#) (1962), "New England ... was the only area little touched by bank failures or runs". [Thorp](#) (1926) dates the panic to May 1819, which we follow here.

Sources: Chambers and Higgins (2023), Metrick and Schmelzing (2021), Reinhart and Rogoff (2009), Bordo and Wheelock (1998), Zeretky (1996), Calomiris and Gorton (1991), Rothbard (1962), Smith and Cole (1935)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the contractionary monetary policy.

October, 1833

In October 1833, the federal government of the United States withdrew the government deposits from the Bank of the United States. This decision triggered a series of bank runs and suspensions in several states in November, including New York, Pennsylvania, Georgia, New Jersey, and Virginia (Metrick and Schmelzing, 2021; Jalil, 2015). Jalil (2015) documents many mentions of bank runs in the Niles Weekly Register, and Thorp (1926) also classifies this as a panic. These runs came at the heels of a political decision by President Andrew Jackson, a fierce opponent of the Bank of the United States, who decided to withdraw the government deposits from the quasi-central bank, precipitating runs.

Sources: Metrick and Schmelzing (2021), Jalil (2015), Zeretky (1996), Thorp (1926)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes. We regard the withdrawal decision of President Jackson as an idiosyncratic decision unrelated to economic fundamentals.

May, 1837

In 1837, the United States experienced bank runs following first signs of distress in New Orleans and New York in March and April (see Metrick and Schmelzing, 2021; Jalil, 2015). Severe bank runs in New York in May led to a suspension of specie payments, following the publication of an investigation by the New York Bank Commissioners in the New York Herald into a fraudulent scheme run by the president of Mechanics Bank, a major Wall Street bank. An initial run on Mechanics Bank quickly spread to other institutions involved in the scheme and eventually led to a general run on all banks in New York City.

Sources: Metrick and Schmelzing (2021), Hilt and Liang (2020), Jalil (2015), Reinhart and Rogoff (2009), Bordo et al. (1999), Zeretky (1996), Calomiris and Gorton (1991)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by a fraudulent behavior of New York banks.

April, 1841

Jalil (2015) documents mentions of bank runs in the Niles Weekly Register in 1842, followed by reports of bank failures, and further reports on a banking panic with runs in New Orleans. There is also evidence of isolated runs in March 1842 in Philadelphia, which in turn followed a series of bank runs in April 1841 in several states prompted by the suspension of specie payments at the Second Bank of the United States (also see Reinhart and Rogoff, 2009). We thus treat April 1841 as the start date of this bank run episode. While Jalil (2015) only classifies this episode as a “minor banking panic”. For the purpose of our dataset, however, what matters is that there is clear narrative evidence of any run, and we thus treat it as a period where runs occurred.

Sources: Jalil (2015), Reinhart and Rogoff (2009)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the decision of the Second Bank of the United States to suspend specie payments.

September, 1854

Starting in September 1854, the United States experienced bank runs emanating from the interior (especially West and Northwest). The runs followed reports about widespread fraud in the stock market involving several major railroad shares. The panic subsequently also reached New York, triggering a general run on savings banks in January 1855 (Jalil, 2015). In February 1855, after the parent company of Page, Bacon & Co. failed due to speculation in railroad shares, this led to panics in San Francisco, resulting in massive withdrawals from the bank, with \$600k being withdrawn in a single day out of the \$2M in deposits the bank held. The panic spread to several other banks and led to their failure.

Sources: Dematos (2023), Jalil (2015), Ó Gráda and White (2003), Thorp (1926)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by detected fraud in railroad stocks, causing banks to fail.

September, 1857

In 1857, United States experienced bank runs following the failure of the Ohio Life Insurance and Trust Company due to mismanagement and fraudulent activities in August. Given Ohio Life's role in the market for margin loans, and given its large depositor base, this event created panic among banks, leading to a first set of runs in September, including on the Bank of Pennsylvania. These runs reached "dramatic" proportions in New York City in October (Jalil, 2015), and banking was suspended entirely on October 14 in New York and throughout New England.

Sources: Fulfer (2022), Jalil (2015), Klitgaard and Narron (2015), Reinhart and Rogoff (2009), Ó Gráda and White (2003), The New York Times (2001), Bordo et al. (1999), Calomiris and Gorton (1991), Library of Congress (n.d.)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of the Ohio Life Insurance and Trust Company after the detection of fraudulent activities.

December, 1861

In December 1861, banks in several U.S. cities—including New York, Philadelphia, Boston, and Baltimore—suspended specie payments following heavy withdrawals of coins (Jalil, 2015). These withdrawals were driven by a loss of public confidence in the federal government's fiscal capacity amid the ongoing Civil War.

Sources: Jalil (2015)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by a loss of confidence in the federal fiscal capacities during the Civil War.

September, 1873

In 1873, the United States experienced bank runs following the collapse of Jay Cooke Bank, which in turn came at the heels of a stock market crash in Vienna that led investors to dump their American railroad bonds. The banking crisis was the result of a debt-driven railway boom that had come to a standstill. The closure of Jay Cooke, one of the most prestigious merchant banks, on 18 September shocked the city and triggered a widespread

panic. On that day, and intensifying until 20 September, depositors rushed to withdraw their funds in a series of bank runs in New York City. Several prominent banks failed and the New York Stock Exchange was closed for 10 days for the first time ever.

Sources: Fulmer (2022), Baron et al. (2021), Jordà et al. (2017), Metrick and Schmelzing (2021), Jalil (2015), Reinhart and Rogoff (2009)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of the Jay Cooke Bank due to the spillovers of the international Gründerkrach panic, which originated in May 1873 in Austria.

May, 1884

The United States experienced several bank runs in 1884. These events started when, on 8 May 1884, the brokerage firm Grant and Ward failed amid heavy losses on speculative investments, which in turn led to the closure of its large creditor Marine National Bank. Soon after, the Second National Bank experienced a run when it was discovered that its president had embezzled \$3 million and fled to Canada. Another run on Metropolitan National Bank triggered by rumors about fraudulent conduct with depositor funds by the bank's president led to its collapse, even though it later turned out that these rumors had been false. By putting a halt to the publication of bank statistics in order to avoid further runs, the New York Clearinghouse Association likely stopped these in their tracks.

Sources: Hoffner and Steffen (2022), Baron et al. (2021), Jalil (2015), Richardson and Sablik (2015), Sprague (1910)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of the brokerage firm Grant and Ward.

June, 1893

In 1893, the United States experienced bank runs, which started in May and became especially pronounced over the months of June, July, and August. This instability arose for two key reasons. First, the Sherman Silver Purchase Act of 1890 led to a decrease in the gold reserves maintained by the U.S. Treasury, which fell to about \$100 million from \$190 million in 1890. This fall in gold reserves raised concerns at home and abroad that the United States might be forced to abandon the gold standard, which prompted some

depositors to withdraw bank notes and convert them into gold. Second, different from many other bank runs during this period, there was already a sign of slowing economic activity in the run-up to 1893, with newspapers mentioning an “existing depression”. As such, fear of weakened bank balance sheets due to reports of failures and bankruptcies led to a stock market crash and deposit withdrawals, causing widespread bank runs.

Sources: Baron et al. (2021), Jordà et al. (2017), Jalil (2015), Grossman (2010), Reinhart and Rogoff (2009), Carlson (2005), Rothbard (1962), Sprague (1910)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the slowdown of economic growth and the increase in circulating silver by the federal government.

December, 1896

According to Jalil (2015), the failure of the National Bank of Illinois triggered runs on other institutions in the region in December 1896, although the panic was overall short-lived and apparently isolated to the midwest. This episode is also classified as a panic by, among others, Long and Summers (1984) and Calomiris and Gorton (1991).

Sources: Jalil (2015), Calomiris and Gorton (1991), Long and Summers (1984)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of the National Bank of Illinois.

October, 1907

In October 1907, the United States experienced runs on a group of New York banks that were involved in speculating in the commodities market by misappropriating bank funds. Following a collapse in copper prices, the news caused widespread panic in New York. The subsequent failure of Knickerbocker Trust Company led to a spread of runs across the entire country.

Sources: Baron et al. (2021), Jordà et al. (2017), Jalil (2015), Constitutional Rights Foundation (2012), Sprague (1910)

Run Cause Classification: We classify the cause of the run episode as **banking-related**.

The run was triggered by the failure of the Knickerbocker Trust after accumulating losses in the commodities market.

July, 1929

In July 1929, there were widespread runs in Florida when a Mediterranean fruit fly epidemic destroyed the state's citrus crop. Doubts about farmers' ability to repay their loans, and a lack of response from Congress about compensating them for their losses, triggered bank runs on institutions in citrus-growing areas and the failure of a key correspondent group headquartered in Tampa, Citizens Bank and Trust Company, which served as a regional financial center. While the Federal Reserve Bank of Atlanta was able to halt the panic by providing member banks with currency, these runs foreshadowed the more widespread runs in the following year.

Sources: Metrick and Schmelzing (2021), Carlson et al. (2010)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by an increase in non-performing agricultural loans due to a fruit fly epidemic.

November, 1930

In 1930, the United States experienced bank runs following the collapse of Caldwell and Company of Nashville, Tennessee in November, the largest financial holding company in the South. These runs quickly became widespread, causing hundreds of banks to ultimately suspend operations in just a few weeks. On December 11, 1930, the Bank of United States, the fourth-largest bank in New York City, failed, causing depositors to withdraw their funds. While these panics came at the heels of the more localized runs in Florida in the previous year, they were entirely separate events, so we code them as such. In early 1931, the wave of bank runs subsided.

Sources: Baron et al. (2021), Jordà et al. (2017), Richardson (2013)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the collapse of the Caldwell and Company.

June, 1931

In June 1931, a new wave of bank runs hit the United States after six months of relative calm. In Chicago, depositors withdrew funds from banks that suffered heavy losses on their asset side. The panic quickly spread across the country, causing a run and the collapse of the American Union Bank on the 30th of June 1931.

Sources: Richardson (2013)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the heavy losses of banks in Chicago.

November, 1932

Following the election of Franklin D. Roosevelt as president in November 1932 led to rumors of a possible devaluation of the dollar and heightened concerns about the stability of the currency. Widespread bank runs ensued, first locally in the Fall of 1932 (Kindleberger and Aliber, 2005, p. 212), with a banking holiday declared in Nevada on 31 October, and then nationwide. In November and December 1932, depositors started to convert deposits into gold on a larger scale. The situation worsened in February 1933 with massive deposit withdrawals among panic and the failure of thousands of banks, leading President Roosevelt to declare a nationwide bank holiday in March. We date this event to start in November 1932 and not in February 1933, given the importance of the presidential election in triggering many runs. While this event quickly followed the 1930 series of bank runs, it was a separate event, divided by a period of relative calm characterized by bank failures but no outright panics.

Sources: Jaremski et al. (2023), Federal Deposit Insurance Corporation (2018), Silber (2009), Reinhart and Rogoff (2009), Kindleberger and Aliber (2005)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes. The panic was triggered by rumors about what might be happening with the dollar exchange rate during President Roosevelt's presidency.

May, 1974

In May 1974, Franklin National Bank experienced rapid deposit withdrawals, characterized as a “run” by [McKinley \(2014\)](#), following the reveal of massive losses on its foreign exchange trading book. The bank was declared insolvent in October, having lost half of its deposits.

Sources: [McKinley \(2014\)](#), [Time Magazine \(2014\)](#), [The New York Times \(1974\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the heavy bank-level losses.

July, 1982

In July 1982, Penn Square Bank experienced a “full-scale run” according to reporting on NPR, after it was revealed that it took major losses on large risky loans, particularly to the oil industry. Amid the drop in oil prices and rumors of the bank’s problems, a panic ensued, leading to a run on the bank’s deposits on 2 July. Three days later, the bank was declared insolvent.

Sources: [State Impact Oklahoma \(2012\)](#), [The New York Times \(1982b\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the heavy bank-level losses.

November, 1983

In November 1983, there were bank runs in Nebraska after the forced closure of the Commonwealth Savings Company and the failure of the state-level deposit insurer NDIGC.

Sources: [Metrick and Schmelzing \(2021\)](#), [Chen et al. \(2020\)](#), [The New York Times \(1985a\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the failure of the Commonwealth Savings Company.

May, 1984

Starting on 8 May 1984, there was a sudden run on Continental Illinois National Bank. Despite being the seventh largest commercial bank in the US in 1984, Continental's reputation had been tarnished by its acquisition of loans from Penn Square Bank, which had failed in 1982. By 1984, the bank was experiencing declining revenues and profitability. In May, rumors circulated about the bank's possible failure or forced merger, and despite Continental's denials, a sudden and rapid run on the bank occurred.

Sources: Baron et al. (2021), Carlson and Rose (2016), United States General Accounting Office (1997)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the bank-level solvency issues.

May, 1985

Beginning on 5 March 1985, the United States experienced "the most widespread run on depository institutions since the Great Depression" (United States General Accounting Office, 1997, page 47), triggered by the largest of Ohio's privately insured savings and loan institutions, Home State Savings Bank. Highlighting the limits of private (instead of federally-guaranteed) deposit insurance, there were widespread concerns the runs would spread to other states, especially other privately-insured banking systems. There were also widespread deposit withdrawals in Maryland, which also had privately insured savings and loans institutions. By declaring a state-wide bank holiday and putting temporary limits on deposit withdrawals, the panic was calmed, and most Ohio thrifts had reopened in June 1985 with federal deposit insurance.

Sources: Robinson (2013), United States General Accounting Office (1997)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes. Instead, the panic seems to be triggered by the sudden realization that the deposit insurance coverage was limited.

November, 1990

In November 1990, the Heritage Loan & Investment Bank experienced a bank run. Depositors withdrew \$13 million in November 1990 and the remaining \$8.5 million of deposits in December 1990. Depositors started running on Heritage after it became public that the bank issued fraudulent loans of \$13 million.

Sources: [The New York Times \(1991b\)](#), [The New York Times \(1991a\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the bank-level fraud.

January, 1991

In January 1991, the Bank of New England experienced massive deposit withdrawals within a short time period, following the revelation of \$1.1 billion in losses for the year 1989. After a projected further loss of \$450 million in the fourth quarter of 1990, the bank experienced mass withdrawals of \$1 billion from depositors on 4 January 1991.

Sources: [Banker & Tradesman \(2022\)](#), [McKinley \(2014\)](#), [Basel Committee on Banking Supervision \(2004\)](#), [The Canberra Times \(1991\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the bank-level solvency issues.

April, 1992

In April 1992, Metro North State Bank in Kansas City, Missouri, experienced a bank run when depositors lined up outside the bank out of fear it was about to fail. The bank's chairman blamed the situation on an "unsubstantiated rumor" that regulators were about to close the bank, according to [The New York Times \(1992b\)](#). The run was, however, calmed the next day.

Sources: [The New York Times \(1992b\)](#), [The New York Times \(1992a\)](#)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

August, 2007

In August 2007, Countrywide Financial Corp, the third largest savings and loans bank in the US at the time, experienced a bank run. The fear driving the run was primarily Countrywide's exposure to risky subprime mortgages. When the housing bubble burst and subprime loans started defaulting, it led to significant financial strain. Panic among depositors spread, who rushed to withdraw their money.

Sources: Baron et al. (2021), Laeven and Valencia (2018), Reinhart and Rogoff (2009), Los Angeles Times (2007)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the burst of the housing bubble, followed by an increase in non-performing mortgage loans.

March, 2008

In 2008, the subprime mortgage crisis reemerged, causing a series of bank runs on major institutions in the United States. One of the first was a run on the mortgage lender IndyMac Bank in late June after the publication of letters by Senator Charles E. Schumer to banking regulators that the bank was likely no longer viable, triggering a drop in 7.5% of deposits over the next days. In September, Washington Mutual (WaMu) depositors panicked when they heard the news of Lehman Brothers' bankruptcy on 15 September 2008, withdrawing \$16.7 billion from their savings and checking accounts over the next 10 days (more than 11% of WaMu's total deposits). Wachovia, the fourth largest bank in the United States at the time, lost \$5 billion of deposits in a single day on 26 September 2008 when large depositors withdrew funds.

Sources: Amadeo (2021), CBS News (2008), Reuters (2008b), Reuters (2008a)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the ongoing mortgage crisis and the increase in non-performing loans.

March, 2023

In March 2023, Silicon Valley Bank (SVB) experienced a major run and subsequently failed. SVB was known for providing lending and deposit services to venture capitalists

and start-ups. It had invested heavily in US government bonds, which lost value when the Federal Reserve raised interest rates. The rate hike caused the bank's customers to withdraw their deposits, adding to SVB's financial stress. An attempt to raise funds through a share sale backfired when Founders Fund, a venture capital firm, advised its portfolio companies to withdraw their money from SVB. This led to a rapid outflow of \$40 billion, a fifth of SVB's deposits, in a matter of hours. As this incident was accelerated by tweets from high-profile entrepreneurs, it has been dubbed "the first Twitter-fuelled bank run."

Sources: [The Guardian \(2023\)](#), [Gompers \(2023\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by bank-level asset-side losses of the Silicon Valley Bank.

B.107 Uruguay

June, 1866

In June 1866, Uruguay experienced widespread bank runs following the collapse of Overend & Gurney. Maua Bank was on the verge of collapse and supported by the government by allowing the bank the suspension of convertibility for six months.

Sources: [Metrick and Schmelzing \(2021\)](#), [Steinberg \(2018\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the 1866 Banking Panic in Great Britain that followed the collapse of Overend & Gurney in May 1866.

July, 1890

The Baring Crisis of 1890 led to severe financial repercussions in Uruguay, including a bank run. The National Bank of Uruguay, which had the power to print and issue paper money backed by English pounds, faced difficulties when its notes were refused by other banks, leading to a suspension of specie payments and subsequent panic and bank runs. This event was part of a larger financial crisis that affected not only Uruguay but also other countries in Latin America. The crisis was a result of questionable fiscal and monetary policies, draining the banking system of specie, and provoking multiple banks

to experience runs beginning in July 1890.

Sources: [Currency History \(2016\)](#), [Mitchener and Weidenmier \(2008\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the 1890 Baring Crisis in Great Britain.

September, 1898

In September 1898, Uruguay experienced bank runs to redeem banknotes due to a government decree to reduce the circulation of notes. These events were part of a broader pattern of financial instability in Latin America during the late 19th century, with Uruguay's financial struggles contributing to the global financial crisis of the 1890s.

Sources: [Metrick and Schmelzing \(2021\)](#), [Reinhart and Rogoff \(2009\)](#)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by a government decree to redeem banknotes to reduce currency circulation.

April, 1964

In April 1964, Uruguay experienced bank runs following problems at Banco Regional. After Banco Regional was taken over by BROU, the bank run spread to other banks, including the Transatlantic Bank of Uruguay and other private banks in December 1964.

Sources: [Metrick and Schmelzing \(2021\)](#), [Oddone and Marandino \(2019\)](#), [Vaz \(1988\)](#)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by a bank-level solvency issues.

September, 1982

In September 1982, Uruguay was hit by a wave of bank runs triggered by the nationalization of banks in Mexico. After a brief halt of the runs they flared up again in November, driven by fears of a systemic banking collapse, the abrupt end of the fixed exchange rate policy by the Central Bank of Uruguay due to a scarcity of dollars, and soaring dollar exchange rates. The situation was worsened by political unrest marked by the ruling

party's losses in elections and the Finance Minister stepping down. Discrepancies between what was publicly known and private realities eroded trust, hastening the flight from the Uruguayan peso.

Sources: Metrick and Schmelzing (2021), Laeven and Valencia (2018), Reinhart and Rogoff (2009), Vaz (1988)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the nationalization of banks in Mexico, the end of the fixed exchange rate policy, and a depreciation of the local currency.

January, 2002

In 2002, Uruguay experienced sustained bank runs. In an environment of highly dollarised deposits, many of which were held by non-residents (especially from Argentina), the imposition of capital controls and deposit freezes in December 2001 caused liquidity issues at the two largest private banks, Banco Galicia Uruguay (BGU) and Banco Comercial (BC), which were particularly exposed to Argentina. This triggered a first round of runs, with BGU hit particularly hard. By May, bank runs had also expanded to public banks.

Sources: Metrick and Schmelzing (2021), Oddone and Marandino (2019), Laeven and Valencia (2018), Reinhart and Rogoff (2009), Kaminsky (2006)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the introduction of capital controls and deposit freezes.

B.108 Venezuela

November, 1993

In November 1993, the Venezuelan Central Bank warned of insolvency in multiple banks, leading to a climate of uncertainty. The president of Venezuela's second largest bank, Banco Latino, resigned on December 22, 1993, and fear of the bank's closure in January 1994 triggered a bank run, causing a wider banking crisis with runs on other troubled banks.

Sources: Lapatilla (2023), Baron et al. (2021), Laeven and Valencia (2018), Anido et al. (2014), Reinhart and Rogoff (2009), BBC (2008), Trigo et al. (2007)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by a warning about the insolvency of multiple banks.

February, 2009

Venezuela experienced a banking crisis in 2009-10 that was also accompanied by runs. The crisis was initially triggered by a government crackdown on powerful financiers, including Arné Chacón and Ricardo Fernández Barrueco, amid concerns about their rapid wealth accumulation through close government ties. Several banks were seized among failing, contributing to fears of bank runs as depositors lined up to withdraw money. The first run was likely on Stanford Bank Venezuela in February 2009, which experienced an “online run” triggered by revelation of a massive fraud case by its Texan owner Allen Stanford and was seized by the government. The banking sector’s problems continued, leading to a bank run on Banco Federal in June 2010, the country’s 11th largest banks.

Sources: Sydney Morning Herald (2010), Los Angeles Daily News (2009), The New York Times (2009), Reuters (2009b)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by a government crackdown.

B.109 Vietnam

August, 2012

In 2012, the Vietnamese Asia Commercial Bank (ACB), one of the country’s largest, experienced a run after the arrest of one of its founders, Nguyen Duc Kien. Depositors withdrew hundreds of millions of dollars within a short time span. The central bank, however, quickly intervened to provide liquidity, apparently stemming pressure on other institutions.

Sources: BBC (2012), Reuters (2012)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

October, 2022

Saigon Commercial Bank (SCB) faced a major bank run after its founder Truong My Lan had been arrested on charges of “economic crimes” in a corruption probe. While a wider panic was contained, the incident was significant enough to be reported in the international news media and prompted a statement by Standard & Poor’s regarding Vietnam’s credit rating.

Sources: *The Banker* (2023), *Bloomberg* (2022c), *Bloomberg* (2022d), *Bloomberg* (2022b), *Bloomberg* (2022a), *Retail Banker International* (2022)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

B.110 Zambia

February, 1995

In February 1995, rumors about the financial condition of Meridien BIAO Bank—Zambia’s fourth-largest bank—triggered a loss of confidence and a classic depositor run (*The Free Library*, 1995). Depositors withdrew funds en masse, prompting the Bank of Zambia to provide emergency liquidity support of over 40 billion kwacha to stabilize the institution (*The Free Library*, 1995). Despite these efforts, the bank was taken over in March 1995 and later liquidated.

Sources: *AllAfrica* (2004), *The Free Library* (1995)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

November, 2016

In November 2016, the Bank of Zambia took possession of the insolvent Intermarket Banking Corporation, triggering depositor panic and long queues at branches as customers sought to withdraw their funds (*Lusaka Times*, 2016b).

Sources: *Lusaka Times* (2016a), *Lusaka Times* (2016b)

Run Cause Classification: We classify the cause of the run episode as **banking-related**. The run was triggered by the insolvency of the Intermarket Banking Corporation.

B.111 Zimbabwe

May, 2003

During 2003, Zimbabwe faced repeated episodes of widespread bank runs, likely starting in May. Characterized by long queues of people waiting outside banks, among others in central Harare, there was widespread panic and banks limited cash withdrawals. The central bank, unable to print sufficient new cash to satisfy banks' demands for new notes, added to this panic.

Sources: Dzomira (2014), *The Independent* (2013), Kupakuwana (2012), *Nurturing Champions* (2011), Kairiza (2009), *The Mail & Guardian* (2003a), *The Mail & Guardian* (2003b)

Run Cause Classification: We classify the run episode as a **non-fundamental** bank run due to the absence of any evidence of macroeconomic or banking-related causes.

May, 2016

In May 2016, Zimbabwe experienced bank runs due to a prolonged U.S. dollar shortage, with people fearing the replacement of dollars with new local currency. The panic caused daily cash withdrawal limits to drop rapidly, from 1,000 U.S. dollars to as low as 50 U.S. dollars in some cases. Many Zimbabweans, who vividly remembered the hyperinflation crisis of 2008, were wary of using the new "bond notes" introduced by the authorities.

Sources: *Time Magazine* (2016), *CNN* (2016), *The Atlantic* (2016), *BBC* (2016b), *The Mail & Guardian* (2016)

Run Cause Classification: We classify the cause of the run episode as **macroeconomic**. The run was triggered by the shortage of US dollars and the fear of the replacement of dollars with local currency.

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C The JKMS Database of Aggregate Bank Deposits

Table C.1: Sources and Coverage for the Dataset on Outstanding Aggregate Bank Deposits

Country	Total deposits			Demand deposits			Time deposits		
	Sources	Period covered	Sources	Sources	Period covered	Sources	Period covered	Sources	Period covered
Afghanistan	IMF (IFS)	2006-2020	IMF (IFS)	IMF (IFS)	2006-2020	IMF (IFS)	2006-2020	IMF (IFS)	2006-2020
	IMF (IFS)	1958-1990	IMF (IFS)	IMF (IFS)	1958-1990	IMF (IFS)	1958-1990	IMF (IFS)	1958-1990
	IMF (IFS)	2001-2024	IMF (IFS)	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024
Albania	IMF (IFS)	1994-2000	IMF (IFS)	IMF (IFS)	1994-2000	IMF (IFS)	1994-2000	IMF (IFS)	1994-2000
	Pisha et al. (2014)	1926-1937	Pisha et al. (2014)	Pisha et al. (2014)	1926-1937	Pisha et al. (2014)	1926-1937	Pisha et al. (2014)	1926-1937
	IMF (IFS)	2001-2024	IMF (IFS)	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024
Algeria	IMF (IFS)	1964-2000	IMF (IFS)	IMF (IFS)	1964-2000	IMF (IFS)	1964-2000	IMF (IFS)	1964-2000
	Mitchell IHS	1943-1963	Mitchell IHS	Mitchell IHS	1943-1963	Mitchell IHS	1943-1963	Mitchell IHS	1943-1963
	Mitchell IHS	1938	Mitchell IHS	Mitchell IHS	1938	Mitchell IHS	1938	Mitchell IHS	1938
Andorra	Andorran Banking Association	2003-2024	Andorran Banking Association	Andorran Banking Association	2003-2024	Andorran Banking Association	2003-2024	Andorran Banking Association	2003-2024
	IMF (IFS)	2001-2024	IMF (IFS)	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024
	IMF (IFS)	1995-2000	IMF (IFS)	IMF (IFS)	1995-2000	IMF (IFS)	1995-2000	IMF (IFS)	1995-2000
Angola	Mitchell IHS	1973	Mitchell IHS	Mitchell IHS	1973	Mitchell IHS	1973	Mitchell IHS	1973
	Nunes et al. (2010)	1932-1972	Nunes et al. (2010)	Nunes et al. (2010)	1932-1972	Nunes et al. (2010)	1932-1972	Nunes et al. (2010)	1932-1972
	IMF (IFS)	2001-2024	IMF (IFS)	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024
Anguilla	IMF (IFS)	1990-2000	IMF (IFS)	IMF (IFS)	1990-2000	IMF (IFS)	1990-2000	IMF (IFS)	1990-2000
	IMF (IFS)	2001-2024	IMF (IFS)	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024
	IMF (IFS)	1975-2000	IMF (IFS)	IMF (IFS)	1975-2000	IMF (IFS)	1975-2000	IMF (IFS)	1975-2000
Antigua and Barbuda	IMF (IFS)	2010-2024	IMF (IFS)	IMF (IFS)	2010-2024	IMF (IFS)	2010-2024	IMF (IFS)	2010-2024
	IMF (IFS)	1960-2009	IMF (IFS)	IMF (IFS)	1960-2009	IMF (IFS)	1960-2009	IMF (IFS)	1960-2009
	Mitchell IHS	1926-1959	Mitchell IHS	Mitchell IHS	1926-1959	Mitchell IHS	1926-1959	Mitchell IHS	1926-1959
Argentina	Mitchell IHS	1903-1925	Mitchell IHS	Mitchell IHS	1903-1925	Mitchell IHS	1903-1925	Mitchell IHS	1903-1925
	IMF (IFS)	2001-2024	IMF (IFS)	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024
	IMF (IFS)	1992-2000	IMF (IFS)	IMF (IFS)	1992-2000	IMF (IFS)	1992-2000	IMF (IFS)	1992-2000
Armenia	IMF (IFS)	1986-2023	IMF (IFS)	IMF (IFS)	1986-2023	IMF (IFS)	1986-2023	IMF (IFS)	1986-2023
	IMF (IFS)	2001-2024	IMF (IFS)	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024
	IMF (IFS)	1950-2000	IMF (IFS)	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000
Aruba	Mitchell IHS	1949	Mitchell IHS	Mitchell IHS	1949	Mitchell IHS	1949	Mitchell IHS	1949
	Mitchell IHS	1901-1948	Mitchell IHS	Mitchell IHS	1901-1948	Mitchell IHS	1901-1948	Mitchell IHS	1901-1948
	JST Macrohistory Database	1900	JST Macrohistory Database	JST Macrohistory Database	1900	JST Macrohistory Database	1900	JST Macrohistory Database	1900
Australia	Mitchell IHS	1841-1899	Mitchell IHS	Mitchell IHS	1841-1899	Mitchell IHS	1841-1899	Mitchell IHS	1841-1899
	IMF (IFS)	2001-2024	IMF (IFS)	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024
	Mitchell IHS	1999-2000	Mitchell IHS	Mitchell IHS	1999-2000	Mitchell IHS	1999-2000	Mitchell IHS	1999-2000
Austria	IMF (IFS)	1997-1998	IMF (IFS)	IMF (IFS)	1997-1998	IMF (IFS)	1997-1998	IMF (IFS)	1997-1998
	IMF (IFS)	1953-1996	IMF (IFS)	IMF (IFS)	1953-1996	IMF (IFS)	1953-1996	IMF (IFS)	1953-1996
	Mitchell IHS	1949-1952	Mitchell IHS	Mitchell IHS	1949-1952	Mitchell IHS	1949-1952	Mitchell IHS	1949-1952
Azerbaijan	Mitchell IHS	1923-1937	Mitchell IHS	Mitchell IHS	1923-1937	Mitchell IHS	1923-1937	Mitchell IHS	1923-1937
	Mitchell IHS	1920-1922	Mitchell IHS	Mitchell IHS	1920-1922	Mitchell IHS	1920-1922	Mitchell IHS	1920-1922
	Mitchell IHS	1918-1919	Mitchell IHS	Mitchell IHS	1918-1919	Mitchell IHS	1918-1919	Mitchell IHS	1918-1919
	Mitchell IHS	1913	Mitchell IHS	Mitchell IHS	1913	Mitchell IHS	1913	Mitchell IHS	1913
	IMF (IFS)	2001-2024	IMF (IFS)	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024

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Country	Total deposits			Demand deposits			Time deposits		
	Sources	Period covered	Sources	Period covered	Sources	Period covered	Sources	Period covered	
Bahamas	IMF (IFS)	1992-2000	IMF (IFS)	1992-2000	IMF (IFS)	1992-2000	IMF (IFS)	1992-2000	
	IMF (IFS)	2010-2024	IMF (IFS)	2010-2024	IMF (IFS)	2010-2024	IMF (IFS)	2010-2024	
	IMF (IFS)	1969-2009	IMF (IFS)	1969-2009	IMF (IFS)	1969-2009	IMF (IFS)	1969-2009	
	IMF (IFS)	1965-2015	IMF (IFS)	1965-2015	IMF (IFS)	1965-2015	IMF (IFS)	1965-2015	
Bahrain	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1974-2000	IMF (IFS)	1974-2000	IMF (IFS)	1974-2000	IMF (IFS)	1974-2000	
	Mitchell IHS	1960-1971	Mitchell IHS	1960-1971					
	IMF (IFS)	2012-2023	IMF (IFS)	2012-2023					
Barbados	IMF (IFS)	2008-2009	IMF (IFS)	2008-2009	IMF (IFS)	2008-2009	IMF (IFS)	2008-2009	
	IMF (IFS)	1966-2007	IMF (IFS)	1966-2007	IMF (IFS)	1966-2007	IMF (IFS)	1966-2007	
	IMF (IFS)	2001-2021	IMF (IFS)	2001-2021	IMF (IFS)	2001-2021	IMF (IFS)	2001-2021	
	IMF (IFS)	1994-2000	IMF (IFS)	1994-2000	IMF (IFS)	1994-2000	IMF (IFS)	1994-2000	
Belarus	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1999-2000	Mitchell IHS	1999-2000			Mitchell IHS	1999-2000	
	JST Macrohistory Database	1997-1998	JST Macrohistory Database	1997-1998			JST Macrohistory Database	1997-1998	
	IMF (IFS)	1992-1996	IMF (IFS)	1992-1996			IMF (IFS)	1992-1996	
Belgium	JST Macrohistory Database	1991	IMF (IFS)	1991	IMF (IFS)	1991	IMF (IFS); JST Macrohistory Database	1991	
	IMF (IFS)	1969-1990	IMF (IFS)	1969-1990	IMF (IFS)	1969-1990	IMF (IFS)	1969-1990	
	Mitchell IHS	1968	Mitchell IHS	1968			Mitchell IHS	1968	
	IMF (IFS)	1950-1967	IMF (IFS)	1950-1967			IMF (IFS)	1950-1967	
	Mitchell IHS	1947-1949	Mitchell IHS	1947-1949					
	Mitchell IHS	1942-1946	Mitchell IHS	1942-1946					
	Mitchell IHS	1935-1941	Mardini and Schuler (2014)	1935-1941					
	Mardini and Schuler (2014)	1933-1934	Mardini and Schuler (2014)	1933-1934					
	Mitchell IHS	1931-1932	Mardini and Schuler (2014)	1931-1932					
	JST Macrohistory Database	1929-1930	Mardini and Schuler (2014)	1929-1930					
	Mitchell IHS	1922-1928	Mardini and Schuler (2014)	1922-1928					
	Mitchell IHS	1920-1921	Mitchell IHS	1920-1921					
Belize	Mardini and Schuler (2014)	1912-1919	Mardini and Schuler (2014)	1912-1919					
	Mitchell IHS	1875-1911	Mitchell IHS	1875-1911					
	Mardini and Schuler (2014)	1835-1851	Mardini and Schuler (2014)	1835-1851					
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
Benin	IMF (IFS)	1976-2000	IMF (IFS)	1976-2000	IMF (IFS)	1976-2000	IMF (IFS)	1976-2000	
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1960-2000	IMF (IFS)	1960-2000	IMF (IFS)	1960-2000	IMF (IFS)	1960-2000	
	Mitchell IHS	1955-1959		1955-1959					
Bhutan	IMF (IFS)	2001-2021	IMF (IFS)	2001-2021	IMF (IFS)	2001-2021	IMF (IFS)	2001-2021	
	IMF (IFS)	1983-2000	IMF (IFS)	1983-2000	IMF (IFS)	1983-2000	IMF (IFS)	1983-2000	
	IMF (IFS)	2023-2024	IMF (IFS)	2023-2024	IMF (IFS)	2023-2024	IMF (IFS)	2023-2024	
	IMF (IFS)	2001-2022	IMF (IFS)	2001-2022	IMF (IFS)	2001-2022	IMF (IFS)	2001-2022	
Bolivia	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	IMF (IFS)	1949-2000	
	Mitchell IHS	1945-1949	Mitchell IHS	1945-1949					
	Mitchell IHS	1936-1944	Mitchell IHS	1936-1944					
	Mitchell IHS	1913-1935	Mitchell IHS	1913-1935					
Bosnia and Herzegovina	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1997-2000	IMF (IFS)	1997-2000	IMF (IFS)	1997-2000	IMF (IFS)	2001-2024	
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1972-2000	IMF (IFS)	1972-2000	IMF (IFS)	1972-2000	IMF (IFS)	1972-2000	
Botswana									

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Country	Total deposits			Demand deposits			Time deposits		
	Sources	Period covered	Sources	Period covered	Sources	Period covered	Sources	Period covered	
Brazil	IMF (IFS) IMF (IFS) Mitchell IHS IPEA (2010) IPEA (2010)	2001-2024 1950-2000 1947-1949 1901-1946 1852-1900	IMF (IFS) IMF (IFS) Mitchell IHS IPEA (2010)	2001-2024 1950-2000 1947-1949 1901-1946 1852-1900	IMF (IFS) IMF (IFS) IMF (IFS) IPEA (2010)	2001-2024 1950-2000 1947-1949 1901-1946 1852-1900	IMF (IFS) IMF (IFS) IMF (IFS) IPEA (2010)	2001-2024 1950-2000 1947-1949 1901-1946 1901-1946	
Brunei Darussalam	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
Bulgaria	IMF (IFS)	1999-2000	IMF (IFS)	1999-2000	IMF (IFS)	1999-2000	IMF (IFS)	1999-2000	
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1991-2000	IMF (IFS)	1991-2000	IMF (IFS)	1991-2000	IMF (IFS)	1991-2000	
	Mitchell IHS	1939-1944							
	Mitchell IHS	1937-1938							
Burkina Faso	Mitchell IHS	1922-1936							
	Mitchell IHS	1920-1921							
	South-Eastern European Monetary and Economic Statistics	1914-1919							
	Mitchell IHS	1913							
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1960-2000	IMF (IFS)	1960-2000	IMF (IFS)	1960-2000	IMF (IFS)	1959-2000	
Burundi	Mitchell IHS	1955-1959	Mitchell IHS	1955-1959	Mitchell IHS	1955-1959	IMF (IFS)	2001-2023	
	IMF (IFS)	2001-2023	IMF (IFS)	2001-2023	IMF (IFS)	2001-2023	IMF (IFS)	1964-2000	
Cabo Verde	IMF (IFS)	1964-2000	IMF (IFS)	1964-2000	IMF (IFS)	1964-2000	IMF (IFS)	2017-2024	
	IMF (IFS)	2017-2024	IMF (IFS)	2017-2024	IMF (IFS)	2017-2024	IMF (IFS)	2001-2016	
	Banco de Cabo Verde; IMF (IFS)	2001-2016	Banco de Cabo Verde	2001-2016	Banco de Cabo Verde	2001-2016	IMF (IFS)	1976-2000	
	Banco de Cabo Verde; IMF (IFS)	1976-2000	Banco de Cabo Verde	1976-2000	Banco de Cabo Verde	1976-2000	IMF (IFS)	1974-1975	
	Banco de Cabo Verde	1974-1975	Banco de Cabo Verde	1974-1975	Banco de Cabo Verde	1974-1975	IMF (IFS)	1971-1973	
Cambodia	Banco de Cabo Verde; Nunes et al. (2010)	1971-1973	Banco de Cabo Verde	1971-1973	Banco de Cabo Verde	1971-1973	Nunes et al. (2010)	1969-1970	
	Nunes et al. (2010)	1969-1970	Banco de Cabo Verde	1969-1970	Banco de Cabo Verde	1969-1970	Nunes et al. (2010)	1943-1968	
	Banco de Cabo Verde; Nunes et al. (2010)	1943-1968	Nunes et al. (2010)	1943-1968	Nunes et al. (2010)	1943-1968	Nunes et al. (2010)	1940-1942	
	Nunes et al. (2010)	1940-1942	Nunes et al. (2010)	1940-1942	Nunes et al. (2010)	1940-1942	Nunes et al. (2010)	1939	
	Nunes et al. (2010)	1939	Nunes et al. (2010)	1939	Nunes et al. (2010)	1939	Nunes et al. (2010)	1933-1938	
Cameroon	Nunes et al. (2010)	1933-1938	Nunes et al. (2010)	1933-1938	Nunes et al. (2010)	1933-1938	IMF (IFS)	2008-2024	
	Nunes et al. (2010)	1931-1932	Nunes et al. (2010)	1931-1932	Nunes et al. (2010)	1931-1932	IMF (IFS)	1993-2007	
	IMF (IFS)	2008-2024	IMF (IFS)	2008-2024	IMF (IFS)	2008-2024	IMF (IFS)	1955-1973	
	IMF (IFS)	1993-2007	IMF (IFS)	1993-2007	IMF (IFS)	1993-2007	IMF (IFS)	2001-2019	
	Mitchell IHS	1955-1973	Mitchell IHS	1955-1973	Mitchell IHS	1955-1973	IMF (IFS)	1960-2000	
Canada	IMF (IFS)	2001-2019	IMF (IFS)	2001-2019	IMF (IFS)	2001-2019	IMF (IFS)	1945-1959	
	IMF (IFS)	1960-2000	IMF (IFS)	1960-2000	IMF (IFS)	1960-2000	IMF (IFS)	1974-2024	
	Mitchell IHS	1945-1959	Mitchell IHS	1945-1959	Mitchell IHS	1945-1959	Bank of Canada	1913-1973	
	Bank of Canada	1974-2024	Historical Statistics of Canada	1913-1973	Historical Statistics of Canada	1913-1973	Historical Statistics of Canada	1871-1912	
	Historical Statistics of Canada	1871-1912	Mitchell IHS	1871-1912	Mitchell IHS	1871-1912	Bank of Canada	1870	
Central African Republic	Mitchell IHS	1870	Mitchell IHS	1870	Mitchell IHS	1870	IMF (IFS)	1963-2000	
	JST Macrohistory Database	1867-1869	Mitchell IHS	1867-1869	Mitchell IHS	1867-1869	IMF (IFS)	2001-2022	
	Mitchell IHS	1856-1866	Mitchell IHS	1856-1866	Mitchell IHS	1856-1866	IMF (IFS)	1960-1962	
	IMF (IFS)	2001-2022	IMF (IFS)	2001-2022	IMF (IFS)	2001-2022	IMF (IFS)	2001-2021	
	IMF (IFS)	1963-2000	IMF (IFS)	1963-2000	IMF (IFS)	1963-2000	IMF (IFS)	1960-1962	
Chad	IMF (IFS)	1960-1962	IMF (IFS)	1960-1962	IMF (IFS)	1960-1962	IMF (IFS)	2001-2021	
	Mitchell IHS	1955-1959	IMF (IFS)	2001-2021	IMF (IFS)	2001-2021	IMF (IFS)	2001-2021	

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Country	Total deposits			Demand deposits			Time deposits		
	Sources	Period covered	Sources	Period covered	Sources	Period covered	Sources	Period covered	
Chile	IMF (IFS)	1960-2000	IMF (IFS)	1960-2000	IMF (IFS)	1960-2000	IMF (IFS)	1960-2000	
	Mitchell IHS	1957-1959	Mitchell IHS	1957-1959		1957-1960			
	Mitchell IHS	1956	Mitchell IHS	1956		1956			
	Mitchell IHS	1955	Mitchell IHS	1955		1955			
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1961-2000	IMF (IFS)	1961-2000	IMF (IFS)	1961-2000	IMF (IFS)	1961-2000	
	Mitchell IHS	1960	Mitchell IHS	1960		1960			
	Mitchell IHS	1959	Mitchell IHS	1959		1959			
	Mitchell IHS	1950-1958	Mitchell IHS	1950-1958		1950-1958			
	Mitchell IHS	1940-1949	Mitchell IHS	1940-1949		1940-1949			
China	Mitchell IHS	1939	Mitchell IHS	1939		1939			
	Mitchell IHS	1936-1938	Mitchell IHS	1936-1938		1936-1938			
	Mitchell IHS	1911-1935	Mitchell IHS	1911-1935		1911-1935			
	Mitchell IHS	1902-1910	Mitchell IHS	1902-1910		1902-1910			
	Mitchell IHS	1860-1901	<i>Díaz et al. (2010)</i>	1860-1901		1860-1901			
	<i>Díaz et al. (2010)</i>	2019-2024	IMF (IFS)	2019-2024		2019-2024			
	IMF (IFS)	1993-2018	IMF (IFS)	1993-2018		1993-2018			
	IMF (IFS)	1985-1992	IMF (IFS)	1985-1992		1985-1992			
	Mitchell IHS	1926-1948	Mitchell IHS	1926-1948		1926-1948			
	IMF (IFS)	2001-2022	IMF (IFS)	2001-2022		2001-2022			
Colombia	IMF (IFS)	1990-2000	IMF (IFS)	1990-2000		1990-2000	IMF (IFS)	2001-2022	
	IMF (IFS)	1987-1988	IMF (IFS)	1987-1988		1987-1988	IMF (IFS)	1990-2000	
	IMF (IFS)	1987-1988	IMF (IFS)	1987-1988		1987-1988	IMF (IFS)	1987-1988	
	IMF (IFS)	1950-1985	IMF (IFS)	1950-1985		1950-1985	IMF (IFS)	1950-1985	
	Mitchell IHS	1936-1949	Mitchell IHS	1936-1949		1936-1950			
	Mitchell IHS	1929-1935	Mitchell IHS	1929-1935		1929-1935			
	Mitchell IHS	1924-1928	Mitchell IHS	1924-1928		1924-1928			
	IMF (IFS)	2001-2023	IMF (IFS)	2001-2023		2001-2023			
	IMF (IFS)	1982-2000	IMF (IFS)	1982-2000		2001-2023			
	IMF (IFS)	2001-2023	IMF (IFS)	2001-2023		2001-2021			
Congo, Democratic Republic of the	IMF (IFS)	2000	IMF (IFS)	2000		2000			
	IMF (IFS)	1963-1995	IMF (IFS)	1963-1995		1963-1995			
	IMF (IFS)	2001-2023	IMF (IFS)	2001-2023		2001-2023			
	IMF (IFS)	1960-2000	IMF (IFS)	1960-2000		2001-2023			
	Mitchell IHS	1955-1959	Mitchell IHS	1955-1959		1955-1959			
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024		2001-2024			
	IMF (IFS)	1997-2000	IMF (IFS)	1997-2000		2001-2024			
	IMF (IFS)	1996	IMF (IFS)	1996		1996			
	IMF (IFS)	1950-1995	IMF (IFS)	1950-1995		1950-1995			
	Mitchell IHS	1945-1949	IMF (IFS)	1945-1949		1950-1995			
Côte d'Ivoire	Mitchell IHS	1933-1944		1933-1944					
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024		2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1960-2000	IMF (IFS)	1960-2000		1960-2000	IMF (IFS)	1960-2000	
	IMF (IFS)	2012-2024	IMF (IFS)	2012-2024		2012-2024	IMF (IFS)	2012-2024	
	IMF (IFS)	2001-2011	IMF (IFS)	2001-2011		2001-2011	IMF (IFS)	2001-2011	
	IMF (IFS)	1993-2000	IMF (IFS)	1993-2000		1993-2000	IMF (IFS)	1993-2000	
	IMF (IFS)	2005-2024	IMF (IFS)	2005-2024		2005-2024	IMF (IFS)	2005-2024	
	IMF (IFS)	1988-2004	IMF (IFS)	1988-2004		1988-2004	IMF (IFS)	1988-2004	
	IMF (IFS)	1987	IMF (IFS)	1987		1987	IMF (IFS)	1987	
Croatia									
Cyprus									

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Country	Total deposits			Demand deposits			Time deposits		
	Sources	Period covered	Sources	Period covered	Sources	Period covered	Sources	Period covered	
Czech	IMF (IFS)	1958-1986	IMF (IFS)	1958-1986	IMF (IFS)	1958-1986	IMF (IFS)	1958-1986	
	Mitchell IHS	1956-1957	Mitchell IHS	1956-1957	Mitchell IHS	1956-1957	Mitchell IHS	1956-1957	
	IMF (IFS)	2008-2024	IMF (IFS)	2008-2024	IMF (IFS)	2008-2024	IMF (IFS)	2008-2024	
	IMF (IFS)	1993-2007	IMF (IFS)	1993-2007	IMF (IFS)	1993-2007	IMF (IFS)	1993-2007	
	Mitchell IHS	1945-1949							
Denmark	Mitchell IHS	1920-1937							
	Danmarks Nationalbank	2003-2024	Danmarks Nationalbank	2003-2024	Danmarks Nationalbank	2003-2024	Danmarks Nationalbank	2003-2024	
	IMF (IFS)	1950-2002	IMF (IFS)	1950-2002	IMF (IFS)	1950-2002	IMF (IFS)	1950-2002	
	Abildgren (2006)	1933-1949	Mitchell IHS	1933-1949		1933-1949			
	Abildgren (2006)	1921-1932	Mitchell IHS	1921-1932		1921-1932			
	Abildgren (2006)	1878-1920	Mitchell IHS	1878-1920		1878-1920			
	Abildgren (2006)	1876-1877	Abildgren (2006)	1876-1877		1876-1877			
	Abildgren (2006)	1875	Mitchell IHS	1875		1875			
	JST Macrohistory Database	1870-1874	Mitchell IHS	1870-1874		1870-1874			
	Mitchell IHS	1848-1869	Mitchell IHS	1848-1869		1848-1869			
	IMF (IFS)	2002-2024	IMF (IFS)	2002-2024		2002-2024			
	IMF (IFS)	1984-2001	IMF (IFS)	1984-2001		1984-2001			
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024		2001-2024			
	IMF (IFS)	1975-2000	IMF (IFS)	1975-2000		1975-2000			
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024		2001-2024			
Dominican Republic	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000		1950-2000			
	Mitchell IHS	1936-1949	Mitchell IHS	1936-1949		1936-1949			
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024		2001-2024			
	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000		1950-2000			
	Mitchell IHS	1948-1950	Mitchell IHS	1948-1950		1948-1949			
	Mitchell IHS	1936-1947	Mitchell IHS	1936-1947		1936-1947			
	Mitchell IHS	1928-1935	Mitchell IHS	1928-1935		1928-1935			
	Mitchell IHS	1912-1927	Mitchell IHS	1912-1927		1912-1927			
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024		2001-2024			
	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000		1950-2000			
	Mitchell IHS	1947-1949	Mitchell IHS	1947-1950		1947-1950			
	Mitchell IHS	1939-1946	Mitchell IHS	1939-1946		1939-1946			
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024		2001-2024			
	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000		1950-2000			
	IMF (IFS)	1945-1950	Mitchell IHS	1945-1949		1945-1949			
Equatorial Guinea	Mitchell IHS	1936-1944	Mitchell IHS	1936-1944		1936-1944			
	Mitchell IHS	1924-1935	Mitchell IHS	1924-1935		1924-1935			
	Mitchell IHS	1916-1919	Mitchell IHS	1916-1919		1916-1919			
	IMF (IFS)	2001-2023	IMF (IFS)	2001-2023		2001-2023			
	IMF (IFS)	1985-2000	IMF (IFS)	1985-2000		1985-2000			
	IMF (IFS)	2002-2014	IMF (IFS)	2002-2014		2002-2014			
	IMF (IFS)	1995-2001	IMF (IFS)	1995-2001		1995-2001			
	IMF (IFS)	2004-2024	IMF (IFS)	2004-2024		2004-2024			
	IMF (IFS)	1991-2003	IMF (IFS)	1991-2003		1991-2003			
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024		2001-2024			
	IMF (IFS)	1970-2000	IMF (IFS)	1970-2000		2001-2024			
	IMF (IFS)	1963-2008	IMF (IFS)	1963-2008		1963-2008			
	Mitchell IHS; IMF (IFS)	1962	Mitchell IHS	1962		1962			
	Eritrea								
Estonia									
Eswatini									
Ethiopia									

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Country	Total deposits			Demand deposits			Time deposits		
	Sources	Period covered	Sources	Period covered	Sources	Period covered	Sources	Period covered	
Fiji	IMF (IFS)	1960-1961	IMF (IFS)	1960-1961		1960-1961			
	Mitchell IHS	1948-1959	Mitchell IHS	1948-1959		1948-1959			
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024		2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1961-2000	IMF (IFS)	1961-2000		1961-2000	IMF (IFS)	1961-2000	
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024		2001-2024	IMF (IFS)	2001-2024	
Finland	JST Macrohistory Database	1999-2000	JST Macrohistory Database	1999-2000		1999-2000	JST Macrohistory Database	1999-2000	
	Mitchell IHS	1998	Mitchell IHS	1998		1998	Mitchell IHS	1998	
	IMF (IFS)	1991-1997	IMF (IFS)	1991-1997		1991-1997	IMF (IFS)	1991-1997	
	JST Macrohistory Database	1990	Mitchell IHS	1990		1990	JST Macrohistory Database; Mitchell IHS	1990	
	IMF (IFS)	1950-1989	IMF (IFS)	1950-1989		1950-1989	IMF (IFS)	1950-1989	
France	JST Macrohistory Database	1939-1949	Mitchell IHS	1939-1949		1939-1949			
	JST Macrohistory Database	1938	JST Macrohistory Database	1938		1938			
	JST Macrohistory Database	1918-1937	Mitchell IHS	1918-1937		1918-1937			
	JST Macrohistory Database	1873-1917	Mitchell IHS	1873-1917		1873-1917			
	JST Macrohistory Database	1862-1872	Mitchell IHS	1862-1872		1862-1872			
	Mitchell IHS	2001-2024	IMF (IFS)	2001-2024		2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1999-2000	Mitchell IHS	1999-2000		1999-2000	JST Macrohistory Database; Mitchell IHS	1999-2000	
	JST Macrohistory Database	1997-1998	JST Macrohistory Database	1997-1998		1997-1998	JST Macrohistory Database	1997-2000	
	IMF (IFS)	1978-1996	IMF (IFS)	1978-1996		1978-1996	IMF (IFS)	1978-1996	
	JST Macrohistory Database	1977	Mitchell IHS	1977		1977	JST Macrohistory Database; Mitchell IHS	1977	
	IMF (IFS)	1950-1976	IMF (IFS)	1950-1976		1950-1976	IMF (IFS)	1950-1976	
	Mitchell IHS	1944-1949	Mitchell IHS	1944-1949		1944-1949			
Gabon	Mitchell IHS	1938-1940	Mitchell IHS	1938-1940		1938-1940			
	Mitchell IHS	1919-1937	Mitchell IHS	1919-1937		1919-1937			
	Mitchell IHS	1900-1913	Mitchell IHS	1900-1913		1900-1913			
	IMF (IFS)	2001-2019	IMF (IFS)	2001-2019		2001-2019	IMF (IFS)	2001-2019	
	IMF (IFS)	1960-2000	IMF (IFS)	1960-2000		1960-2000	IMF (IFS)	1960-2000	
Gambia	Mitchell IHS	1955-1959	Mitchell IHS	1955-1959		1955-1959			
	Mitchell IHS	1954	Mitchell IHS	1954		1954			
	Mitchell IHS	1950-1953	Mitchell IHS	1950-1953		1950-1953			
	IMF (IFS)	2017-2023	IMF (IFS)	2017-2023		2017-2023	IMF (IFS)	2017-2023	
	IMF (IFS)	2001-2014	IMF (IFS)	2001-2014		2001-2014	IMF (IFS)	2001-2014	
Georgia	IMF (IFS)	1964-2000	IMF (IFS)	1964-2000		1964-2000	IMF (IFS)	1964-2000	
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024		2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1995-2000	IMF (IFS)	1995-2000		1995-2000	IMF (IFS)	1995-2000	
	IMF (IFS)	2001-2023	IMF (IFS)	2001-2023		2001-2023	IMF (IFS)	2001-2023	
	JST Macrohistory Database	1999-2000	Mitchell IHS	1999-2000		1999-2000	JST Macrohistory Database; Mitchell IHS	1999-2000	
Germany	JST Macrohistory Database	1998	JST Macrohistory Database	1998		1998	JST Macrohistory Database	1998	
	IMF (IFS)	1951-1997	IMF (IFS)	1951-1997		1951-1997	IMF (IFS)	1951-1997	
	JST Macrohistory Database	1948-1950	Mitchell IHS	1948-1950		1948-1950	JST Macrohistory Database; Mitchell IHS	1948-1950	
	JST Macrohistory Database	1938-1940		1938-1940					
	Mitchell IHS	1936-1937		1936-1937					
	Mitchell IHS	1923-1935		1923-1935					
	JST Macrohistory Database	1914-1920		1914-1920					
	Mitchell IHS	1913		1913					
	Mitchell IHS	1878-1912		1878-1912					
	JST Macrohistory Database	1876-1877		1876-1877					
	Mitchell IHS	1869-1875		1869-1875					

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Country	Total deposits			Demand deposits			Time deposits		
	Sources	Period covered	Sources	Period covered	Sources	Period covered	Sources	Period covered	
Ghana	Mitchell IHS	1852-1862	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	2001-2024	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	
	Mitchell IHS	1947-1949	Mitchell IHS	2001-2024	IMF (IFS)	1947-1949	IMF (IFS)	2001-2024	
	IMF (IFS)	2000	IMF (IFS)	1953-1999	IMF (IFS)	2000	IMF (IFS)	2000	
	IMF (IFS)	1946-1951	IMF (IFS)	1939	IMF (IFS)	1953-1999	IMF (IFS)	1953-1999	
Grenada	Mitchell IHS	1928-1938	Mitchell IHS	1918-1927	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	Mitchell IHS	1842-1917	IMF (IFS)	1970-2000	IMF (IFS)	1970-2000	IMF (IFS)	1970-2000	
	Lazaretou (2014)	2003-2024	IMF (IFS)	2003-2024	IMF (IFS)	2003-2024	IMF (IFS)	2003-2024	
	IMF (IFS)	2002	Mitchell IHS	2001	Mitchell IHS	2002	Mitchell IHS	2002	
	IMF (IFS)	1950-2000	IMF (IFS)	2001	IMF (IFS)	2001	IMF (IFS)	2001	
Guatemala	IMF (IFS)	1936-1949	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	
	Mitchell IHS	2012-2024	IMF (IFS)	1989-2011	IMF (IFS)	2012-2024	IMF (IFS)	2012-2024	
	IMF (IFS)	2003-2024	IMF (IFS)	1990-2002	IMF (IFS)	1989-2011	IMF (IFS)	1989-2011	
	IMF (IFS)	1961-1973	Nunes et al. (2010)	1959-1960	IMF (IFS)	2003-2024	IMF (IFS)	2003-2024	
	Nunes et al. (2010)	1938-1958	Nunes et al. (2010)	1961-1973	Nunes et al. (2010)	1990-2002	Nunes et al. (2010)	1990-2002	
Guinea-Bissau	Nunes et al. (2010)	1934-1937	Nunes et al. (2010)	1938-1958	Nunes et al. (2010)	1961-1973	Nunes et al. (2010)	1961-1973	
	IMF (IFS)	2000-2024	IMF (IFS)	1959-1960	IMF (IFS)	1959-1960	IMF (IFS)	1959-1960	
	IMF (IFS)	1955-2000	IMF (IFS)	1934-1937	Nunes et al. (2010)	1938-1958	Nunes et al. (2010)	1938-1958	
	IMF (IFS)	2001-2024	IMF (IFS)	1950-2000	IMF (IFS)	2000-2024	IMF (IFS)	2000-2024	
	IMF (IFS)	1948-1949	IMF (IFS)	1955-2000	IMF (IFS)	1950-2000	IMF (IFS)	1955-2000	
Guyana	IMF (IFS)	2001-2024	IMF (IFS)	1950-2000	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	2001-2024	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	
	IMF (IFS)	2001-2024	IMF (IFS)	1950-2000	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1948-1949	IMF (IFS)	1950-2000	IMF (IFS)	1948-1949	IMF (IFS)	1950-2000	
	IMF (IFS)	1945-1947	IMF (IFS)	1945-1947	IMF (IFS)	1950-2000	IMF (IFS)	2000-2024	
Haiti	Mitchell IHS	1937-1944	Mitchell IHS	1948-1949	Mitchell IHS	1948-1949	IMF (IFS)	1955-2000	
	Mitchell IHS	1937-1944	Mitchell IHS	1945-1947	Mitchell IHS	1945-1947	IMF (IFS)	1955-2000	
	Mitchell IHS	1937-1944	Mitchell IHS	1937-1944	Mitchell IHS	1937-1944	IMF (IFS)	1955-2000	
	Hong Kong Monetary Authority	1997-2024	Hong Kong Monetary Authority	1997-2024	Hong Kong Monetary Authority	1997-2024	Hong Kong Monetary Authority	1997-2024	
	Hong Kong Monetary Authority	1969-1996	Hong Kong Monetary Authority	1969-1996	Hong Kong Monetary Authority	1969-1996	Hong Kong Monetary Authority	1969-1996	
Hong Kong	HKIMR (2009)	1954-1968	HKIMR (2009)	1954-1968	HKIMR (2009)	1954-1968	HKIMR (2009)	1954-1968	
	HKIMR (2009)	1900-1940	HKIMR (2009)	1983-1898	HKIMR (2009)	1983-1898	HKIMR (2009)	1983-1898	
	HKIMR (2009)	1875-1881	HKIMR (2009)	1867-1873	HKIMR (2009)	1867-1873	HKIMR (2009)	1867-1873	
	HKIMR (2009)	2001-2024	IMF (IFS)	1982-2000	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1946-1949	Mitchell IHS	1939-1944	Mitchell IHS	1946-1949	IMF (IFS)	1946-1949	
Hungary	Mitchell IHS	1925-1938	Mitchell IHS	1925-1938	Mitchell IHS	1925-1938	IMF (IFS)	2001-2024	
	Mitchell IHS	1925-1938	Mitchell IHS	1925-1938	Mitchell IHS	1925-1938	IMF (IFS)	2001-2024	
	Mitchell IHS	1925-1938	Mitchell IHS	1925-1938	Mitchell IHS	1925-1938	IMF (IFS)	2001-2024	
	Mitchell IHS	1925-1938	Mitchell IHS	1925-1938	Mitchell IHS	1925-1938	IMF (IFS)	2001-2024	
	Mitchell IHS	1925-1938	Mitchell IHS	1925-1938	Mitchell IHS	1925-1938	IMF (IFS)	2001-2024	

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Country	Total deposits			Demand deposits			Time deposits		
	Sources	Period covered	Sources	Period covered	Sources	Period covered			
Iceland	Mitchell IHS	1913	Mitchell IHS	1913	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	1951-2000	IMF (IFS)	1951-2000	
India	IMF (IFS)	1951-2000	IMF (IFS)	1951-2000	Icelandic Historical Statistics	1891-1950	Icelandic Historical Statistics	1891-1950	
	Icelandic Historical Statistics	1891-1950	Icelandic Historical Statistics	1891-1950	Icelandic Historical Statistics	1886-1890	Icelandic Historical Statistics	1886-1890	
	Icelandic Historical Statistics	1886-1890		1886-1890	IMF (IFS)	1960-2021	IMF (IFS)	1960-2021	
	IMF (IFS)	1960-2021	IMF (IFS)	1960-2021	Mitchell IHS	1950-1959	Mitchell IHS	1950-1959	
	Mitchell IHS	1950-1959	Mitchell IHS	1950-1959	Mitchell IHS	1948-1949	Mitchell IHS	1948-1949	
	Mitchell IHS	1948-1949	Mitchell IHS	1948-1949	Mitchell IHS	1946-1947	Mitchell IHS	1946-1947	
	Mitchell IHS	1946-1947	Mitchell IHS	1946-1947	Mitchell IHS	1942-1945	Mitchell IHS	1942-1945	
	Mitchell IHS	1942-1945	Mitchell IHS	1942-1945	Mitchell IHS	1939-1941	Mitchell IHS	1939-1941	
	Mitchell IHS	1939-1941	Mitchell IHS	1939-1941	Mitchell IHS	1913-1938	Mitchell IHS	1913-1938	
	Mitchell IHS	1913-1938	Mitchell IHS	1913-1938	Mitchell IHS	1881-1912	Mitchell IHS	1881-1912	
Indonesia	Mitchell IHS	1881-1912	Mitchell IHS	1881-1912	Mitchell IHS	1870-1880	Mitchell IHS	1870-1880	
	SARBI	1870-1880	Mitchell IHS	1870-1880	Mitchell IHS	1868-1869	Mitchell IHS	1868-1869	
	SARBI	1868-1869	Mitchell IHS	1868-1869					
	SARBI	1856-1867		1856-1867					
	SARBI	1854-1855		1854-1855					
	SARBI	1852-1853		1852-1853	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	1980-2000	IMF (IFS)	1980-2000	
	IMF (IFS)	1980-2000	IMF (IFS)	1980-2000	Mitchell IHS	1972-1979	Mitchell IHS	1972-1979	
	Mitchell IHS	1972-1979	Mitchell IHS	1972-1979	Mitchell IHS	1971	Mitchell IHS	1971	
	Mitchell IHS	1971	Mitchell IHS	1971	Mitchell IHS	1970	Mitchell IHS	1970	
Iran	Mitchell IHS	1970	Mitchell IHS	1970	Mitchell IHS	1968-1969	Mitchell IHS	1968-1969	
	Mitchell IHS	1968-1969	Mitchell IHS	1968-1969	Mitchell IHS	1965-1967	Mitchell IHS	1965-1967	
	Mitchell IHS	1965-1967	Mitchell IHS	1965-1967	Mitchell IHS	1959-1964	Mitchell IHS	1959-1964	
	Mitchell IHS	1959-1964	Mitchell IHS	1959-1964	Mitchell IHS	1953-1958	Mitchell IHS	1953-1958	
	Mitchell IHS	1953-1958	Mitchell IHS	1953-1958	Mitchell IHS	1948-1952	Mitchell IHS	1948-1952	
	Mitchell IHS	1948-1952	Mitchell IHS	1948-1952	IMF (IFS)	1986-2016	IMF (IFS)	1986-2016	
	IMF (IFS)	1986-2016	IMF (IFS)	1986-2016	IMF (IFS)	1979-1984	IMF (IFS)	1979-1984	
	IMF (IFS)	1979-1984	IMF (IFS)	1979-1984	IMF (IFS)	1961-1977	IMF (IFS)	1961-1977	
	IMF (IFS)	1961-1977	IMF (IFS)	1961-1977	Mitchell IHS	1959	IMF (IFS)	1959	
	IMF (IFS); Mitchell IHS	1959	Mitchell IHS	1959	IMF (IFS)	1950-1958	IMF (IFS)	1950-1958	
Iraq	IMF (IFS)	1950-1958	IMF (IFS)	1950-1958	Mitchell IHS	1948-1949	IMF (IFS)	1948-1949	
	Mitchell IHS	1948-1949	Mitchell IHS	1948-1949	Mitchell IHS	1947	IMF (IFS)	1947	
	Mitchell IHS	1947	Mitchell IHS	1947	Mitchell IHS	1937-1945	IMF (IFS)	1937-1945	
	Mitchell IHS	1937-1945	Mitchell IHS	1937-1945	IMF (IFS)	2004-2024	IMF (IFS)	2004-2024	
	IMF (IFS)	2004-2024	IMF (IFS)	2004-2024	IMF (IFS)	1950-1976	IMF (IFS)	1950-1976	
	IMF (IFS)	1950-1976	IMF (IFS)	1950-1976	Mitchell IHS	1936-1949	IMF (IFS)	1936-1949	
	Mitchell IHS	1936-1949	Mitchell IHS	1936-1949	IMF (IFS)	2024	IMF (IFS)	2024	
	IMF (IFS)	2024	IMF (IFS)	2024	Central Bank of Ireland	2003-2023	Central Bank of Ireland	2003-2023	
	Central Bank of Ireland	2003-2023	Central Bank of Ireland	2003-2023	Central Bank of Ireland	1999-2002	Central Bank of Ireland	1999-2002	
	Central Bank of Ireland	1999-2002	IMF (IFS); Mitchell IHS	1999-2002	IMF (IFS)	1998	Central Bank of Ireland; IMF (IFS); Mitchell IHS	1998	
Ireland	Central Bank of Ireland	1998	IMF (IFS); Mitchell IHS	1998	IMF (IFS)	1997	IMF (IFS)	1997	
	Central Bank of Ireland	1997	IMF (IFS)	1997	Central Bank of Ireland	1996	Central Bank of Ireland	1996	
	Central Bank of Ireland	1996	Central Bank of Ireland	1996	IMF (IFS)	1995	Central Bank of Ireland; IMF (IFS)	1995	
	Central Bank of Ireland	1995	IMF (IFS)	1995	Central Bank of Ireland	1994	Central Bank of Ireland; IMF (IFS)	1994	
	Central Bank of Ireland	1994	Central Bank of Ireland; IMF (IFS)	1994	IMF (IFS)	1982-1993	IMF (IFS)	1982-1993	
	IMF (IFS)	1982-1993	IMF (IFS)	1982-1993					

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Country	Total deposits			Demand deposits			Time deposits		
	Sources	Period covered	Sources	Period covered	Sources	Period covered	Sources	Period covered	
	Mitchell IHS	1981	Mitchell IHS		Mitchell IHS	1981	Mitchell IHS	1981	
	IMF (IFS)	1971-1980	IMF (IFS)		IMF (IFS)	1971-1980	IMF (IFS)	1971-1980	
	IMF (IFS), Mitchell IHS	1970	Mitchell IHS		Mitchell IHS	1970	IMF (IFS)	1970	
	IMF (IFS)	1950-1969	IMF (IFS)		IMF (IFS)	1950-1969	IMF (IFS)	1950-1969	
	Mitchell IHS	1937-1949							
	Mitchell IHS	1923-1936							
	Mitchell IHS	1921-1922							
	O'Rourke (1998)	1840-1920							
	IMF (IFS)	2001-2024	IMF (IFS)		IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1954-2000	IMF (IFS)		IMF (IFS)	1954-2000	IMF (IFS)	1954-2000	
Israel	Mitchell IHS	1950-1953	Mitchell IHS		Mitchell IHS	1950-1953			
	IMF (IFS)	2001-2024	IMF (IFS)		IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	JST Macrohistory Database	1998-2000	JST Macrohistory Database		JST Macrohistory Database	1998-2000	JST Macrohistory Database	1998-2000	
	IMF (IFS)	1962-1997	IMF (IFS)		IMF (IFS)	1962-1997	IMF (IFS)	1962-1997	
	Mitchell IHS	1958-1961	IMF (IFS)		IMF (IFS)	1958-1961			
	Mitchell IHS	1956-1957	IMF (IFS)		IMF (IFS)	1956-1957			
	Mitchell IHS	1938-1955							
	JST Macrohistory Database	1870-1937							
	IMF (IFS)	2001-2024	IMF (IFS)		IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1953-2000	IMF (IFS)		IMF (IFS)	1953-2000	IMF (IFS)	1953-2000	
Jamaica	Mitchell IHS	1944-1952	Mitchell IHS		Mitchell IHS	1944-1952			
	IMF (IFS)	2001-2024	IMF (IFS)		IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	JST Macrohistory Database	2000	IMF (IFS)		IMF (IFS); JST Macrohistory Database	2000	IMF (IFS)	2000	
	IMF (IFS)	1970-1999	IMF (IFS)		IMF (IFS)	1970-1999	IMF (IFS)	1970-1999	
	LTES database	1873-1969	LTES database		LTES database	1873-1969	LTES database	1873-1969	
	IMF (IFS)	2014-2024	IMF (IFS)		IMF (IFS)	2014-2024	IMF (IFS)	2014-2024	
	IMF (IFS)	1951-2013	IMF (IFS)		IMF (IFS)	1951-2013	IMF (IFS)	1951-2013	
	IMF (IFS)	2001-2024	IMF (IFS)		IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1997-2000	IMF (IFS)		IMF (IFS)	1997-2000	IMF (IFS)	1997-2000	
	IMF (IFS)	1993-1996							
Kenya	IMF (IFS)	2001-2023	IMF (IFS)		IMF (IFS)	2001-2023	IMF (IFS)	2001-2023	
	IMF (IFS)	1961-2000	IMF (IFS)		IMF (IFS)	1961-2000	IMF (IFS)	1961-2000	
	Mitchell IHS	1944-1960	Mitchell IHS		Mitchell IHS	1944-1960			
	Mitchell IHS	1938	Mitchell IHS			1938			
	IMF (IFS)	2001-2024	IMF (IFS)		IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1953-2000	IMF (IFS)		IMF (IFS)	1953-2000	IMF (IFS)	1953-2000	
	Historical Statistics of Korea	1950-1952	Historical Statistics of Korea		Historical Statistics of Korea	1950-1952	Historical Statistics of Korea	1950-1952	
	Historical Statistics of Korea	1906-1948							
	Historical Statistics of Korea	1902-1905							
	Historical Statistics of Korea	1901							
Korea, Republic of	IMF (IFS)	1900							
	IMF (IFS)	2001-2024	IMF (IFS)		IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1991-2000	IMF (IFS)		IMF (IFS)	1991-2000	IMF (IFS)	1991-2000	
	Mitchell IHS	1990	Mitchell IHS		Mitchell IHS	1990	IMF (IFS)	1960-1989	
	IMF (IFS)	1962-1989	IMF (IFS)		IMF (IFS)	1962-1989			
	IMF (IFS)	1960-1961							
	IMF (IFS)	2001-2024	IMF (IFS)		IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1995-2000	IMF (IFS)		IMF (IFS)	1995-2000	IMF (IFS)	1995-2000	
Kyrgyzstan	Mitchell IHS	1981	Mitchell IHS		Mitchell IHS	1981	Mitchell IHS	1981	
	IMF (IFS)	1971-1980	IMF (IFS)		IMF (IFS)	1971-1980	IMF (IFS)	1971-1980	
	IMF (IFS), Mitchell IHS	1970	Mitchell IHS		IMF (IFS)	1970	IMF (IFS)	1970	
	IMF (IFS)	1950-1969	IMF (IFS)		IMF (IFS)	1950-1969	IMF (IFS)	1950-1969	
	Mitchell IHS	1937-1949							
	Mitchell IHS	1923-1936							
	Mitchell IHS	1921-1922							
	O'Rourke (1998)	1840-1920							
	IMF (IFS)	2001-2024	IMF (IFS)		IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1954-2000	IMF (IFS)		IMF (IFS)	1954-2000	IMF (IFS)	1954-2000	

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Country	Total deposits			Demand deposits			Time deposits		
	Sources	Period covered	Sources	Period covered	Sources	Period covered	Sources	Period covered	
Laos	IMF (IFS)	1989-2010	IMF (IFS)	1989-2010	IMF (IFS)	1989-2010	IMF (IFS)	1989-2010	
Latvia	IMF (IFS)	1987-1988					IMF (IFS)	1987-1988	
	IMF (IFS)	2010-2024	IMF (IFS)			2010-2024	IMF (IFS)	2010-2024	
	IMF (IFS)	1993-2008	IMF (IFS)	1993-2008		1993-2008	IMF (IFS)	1993-2008	
	IMF (IFS)	1964-2017	IMF (IFS)	1964-2017		1964-2017	IMF (IFS)	1964-2017	
Lebanon	IMF (IFS); Mitchell IHS	1963							
Lesotho	Mitchell IHS	1950-1962							
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1971-2000	IMF (IFS)	1971-2000	IMF (IFS)	1971-2000	IMF (IFS)	1971-2000	
	IMF (IFS)	2007-2022	IMF (IFS)	2007-2022	IMF (IFS)	2007-2022	IMF (IFS)	2007-2022	
Liberia	IMF (IFS)	1998-2006	IMF (IFS)	1998-2006	IMF (IFS)	1998-2006	IMF (IFS)	1998-2006	
	World Bank WDI	1997	IMF (IFS); World Bank WDI	1997	IMF (IFS)	1997	IMF (IFS)	1997	
	IMF (IFS)	1991-1996	IMF (IFS)	1991-1996	IMF (IFS)	1991-1996	IMF (IFS)	1991-1996	
	World Bank WDI	1989-1990	IMF (IFS); World Bank WDI	1989-1990	IMF (IFS)	1989-1990	IMF (IFS)	1989-1990	
Libya	IMF (IFS)	1961-1988	IMF (IFS)	1961-1988	IMF (IFS)	1961-1988	IMF (IFS)	1961-1988	
	IMF (IFS)	2014-2024	IMF (IFS)	2014-2024	IMF (IFS)	2014-2024	IMF (IFS)	2014-2024	
	IMF (IFS)	1958-2013	IMF (IFS)	1958-2013	IMF (IFS)	1958-2013	IMF (IFS)	1958-2013	
	IMF (IFS)	2010-2024	IMF (IFS)	2010-2024	IMF (IFS)	2010-2024	IMF (IFS)	2010-2024	
Lithuania	IMF (IFS)	1993-2008	IMF (IFS)	1993-2008	IMF (IFS)	1993-2008	IMF (IFS)	1993-2008	
	IMF (IFS)	2024	IMF (IFS)	2024	IMF (IFS)	2024	IMF (IFS)	2024	
	Banque Centrale du Luxembourg	2003-2023	Banque Centrale du Luxembourg	2003-2023	Banque Centrale du Luxembourg	2003-2023	Banque Centrale du Luxembourg	2003-2023	
	IMF (IFS)	2001-2002	IMF (IFS)	2001-2002	IMF (IFS)	2001-2002	IMF (IFS)	2001-2002	
Luxembourg	IMF (IFS)	1997	IMF (IFS)	1997	IMF (IFS)	1997	IMF (IFS)	1997	
	IMF (IFS)	1994-1996	IMF (IFS)	1994-1996	IMF (IFS)	1994-1996	IMF (IFS)	1994-1996	
	IMF (IFS)	1993	IMF (IFS)	1993	IMF (IFS)	1993	IMF (IFS)	1993	
	IMF (IFS)	1964-1992	IMF (IFS)	1964-1992	IMF (IFS)	1964-1992	IMF (IFS)	1964-1992	
Macao	IMF (IFS)	1963	IMF (IFS)	1963	IMF (IFS)	1963	IMF (IFS)	1963	
	IMF (IFS)	1950-1962	IMF (IFS)	1950-1962	IMF (IFS)	1950-1962	IMF (IFS)	1950-1962	
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1984-2000	IMF (IFS)	1984-2000	IMF (IFS)	1984-2000	IMF (IFS)	1984-2000	
Madagascar	IMF (IFS)	1940-1973	IMF (IFS)	1940-1973	Nunes et al. (2010)	1940-1973	Nunes et al. (2010)	1940-1973	
	Nunes et al. (2010)	2006-2024	IMF (IFS)	2006-2024	IMF (IFS)	2006-2024	IMF (IFS)	2006-2024	
	IMF (IFS)	1962-2005	IMF (IFS)	1962-2005	IMF (IFS)	1962-2005	IMF (IFS)	1962-2005	
	IMF (IFS)	1939-1961	Mitchell IHS	1939-1961	IMF (IFS)	1939-1961	IMF (IFS)	1939-1961	
Malawi	IMF (IFS)	2015-2023	IMF (IFS)	2015-2023	IMF (IFS)	2015-2023	IMF (IFS)	2015-2023	
Malaysia	IMF (IFS)	1965-2014	IMF (IFS)	1965-2014	IMF (IFS)	1965-2014	IMF (IFS)	1965-2014	
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	
	Mitchell IHS	1947-1949	Mitchell IHS	1947-1949	IMF (IFS)	1947-1949	IMF (IFS)	1947-1949	
Maldives	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
Mali	IMF (IFS)	1976-2000	IMF (IFS)	1976-2000	IMF (IFS)	1976-2000	IMF (IFS)	1976-2000	
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1960-2000	IMF (IFS)	1960-2000	IMF (IFS)	1960-2000	IMF (IFS)	1960-2000	
	IMF (IFS); Central Bank of Malta	2005-2024	Central Bank of Malta	2005-2024	Central Bank of Malta	2005-2024	IMF (IFS)	2005-2024	
Malta	IMF (IFS); Central Bank of Malta	2003-2004	Central Bank of Malta	2003-2004	Central Bank of Malta	2003-2004	IMF (IFS)	2003-2004	
	IMF (IFS); Central Bank of Malta	1965-2002	Central Bank of Malta	1965-2002	Central Bank of Malta	1965-2002	IMF (IFS)	1965-2002	
	Central Bank of Malta	1960-1964	IMF (IFS)	1960-1964	IMF (IFS)	1960-1964	Central Bank of Malta	1960-1964	
	IMF (IFS)	2012-2019	IMF (IFS)	2012-2019	IMF (IFS)	2012-2019	IMF (IFS)	2012-2019	
Mauritania	IMF (IFS)								

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Country	Total deposits			Demand deposits			Time deposits		
	Sources	Period covered	Sources	Period covered	Sources	Period covered	Sources	Period covered	
New Zealand	JST Macrohistory Database	1959	IMF (IFS)	1959	IMF (IFS)	1959	IMF (IFS); JST Macrohistory Database	1959	
	IMF (IFS)	1950-1958	IMF (IFS)	1950-1958	IMF (IFS)	1950-1958	IMF (IFS)	1950-1958	
	JST Macrohistory Database	1937-1949	Mitchell IHS	1937-1949					
	JST Macrohistory Database	1900-1936							
	IMF (IFS)	2013-2024	IMF (IFS)	2013-2024			IMF (IFS)	2013-2024	
	Reserve Bank of New Zealand Banks	2011-2012							
	Reserve Bank of New Zealand Banks	2010	IMF (IFS)	2010	IMF (IFS); Reserve Bank of New Zealand Banks	2010		2010	
	Reserve Bank of New Zealand Banks	1998-2009	IMF (IFS)	1998-2009	IMF (IFS)	1998-2009	IMF (IFS)	1998-2009	
	IMF (IFS)	1988-1997	IMF (IFS)	1988-1997	IMF (IFS)	1988-1997	IMF (IFS)	1988-1997	
	IMF (IFS)	1987	IMF (IFS)	1987	IMF (IFS)	1987	IMF (IFS)	1987	
Nicaragua	IMF (IFS)	1986	IMF (IFS)	1986	IMF (IFS)	1986	IMF (IFS)	1986	
	IMF (IFS)	1950-1985	IMF (IFS)	1950-1985	IMF (IFS)	1950-1985	IMF (IFS)	1950-1985	
	Mitchell IHS	1936-1949	Mitchell IHS	1936-1949					
	Mitchell IHS	1857-1935	Mitchell IHS	1857-1935					
	IMF (IFS)	2001-2023	IMF (IFS)	2001-2023	IMF (IFS)	2001-2023	IMF (IFS)	2001-2023	
	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	
	Mitchell IHS	1940-1949	Mitchell IHS	1940-1949					
	IMF (IFS)	1975-2023	IMF (IFS)	1975-2023	IMF (IFS)	1975-2023	IMF (IFS)	1975-2023	
	IMF (IFS); Mitchell IHS	1972-1974	Mitchell IHS	1972-1974	IMF (IFS)	1972-1974	IMF (IFS)	1972-1974	
	IMF (IFS)	1951-1971	IMF (IFS)	1951-1971	IMF (IFS)	1951-1971	IMF (IFS)	1951-1971	
Niger	Mitchell IHS	1943-1950	Mitchell IHS	1943-1950					
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS); Mitchell IHS	1999-2000	Mitchell IHS	1999-2000	IMF (IFS)	1999-2000	IMF (IFS)	1999-2000	
	IMF (IFS)	1960-1998	IMF (IFS)	1960-1998	IMF (IFS)	1960-1998	IMF (IFS)	1960-1998	
	Mitchell IHS	1955-1959	Mitchell IHS	1955-1959					
	IMF (IFS)	2005-2024	IMF (IFS)	2005-2024	IMF (IFS)	2005-2024	IMF (IFS)	2005-2024	
	IMF (IFS)	2001-2004	IMF (IFS)	2001-2004	IMF (IFS)	2001-2004	IMF (IFS)	2001-2004	
	IMF (IFS)	1993-2000	IMF (IFS)	1993-2000	IMF (IFS)	1993-2000	IMF (IFS)	1993-2000	
	Norges Bank	2014-2024	Norges Bank	2014-2024	Norges Bank	2014-2024	Norges Bank	2014-2024	
	IMF (IFS); Norges Bank	2006-2013	Norges Bank	2006-2013	IMF (IFS)	2006-2013	IMF (IFS)	2006-2013	
North Macedonia	Norges Bank	2001-2005	Norges Bank	2001-2005	Norges Bank	2001-2005	Norges Bank	2001-2005	
	Norges Bank	2000	IMF (IFS)	2000	IMF (IFS); Norges Bank	2000	IMF (IFS); Norges Bank	2000	
	Norges Bank	1996-1999	Norges Bank	1996-1999	Norges Bank	1996-1999	Norges Bank	1996-1999	
	IMF (IFS)	1950-1995	IMF (IFS)	1950-1995	IMF (IFS)	1950-1995	IMF (IFS)	1950-1995	
	Oyvind Eitheim et al. (2004)	1875-1949	Mitchell IHS	1875-1949					
	Oyvind Eitheim et al. (2004)	1822-1874	Warren Weber Data	1822-1874					
	Warren Weber Data	1821	Warren Weber Data	1821					
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1972-2000	IMF (IFS)	1972-2000	IMF (IFS)	1972-2000	IMF (IFS)	1972-2000	
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
Norway	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	
	Mitchell IHS	1948-1949	Mitchell IHS	1948-1949					
	IMF (IFS)	2007-2024	IMF (IFS)	2007-2024	IMF (IFS)	2007-2024	IMF (IFS)	2007-2024	
	IMF (IFS)	2005-2007	IMF (IFS)	2005-2007					
	IMF (IFS)	1996-2005	IMF (IFS)	1996-2005	IMF (IFS)	1996-2005	IMF (IFS)	1996-2005	
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	
	Mitchell IHS	1939-1949	Mitchell IHS	1939-1949					
Oman	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1972-2000	IMF (IFS)	1972-2000	IMF (IFS)	1972-2000	IMF (IFS)	1972-2000	
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	
	Mitchell IHS	1948-1949	Mitchell IHS	1948-1949					
	IMF (IFS)	2007-2024	IMF (IFS)	2007-2024	IMF (IFS)	2007-2024	IMF (IFS)	2007-2024	
	IMF (IFS)	2005-2007	IMF (IFS)	2005-2007					
	IMF (IFS)	1996-2005	IMF (IFS)	1996-2005	IMF (IFS)	1996-2005	IMF (IFS)	1996-2005	
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	
Pakistan	Mitchell IHS	1939-1949	Mitchell IHS	1939-1949					
Palestine									
Panama									

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Country	Total deposits			Demand deposits			Time deposits		
	Sources	Period covered	Sources	Period covered	Sources	Period covered	Sources	Period covered	
Papua New Guinea	IMF (IFS)	2001-2023	IMF (IFS)	2001-2023	IMF (IFS)	2001-2023	IMF (IFS)	2001-2023	
Paraguay	IMF (IFS)	1973-2000	IMF (IFS)	1973-2000	IMF (IFS)	1973-2000	IMF (IFS)	1973-2000	
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1953-2001	IMF (IFS)	1953-2001	IMF (IFS)	1953-2000	IMF (IFS)	1953-2000	
	Mitchell IHS	1952	IMF (IFS)	1952		1952			
	Mitchell IHS	1936-1951	Mitchell IHS	1936-1951		1936-1951			
Peru	Mitchell IHS	1928-1935	Mitchell IHS	1928-1935		1928-1935			
	IMF (IFS)	2006-2022	IMF (IFS)	2006-2022	IMF (IFS)	2006-2022	IMF (IFS)	2006-2022	
	IMF (IFS)	1950-2005	IMF (IFS)	1950-2005	IMF (IFS)	1950-2005	IMF (IFS)	1950-2005	
	Mitchell IHS	1948-1949	Mitchell IHS	1948-1949		1948-1949			
	Mitchell IHS	1914-1947	Mitchell IHS	1914-1947		1914-1947			
Philippines	Mitchell IHS	1897-1913	Mitchell IHS	1897-1913		1897-1913			
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	
	Mitchell IHS	1945-1949	Mitchell IHS	1945-1949		1945-1949			
	Mitchell IHS	1937-1941	Mitchell IHS	1937-1941		1937-1941			
Poland	Mitchell IHS	1925-1929	Mitchell IHS	1925-1929		1925-1929			
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1979-2000	IMF (IFS)	1979-2000	IMF (IFS)	1979-2000	IMF (IFS)	1979-2000	
	IMF (IFS)	1950-1978	IMF (IFS)	1950-1978	IMF (IFS)	1950-1978	IMF (IFS)	1950-1978	
	Mitchell IHS	1937-1938	Mitchell IHS	1937-1938		1937-1938			
Portugal	Mitchell IHS	1924-1936	Mitchell IHS	1924-1936		1924-1936			
	Mitchell IHS	1919-1922	Mitchell IHS	1919-1922		1919-1922			
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	JST Macrohistory Database	1998-2000	Mitchell IHS	1998-2000	JST Macrohistory Database; Mitchell IHS	1998-2000			
	IMF (IFS)	1953-1997	IMF (IFS)	1953-1997	IMF (IFS)	1953-1997	IMF (IFS)	1953-1997	
Qatar	JST Macrohistory Database	1937-1952	Mitchell IHS	1937-1952		1937-1952			
	Mitchell IHS	1920-1936		1920-1936					
	Mitchell IHS	1917-1919		1917-1919					
	Almeida et al. (2026)	1878-1893		1878-1893					
	Almeida et al. (2026)	1875-1877	Almeida et al. (2026)	1875-1877	Almeida et al. (2026)	1875-1877	Almeida et al. (2026)	1875-1877	
Romania	Almeida et al. (2026)	1858-1874		1858-1874					
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1966-2000	IMF (IFS)	1966-2000	IMF (IFS)	1966-2000	IMF (IFS)	1966-2000	
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1973-2000	IMF (IFS)	1973-2000	IMF (IFS)	1973-2000	IMF (IFS)	1973-2000	
Russia	Mitchell IHS	1920-1944		1920-1944					
Rwanda	IMF (IFS)	2001-2021	IMF (IFS)	2001-2021	IMF (IFS)	2001-2021	IMF (IFS)	2001-2021	
	Bank of Russia	1999-2000	Bank of Russia	1999-2000	Bank of Russia	1999-2000	Bank of Russia	1999-2000	
	Bank of Russia	1995-1998	Bank of Russia	1995-1998	Bank of Russia	1995-1998	Bank of Russia	1995-1998	
	Mitchell IHS	1873-1915	Mitchell IHS	1873-1915		1873-1915			
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
Saint Kitts and Nevis	IMF (IFS)	1964-2000	IMF (IFS)	1964-2000	IMF (IFS)	1964-2000	IMF (IFS)	1964-2000	
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1979-2000	IMF (IFS)	1979-2000	IMF (IFS)	1979-2000	IMF (IFS)	1979-2000	
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1975-2000	IMF (IFS)	1975-2000	IMF (IFS)	1975-2000	IMF (IFS)	1975-2000	
Saint Lucia	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
Saint Vincent and the Grenadines	IMF (IFS)	1975-2000	IMF (IFS)	1975-2000	IMF (IFS)	1975-2000	IMF (IFS)	1975-2000	
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	

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Country	Total deposits			Demand deposits			Time deposits		
	Sources	Period covered	Sources	Period covered	Sources	Period covered	Sources	Period covered	
Sri Lanka	Martín-Aceña et al. (2010)	1876-1934	Martín-Aceña et al. (2010)	1876-1934	Martín-Aceña et al. (2010)	1876-1934	Martín-Aceña et al. (2010)	1876-1934	
	Martín-Aceña et al. (2010)	1856-1875	Martín-Aceña et al. (2010)	1856-1875					
	Martín-Aceña et al. (2010)	1839-1855							
	IMF (IFS)	2001-2019	IMF (IFS)	2001-2019	IMF (IFS)	2001-2019	IMF (IFS)	2001-2019	
	IMF (IFS)	2000	IMF (IFS)	2000	IMF (IFS)	2000	IMF (IFS)	2000	
	IMF (IFS)	1950-1999	IMF (IFS)	1950-1999	IMF (IFS)	1950-1999	IMF (IFS)	1950-1999	
	Mitchell IHS	1949	Mitchell IHS	1949					
	Mitchell IHS	1938-1948	Mitchell IHS	1938-1948					
	IMF (IFS)	2001-2022	IMF (IFS)	2001-2022	IMF (IFS)	2001-2022	IMF (IFS)	2001-2022	
	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	
Suriname	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1967-2000	IMF (IFS)	1967-2000	IMF (IFS)	1967-2000	IMF (IFS)	1967-2000	
Sweden	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	Ögren and Edvinsson (2014)	1990-2000							
Switzerland	Ögren and Edvinsson (2014)	1989	IMF (IFS)	1989	IMF (IFS); Ögren and Edvinsson (2014)	1989	IMF (IFS); Ögren and Edvinsson (2014)	1989	
	IMF (IFS)	1950-1988	IMF (IFS)	1950-1988	IMF (IFS)	1950-1988	IMF (IFS)	1950-1988	
	Ögren and Edvinsson (2014)	1875-1949	Mitchell IHS	1875-1949					
	Ögren and Edvinsson (2014)	1820-1874							
	Warren Weber Data	1800-1819							
	Swiss National Bank	1974-2024	Swiss National Bank	1974-2024	Swiss National Bank	1974-2024	Swiss National Bank	1974-2024	
	Switzerland Historical Data O.14a	1954-1973	Switzerland Historical Data O.14a	1954-1973	Switzerland Historical Data O.14a	1954-1973	Switzerland Historical Data O.14a	1954-1973	
	Switzerland Historical Data O.04; O.14a	1953	Switzerland Historical Data O.04	1953	Switzerland Historical Data O.14a	1953	Switzerland Historical Data O.14a	1953	
	Switzerland Historical Data O.14a	1950-1952	Switzerland Historical Data O.04	1950-1952	Switzerland Historical Data O.04	1950-1952	IMF (IFS)	1950-1952	
	Switzerland Historical Data O.04	1907-1949	Switzerland Historical Data O.04	1907-1949	Switzerland Historical Data O.04	1907-1949	Switzerland Historical Data O.04	1907-1949	
Syria	Switzerland Historical Data O.14a	1906	Switzerland Historical Data O.14a	1906	Switzerland Historical Data O.14a	1906	Switzerland Historical Data O.14a	1906	
	Switzerland Historical Data O.13	1851-1905	Switzerland Historical Data O.13	1851-1905					
Taiwan	IMF (IFS)	2001-2011	IMF (IFS)	2001-2011	IMF (IFS)	2001-2011	IMF (IFS)	2001-2011	
	IMF (IFS)	1951-2000	IMF (IFS)	1951-2000	IMF (IFS)	1951-2000	IMF (IFS)	1951-2000	
Tajikistan	Mitchell IHS	1939-1950	Mitchell IHS	1939-1950					
	Central Bank of Taiwan	1987-2024	Central Bank of Taiwan	1987-2024	Central Bank of Taiwan	1987-2024	Central Bank of Taiwan	1987-2024	
Tanzania	Mitchell IHS	1961-1986	Mitchell IHS	1961-1986					
	Mitchell IHS	1952-1960	Mitchell IHS	1952-1960					
Thailand	Mitchell IHS	1900-1941	Mitchell IHS	1900-1941					
	IMF (IFS)	2001-2023	IMF (IFS)	2001-2023	IMF (IFS)	2001-2023	IMF (IFS)	2001-2023	
Timor-Leste	IMF (IFS)	1998-2000	IMF (IFS)	1998-2000	IMF (IFS)	1998-2000	IMF (IFS)	1998-2000	
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1961-2000	IMF (IFS)	1961-2000	IMF (IFS)	1961-2000	IMF (IFS)	1961-2000	
	Mitchell IHS	1947-1960	Mitchell IHS	1947-1960					
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	
	Mitchell IHS	1947-1949	Mitchell IHS	1947-1949					
	Mitchell IHS	1944-1946	Mitchell IHS	1944-1946					
	Mitchell IHS	1941-1942	Mitchell IHS	1941-1942					
	IMF (IFS)	2002-2024	IMF (IFS)	2002-2024					
	Nunes et al. (2010)	1968-1973	Nunes et al. (2010)	1968-1973	IMF (IFS)	1968-1973	IMF (IFS)	1968-1973	
	Nunes et al. (2010)	1967	Nunes et al. (2010)	1967	Nunes et al. (2010)	1967	Nunes et al. (2010)	1967	
	Nunes et al. (2010)	1965-1966	Nunes et al. (2010)	1965-1966	Nunes et al. (2010)	1965-1966	Nunes et al. (2010)	1965-1966	
	Nunes et al. (2010)	1961	Nunes et al. (2010)	1961	Nunes et al. (2010)	1961	Nunes et al. (2010)	1961	

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Country	Total deposits			Demand deposits			Time deposits		
	Sources	Period covered	Sources	Period covered	Sources	Period covered			
Togo	Nunes et al. (2010) IMF (IFS) IMF (IFS) Mitchell IHS IMF (IFS) IMF (IFS) IMF (IFS) Mitchell IHS IMF (IFS)								

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Country	Total deposits			Demand deposits			Time deposits		
	Sources	Period covered	Sources	Period covered	Sources	Period covered	Sources	Period covered	
Uzbekistan Vanuatu Venezuela	Mitchell IHS	2013-2024	IMF (IFS)	2013-2024	IMF (IFS)	2013-2024	IMF (IFS)	2013-2024	
	IMF (IFS)	1976-2024	IMF (IFS)	1976-2024	IMF (IFS)	1976-2024	IMF (IFS)	1976-2024	
	IMF (IFS)	2001-2015	IMF (IFS)	2001-2015	IMF (IFS)	2001-2015	IMF (IFS)	2001-2015	
	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	IMF (IFS)	1950-2000	
	IMF (IFS)	1913-1949	Mitchell IHS	1913-1949	Mitchell IHS	1937-1949	IMF (IFS)	1950-2000	
Vietnam	Mitchell IHS		Mitchell IHS	1913-1936	Mitchell IHS	1913-1936			
		2022	IMF (IFS)	2022	IMF (IFS)	2022			
	IMF (IFS)	2013-2021	IMF (IFS)	2013-2021	IMF (IFS)	2013-2021			
	IMF (IFS)	1995-2022	IMF (IFS)	1995-2022	IMF (IFS)	1995-2012			
	IMF (IFS)	1992-1993	IMF (IFS)	1992-1993	IMF (IFS)	1992-1993			
Yemen Zambia	IMF (IFS)	1970-1974	Mitchell IHS	1970-1974	Mitchell IHS	1970-1974			
	Mitchell IHS	1955-1969	Mitchell IHS	1955-1969	Mitchell IHS	1955-1969			
	Mitchell IHS	1950-1954	Mitchell IHS	1950-1954	Mitchell IHS	1950-1954			
	Mitchell IHS	1990-2013	IMF (IFS)	1990-2013	IMF (IFS)	1990-2013	IMF (IFS)	1990-2013	
	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	IMF (IFS)	2001-2024	
Zimbabwe	IMF (IFS)	1965-2000	IMF (IFS)	1965-2000	IMF (IFS)	1965-2000	IMF (IFS)	1965-2000	
	IMF (IFS)	1952-1953	Mitchell IHS	1952-1953	Mitchell IHS	1952-1953			
	Mitchell IHS	1945-1948	Mitchell IHS	1945-1948	Mitchell IHS	1945-1948			
	Mitchell IHS	1931-1938	Mitchell IHS	1931-1938	Mitchell IHS	1931-1938			
	Mitchell IHS	2009-2023	IMF (IFS)	2009-2023	IMF (IFS)	2009-2023	IMF (IFS)	2009-2023	
	IMF (IFS)	2008	IMF (IFS)	2008	IMF (IFS)	2008	IMF (IFS)	2008	
	IMF (IFS)	1979-2008	IMF (IFS)	1979-2008	IMF (IFS)	1979-2007	IMF (IFS)	1979-2007	
	IMF (IFS)	1975-1978	IMF (IFS)	1975-1978	IMF (IFS)	1975-1978			
	IMF (IFS)	1965-1974	Mitchell IHS	1965-1974	Mitchell IHS	1965-1974			
	Mitchell IHS	1961-1964	Mitchell IHS	1961-1964	Mitchell IHS	1961-1964			
	Mitchell IHS	1936-1959	Mitchell IHS	1936-1959	Mitchell IHS	1936-1959			

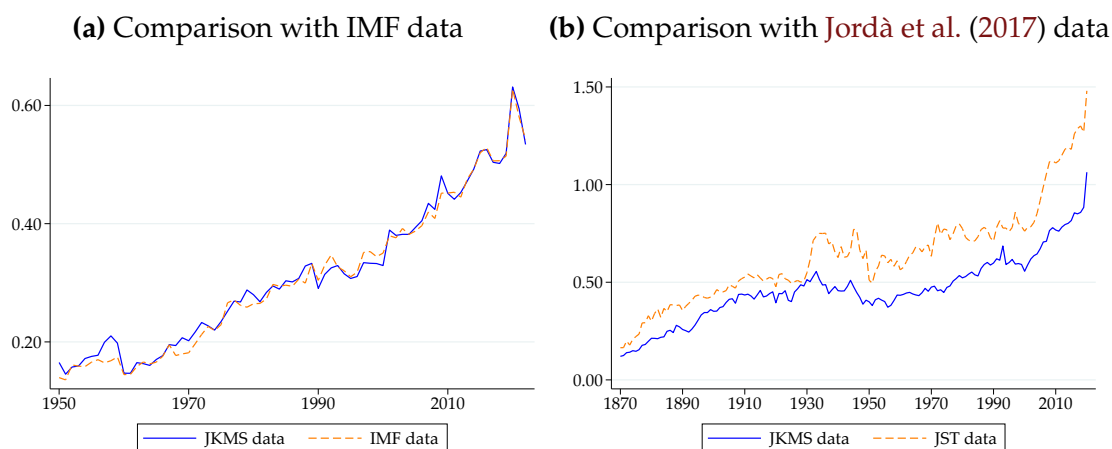
Notes: This table reports the sources and coverage of the database on aggregate bank deposits. For each country, we list coverage separately for total, demand, and time deposits. A new row is added whenever one of the following changes occurs in any of the three deposit categories: (i) the data source changes, (ii) the currency of denomination changes within a given source, or (iii) the unit of measurement changes within a given source.

Table C.2: Comparing the JKMS Deposit Dataset with IMF and Jordà et al. (2017) Data

Dataset	Deposit Type	No. of countries	Start Year	End Year	Obs.
Jordà et al. (2017)	Total retail deposits	17	1870	2020	2,247
IMF (IFS)	Total retail deposits	188	1950	2024	10,313
IMF (IFS)	Demand deposits	187	1950	2024	10,205
IMF (IFS)	Time deposits	184	1950	2024	10,038
JKMS	Total retail deposits	190	1800	2024	14,633
JKMS	Demand deposits	189	1820	2024	13,478
JKMS	Time deposits	187	1835	2024	10,990

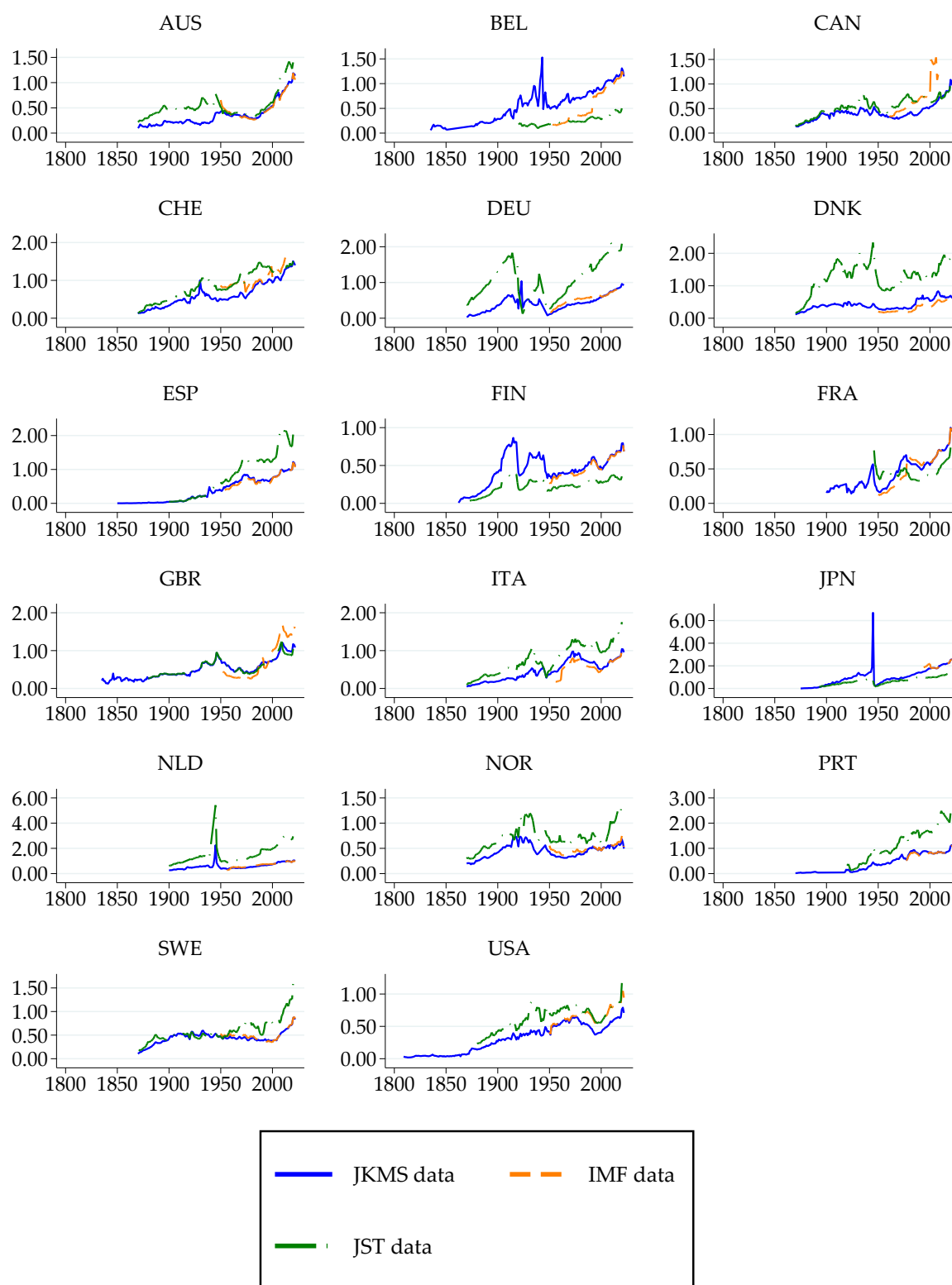
Notes: This table compares the coverage of the JKMS deposit data with the IMF and Jordà et al. (2017) deposit data. In contrast to other variables taken from Jordà et al. (2017), the loan-to-deposits variable *ltd* covers only 17 countries.

Figure C.1: Comparison of the Median Deposits-to-GDP Ratio



Notes: This figure plots the median deposits-to-GDP ratio over time. In Panel (a), we compare the deposits-to-GDP ratio, using our newly constructed JKMS deposit data with the IMF deposits-to-GDP data. We use all country-year observations for which we have IMF data coverage. In Panel (b), we compare the deposits-to-GDP ratio, using our newly constructed JKMS deposit data with the Jordà et al. (2017) deposits-to-GDP data. We use the sample of 17 countries from Jordà et al. (2017). The Jordà et al. (2017) deposit data is calculated as the ratio of total loans (*tloans*) divided by the loan-to-deposits ratio (*ltd/100*). In contrast to other variables taken from Jordà et al. (2017), the loan-to-deposits variable *ltd* covers only 17 countries.

Figure C.2: Country Comparison of the Deposits-to-GDP Ratio



Notes: These figures plot the country-level deposits-to-GDP ratio over time for (i) our newly constructed JKMS deposit data, (ii) the IMF retail deposit data, and (iii) the Jordà et al. (2017) deposit data for the sample of 17 countries from Jordà et al. (2017). The Jordà et al. (2017) deposit data is calculated as the ratio of total loans (*tlans*) divided by the loan-to-deposits ratio (*ltd/100*). In contrast to other variables taken from Jordà et al. (2017), the loan-to-deposits variable *ltd* covers only 17 countries.

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