

## Appendix B. Database Elements.

Appendix Figure 10 below now visualizes the information from section II above, and shows the structure of the database, and the information presented for each banking crises intervention over time – with recourse to several database rows in the years 1906-7.

The rows are organized chronologically, with each “crisis code” being associated with one or more specific intervention measures. Each “narrative” intervention column, meanwhile, provides not just details on the particular crisis context and the measures deployed, but includes the intervention size, wherever such information has been obtained. In a separate column, we provide the full literature that was used to determine the nature of the intervention, with the bibliography appended to the database detailing the full literature.

Further columns provide details on whether the crisis is part of any of the “canonical” crises chronologies, and a further column provides the exact level of the country’s real per capita GDP at the time of the crisis intervention.

Two columns in our associated Excel file record the “crisis” and “intervention” chronology. Column “B” (“crisis code”) displays a country-code followed by a four-digit year code: this code records the crisis start date that is associated with the chronologies in the four existing databases that inform our dating of crises. Since many crises are associated with multiple individual interventions – which may span multiple years and may be interrupted by other country crises or interventions during parallel crises elsewhere – a single “crisis code” can be associated with multiple intervention rows. Column “C” (“When”) in the excel sheet therefore strictly records the actual single intervention event: in other words, a single intervention has a unique “crisis identifier”, but a single crisis can have multiple “intervention identifiers”.

We record if any single intervention is associated with crises events in any of the four chronologies in the “literature” column in the printed version of our database, and in the separate column “J” (flagged “B/V/X”, “L/V”, “R/R”, or “S/T”) in the associated excel file, with all four tags always referring to the four specific papers by these previous authors.<sup>1</sup>

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<sup>1</sup> Therefore, when we note a report of a blanket guarantee intervention for Turkey in November 1994 in Laeven and Valencia (2012, 1223), for instance, but not in Laeven and Valencia (2020), we leave the column blank.

We record a grand total of 699 intervention events which meet our minimum thresholds, but are not associated with any “canonical” crisis classification in the four existing databases. In all of these cases, we leave the “J” column blank in the Excel file.

As indicated, various of our individual intervention events are outside the scope of existing databases, and in these instances we always record the first intervention in the respective Column 1 below, and Column “C” in the associated Excel file. Since the first record of a policy intervention may lag the identification of a “crisis start”, these two timelines do not have to overlap: typically, interventions occur subsequent to the beginning of banking crises. However, there are also instances where an intervention precedes a crisis – often because the intervention fails to achieve its goal of actually forestalling such a crisis.

The database includes several other types of information, applicable only for a subset of the cases. We record if the intervention was implemented via the use of a **conduit**. In this case, the “conduit” column distinguishes between an intervention using a “Special Purpose Vehicle” (**SPV**), such as an asset management company or designated bank intervention fund; intervention using an “Association” (**ASSOC**), such as a private banking association or any other private ad hoc group of banking institutions with the purpose of pooling resources – but irrespective of the question if the target entity represents a banking association;<sup>2</sup> or, “Sovereign Wealth Fund” (**SWF**), denoting an intervention via the use of a state-owned investment fund. Further, we record if the policy intervention in the first degree targets the non-financial sector (“**Industry**”), for instance if policymakers aim to aid the banking sector by restructuring non-performing loans of industrial enterprises. Finally, we denote an intervention as a “**Market**” type if the intervention does not directly involve banking institutions in the first degree, but rather involves an attempt to aid the banking sector indirectly by improving liquidity or other financial conditions: often, our primary “MLA” intervention classification is linked with a “Market” intervention channel, but there are select exceptions. Again, this flag does not include any market actions that just ease financial conditions in a general sense, such as monetary policy rate reductions.

“**Flags**”: we provide two further “flags” for each intervention event: first, we record if the intervention was undertaken either predominantly or in part with the participation of other

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<sup>2</sup> Hence, for instance, the Austrian state intervention into the “OVAG” association in 2012 is not tagged as “ASSOC”, see Igan et al. (2019, 48f.) for details.

private banks or other private actors (“**PRI-PRI**”); secondly, we record if the intervention was undertaken either via the *use* of a state-owned enterprise, or if the *target* of the policy intervention was a majority state-owned enterprise or enterprises (“**STOW**”). If a mixture of public and private banking institutions were involved in the intervention process, such interventions are denoted “PRI-PRI (partly) and “STOW (partly)”, respectively.

Appendix Figure 10: example page from intervention database, details on database structure and intervention classification.

Monthly/annual intervention date

Total no of countries: 138

Details on intervention and intervention size, wherever available

Intervention associated with existing crises chronology?

Crisis start year, associated with one or more interventions

Crisis Code	When	Where	Monetary/government response	What	Conduit	Flag	Literature	B/W/S, L/W, R/R or S/T?	Income p.c. level (2011 CVs), MDC
PRE-MODERNERA, 1290-1693									
BRL-1900	Sep-1900	Brazil	GBP 900,000 emergency loan and restructuring of Banco da Republica amid run, including recap of bank debt with Treasury note (ownership remains mixed public/private).	AHLA, RES	0	0	Reinhart/Raouff; Mottenheim 2010, chapter 3.	B/W/S; R/R	874
GER-1901	Jun-1901	Germany	Crisis at Pruzian and Pfandbrief banks. Private emergency help for Pomeranian Mortgage Bank from Deutsche Bank and Darmstadter Bank; Pruzian mortgage banks provide 15M Mark aid to Pruzische	BELA	0	PRI-PRI	Kritzler 1903, 4ff.; Financial Times, June 11, 1902; Bapp 1954; Reinhart/Raouff	B/W/S; R/R; S/T	4576
JP-1901	Apr-1901	Japan	Wave of failures in Osaka and Central/Southern provinces, including run on Yokohama Specie. Swarzen by government to encourage mergers among smaller banks; unspecified "assistance" from Bank of Japan to banks.	other	0	PRI-PRI (partly)	Financial Times, April 27, 1901; Patrick 1999; Reinhart/Raouff	B/W/S; R/R	2162
DK-1902	1902	Denmark	Abildgren et al (2011, 6) and others do not report interventions.	NO/I	0	0	Reinhart/Raouff	R/R	5007
FRA-1904	Feb-1904	France	R/R: identify "banking panic" - no interventions in Conant (1915) or other literature.	NO/I	0	0	Reinhart/Raouff	R/R	4538
RUS-1905	1905	Russia	Amid revolutionary upheaval, run on Savings Bank. Government issues order limiting gold withdrawal for all funds at State Bank and branches.	SBH	0	0	Bernatsky 1928, 349.		1935
NOR-1905	Aug-1905	Norway	Dissolution decision with Sweden leads to spike in uncertainty: "fairly large cash withdrawal at banks... banks had to resort to loans from Norges Bank".	BELA	0	0	Gjedrem 2005, 4.		3322
US-1905	Dec-1905	United States	Failure of Chicago National Bank, Home Savings Bank, and Equitable Trust Company (USD 26M liabilities): Clearing House announces full guarantee for depositors to prevent banking panic.	AG	0	PRI-PRI	Financial Times, December 19, 1905.		9121
CAD-1906	1906	Canada	Fraudulent Ontario Bank is arranged to be taken over by Bank of Montreal, which guarantees deposits. Other banks in turn jointly guarantee Bank of Montreal (CAD 4.3M val.). Royal Bank of Canada coordinator.	AHCI, BG, other	0	PRI-PRI	Ferrier 1913, 39ff.; Reinhart/Raouff; Martin 2014, 5f.	B/W/S; R/R; S/T	6130
	Oct-1907	Canada	Government offers 10M CAD in emergency credit for banks amid panic spillover from U.S. (only 5.1M drawn)	BELA	0	0	Martin 2014, 10f.	B/W/S; R/R; S/T	6177

Intervention type

Private-sector involvement?

Literature / sources used

Real p.c. GDP at time of intervention

Figure corresponds to a sample extract from the excel version of our database, here randomly displaying a selection of interventions between September 1900 as part of the "BRL-1900" crisis, and January 1908 as part of the "CAD-1906" crisis. For details on all individual tags used, as well as the use of "conduit" and "PRI" flags used, see in particular sections II and I.C above.