

THE DISTRESS OF ITALIAN COMMERCIAL BANKS IN 1926-1936:
A NEW DATASET FROM SUPERVISION ARCHIVES

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ABSTRACT

This paper documents a new dataset on the distress of Italian joint-stock banks in 1926-1936. It employs classified information from Italian banking supervision archives to identify outright and hidden bank failures. Providing the first all-embracing account of the crisis of small and medium banks in Italy during the Great Depression, it shows that once hidden distress is considered, their crisis was more severe than previously thought. Measured by total assets of banks involved, the distress of joint-stock banks would be considered a 'systemic crisis' by today standards. While previous research has mainly focused on the distress of large universal banks, this research opens new questions on our interpretation of the impact of bank distress in interwar Italy.

Keywords: Banking Crises, Interwar Period, Italy, Commercial Banks, Great Depression.
JEL Codes: G01, G021, N24.

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INTRODUCTION

In interwar banking history, the case of Italy is well-known for the distress and secret rescue by the fascist regime of the ‘big four’ large universal banks¹ (Toniolo 1995; Battilossi 2009, Feinstein *et al.* 2010; Barbiellini-Amidei and Giordano 2015). Much less is known regarding the rest of the banking system – this being especially true for the international scholarship available in English. However, as Figure B1 and B2 show, the importance of other bank categories in Italian banking system was not negligible. This work aims to fill this gap and to provide the first all-embracing account of the distress of Italian small and medium commercial banks in the interwar period.² Specifically, this paper aims at answering the following research question:

Besides universal banks, what was the magnitude of the banking crisis Italy experienced in the 1930s?

To answer this question, this paper constructs a new dataset [distress dataset] on the distress of Italian joint-stock banks between 1926 and 1936. It includes both cooperative (BP) and ordinary (SOC) joint-stock banks.³ Molteni (2020) created a dataset of all Italian commercial banks filing for bankruptcy between July 1925 and March 1936.⁴ This work extends that

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¹ The big four largest universal banks are Banca Commerciale Italiana, Credito Italiano, Banco di Roma, and Banca Nazionale di Credito.

² Commercial banks are defined as follows: credit institutions which are profit oriented, privately owned, fully integrated in the national payment system, and that collect deposits from the public in order to fund their lending activity, i.e. what today would be generally considered ordinary banks. In the context of interwar Italian banking, these are joint-stock banks (*Società Ordinarie di Credito*, SOC), cooperative joint-stock banks (*Banche Popolari*, BP), and private bankers and partnerships (*Ditte Bancarie*, DB). This work thus excludes saving banks (*Casse di Risparmio*, CRÖ), an important segment of the Italian banking system. However, although some saving banks experienced depositors run (POLSI 1997), none of these banks was closed due to insolvency in the period in question. Studying the possible hidden distress of these banks, however, falls beyond the scope of this paper as their business model was very different from that of commercial banks (BALLARDINI 1929).

³ These are the acronyms used in the *Archivio Storico del Credito in Italia* (ASCI, NATOLI *et al.* 2016), which follows the official classification that the Bank of Italy used until the 1990s.

⁴ It is crucial to understand that, unlike in the Anglo-American institutional context, in

research: it identifies not only bankrupt banks but also hidden failures and non-distressed closures.⁵ To do so, it extensively uses classified documents from two distinct banking supervision archives: ASBI_supervision and ACS_supervision.⁶ In fact, this paper develops the work by Molteni (2023), which identified 193 distressed banks out of a sample of 377 ordinary joint-stock banks present in *Archivio Storico del Credito in Italia* (ASCI, Natoli *et al.* 2016), a dataset of bank balance sheets. This research expands the analysis to all ordinary joint-stock banks and all cooperative joint-stock banks, considering a universe of 1,371 banks in total.

The time span covered by this reconstruction is 1926/1927-1936. The rationale behind this choice is both practical and theoretical. From a practical point of view, the available sources that guarantee a complete account only starts with the introduction of banking supervision in 1926/1927.⁷ The reconstruction stops in 1936 because the new institutional setting introduced by the new banking law in 1936 provided a different set of rules to deal with banks in distress (Di Martino 2004). From a theoretical point of view, the focus on the late 1920s and early 1930s is justified because this period coincides with the deflationary measures introduced in 1926 to restore the Gold Standard, and with the onset of the Great Depression (James and O'Rourke 2013). These are the years in which *ex ante* one should expect to observe a higher degree of banking distress.

The contribution of this paper is also methodological. Banking historians have adopted several definitions of distress or failure. One important novelty of this work is to provide a better connotation of bank distress in

Italian legislation there was no distinction between bankruptcy and insolvency. Here, the term bankruptcy is used for 'procedura concorsuale' which applies to both companies' insolvency and personal bankruptcy.

⁵ One important difference between the bankruptcy dataset and the distress dataset is that the former included private bankers and partnerships, while the latter does not. These cannot be included because a comprehensive list of existing banks belonging to this group prior to 1936 does not exist.

⁶ In this paper, 'banking supervision archives' refers to the Historical Archives of the Bank of Italy (ASBI_supervision: *Archivio Storico della Banca d'Italia, Banca d'Italia, Vigilanza sulle Aziende di Credito*, various folders) and the Archives of the Banking Supervision Office at the Ministry of the Finance, currently held at the Italian National Archives (ACS_supervision: *Archivio Centrale dello Stato, Ministero del Tesoro, Direzione generale tesoro, Ispettorato generale per i servizi monetari, di vigilanza e controllo, Ufficio tutela del credito e del risparmio*, various folders). See Appendix C.

⁷ The first Italian law on regulation and supervision of commercial banks was enacted with R.d.l. 7 settembre 1926, n. 1511 and R.d.l. 6 novembre 1926, n. 1830. Supervision archives provide a unique and confidential source to study banking distress, as banking supervision archives should record and documents the life (and death) of all Italian banks. For an overview of the 1926 law see MOLTENI and PELLEGRINO (2022).

Italy based on classified supervision documents. This allows me to identify not only hidden failures, but also terminal closures that should not be considered failures because are not due to distressed conditions. In fact, previous research generally considers terminally closed banks (e.g. put into liquidation) as failures. This approach is feasible because Italy did have banking supervision at the time, while this kind of information is not available for other European countries – e.g. the French and the Dutch cases studied by Baubeau *et al.* (2021) and Colvin *et al.* (2015). In this respect, one notable exception is Sweden, which established banking supervision as early as 1868 (Hotori and Wendschlag 2019). In fact, to classify which banks experienced distress during the 1907 crisis, Grodecka-Messi *et al.* (2021) adopt a narrative approach based on coeval newspapers, historical research, and primary sources from supervision archives.⁸ Other definitions of ‘distress’ are certainly possible and the one adopted here does not pretend to be unique or superior. ‘Classic’ research on the US banking crisis focused on ‘bank failures’, i.e. suspensions, which are often (but not always) associated with terminal closures.⁹ After the seminal archival research by Richardson (2007b), it has been possible to distinguish between failures (i.e. terminal closures) and temporary suspensions (i.e. banks that suspended their operations but reopened). In fact, similarly to this study, Richardson used previously unexplored supervision archival material to distinguish between the two for the period that goes from January 1929 until the bank holidays of March 1933. In the European context, this issue is complicated by the fact that most European countries did not have banking regulations, and thus supervision archives do not exist for that time period. Colvin *et al.* (2015) stress the importance of focusing the analysis on distress, as severe financial troubles do not necessarily end up in outright failures. However, they must rely on public sources to broaden their concept of distress. Baubeau *et al.* (2021) broaden the definition of distress, including banks that did not experience an outright failure but suffered severe deposit withdrawals.

Besides this introduction, this paper is made up of three more sections. Section 1 describes the methodological approach to reconstruct the dataset. Section 2 presents a first descriptive analysis of the data. The final section summarises the paper and its main results, paving the way for future research.

⁸ The “advantage” of Sweden, however, is that less than 90 banks existed in 1907, while in Italy there were more than 1,000 commercial banks active in the interwar period.

⁹ For a thorough discussion on the definition of failure and distress in the USA context see RICHARDSON (2007a; 2007b) and the data appendix in CALOMIRIS and MASON (2003).

1. BUILDING THE DATASET

Defining bank distress

First and foremost, it must be clear that the definition of distress adopted in this paper is operational and not theoretical, as distress is always defined *ex-post* – i.e. it is the outcome that allows me to identify historical distress. For banks in the impossibility to avert defaulting and stopping payments with their own forces, there are two outcomes: ceasing of payments happens (bankruptcy) or is avoided thanks to third party intervention (resolution). In this framework, the phenomena of bankruptcy procedure or resolution intervention are what define distress. Distress is defined as follows: *A condition in which a bank is not being able to pay back what is due to creditors and investors without a resolution intervention by a third party.*

Had a different approach been used, one that considers distressed all banks experiencing problems according to a more subjective reading of archival documents regardless of the outcome, the sample would be larger. This implies that if banks in trouble managed to navigate through the crisis without external support, these are not considered distressed in the dataset.¹⁰ The exclusion of these banks can be seen as a Type I error – Type II error trade-off. Here, I prefer to have fewer banks that are confidently distressed and accept to exclude some troubled banks, rather than have a larger sample – not only with false positives but also based on a less consistent and more subjective definition of distress. The rationale behind defining distress in this way is to keep a ‘conservative’ approach aimed at not overestimating banking distress and to minimise subjective judgements in interpreting qualitative archival sources.

As the rest of this paper shows, to understand the Italian banking crisis of the Depression, it is important to understand ‘distress’ rather than just bank closures. Studying distress and not just closures is important in the case of interwar Italy because Italian Public Authorities had an active policy of resolving banking distress, and thus preventing distressed banks from ceasing being in trade with a loss for their creditors (i.e. filing for bankruptcy). Furthermore, following the 1926 banking law, the Italian banking

¹⁰ For example, *Credito Romagnolo* of Bologna: the on-site inspection in August 1933 found it in a difficult position, but the bank then managed to survive without external help. With a capital of 35 mln Lire, it had hidden losses for 14.9 mln plus 20.8 mln of non-performing loans and 185 mln of frozen assets out of total balance sheet of 446 mln. Furthermore, between 1927 and 1932, the bank had already amortized 8.3 mln lire of losses. ASBI, Banca d'Italia, Vigilanza, prat. 1434, fasc. 1.

system went through an important consolidation process; therefore, one cannot simply assume that all bank closures are due to distress.

Banking supervision documents allow us to identify banks whose distress did not result in bankruptcy and to separate those closures and mergers that were not prompted by a distress situation. This paper adopts an operational definition of distress which includes: (a) bankruptcies; (b) liquidations where most of paid-up capital is lost;¹¹ (c) mergers taking place to avoid (a) or (b); and (d) resolutions requiring money injections from third parties.¹² Liquidations where most paid-up capital is reimbursed and mergers reflecting healthy market consolidation are not considered distressed, even though these bank closures are nonetheless included in the dataset.

An important caveat should be kept in mind regarding the nature of the variable 'timing of distress'. Two elements contribute to shaping this variable: (1) is the bank distressed? (2) If yes, when does the distress start? And a trade-off exists between the accuracy of (1) and (2). If one wants a certain official acknowledgement of (1), this always takes place with a lag after (2). Banking distress is not just a switched on / switched off status and is very difficult to determine if and when a bank starts being distressed using indirect sources.

The goal of this reconstruction is not necessarily conclusive, but it is rather to put the basis for future works. Therefore, I prefer a consistent, more certain, and rule-based definition of distress to a potentially more precise (but discretionary) definition of the timing. A subsequent revision of the timing variable to refine it would certainly be more than welcome in the future. Indeed, the current version of the dataset is not without shortcomings, but all in all, I consider it the best way to lay the cornerstone of the database.

For banks filing for bankruptcy, the choice of the timing variable is quite straightforward, the day the Tribunal adjudicates bankruptcy is a fairly reliable and consistent proxy. Regarding the distress of banks not filing for bankruptcy, the issue of a lag between the actual distress and the publicity of resolution initiatives, hereby used as a proxy of distress, is a serious one. In certain cases, from the first contact with Italian public authorities and the publicity of the resolution there could be a large time span. In theory, one could try to use a different proxy, i.e. the date of the first contact between the bank and the third-party intervening, but this would be more aleatory and not certain. It is impossible to know what was discussed in the meetings, and impossible to know with certainty that the date of the

¹¹ The cut-off is arbitrarily put at 50%, but the dataset records how much capital was lost.

¹² I.e. by the government, another bank, or new investors.

first contact according to the survived archival material is the actual ‘true’ date of the first contact. Furthermore, if this latter method were adopted instead, it would imply that for consistency it should be adopted for all distresses, including bankrupt banks that asked for help and did not receive it. One cannot be guaranteed that the ‘true’ date of the first contact is recorded homogeneously for all banks in available archival documents; thus, this would create a bias of which it is impossible to know the direction nor the magnitude. By contrast, if the official publicity is taken, it is possible to determine the direction of the bias (the proxy is always later than the ‘true’ distress) and to speculate on the magnitude because the starting point is fixed and certain. If publicity and officiality are abandoned, it would be very difficult to categorise those cases in which a bank asked for help, but then no resolution action was eventually taken officially. Should a bank that asked for help, did not receive it, and then solved its problems alone be considered distressed? The trade-off here is between a better quality of the timing variables and the certainty of the distress variable. For this research, a less precise but consistent and certain variable is preferred to a potentially more precise but aleatory and heterogeneous one.

Data

Archival sources¹³

There were two distinct banking supervision offices, one at the Bank of Italy and one at the Ministry of Finance, which produced two parallel but distinct sets of documents that are held at two archives. Both offices (and thus archives) had a similar organisation, with all banks having one or more individual files. The existence of two distinct offices guarantees that it is very unlikely that I have lost track of any single bank: if the documentation of one bank went lost in any of the two archives I have records of it in the other. This also guarantees that all information can be double-checked in each of the two sets of documentation. The two main archival sources the paper is based upon are:

ASBI_supervision:¹⁴ ASBI stands for *Archivio Storico della Banca d'Italia* (Historical Archives of the Bank of Italy). In 1926, the Bank of Italy was entrusted with the enforcement of the new banking law and put in charge of banking supervision. ASBI_supervision refers to the documents of the

¹³ A full description of these sources is available in MOLTENI (2020).

¹⁴ The full archival reference is: Archivio Storico della Banca d'Italia, Banca d'Italia, Vigilanza sulle Aziende di Credito, various folders. Short reference: ASBI, Vigilanza, prat.? f.?

division in charge of conducting inspections and dealing with off-site supervision. It contains individual folders for each bank under its supervision. The kind of information available in these archives is of more technical nature, such as inspection reports and accounting reports.

ACS_supervision:¹⁵ ACS stands for *Archivio Centrale dello Stato* (Italian National Archives). The Bank of Italy was in charge of day-to-day supervision, but it performed its duties on behalf of the Ministry of Finance, which took all final decisions on authorisations, sanctions, and interventions. Thus, the Ministry of Finance had a parallel office that received and dealt with all the communications from/to the Bank of Italy. The kind of information available in this archive is of more 'decisional' nature, such as correspondence with other ministries and memoranda on decisions.

In addition to banking supervision archives, additional archival series were consulted at ASBI.

Direttorio – Introna:¹⁶ The personal correspondence of the head of banking supervision and vice-Director General of the Bank of Italy, Niccolò Introna. It had a series of folders concerning the crisis management of distressed banks.

Copialettere riservatissimi del Governatore:¹⁷ seven 'ultra-secret' letter books with all the classified correspondence from the Governor and vice-Director Generals of the Bank of Italy. Banking distress was widely discussed.

Sottofondo Sconti:¹⁸ there are 271 folders concerning special discounts (*Sconti*) provided to banks in distress in 1920/30s.

Ispettorato del Credito:¹⁹ *Ispettorato del Credito* (Inspectorate of Credit) was established with the 1936 banking law. It took over the office previously held at the Ministry of Finance. It is a very useful source of information on banks that were still being winded down after 1936.

Verbali del Consiglio Superiore della Banca d'Italia:²⁰ the minutes of the Bank of Italy's Board. When banks experienced distress these were usually mentioned in the summaries of the meetings.

¹⁵ The archival reference is *Archivio Centrale dello Stato, Ministero del Tesoro, Direzione generale tesoro, Ispettorato generale per i servizi monetari, di vigilanza e controllo, Ufficio tutela del credito e del risparmio*, various subseries, various folders. Short reference: ACS, Ufficio tutela del credito e del risparmio, 'series', bb.? f.?

¹⁶ ASBI, Banca d'Italia, Fondo Direttorio – Introna, prat. 28-85 various *fascicoli*.

¹⁷ ASBI, Direttorio – Stringher, prat. 17, doc. 2-4; Direttorio – Introna, prat. 8, doc. 1-2; Direttorio – Azzolini, prat. 43, doc. 1-2.

¹⁸ ASBI, Banca d'Italia, Fondo Sconti, prat. 16-290 various *fascicoli*.

¹⁹ ASBI, Ispettorato del Credito, Fondo Ispettorato del Credito, prat. 864-1188 various *fascicoli* and prat. 639-681, various *fascicoli*.

²⁰ ASBI, Banca d'Italia, Verbali del consiglio superiore, 1926-1936.

Other sources

Annuario CGBF:²¹ this banking almanac was published by the Italian Banking Association of the time. It provides information on bank details, board composition, balance sheet data, and branch network.

ASCI: Archivio Storico del Credito in Italia (Natoli *et al.* 2016) is a database on individual bank balance sheets from 1890 until 1973. Balance sheet data for cooperative joint-stock banks are not available for 1927-1935.

Bollettino del Credito (1937): in January 1937 the very first public list of all banks officially registered was published. It refers to December 1936.

Cerrito (1996): it is a dataset containing basic information on individual banks for 1890-1936. It is the microdata underlying the banking population published in Cotula *et al.* (1996). Unfortunately, it lacks information on cooperative joint-stock in the period 1927-1935. The years of entry and exit of banks in the 1920s are not 100% accurate due to issues with the underlying sources employed. In fact, the reconstruction of the population of SOC and BP for 1923-1935 has many shortcomings due to problems in the source available. Therefore, in these years, a bank exiting from the Anagrafe in year X does not necessarily guarantee that the bank stops its operation in year X. This is the rationale behind taking all banks from 1923 and not from 1926. 1923 is the last year for which a comprehensive list of all cooperative joint-stock banks is available.

IMITA: IMITA.db is a database on Italian joint-stock companies reconstructed by the University of Siena (Vasta 2006). It includes information on boards composition and main balance sheet items for some large banks.

Archival strategy

The process of reconstructing this dataset adopts the same methodology of the bankruptcy dataset developed by Molteni (2020), and some repetitions are inevitable. A multitude of sources, both primary and secondary, are used at each stage to construct the dataset presented here. A description of these sources is available in Appendix C. The process of reconstructing the dataset involves three steps:

- 1) Identifying the names of all the banks of interest.
- 2) Matching these banks with one or more files in banking supervision archives.
- 3) Extracting relevant information from archival files and additional sources.

²¹ Confederazione Generale Bancaria Fascista, Annuario delle Banche e dei Banchieri d'Italia, Milano, various years.

I assemble a list of all banks that could be in trade between 1926 and 1936. I try to match all these banks with their individual files in supervision archives. I revise this initial list in light of the subsequent archival research. I construct a set of variables for the final list of banks. The challenge presented by this process is the sheer number of banks relevant for this study: in total, the number of files consulted for this research goes beyond a thousand. Plus, all banks are manually matched by unique ids with existing Italian banking databases, such as ASCI (Natoli *et al.* 2016) and IMITA (Vasta 2006), making the link with these datasets immediate.

Identifying all names of distressed joint-stock banks

The starting point is Cerrito's (1996) reconstruction of the Italian banking population in 1890-1936. Cerrito (1996) represents the best available reconstruction of the population of Italian banks for this period of interest and includes basic information on individual Italian banks.²² I consider all BP and SOC that are recorded to be present for at least one year between 1923 and 1936.²³ This gives a list of 1,371 banks, of which 547 are recorded to be alive in 1936, whereas 824 disappeared. In addition to the 824 banks that stopped being in trade, I include in the list of banks to match with archival files also those banks recorded as alive in 1936 for which other sources suggest distress. Three additional archival series at the Historical Archives of the Bank of Italy are consulted for this purpose. Firstly, the *sottofondo* 'Direttorio – Introna'²⁴ has several folders concerning banking resolution interventions supervised by Niccolò Introna, head of banking supervision. Secondly, all files concerning special rediscount to individual banks performed by the Bank of Italy in the period of interest have been checked – *Sottoserie 'Operazioni di Sconti Speciali'*.²⁵ Thirdly, all seven *copiale lettere riservatissimi del Governatore*²⁶ have been consulted from cover to back end for the period 1926-1936. Last but not least, a thorough review of the existing literature on the period has been done.²⁷ Therefore, even

²² Name, establishment year, HQ, years of activity. Although this latter variable is not meant to be 100% accurate.

²³ See Appendix C.

²⁴ ASBI, Banca d'Italia, Direttorio – Introna, prat. 28, f. 1 sf. 1-8; prat. 29, f. 1, sf. 1-3; prat. 30 f. 1 sf. 1-8; prat. 31, f. 1, sf. 1; prat. 34, f. 1, sf. 1-3; prat. 35, f. 1, sf. 1-4; prat. 36, f. 1, sf. 1-4; prat. 37, f. 1, sf. 1-3; prat. 38, f. 1, sf. 1-3; prat. 39, f. 1, sf. 1-2; prat. 43, f. 1, sf. 5; prat. 45, f. 1, sf. 8; prat. 56, f. 1, sf. 1; prat. 64, f. 1, sf. 1-2; prat. 65, f. 1, sf. 3; prat. 67, f. 1, sf. 1-20.

²⁵ ASBI, Banca d'Italia, Sconti, prat.16-290, various *fascicoli*.

²⁶ ASBI, Banca d'Italia, Direttorio – Stringher, prat. 17, doc. 2-4; Direttorio – Introna, prat. 8, doc. 1-2; Direttorio – Azzolini, prat. 43, doc. 1-2;

²⁷ All the literature referenced in Molteni (2021) has been thoroughly checked.

though it is impossible to know with absolute certainty that all distressed banks have been included, the probability that a bank experienced distress without being mentioned in any of the sources consulted is extremely low, albeit not zero.

Matching bank names with archival files

For 505 banks alive in 1936 of the 1,371 banks in the initial list, additional sources do not provide evidence of banking distress, so they are excluded. I try to match all other banks with one individual bank folder in ASBI_Supervision and/or ACS_Supervision. In fact, of the 824 banks disappearing between 1923 and 1926 according to Cerrito (1996), 264 banks could not be matched with any folder. This latter group of banks, mostly disappearing before 1926 in Cerrito (1996), is excluded from the list based on the fair assumption that these had already stopped being in trade before the establishment of banking supervision in early 1927. The remaining 602 are all matched with one file in at least one of the two supervision archives.

Extract relevant information

Headquarters and geocoding

Information on the headquarters is taken directly from Cerrito (1996) and double-checked with archival sources. In case of conflicts, archival sources are privileged.

Balance sheets data

Balance sheet data are collected to have an estimation of bank size. For most banks, *Archivio Storico del Credito in Italia* (ASCI, Natoli *et al.* 2016) has at least one annual balance sheet. If this is the case, balance sheet data come from ASCI. For banks not present in ASCI, data are taken from other primary sources, such as archival documentation or coeval publications. In few cases, data are taken from *IMITA.db*. Since the data entry process has to be done manually, the data are collected only for one benchmark year: December 1927. When data for December 1927 are not available, the closest month/year is recorded. When multiple sources are available, the following hierarchy adopted in Molteni (2020) is followed.²⁸

²⁸ See Appendix C.

- 1) ASCI December 1927;
- 2) ASCI closest date (1924-1928);
- 3) ASBI_Supervision December 1927;
- 4) ASBI_Supervision closest date (Dec 1926-Dec 1928);
- 5) Annuario CGBF December 1927;
- 6) Annuario CGBF (Dec 1925 or Dec 1928);
- 7) IMITA.db 1927 or closest date.

Distress

All banks filing for bankruptcy are considered distressed. All banks receiving a public subsidy to write-off losses are considered distressed. All mergers receiving a public subsidy are considered distressed. All mergers requested by banks to third parties to avert a bankruptcy procedure are considered distressed. All voluntary liquidations in which bankruptcy was only averted thanks to subsidies from third parties are considered distressed. All banks receiving grants and/or capital injections from third parties prompted by Italian public authorities are considered distressed.

Not all voluntary liquidations should be considered distress: certain liquidations ended up with a substantial reimbursement of paid-up capital. In these cases, a subjective judgement has to be made in drawing the red line between distress and no distress: I consider banks being distressed if they paid less than 50% of initial paid-up capital.²⁹ If the bank received a subsidy during or before the liquidation to avoid a bankruptcy procedure, the bank is considered distressed.

Timing

Defining a variable ‘timing of distress’ is intrinsically difficult: the very definition of distress is not clear cut, and pinning down any exact date would always be partial. Nonetheless, even just for operational use, such as ordering the events chronologically or providing a graphic representation, it is important to make the best choice possible given the sources available. As all subjective archival research, a number of caveats apply to this reconstruction: see Appendix D for a thorough discussion.

If a bank files for bankruptcy, ‘timing of distress’ is taken from the bankruptcy dataset. If a bank is put into voluntary liquidation, ‘timing of

²⁹ I.e. after paying off all debts, less than 50% of capital could be reimbursed to shareholders. The dataset also has two variables that use a different threshold: all liquidations considered distressed regardless of the final percentages, and all liquidation paying at least 70% of total capital. Using these definitions does not change meaningfully the results.

distress' is the day the liquidation starts. If a bank ceases to collect deposits, but banking supervision documents show that this was just a way to deal with distress without banking supervision interference, 'timing of distress' is the day the bank announces the stop of deposit-taking activity and the reimbursement of existing depositors.

Defining 'timing of distress' for banks that are rescued by a third party is more challenging. It is very difficult to find a consistent estimate for the timing of interventions, given that rescues were organised *ad hoc* and could take place through different legal devices. Therefore, 'timing of distress' is the day the solution became 'official': (i) for distressed mergers, the day the merger was authorised by Ministerial decree; (ii) for capital injections, the day the capital raise was probated by the Tribunal; (iii) for government grant subsidies, the day the agreement between the bank and Italian public authorities was signed, or the day of issue of the secret decree authorising the money transfer taking place.³⁰

Final dataset

The archival research allows to further cut down the list of banks.³¹ Out of 602 banks identified, 85 more banks are excluded because archival documents revealed one of the following cases: (i) the bank actually stopped being in trade before December 1926; (ii) the bank never collected deposits from the public;³² (iii) the bank is recorded as a cooperative or ordinary joint-stock bank in Cerrito (1996) but, in fact, it belonged to a different legal category; (iv) the bank was never actively in trade; (v) the bank was never officially registered. Table A1 presents the final classification of the initial sample of 1,371 banks taken from Cerrito (1996): the final dataset has 517 observations, while 854 banks are excluded.³³

³⁰ For Banca Commerciale Italiana, Credito Italiano and Banco di Roma, timing is the day the agreement with the government was signed. For Banca Nazionale di Credito, Banco S. Alessandro, Credito Toscano, Banca Cattolica Vicentina, Banca S. Spirito, the date they were merged with other distressed banks. For Credito Adriatico, the day of the agreement with Banca Nazionale del Lavoro. For Credito Fondiario Sardo, the day Istituto di Ricostruzione Industriale is authorised to buy its shares. For Banca Nazionale dell'Agricoltura, Banca di Fratamaggiore and Banca del Sud the day the capital was written-off and replenished.

³¹ In fact, at all stages the whole archival research was characterised by a continuous feedback loop.

³² The rationale for excluding these banks is that credit institutions that did not collect deposits from the public were not considered "bank" according to the 1926 banking law and were not registered in the Official Register of credit institutions (*Albo delle aziende di credito*).

³³ The archival references associated with each bank name are available in the section after the bibliography.

The dataset on distressed joint-stock banks includes 517 observations, of which 270 are ordinary joint-stock banks and 247 are cooperative joint-stock banks. The first distress recorded is on 15th January 1927 and the last on 31st December 1936. In fact, the dataset includes 105 banks that stopped being in trade during this period even though archival documents do not present evidence of distress. The dataset also includes 3 banks that could be classified neither as distressed nor non-distressed. Banks classified as distressed are thus 409. Table 1 shows all variables available in the dataset. For each bank, the dataset contains three sets of information. (a) Standard information on the name, legal category, establishment year, municipality and province of the headquarters; (b) balance sheet information on total assets, deposits, correspondent accounts, capital, reserves, and the date the data refer to; (c) distress information on the timing, outcome, distress category, and brief explanatory notes. Table 2 presents a tabulation of ‘Outcome’ and ‘Distress Category’. The string variable ‘Distress notes’ briefly summarises why the bank was considered distressed. The framework used to classify ‘Outcome’ and ‘Distress Category’ is in Figure B3.

Tab. 1. *Variables of distress dataset*

| <i>Variable</i> | <i>Missing values</i> | <i>Variable</i> | <i>Missing values</i> |
|---------------------------|-----------------------|--------------------|-----------------------|
| Standard information | | | |
| Bank name | 0/517 | Municipality of HQ | 0/517 |
| Bank category | 0/517 | Province of HQ | 0/517 |
| Establishment year | 19/517 | | |
| Balance sheet information | | | |
| Assets | 14/517 | Capital | 15/517 |
| Deposits | 15/517 | Reserves | 22/307 |
| Correspondents | 21/517 | Balance sheet date | 14/517 |
| Distress information | | | |
| Outcome | 0/517 | Distress notes | 0/517 |
| Distress category | 3/517 | Timing of distress | 0/517 |

Tab. 2. *Tabulation of 'Outcome' and 'Distress Category' in distress dataset*

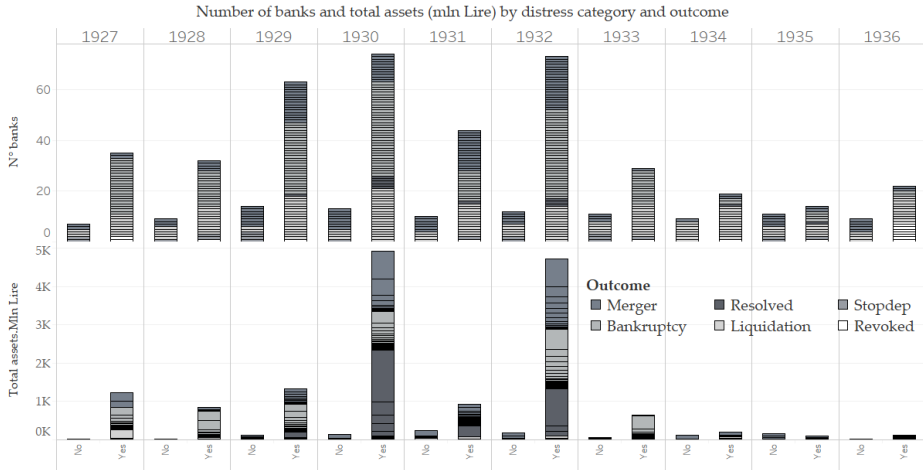
| <i>Outcome</i> | <i>Count</i> | <i>Percent</i> | <i>Distress Category</i> | | |
|--------------------------------|--------------|----------------|--------------------------|-----|-------|
| | | | No | Yes | n. a. |
| Liquidation | 170 | 32.9% | 44 | 126 | 0 |
| Bankruptcy | 169 | 32.7% | 0 | 169 | 0 |
| Merger | 127 | 24.6% | 46 | 80 | 1 |
| Ceasing collection of deposits | 20 | 3.9% | 15 | 5 | 0 |
| Charter revoked | 16 | 3.1% | 0 | 16 | 0 |
| Resolved [Restructuring plan] | 13 | 2.5% | 0 | 13 | 0 |
| Foreign branch closed | 2 | 0.4% | 0 | 0 | 2 |
| Total: | 517 | 100% | 105 | 409 | 3 |

2. DESCRIPTIVE ANALYSIS

Discussing the timing of distress is necessarily tentative given the shortcomings discussed in Appendix D. However, as Figure 1 shows, the trend of bank closures and distress matches quite nicely that of bankruptcies found by Molteni (2020), suggesting that the bias should not be huge. The trend presents a bimodal distribution, and the two spikes are more evident when looking at assets rather than the number of banks. Distressed banks in the late 1920s are – on average – smaller than distressed banks in 1930-1932, while distressed banks in 1933-1936 are even smaller than those in the late 1920s. The bulk of mergers and resolution interventions took place in 1930 and 1932.³⁴ Therefore, the absence of bankruptcies after 1933 found in Molteni (2020) should not be imputed to a systemic resolution of distressed banks, but to an effective decrease of bank distress. Looking at the size of non-distressed banks, it emerges that the process of healthy consolidation involved only smaller banks, with no major healthy banks being absorbed. Furthermore, the number of non-distressed closures is quite stable over time, while that of distressed banks is more volatile.

³⁴ The bulk of the rescue interventions in 1930 happened in December, artificially reducing the number of bankruptcies in the following year. This helps explain the bimodal distribution with a lack of failures in 1931, known as the worst year for banking in interwar Europe. For a further discussion of this bimodal distribution see MOLTENI (2020).

Fig. 1. Bank closures and distress of SOC and BP 1927-1936.



Notes: all SOC and BP in dataset displayed - both distressed and non distressed closures: yes (Distress) no (No distress).

The magnitude of banking distress measured by total assets, deposits plus correspondents, and capital plus reserves is presented in Table 3 and Figure 2. Table 3 compares the total assets of distressed banks with the respective bank category and the total banking system. Figure 2 presents the classification of banks by distress and legal category as well as their total assets. Note that only the 517 banks included in the final list discussed in section 2.3 are displayed. Thus, the category ‘Non-distressed closures’ excludes non-distressed banks still active in 1936.

Once distressed but not bankrupt banks are considered, the crisis that Italian joint-stock banks experienced is revealed to be much larger than a narrow focus on bankruptcies would suggest. Even excluding the big four from the numerator while leaving them in the denominator, the total assets of distressed banks is 20% of the whole banking system. According to the classic taxonomy of ‘systemic banking crises’ proposed by Laeven and Valencia (2018), 20% is considered a threshold that would qualify a banking crisis as ‘systemic’. In the case of interwar Italy, this threshold is confidently exceeded because the distress of private bankers and partnerships (DB) and other bank categories is not included in the figures.³⁵ Excluding the big four

³⁵ According to MOLteni (2020), total assets of private bankers and partnerships going through bankruptcy procedure were 1,005.19 mln Lire. If we add this figure to the total as-

from the SOC shows that 60% of assets owned by other ordinary joint-stock banks belonged to banks in distress. The figure is lower, but still high, for BP, this being 31.1%. Of course, once the total assets of the big four are considered, the magnitude of the crisis is impressive, almost reaching 50% of the total banking system.

Tab. 3. *Share of balance sheets of distressed SOC and BP in 1927-36 on 1927 totals*

| Category | Total Assets | | Deposits and correspondents | | Capital and reserves | |
|--|--------------|--------|-----------------------------|--------|----------------------|--------|
| a) Distressed BP | 2,877.18 | | 2,450.35 | | 195.25 | |
| b) Distressed SOC | 12,146.85 | | 9,170.85 | | 1,228.32 | |
| c) Total | 15,024.03 | | 11,621.20 | | 1,423.57 | |
| | Total 1927 | %Share | Total 1927 | %Share | Total 1927 | %Share |
| d) All BP | 9,249.10 | 31.1% | 8,211.40 | 29.8% | 683.20 | 28.6% |
| e) All SOC | 41,556.20 | 29.2% | 31,271.50 | 29.3% | 4,538.80 | 27.1% |
| f) SOC (no big four) | 19,655.96 | 61.8% | 15,125.24 | 60.6% | 2,168.80 | 56.6% |
| g) All credit institutions | 75,143.30 | 20.0% | 57,757.00 | 20.1% | 8,033.50 | 17.7% |
| h) BP + SOC (no big four) | 28,905.06 | 52.0% | 23,336.64 | 49.8% | 2,852.00 | 49.9% |
| Shares as above but including big four | | | | | | |
| i) Distressed Big4 | 21,900.24 | | 16,146.26 | | 2,370.00 | |
| j) Distressed SOC and BP | 15,024.03 | | 11,621.20 | | 1,423.57 | |
| k) Total | 36,924.27 | | 27,767.46 | | 3,793.57 | |
| | Total 1927 | %Share | Total 1927 | %Share | Total 1927 | %Share |
| l) All SOC and BP | 50,805.30 | 72.7% | 39,482.90 | 70.3% | 5,222.00 | 72.6% |
| m) All credit institutions | 75,143.30 | 49.1% | 57,757.00 | 48.1% | 8,033.50 | 47.2% |

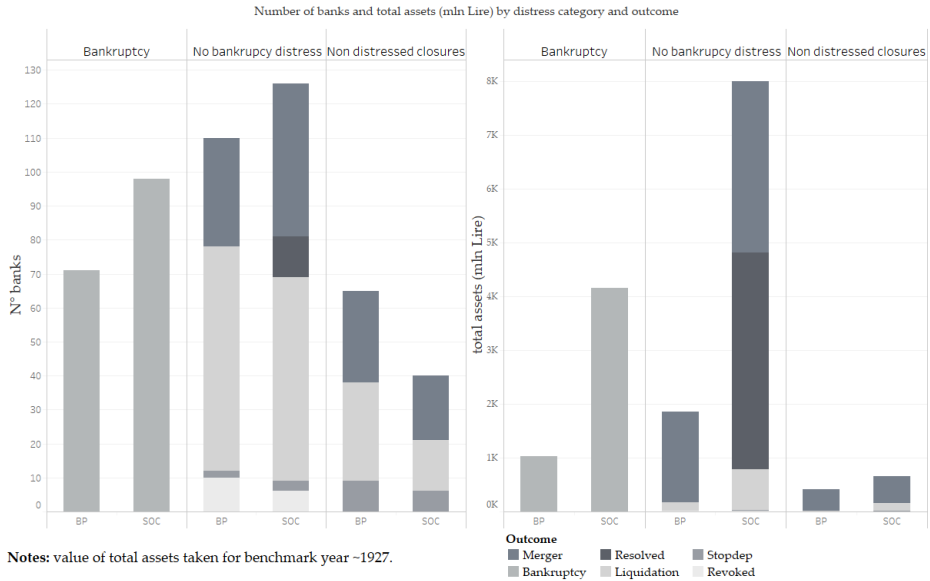
Note: all figures are in mln Lire.

Sources: see text; Cotula *et al.* (1996); Natoli *et al.* (2016).

Disentangling the figures of bankrupt banks from the rest of the banking distress shows that, measured by total assets, the magnitude of distressed but not-bankrupt banks is twice as high as that of bankrupt banks only. Therefore, focusing on bankrupt banks captures only 1/3 of actu-

sets of distressed SOC and BP (15,024.03 mln Lire), the total is 21.4% of the whole banking system.

Fig. 2. Bank closures and distress of SOC and BP (1927-1936).



al banking distress. The same proportion is not true looking at the number of banks, and this result is driven chiefly by distressed mergers and resolved banks (Table 4): merged and resolved distressed banks were, on average, larger than bankrupt ones. By contrast, banks filing for voluntary liquidations were smaller than mergers, this being true for both distressed and non-distressed categories. Bank in the last two categories, 'Charter revoked' and 'Stop collection of deposits', were few and almost negligible in size, and thus not displayed in Table 4.

Most banks ceasing their activity between 1927 and 1936 were, in fact, distressed, the total of non-distressed closures being only 105, roughly a fifth of the banks considered. In terms of assets, the largest part of these healthy closures took the form of mergers. Remarkably, the number of BP is higher than SOC, whereas, for the other two categories, the number of SOC is higher. This finding suggests that BP were more resilient than SOC during the crisis – but delving further into this interesting hypothesis is left to future research.

Tab. 4. Descriptive statistics of distressed SOC and BP by type of distress

| Outcome | Bank cat. | Distress | Obs. | Total assets | | | Deposits and correspondents | | | Capital and reserves | | |
|-------------|-----------|----------|------|--------------|--------|--------|-----------------------------|--------|--------|----------------------|-------|--------|
| | | | | Sum | Mean | Median | Sum | Mean | Median | Sum | Mean | Median |
| Bankruptcy | BP | Bankrupt | 71 | 1,024.98 | 14.64 | 4.50 | 864.23 | 13.50 | 3.83 | 59.71 | 0.92 | 0.36 |
| Bankruptcy | SOC | Bankrupt | 98 | 4,151.56 | 42.80 | 14.87 | 3,366.72 | 35.07 | 8.21 | 334.91 | 3.56 | 1.90 |
| Liquidation | BP | Distress | 66 | 159.75 | 2.46 | 0.54 | 107.17 | 1.65 | 0.39 | 13.98 | 0.22 | 0.08 |
| Liquidation | BP | No dist. | 29 | 28.19 | 0.97 | 0.21 | 22.66 | 0.78 | 0.11 | 2.38 | 0.08 | 0.04 |
| Liquidation | SOC | Distress | 60 | 739.59 | 12.75 | 3.69 | 451.75 | 7.79 | 1.75 | 157.31 | 2.71 | 0.82 |
| Liquidation | SOC | No dist. | 15 | 141.82 | 10.13 | 4.69 | 90.74 | 6.48 | 2.89 | 25.82 | 1.84 | 1.04 |
| Merger | BP | Distress | 32 | 1,664.01 | 52.00 | 12.36 | 1,442.64 | 45.08 | 8.05 | 119.95 | 3.75 | 0.98 |
| Merger | BP | No dist. | 27 | 386.07 | 15.44 | 4.63 | 341.14 | 13.65 | 3.63 | 15.78 | 0.63 | 0.24 |
| Merger | SOC | Distress | 45 | 3,174.54 | 70.55 | 24.75 | 2,391.51 | 53.14 | 20.68 | 344.61 | 7.66 | 1.81 |
| Merger | SOC | No dist. | 19 | 495.43 | 27.52 | 13.76 | 404.45 | 22.47 | 6.76 | 49.89 | 2.77 | 1.86 |
| Resolved | SOC | Distress | 12 | 4,034.28 | 336.19 | 177.41 | 2,930.33 | 244.19 | 155.27 | 384.04 | 32.00 | 11.80 |

Note: all figures in mln Lire.

Sources: see text.

DISCUSSION AND CONCLUSIONS

This paper documents the reconstruction of a new dataset on 517 individual Italian joint-stock banks in 1926-1936. Building on the work of Cerito (1996), for each bank, the dataset has standard information (name, location, age, type of bank), balance sheet information for a benchmark year (total assets, deposits, correspondent accounts, capital, and reserves), and information on distress (distress, timing, outcome, and a brief note). The data provide the first all-embracing account of the distress of small and medium banks before and during the Great Depression. This fills an important historical gap since previous research has chiefly focused on the crisis of large universal banks. One important innovation of this work is that it relies on classified documents from coeval banking supervisors to distinguish outright failures (i.e. bankruptcies) from resolved distress. It also identifies which bank closures should not be considered due to distress but reflected a process of healthy consolidation.

Once a broader and more accurate definition of banking distress is considered, the magnitude of the balance sheets of Italian commercial banks would qualify it as a systemic banking crisis even by today's standards (Laeven and Valencia 2018). Outright distressed closures, i.e. bankruptcy, only explain 1/3 of total distress, showing that an active banking resolution policy took place in these years. Considering hidden banking distress changes the previous estimates of bank failures presented in Molteni (2020) but does not affect the highlighted timing trend. This work confirms the relevance of the early problems of Italian banks in the late 1920s. Many small banks experienced distress in the early period, but banks experiencing distress later were, on average, considerably larger.

There are several ways in which future research can build on this dataset. One limitation of this research is that the hidden distress of private bankers and partnerships (DB) and saving banks (CRO) are not included in the reconstruction presented here. Future research expanding this work to include these banks is undoubtedly welcome. When one accounts for these banks, the final figure of banking distress will be even higher than that presented here, as their exclusion bias downwardly my estimates. Future research should also address the drivers of the resolution process: was the resolution politically motivated? What was, if any, the resulting political economy among various regions? Research on the geographical distribution and the potentially asymmetric real effects of bank failures (and rescues) seem particularly promising.

APPENDIX A: TABLES

Tab. A1. Classification of 1371 banks in the initial sample from Cerrito (1996)

| <i>Outcome</i> | <i>Count</i> | <i>Percent</i> | <i>Rationale for exclusion</i> | <i>Count</i> | <i>Percent</i> |
|--------------------------------|--------------|----------------|--|--------------|----------------|
| Liquidation | 170 | 12.4 | Before Dec 1926 | 42 | 3.06 |
| Bankruptcy | 169 | 12.33 | Never collected deposits | 24 | 1.75 |
| Merger | 127 | 9.26 | Not a BP/SOC | 14 | 1.02 |
| Ceasing collection of deposits | 20 | 1.46 | Inactive | 3 | 0.22 |
| Charter revoked | 16 | 1.17 | Not registered in Albo | 2 | 0.15 |
| Distress resolution | 13 | 0.95 | Alive and healthy in Dec 1936 | 505 | 36.83 |
| Foreign branch closed | 2 | 0.15 | No archival info (closed before Jan 27?) | 264 | 19.26 |
| Sub total | 517 | 37.71 | Sub total | 854 | 62.29 |
| Total | 1,371 | 100 | | | |

Dataset: 517

Excluded: 854

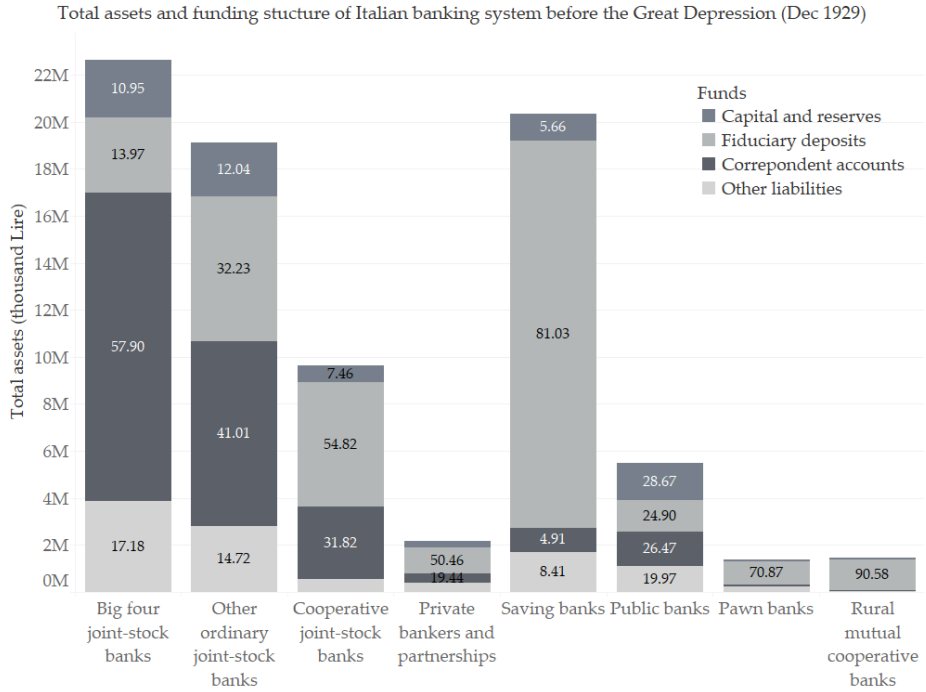
Tab. A2. Bank and postal deposits of Italian regions in 1929

| Region | Total deposits 1929 (mln) | Postal deposits 1929 (mln) | Bank deposits 1929 (mln) | Population 1931 (mln) | Total deposits per capita | Bank deposits per capita |
|------------------------------|------------------------------|-------------------------------|-----------------------------|--------------------------|------------------------------|-----------------------------|
| | | | | | | |
| Lombardy | 10,538.00 | 805 | 9,733.00 | 5.54 | 1,900.99 | 1,755.77 |
| Piedmont and Aosta | 7,355.70 | 1,868.00 | 5,487.70 | 3.45 | 2,131.69 | 1,590.34 |
| Veneto, Friuli and Giulia | 4,601.50 | 447 | 4,154.50 | 4.12 | 1,115.98 | 1,007.57 |
| Emilia Romagna | 4,051.30 | 273 | 3,778.30 | 3.22 | 1,258.77 | 1,173.95 |
| Tuscany | 3,700.10 | 398 | 3,302.10 | 2.89 | 1,279.26 | 1,141.66 |
| Lazio | 2,855.70 | 705 | 2,150.70 | 2.41 | 1,185.95 | 893.17 |
| Sicily | 2,777.60 | 836 | 1,941.60 | 3.9 | 712.78 | 498.25 |
| Campania | 2,504.80 | 1,008.00 | 1,496.80 | 3.51 | 713.67 | 426.47 |
| Liguria | 2,382.30 | 747 | 1,635.30 | 1.44 | 1,657.88 | 1,138.03 |
| Calabria | 1,115.20 | 443 | 672.2 | 1.67 | 668.2 | 402.77 |
| Apulia | 1,047.40 | 333 | 714.4 | 2.49 | 421.22 | 287.3 |
| Abruzzi and Molise | 1,008.80 | 456 | 552.8 | 1.5 | 673.18 | 368.89 |
| Trentino Alto Adige | 996.4 | 26 | 970.4 | 0.66 | 1,509.38 | 1,470.00 |
| Marche | 949.7 | 99 | 850.7 | 1.22 | 779.88 | 698.59 |
| Umbria | 437.6 | 77 | 360.6 | 0.69 | 630.48 | 519.54 |
| Sardinia | 350.7 | 175 | 175.7 | 0.97 | 360.39 | 180.55 |
| Basilicata | 340.8 | 215 | 125.8 | 0.51 | 671.2 | 247.76 |

Sources: Molteni (2020).

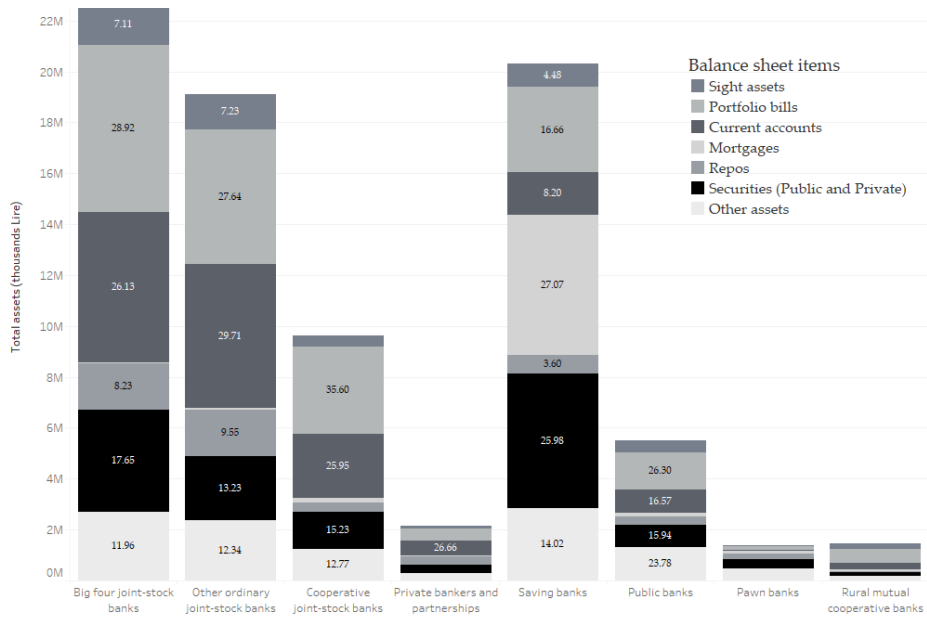
APPENDIX B: FIGURES

Fig. B1. Italian banking system by main categories: Total liabilities.



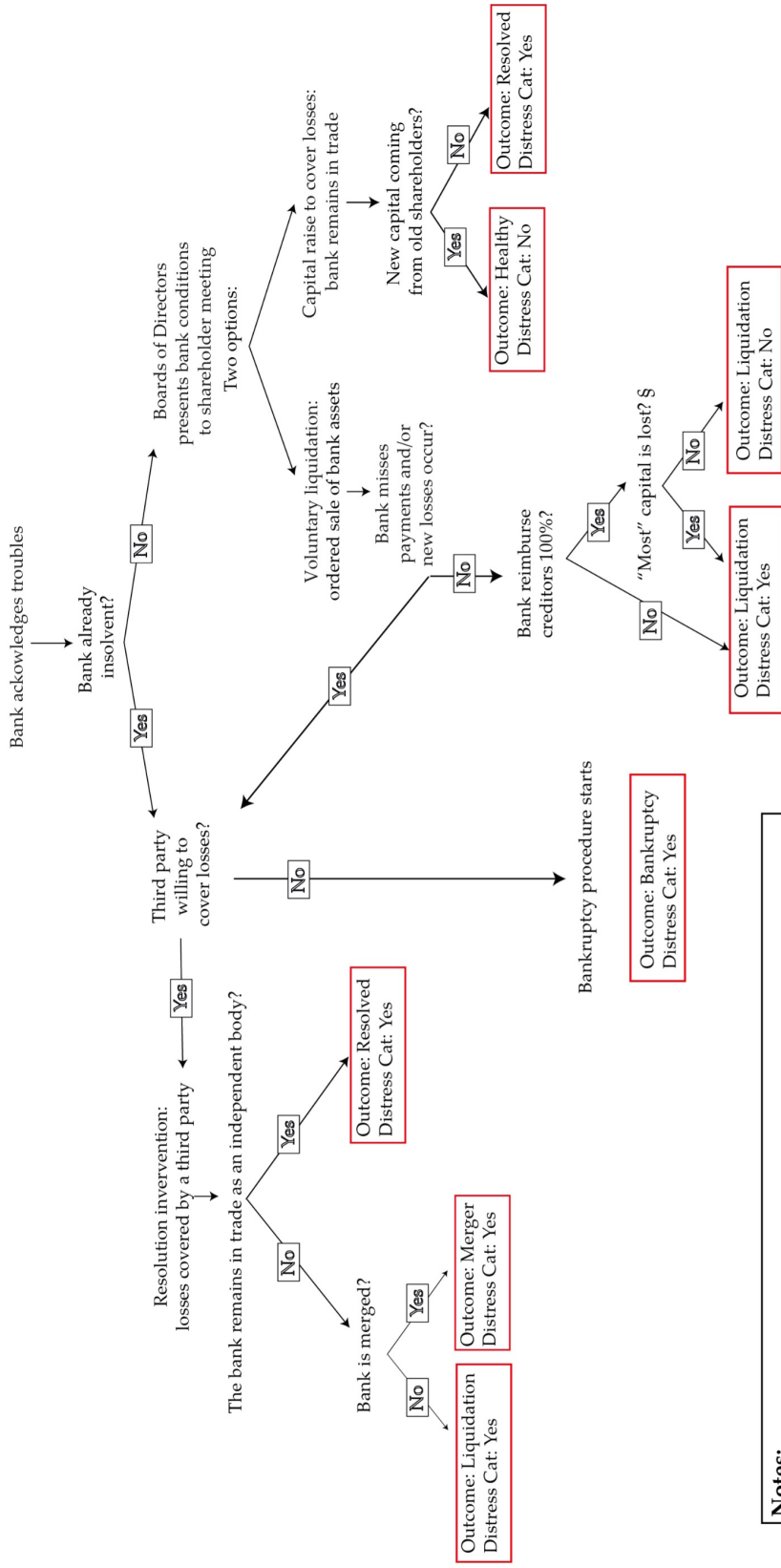
Sources: Cotula et al. (1996) and Natoli et al. (2016)

Fig. B2. Italian banking system by main categories: Total assets.



Sources: Cotula et al. (1996) and Natoli et al. (2016)

Fig. B3. Framework used in the archival work to classify distressed SOC and BP.



Notes:
 To avoid to overcomplicate the infographic, only most relevant and frequent outcomes are displayed.
 \$ the cut-off for "most" is: losses \geq 50% of paid-up capital. 'Distress notes' allow to create different cut-offs.

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