Online Appendix Material to

Banking-Crisis Interventions across Time and Space

February 2024

Appendix B: Database Elements and Structure.

Appendix Figure 2 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.[28]

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"

[28] 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.

(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;[1] 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 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.

[1] 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.

Variables: as described in the main text, the four subsequent columns in the database record associated fiscal, political, and macroeconomic variables for the crises and intervention event rows. Specifically, the first column in this category records **EXP/GDP**, the total public expenditures relative to GDP, as recorded by Mauro et al. (2015), for the final pre-crisis year. Next, **DEBT/GDP** is recorded on the basis of the data in Reinhart and Rogoff (2009), again using the final pre-crisis annual observation. The following column, "**POLITY**", records the polity value of the respective country-year, as defined by the POLITY V project, via Marshall and Gurr (2020). The variable starts in 1800 and records an annual numerical value to rank a country's "regime authority spectrum" on a 21-point scale, ranging from -10 (strongly authoritarian, hereditary monarchy) and +10 (strongly democratic, consolidated democracy) for a total of 167 countries; we also choose the final pre-crisis observation for this value. Next, the **GDP GAP** column records the real per capita GDP losses associated for each crisis, as defined in the main text. Specifically, for every "base year", we estimate the trend (geometric) growth of GDP per capita using the prior 15 years of data. We do not use data from the base year itself. Next, we extrapolate that trend growth for five years, beginning at the end of the base year. This step yields an extrapolated GDP prediction for each of the next five years. We then compare the actual GDP in each of those years with this extrapolated GDP. The sum of the (percentage) differences for these five years represents the GDP gap for that base year. The reported number is thus the "area under the trend GDP line".

Appendix Figure 2

Outline of Database Structure, and Content.