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Marco Molteni[*] and Dario Pellegrino[**]

Abstract

In this paper, we describe the establishment and assess the relevance of banking supervision in Italy between 1926 and 1936. This case is particularly interesting from the international perspective, Italy having been the first European country to assign substantial supervision to its central bank, a few years before the 1929 crisis. Notwithstanding insufficient regulation and a light touch concerning the four major mixed banks, we document considerable enforcement of the law, which went beyond the initial provisions, thanks to the rather proactive supervisory approach adopted by the Bank of Italy. We point out a significant impact on the banking system: systematic archival analysis reveals that supervision fostered capital accumulation and mitigated lending concentration. Preliminary evidence suggests that supervision information enhanced effective lending of last resort during the crisis. Our educated guess is that, in the absence of the new supervisory set-up, the severity of the financial turmoil in the early 1930s in Italy would have been much fiercer, especially for small and medium-sized banks.

JEL Classification: N20, N24

Keywords: banking supervision, capital requirements, banking history, lending of last resort

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1. **Introduction**[1]

Effective banking supervision, joint with related regulation, is acknowledged as a key ingredient of financial stability. What, how, and even who should supervise the banking sector have been long discussed issues in the policy debate. In this respect, the regulatory and supervisory shortcomings of the 2007 subprime crisis have paved the way for a renewed interest in the insights that historical perspective could offer. The mandate of financial stability underlying banking authorities' intervention has grown and evolved over time, not always in the same direction (Toniolo and White 2015), following long-run economic trends, intertwined with financial innovations and crises. Most of the existing literature focuses on changes in the regulatory regimes, while fewer studies focus on supervision per se (Eisenbach, Lucca and Townsend 2020). Banking regulation and supervision have often been implicitly treated as synonymous. Nevertheless, the mechanics of the supervision regime enforcement might be no less relevant than the formal regulation. This is a point where the contribution of economic history could be particularly valuable, as current or recent past supervision files are still classified because of confidentiality, limiting their use for research purposes.

In this paper, we describe the establishment of supervision on commercial banks in Italy between 1926 and 1936 and provide an assessment of its impact. From an international perspective, the Italian case is particularly interesting, as the set-up of the supervisory activity happened earlier than most of the other Western countries, and a few years before the outburst of the Great Depression (Grossman 2010). Before the latter, the prevailing international consensus regarded price stability (gold convertibility) as a sufficient condition for financial stability. From the 1930s onwards, the consensus radically turned around, both in Italy and in the Western world, steering towards a pervasive public control over the banking sector, ensuring several decades of banking stability, although at the cost of financial repression. Italy in the late 1920s is a time window when banking supervision rationale resembles the currently prevailing one, which should ensure "sound and prudent" management and risks mitigation, whilst not undermining banks entrepreneurial freedom or directing credit allocation for public purposes.

Our first contribution is historical, as we fill a gap in Italian financial history, by providing a thorough description of the establishment of bank supervision in Italy after the 1926 banking law. Existing literature has focused on the shortcomings of the 1926 law, lamenting lax regulation, which did not tackle dangerous bank-industry linkages and the lack of in-site supervision to major mixed banks (Gigliobianco and Giordano 2012). This view stems from the fact that scholars have chiefly focused on the 1936 all-embracing law, which filled the regulatory gaps of the 1926 law and opened the way to several decades of a strong public grip on the banking sector (Barbiellini Amidei and Giordano 2015). While we maintain the relative truth of these shortcomings, we provide a broader picture showing how enforcement of the law went beyond the initial provision, thanks to constructive ambiguity

[1] The views expressed in this paper are those of the authors and do not necessarily reflect those of the Bank of Italy. We thank Brian A'Hearn, Federico Barbiellini Amidei, Paolo di Martino, Eric Monnet, Lanfranco Suardo, Mauro Rota, Gianni Toniolo, Maurizio Trapanese, participants to Associazione per la Storia Economica (ASE) Annual Meeting, Rome September 2021, Humboldt University Online Research Colloquium, June 2021, and one anonymous referee for useful suggestions. We also thank Alberto Baffigi, Elisabetta Loche, and Renata Martano for guidance and assistance in archival research, and Eleonora Costantino for editorial assistance.

and an active "supervisory approach" undertaken by the Bank of Italy (BoI), pointing to significant effects on small and medium-sized commercial banks.[2] In particular, we observe that supervision-backed regulation boosted capital accumulation and mitigated risk concentration amongst small and medium-sized banks in the years preceding the outburst of the 1929 crisis. In short, albeit highly imperfect, the new regulation and the related supervisory activity mattered and, without it, the Italian post-1929 financial scenario would likely have been even worse.[3]

In the light of this, as a second contribution, we wish to add to the contemporary policy debate in a broader perspective, in the spirit of a recent strand of historical research on the evolution of banking supervision (Mitchener and Jaremski 2015; White 2011, 2013; Gigliobianco and Toniolo 2009; Giddey 2019; Calomiris and Carlson 2017, 2018; Hotori and Wendschlag 2019; Conti-Brown and Vanatta 2021). Over the course of this analysis, we encountered issues that are still a matter of academic debate: like whether or not the central bank should be the supervision authority (Ampudia *et al.* 2019), the trade-off between disclosure to the public and to the supervisor (Prescott 2008), the reliance on market discipline rather than on pervasive public control, the extent to which the supervisor should be bounded by the textual rule content, or rather enjoy discretionary capacity (Mishkin 2001; White 2011, 2013), and the trade-off in supervisory resources allocation among different categories of banks (Eisenbach, Lucca and Townsend 2020). Also, our paper can be associated with recent research assessing the impact of supervision on credit quality and risk mitigation (Hirtle, Kovner and Plosser 2020; Passalacqua *et al.* 2020). This paper also contributes to a recent stream of economic history literature focusing on credit rationing in lender of last resort functions (Bignon, Flandreau and Ugolini 2012) which has drawn the attention of modern policy institutions such as central banks (Jobst and Rieder 2016; Anson *et al.* 2019). In this respect, we saw that the high-quality information produced by supervision activity was employed by the BoI in order to ease the asymmetry of information problem that arose in performing lender of last resort actions under the monetary constraints of the Gold Standard.

The third contribution of our analysis is methodological. On the one hand, we explore banking supervision archives in a qualitative-narrative approach to analyze the operation of the supervision mechanisms and crisis management of distressed banks. On the other hand, and perhaps more interestingly, we systematically exploit this source to draw quantitative evidence on the enforcement of capital and risk concentration requirements. Using balance sheet data from Natoli *et al.* (2016), we select a sample of weakly capitalized banks, and, after processing individual archival files, we detect whether the new supervision-backed provisions induced capital accumulation or risk concentration reduction. To the best of our knowledge, this is the first paper to draw evidence from systematic qualitative analysis of individual bank files from supervision historical archives.

[2] In the context of this paper, with "small and medium-sized commercial banks" we refer to all joint-stock banks excluding the "big four" (Banca Commerciale Italiana, Credito Italiano, Banco di Roma, and Banca Nazionale di Credito).

[3] The number of bank closures due to insolvency was not particularly high in this period, but there is evidence that a large part of the distress of small and medium commercial banks was resolved behind doors (Molteni 2020, 2021).

The paper is structured as follows. The second section describes the historical context, the economic and political factors behind the new banking law, and how lobbying pressures brought to a watering down of its regulatory content. The third section describes the organizational structure and the functioning of the newborn supervision mechanisms, focusing both on on-site and off-site supervision. The fourth section assesses the effect of the new regulation and supervision on capital accumulation and risk concentration, the main regulatory provisions of the new law. The fifth section traces the link between supervision information and the management of distressed banks during the crisis, in particular concerning the BoI's lender of last resort functions. The last section summarizes our findings and concludes.

2. The context and the making of a watered-down law

"Before 1926, an authorization from the public authority was required to open a cheap tavern, but in order to open a bank, which may scam depositors, no authorization was needed".[4] These suggestive words, taken from the Economic Commission report to the 1946 Italian Constituent Assembly, reveal how, until the 1920s, Italy lacked not only any supervisory mechanisms but even a specific regulation on not-issuing commercial banks, whose regulation was assimilated to common firms (Guarino and Toniolo 1993). The exception was given by saving banks and pawn banks, who were under the Ministry of Agriculture, Industry, and Commerce's supervision, and had to invest in low-risk assets like government bonds.[5] These banks usually collected deposits from poorer and less educated depositors, regarded as less apt to assess the soundness of financial institutions. Apart from that, the established consensus, both among the public opinion and economists, was to rely on market discipline for depositors' protection. All in all, gold convertibility was regarded as the necessary and sufficient condition for financial stability (for a discussion on the evolution of economic thought in Italy on banking legislation, refer to Gigliobianco and Giordano 2012).

From 1908 onwards, several laws were proposed by members of the Italian parliament or government in order to regulate commercial banking.[6] Among the many projects, the separation between commercial and investment banking (Francesco Cocco-Ortu[7] project, 1908) and prudential supervision on capital and risk concentration requirements (Eugenio Chiesa 1920) were proposed. Yet, none of these projects ever managed to be approved, although they signal a growing demand in political circles for regulating the banking sector. That was linked to the gradual emergence of the role of lender of last resort by the BoI, which justified a more specific regulation for banking. In this matter, Italy was not an exception with respect to the rest of Europe, as all main European countries lacked substantial regulation on

[4] Ministero per la Costituente (1946), 'Interrogatorio del prof. Giovanni Nicotra', in Rapporto della Commissione Economica, IV, Credito e Assicurazione, II, Appendice alla relazione, p. 111.
[5] Under Legge 15 luglio 1888, n° 5546, subsequently reformed in 1927-1931: Regio Decreto Legge 10 febbraio 1927, n° 269; Testo Unico 25 aprile 1929, n° 967; Regio Decreto 5 febbraio 1931, n° 225. Some limitation on saving banks branching was imposed in 1923 to prevent saving banks to open branches in municipalities where another saving bank was already operating (Regio Decreto Legge 21 ottobre 1923, n° 2413).
[6] For a detailed account of these projects, refer to Cajani (1938) or Gigliobianco and Giordano (2012).
[7] Member of the Low House.

banking, as the financial stability mandate was usually limited to price stability.[8] Indeed, the same critics of public intervention in banking argued how it was deemed as sheer nonsense in advanced economies (Prato 1920).

Then, a sweeping expansion of banking activity characterized the 1920s. The need to finance war expenses had led to money circulation growth, which ignited the demand for deposits. The number of bank branches grew from 4,227 to 6,012 between 1913 and 1920, and by 1926 it had skyrocketed to 11,444 (Biscaini Cotula and Ciocca 1979). From 1913 to 1925, joint-stock banks nominal assets grew twelvefold, doubling in real terms. On the other side, cooperative and savings banks assets growth was in line with overall inflation. Leverage also increased as a consequence of war inflation (Conti 2004).

De Cecco (1986) interprets this sweeping growth of banking activity as a "democratization" of deposit taking, i.e. its progressive extension toward the middle class. Notwithstanding, these dynamics had clear shadows, with the emergence of the so-called "wildcat banking", engaged in risky and opaque activities (Conti 2004). In the words of the Governor of the BoI, Bonaldo Stringher:

> "the complete lack of any banking regulation allowed the establishment of a multitude of banks with little or trifling capitals and their mushrooming in small and large cities through improvised networks of branches, with the specific aim of collecting deposits that often ended up in dreadful speculations".[9]

Interestingly, over the years Stringher's view on the need for banking regulation had significantly changed: still in 1911, he maintained that self-regulation, driven by attentive depositors and public opinion supervision, was the most effective way to ensure depositor protection (Calabresi 1996).

Not surprisingly, the main financial reforms in Italian history have been triggered as policy responses to financial crises (Gigliobianco and Giordano 2012). The 1926 law can be associated with the distress of Banca Italiana di Sconto (BIS), one of Italy's main banks in the early 1920s. BIS was dangerously linked to Ansaldo industrial group and its growth and distress were driven by military procurements during WWI and their end after the peace treaty (Sraffa 1922). The distress had strong effects on public opinion, provoking up-raged protests by banks' creditors. The BoI eventually intervened to liquidate BIS' assets. At any rate, the crisis seems a turning point on the common perception of the need for banking supervision. BIS was an exemplary case of the morbid linkages between universal banks and industrial firms. In particular, that was the well-known case of the major mixed banks (Credito Italiano, Banca Commerciale and Banco di Roma), but this governance issue also deeply affected medium and small-sized banking (Battilossi 2009; Robiony 2018; Rinaldi and Spadavecchia 2019). At the same time as the BIS's distress management in 1923, a new banking bill was drafted, most likely internally, by the BoI (Guarino and Toniolo 1993; doc. 66). The bill encompassed a comprehensive regulatory and supervisory mechanism but, like other projects before, it was aborted.

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[8] One notable exception was Sweden, where banking supervision was not performed by the central bank, but the Ministry of Finance.

[9] Banca d'Italia (1928), p. 56.

A few years later, the political scenario was more prone to public intervention. Benito Mussolini, which had become prime minister in 1922 amid severe political and economic instability, consolidated his power into an outright dictatorship by 1925. Post-war economic troubles, like unchecked inflation and public deficit, were being resolved. A major objective of the new regime was, similarly to other European countries, to proceed towards the return of gold convertibility (which took place in 1927). Increasing public control on a disorderly growing banking sector was seen as a necessary step to pursue monetary stabilization.[10] As a result, 1926 was a key year in the development of what we currently view as the modern functions of a Central Bank in Italy. In June 1926, money issuing was centralized by the BoI.[11] Over the same period, the BoI started to work on a law proposal to regulate all deposit-taking institutions.

An initial draft of the new law was sent to the Minister of Finance at the end of January 1926.[12] In the following months, a second more detailed project was prepared,[13] evolving finally into the final royal decree in September (Regio Decreto Legge 7 settembre 1926, n° 1511)[14] and its implementing decree in November (Regio Decreto 6 novembre 1926, n° 1830.[15] A public register of all deposit-taking institutions (*Albo delle aziende di credito*, henceforth *Albo*) was instituted at the Ministry of Finance. New banks, branch openings, mergers and acquisitions should be authorized by the Ministry, after the BoI advising. Minimum levels of capital were set according to the bank geographical area of operation.[16] Banks had to regularly send accounting reports[17] and balance sheets to the BoI, which was entrusted with supervisory powers. This power entailed inspecting supervised banks. Banks had to add to reserves at least a tenth of annual profits, up to 40 per cent of overall capital. The first decree left the definition of specific capital and risk requirements to a second implementing decree, which defined minimum levels of capital, a capital to deposits ratio and maximum exposure on a single lender for commercial banks.[18] It left the supervision of saving and pawn banks under existing legislation.[19] Rather small pecuniary sanctions were set for the infringement of these

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[10] The link between monetary stabilization and depositors is explicitly stated in the letter of Mussolini to Giuseppe Volpi of the 8 August 1926, doc. 88 in Cotula and Spaventa (1993).

[11] Until 1926, the BoI, although being in charge of most of the Italian money circulation, shared issuing rights with Banco di Napoli and Banco di Sicilia.

[12] Letter of Bonaldo Stringher to Giuseppe Volpi 10 February 1926, doc. 71 in Guarino and Toniolo (1993). The draft is reported in doc. 69 in the same reference. In this letter, Stringher states that the draft was a joint work of the same Stringher, Gustavo Bonelli (a BoI's lawyer), and Alberto Beneduce. From Bonelli notes, commenting on the first draft and suggesting revisions (doc. 68, *ibidem*), it seems that the same group of people wrote the second draft.

[13] Doc. 72 in Guarino and Toniolo (1993). The timing is uncertain, being around spring or summer of 1926.

[14] Doc. 76 in Guarino and Toniolo (1993).

[15] Doc. 81 in Guarino and Toniolo (1993).

[16] In particular, the minimum amount of capital, in Italian lire, was respectively: 50 mln to operate at the national level, 10 mln at the regional level, 5 mln at the provincial level for joint stock banks, while for provincial cooperative banks it could be reduced to 300 thousands.

[17] Here, we refer to these accounting reports as 'call reports', as these were the equivalent of the 'call reports' in the US banking system.

[18] The definition of "commercial banks" encompasses all profit-oriented institutions that accepted deposits, in particular ordinary-joint stock banks (*banche ordinarie*), cooperative joint-stock banks (*banche popolari*), and private bankers (*ditte bancarie*).

[19] Saving banks and pawn banks collecting deposits were under the supervision of the Ministry of National Economy since 188: Legge 15 luglio 1888, n° 5546; Regolamento 21 gennaio 1897, n° 43. New provisions for

requirements, while in extreme cases the authorization to collect deposits could be withdrawn. In Table 1, we show how the regulatory provisions evolved from the first law proposal in January to the definitive law in September-November 1926.[20] It is evident how the requirements were attenuated from the second to the final draft. The liquidity requirement to cover at least half of short-term liabilities with short-term assets was cancelled. The maximum exposure towards a single lender was increased from 15 to 20 per cent.[21] The minimum capital to deposits ratio was reduced from 10 to 5 per cent. Furthermore, banks had respectively 3 and 4 years to comply with the last two provisions, giving the discretion to the BoI to allow further extension in specific cases.

This overall "watering-down" of the legislative provisions can be easily attributed to lobbying pressures. We have explicit evidence of these pressures in the correspondence of the head of the Italian Banking Association (ABI), Giuseppe Bianchini, with Alberto Beneduce[22] and with the Minister of Finance.[23] Notwithstanding the recent banking crisis, Bianchini still supported market discipline as the sole effective protection for deposits holders. For Bianchini, no additional regulation would be needed, as the enforcement of existing ones would suffice. According to him, Government intervention in the banking sector would be not only ineffective, but also counterproductive: it would raise moral hazard issues in banking activity, and put bank management under the will of politicians or ministerial officers. Then, in case of distress, the responsibility would have fallen onto the Government. Regarding bank-industry linkages, Bianchini argued that Italian economic development still depended on universal banks financing. Also, Federico Flora, a notable scholar involved as a consultant for the new law project, shared Bianchini's skepticism about introducing new rules in the banking sector.[24] Later on, as the enactment of the law became certain, Bianchini moved toward a "lesser evil" strategy. This consisted of arguing for softening the new rules, introducing flexibility according to the type of bank, and assigning supervisory powers to the BoI.

Thus, the choice to appoint the BoI, rather than the Ministry of Finance, as the supervision authority stemmed from a direct request of the banking sector. This is remarkable, considering that the BoI was still a competitor of other banks.[25] Nevertheless, the BoI's involvement would have avoided the much distrusted political intrusion in the banking sector. Furthermore, it was expected to act more prudently in restricting banks deposit taking, as it would have endured its consequences in terms of additional demand for liquidity. The same

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saving banks were adopted with Regio Decreto Legge 10 febbraio 1927, n° 269 and Regio Decreto Legge 26 aprile 1929, n° 967. However, disclosure of balance sheet and call reports to the Bank of Italy and maximum lending exposure applied also to saving banks and pawn banks collecting deposits.

[20] Table A1 in the Appendix summarizes all final provisions of 1926 banking law.

[21] Note that this requirement was set for the first time in the 1923 draft, but with a lower threshold, at 10 per cent.

[22] Alberto Beneduce was a prominent public executive, and the main architect of the 1936 banking law. He participated in the 1926 banking law as a member of the committee in charge of it.

[23] A letter to Beneduce dates to the 2nd February. Two letters to Giuseppe Volpi dates to the 26th of August and the 2nd September. Minutes by Giuseppe Volpi Head of Cabinet, reporting Bianchini remarks, dates 26 September 1926. They are reported, respectively, as doc. 70, 74, 75 and 78 in Guarino and Toniolo (1993).

[24] Federico Flora's letter to Pasquale D'Aroma, 22 August 1926, doc. 73 in Guarino and Toniolo (1993).

[25] BoI's commercial banking activity was discontinued only in 1936.

Finance Minister, Giuseppe Volpi, called the appointing of the BoI as "cutting the Gordian knot".[26]

One of the few strengthening elements of the law, compared to the previous drafts, was a more explicit definition of the supervisory powers: banks had the "obligation to produce all documents to the officials required for the exercise of their powers". An ingenious interpretation of this provision significantly enhanced the enforcement of the law, as explained in the next sections. The first evidence of that can be traced in some correspondence between Bianchini and Stringher at the beginning of the supervision activity.[27] The former complained that banks were being requested a fine disaggregation about financial statements, consisting in almost a duplicate of internal accounts, apparently going beyond law requirements, which were *de jure* limited to capital ratios and risk concentration. Stringher replies that "financial statements […] are formed with the most different criteria, and in most cases they are so synthetic and incomplete to prevent those who read them from obtaining clear knowledge".[28] Thus, the BoI needed to ask for such detailed information in order to correctly assess regulatory compliance.

As it might be expected, the first few months were characterized by hostility towards the fledging supervision. Political police archival documentations report several complaints, mostly from anonymous informants (Polsi 2002): inspections would have been conducted with "incompetence", and had been creating panic among deposits holders. Niccolò Introna, the head of the supervision department, was described as narrow-minded, lacking any kind of "flexibility". A violent press campaign against Introna arose as a reaction to inspections involving the banks controlled by Alvaro Marinelli. Marinelli was an unscrupulous businessman heading an industrial-banking group with connections with prominent figures of the fascist Party, a case in point of the so-called "wildcat banking" (Conti 2004).[29] Later on, he was arrested for fraudulent bankruptcy.[30] Nevertheless, from late 1928, even evidence from political police signals a more favorable general attitude towards supervision (Polsi 2002).

While the interwar period and post-WWII years were characterized by a broad international tendency toward greater public intervention in the banking sector, Italy seems to anticipate this trend before 1929. How can this be explained? First, we have just mentioned the sweeping banking growth and major bank crisis. Second, a general trend might account for it: Grossman (2010) observes that Central Banks established relatively later usually started earlier to perform banking supervision. Countries like the UK and France, homes of worldwide financial hubs, did not undertake significant supervision, still maintaining a relative laissez-faire attitude on banking during the 1930s.[31] Accordingly, secularly established institutions

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[26] Doc. 77 in Guarino and Toniolo (1993).

[27] Bianchini's letter to Stringher, dating 19 July 1927, Stringher's letter to Bianchini, dating 23 July 1927, respectively doc. 178 and 138 in Guarino and Toniolo (1993). Bianchini sends this letter on behalf of Banca L. Marsaglia in Turin. See also ASBI, Vigilanza, prat. 1948, f. 1.

[28] Cit. letter from Stringher to Bianchini, 23rd July 1927, published also in Guarino and Toniolo (1993), doc. 138.

[29] Marinelli was close to the fascist leader Giuseppe Bottai.

[30] Note that, unlike in the Anglo-Saxton institutional context, in Italian legislation there was no distinction between bankruptcy and insolvency. Here, the term bankruptcy is used for any *procedura concorsuale* which applies to both companies' insolvency and personal bankruptcy.

[31] In France, banking supervision was introduced in the 1941 bank act under German occupation, which was confirmed and strengthened in 1945 (Quennouëlle-Corre and Straus 2010). UK introduced its first formal

like the Bank of England and the Bank of France would have had less flexibility to adapt to a changing economic environment compared to more recent ones, like the BoI.

In the sample of countries considered by Grossman (2010), Italy appears as the third European central bank to take on banking supervisory powers, a few years after two other countries at the economic periphery, Spain and Portugal.[32] However, Spain and Portugal's central banks did not undertake any kind of substantial supervision, nor in or off-site (Capie *et al.* 1994; Martín-Aceña, Pons and Betrán 2010). That would mean that Italy was the first European central bank enforcing banking supervision law in Europe. According to Guarino (Guarino 1993) even Italy's 1926 law may have remained on paper if it were not for the BoI's proactive and meticulous approach, which allowed the effective building-up of supervisory mechanisms in the long run.

3. The organizational setting

The set-up of the supervisory framework was marked by a detailed letter of instructions written in March 1927 by Stringher to the BoI's local branch directors.[33] A key aspect was a substantial degree of decentralization towards local branches. This was motivated by operational efficiency purposes and by the aim of taking advantage of locally available information. The aim to exploit information synergies between supervision and bank discounting (which we are going to discuss in section 5) was explicitly stated.

The operation of Italian supervision on commercial banks involved three sets of actors, as we display in Figure 1: supervised commercial banks, the BoI, and the Ministry of Finance.[34] In case of monetary sanctions or withdrawal of authorizations, the BoI's role was receptive, as it only notified infringements to the Ministry of Finance, which would then take its decisions. However, the (lack of) documentation on sanctions in the archives suggests that fines were applied very rarely: if banks did not abide by the law, moral suasion – even through political authorities – seemed to be the preferred way to enforce it. In the following subsections, we describe the authorization process for new banks and branches, inspections, and off-site supervision.

3.1 Authorizations

Commercial banks had to apply to the BoI for authorization to start operations, to open new branches, and to merge. Demands had to be "motivated" and sent to BoI's local branches, which in turn would send them to Rome with a preliminary evaluation, taking into account

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supervision in 1979, although Bank of England already exercised an informal supervision on the banking system throughout its role of liquidity provision: Grossman (2010).

[32] It would be the fourth if we take into account USA, with whom a comparison would be complicated by multiple layers of regulation and supervision at federal and state level. Refer to (White 2011, 2013).

[33] Doc. 129 in Guarino and Toniolo (1993).

[34] Plus, all decrees authorizing new entries, branches, and mergers also needed to be signed by the Ministry of Agriculture and Forests, which was responsible for the supervision of saving and pawn banks.

local banking market saturation. Indeed, the Rome headquarters asked local branch directors to express a structured opinion, which was attached to the application file sent to the Ministry of Finance. The Ministry of Finance took the final decision, which in the vast majority of cases, but not always, followed the BoI's advice.[35] In the eyes of contemporary observers, the barriers to entry introduced by the law were conceived to enhance financial stability and avoid overbanking. Recent research finds that banks that opened more branches after WWI were more likely to experience distress during the Great Depression (Molteni 2021). According to the BoI:

> "the easiness to collect deposits during paper inflation years [post-WWI] favored the mushroom of several banks lacking adequate capitals, and perhaps competent directors. This pushed old and new banks to extend their action abnormally, setting up costly branches to absorb banknotes, even at high-interest rates".[36]

Even after WWII, the Economic Commission Report to the 1946 Italian Constituent Assembly acknowledged:

> "In fact, it wasn't a theoretical concept that pushed for the introduction of the supervision on opening new branches, but rather the experience of the dreadful consequences of the free expansion of banking facilities that took place between 1919 and 1926".[37]

Despite the new authorization system, between November 1926 and February 1928, the BoI received 895 requests to open new branches. According to the BoI:

> "this expansionary trend gained momentum right after the publication of the [1926] decrees, driven by small and medium banks that had lagged behind and wanted to 'buy out' the largest number possible of market places before other competitor banks asked for them". [38]

To shore off this phenomenon, the Ministry of Finance decided to introduce a temporary ban[39] on new branches in September 1928,[40] and it lasted throughout the period relevant for this research,[41] even though the Ministry of National Economy put pressure to lift

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[35] Information on both BoI's advice and the Ministry of Finance's final decisions are available only for branches. Between 1926 and 1935, the BoI received 2244 applications for opening new branches, and expressed 1115 positive and 973 negative opinions (we do not know the outcome of 156 applications). Ministry of Finance authorized 886 new branches (~80 per cent). However, while in 1926-1929 Ministry of Finance followed the BoI's opinion 91.5 per cent of the times, in 1930-1935 the percentage dropped to 53.4 per cent. For an annual breakdown of these figures see Table A2 in the Appendix. Narrative evidence on mergers and new banks suggests the percentage was considerably higher for these kinds of authorizations.

[36] Cit. Banca d'Italia (1929), p. 53.

[37] Cit. Ministero per la Costituente (1946), Rapporto della Commissione Economica, IV, Credito e Assicurazione, vol. I pp. 178–179.

[38] Banca d'Italia (1928), p. 58.

[39] A first, informal, suspension had already been declared by the Ministry of Finance, Volpi, for four months in March-June 1927. A file dedicated to the issue of new branch suspension is in ACS, Ministero delle Finanze, Direzione Generale Tesoro, Ispettorato generale per i servizi monetari di vigilanza e controllo, Ufficio tutela del credito e del Risparmio, Affari Generali, bb. 1, f. 17, sf. 3.

[40] The ban was proposed in July 1928, *ibidem.*

[41] This research could not define if and when the ban was removed, but it was still operative in 1935, as proved by a letter sent by the Ministry of Finance to the BoI on 5th August 1935 in ASBI, Vigilanza, prat. 538, f. 1.

it in December 1929.[42] Some exceptions were indeed accorded,[43] especially concerning cases of banking distress management, where the authorization to open branches was given as *quid pro quo* to healthy banks intervening in rescuing distressed ones.[44]

According to Polsi (2002), the sheer obligation for banks to be publicly registered contributed to purge the weaker (if not fraudulent) elements out of the system. In the city of Naples, he estimated that in late 1926 around 80 banks existed, but only 57 registered in the *Albo*, the remaining being too little or disordered to operate properly. By the end of 1929, only 47 banks were still operative and were all registered in *Albo* (9 of them being already in liquidation). In this perspective, the BoI actively encouraged the consolidation of the banking system through mergers and amalgamations.[45] In 1928, the BoI reported:

> "It is useful to remind that the concentration should be cautiously favored, with the goal of clearing the field where it appears plethoric, and when amalgamation results in stronger bodies that can better serve credit needs".[46]

And again in 1930:

> "The Bank of Italy, in the face of the truly plethoric number of banks existing, has considered favorable to support, broadly speaking, bank amalgamations […] and this not only to favor a general reduction of the expenses, but also to limit competition on the 'snatching up' of deposits, which detrimentally affects interest rates".[47]

3.2 Inspections

According to the above-mentioned instructions sent by Stringher to the BoI's branches, on-site inspections should be gradually planned for all banks. In case of troubling situations, their timing should be anticipated, unless these troubles were of public knowledge: indeed, inspections should carefully avoid stirring fears among the public. Inspections were triggered by the BoI's headquarters, which would ask the branch directors to organize them and would occasionally send *ad hoc* officers from Rome or other branches in support. Even though suggestions were made by both the Ministry of Finance (often prompted by information from other Ministries such as that of Interior), and local directors, inspections were at the BoI's

[42] Letter from the Ministry of Agriculture and Forest to the BoI on 4 December 1929 in ASBI, Vigilanza, prat. 537, f.1.

[43] A note for the Ministry on 20th October 1931 allows to classify for which categories of banks the exceptions were made between 1929 and 1931: 31 new branches were allowed to national banks (Credito Italiano, 6; Banca Nazionale del Lavoro, 19; Banco di Roma, 6); 32 were allowed to saving banks, and 29 to commercial banks. ACS, Ministero delle Finanze, Direzione Generale Tesoro, Ispettorato generale per i servizi monetari di vigilanza e controllo, Ufficio tutela del credito e del Risparmio, Affari Generali, bb. 1, f. 17, sf. 3.

[44] This mechanism deserves further attention in future research. One hypothesis is that in this way healthy banks were given monopoly rents that would compensate for the incurred losses of absorbing failed banks. Of course, this mechanism would only work if the branch market remained frozen, and no other bank could enter and compete.

[45] Out of 269 applications for mergers, 223 were recommended by the BoI, and only 40 were advised against – for 6 applications we do not have information. By contrast, out of 59 applications for new banks, only 16 received a positive assessment by the BoI, and 36 a negative one (for 7 applications we have no information). See ASBI, Vigilanza, prat. 11, f. 1,3,4,6-10; prat. 13, f. 2.

[46] Cit. Banca d'Italia (1928), p. 57.

[47] Cit. Banca d'Italia (1930), p. 46-47.

headquarters sole discretion. The local director was responsible for the inspections carried out within their area, even if these were carried out by inspectors sent from other places or delegated to senior officers of their own branches. Final supervision reports were written by the officers who personally carried out the inspection but had to be approved and sent by the directors. One copy of the inspection report was kept at the local branch, and one copy was sent to the BoI in Rome. A much shorter summary of the results of the inspection findings was sent to the Ministry of Finance by the head of supervision (Niccolò Introna) or the Governor of the BoI himself (Bonaldo Stringher and later Vincenzo Azzolini).[48] The communication on banking supervision was dealt with at the very high level. Initial drafts, written by secretaries and less senior officers, were often amended. Azzolini, Stringher, and Introna were personally and scrupulously following the matter of banking supervision at each stage, as it appears from the handwriting of the revision. This procedure applied to all banks, regardless of their size or importance.

As we mentioned, bank inspections started in early 1927. Between 1927 and 1935, the BoI carried out 3,230 on-site inspections but not all categories of banks received the same attention. Polsi (2002) claims that smaller banks received the most attention, while large universal banks were not inspected until the late 1930s. This is certainly true, but Table 2 provides a more comprehensive picture. Taking into account the area of operations, an interesting trend emerges: interregional, regional, and provincial banks, i.e. banks with a branch network, received comparatively more attention than local unit branched banks. By the end of 1930, the percentages of inspected banks in these categories were 68 per cent, 72 per cent, and 81 per cent, respectively. This signals BoI's doubts about the stability of branched banks and confirms that the overexpansion of bank networks was indeed one of the main concerns that motivated the establishment of the supervision system.[49] The lack of inspections to major banks is well-known in the literature and widely criticized (Guarino and Toniolo 1993; Gigliobianco and Giordano 2012). However, as Polsi (2002) maintains, it would have been very difficult to start inspecting the largest banks from the very beginning for logistical and organizational problems. The archival research carried out for this work largely confirms this claim. For example, the on-site inspection to Banca Nazionale dell'Agricoltura, the smallest of the National banks, lasted from 26 June to 6 August 1931, while, by contrast, the inspections of small banks did not take more than few days.

Lacking an *ad hoc* body of inspectors, inspections distracted high qualified personnel from the ordinary business of the BoI, and there were often complaints from the branches on the lack of personnel. This created an extra burden to the busiest branches of the BoI, which were often those where more banks were headquartered. Complaints from the branch side on the lack of personnel were frequent, especially in the early years and in larger financial

[48] At the same time, the Bank of Italy in Rome wrote a list of transgressions and issues to fix and sent it to the relevant local branch to forward it to the supervised bank. The supervised bank was required to provide a written answer to all the points raised, specifying the measures that would take to fix them. Full reports were not disclosed to supervised banks. Local directors subsequently verified that the measures had actually been taken.
[49] See for example Stringher's concerns expressed in Banca d'Italia (1929).

centers.[50] Even the situation in smaller centers was not necessarily better,[51] and often they had to rely on BoI's internal inspectors to complete their tasks, or to personnel from better-equipped centers.[52] The correspondence between branches and the Rome headquarters also highlights that inspections were a very complex task, and not all the personnel was enough qualified to perform them. In this respect, it is interesting to mention the case of Genova. The local director was not only very active in proposing new inspections, but also decided to autonomously create an *ad hoc* informal unit to deal with inspections already in August 1927.[53] In subsequent years, personnel from the branch of Genova was appointed to inspect banks even outside their area of competence.[54] Other branches adopted a similar approach. For example, Udine proposed to the Bank in Rome to employ always the same officers, in order to develop expertise.[55] This issue was particularly problematic for small branches, where most of the work was concentrated in the hands of the director anyway: in the branch of Frosinone the only skilled officials were the director and the treasurer. It was lamented that when the director had to carry out an inspection, the branch had to work for days completely without any supervision. Similarly, the new director of the branch in Catanzaro, just a month after he took service in October 1933, wrote to Rome asking not to assign inspection missions to the two best officers available. Otherwise, it would have been very problematic to make the branch operating smoothly.[56] As an urgent inspection was nonetheless due, one of the two had to go on the mission, but the director explicitly asked,[57] and obtained,[58] that in the future only officers from Rome or other branches would carry out the inspections in the area.

Overall, at an earlier stage, inspections were usually conducted by ordinary officers that were appointed temporarily as inspectors. From the 1930s onwards, task specialization increased, inspections being more and more often assigned to a selected group of people, who often had to travel around to perform their tasks. At the same time, there is a convergence in the standards of inspection reports. Whereas in the late 1920s, the structure, lengths, and information given in reports is very heterogeneous, we see an increasing convergence towards standardization in the early 1930s – with more detailed information. At the current stage of research, narrative evidence suggests the hypothesis of a gradual standardization and professionalization of on-site supervision practices. In fact, the format of inspection reports in

[50] This issue was somewhat more difficult for large branches supervising many banks such as Naples (ASBI, Vigilanza, prat. 572, f. 1, 25th June 1927), and Milan (ASBI, Vigilanza, prat. 562, f. 1, 15th and 25th June 1927). See for example in the Milan branch, where most of the largest national banks were headquartered: in June 1930 and again in December 1931 the local director was still complaining that the branch was understaffed and could not send his best officers to inspections, otherwise other important business would be neglected. On 12th January 1932, Introna even wrote a letter to Milan complaining that many inspections ordered in the previous years had been delayed or not completed yet.

[51] As for example lamented by the Director of the Ascoli's branch, ASBI, Vigilanza, prat. 611, f. 2 12th June 1929.

[52] Internal inspectors were the body of officers in charge of supervising the correct functioning of the BoI's own branches.

[53] ASBI, Vigilanza, prat. 556, f. 1, 13th August.

[54] E.g. Grosseto, Mantova, Siena, and Pisa.

[55] ASBI, Vigilanza, prat. 770, f. 1 9th September 1929.

[56] ASBI, Vigilanza, prat. 647, f. 1 23rd October 1933.

[57] ASBI, Vigilanza, prat. 647, f. 1 11th November 1933.

[58] ASBI, Vigilanza, prat. 647, f. 1 20th November 1934.

the early 1930s resembles the structure and style of post-1935 (and even post-WWII) reports.[59] This would suggest that the output of the process of trial and error in the late 1920s/early 1930s had a long-lasting effect in shaping BoI's supervision practices. This interpretation is confirmed by the judgement of Paolo Ambrogio, Chair of the Supervision Service of the BoI.[60]

3.3 Off-site supervision

Concerning off-site supervision and document disclosure, commercial banks had to send their documentation (i.e. balance sheets and call reports) to the BoI, which promptly reminded them in case they were late in abiding by the rules. Occasionally, the BoI would request additional documentation through its local directors to supervised banks, like details on the composition of the single balance sheets' items, such as the nominatives and exposures of the 'portfolio bills' and 'other debtors', or the lists of 'securities' and the nominal vs market value they were priced in the balance sheets. This documentation was not forwarded to the Ministry of Finance, although it could be made available on demand. BoI's officers would use the received information to compile a number of standardized supervision forms (*Modelli di vigilanza)* that provided a quick summary of banks' conditions. These were drafted every time call reports were handed in (once every two months for joint-stock banks, and once a year for private bankers). The purpose of these forms was to provide a quick overview of the condition of the bank. The content and structure of these forms evolved over time, increasing in details and standardization.[61] These forms were useful to point out banks experiencing hemorrhaging deposits or abrupt swings in suspicious balance sheet items – these being events that should be already highlighted by local directors, but this allowed a double-check by the BoI's headquarters.

While the law gave to the BoI explicit powers to ask any document useful for the "performance of its duty" during inspections, it was less clear about the documents to be disclosed during off-site supervision, i.e. by mail. Analysis of off-site supervision reveals a trend of increasing disclosure to the supervisor, even beyond the text content of the law, and an increasing information standardization both to the public and to the supervisor.

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[59] Compare for example the inspection reports of Banca Nazionale dell'Agricoltura in 1931 (ASBI, Vigilanza, prat. 1268, f. 1) and 1941 (ASBI, Vigilanza, prat. 1301, f. 1), or the inspection reports of Banca della Lucania in 1931 (ASBI; Vig., prat. 1268, f. 1), in 1945 (ASBI, Vigilanza, prat. 1271, f. 1), and in 1956 (ASBI, Vigilanza, prat. 1272, f. 1).

[60] Interviewed by the Economic Commission for the 1945 Constituent Assembly, Ambrogio stated that: "The supervision office of the Bank of Italy has continued its activities and functions as it was foreseen by the 1926 norms"; Ministero per la Costituente (1946), 'Interrogatorio del Dott. Paolo Ambrogio', in Rapporto della Commissione Economica, IV, Credito e Assicurazione, II, Appendice alla relazione, p. 43.

[61] The first version was very succinct, with very little information on the condition of the bank, focusing almost exclusively on whether the bank abided by the law provisions or not. This first version was replaced in less than a year with a more detailed one. For some banks the first forms were actually never employed, and the details from the very first call report are already transcribed on the second and more detailed form. This signals the flexibility of the BoI, which quickly amended the form after realizing that the first version was unsatisfactory. The third form, introduced in 1931, was a decisive upgrade in terms of information provided: as it also included few words on the outcome and the date of the last inspection, and it provided much more details on the balance sheet items. The format of the third form was marginally improved in the fourth version, but the content and information provided did not actually change significantly.

Having observed the operational limits and burdens of on-site supervision, it is easy to acknowledge the importance of enforcing information disclosure through the relatively more efficient off-site supervision.

According to the law, banks had to submit to supervision only balance sheets and call reports (respectively yearly and bimonthly).[62] These documents were sent to the local director of the BoI's branch, who would send them to Rome with a comment.[63] In the beginning, received call reports were *de facto* a duplicate of the publicly available monthly call reports that joint-stock banks already had to submit every month to local tribunals (according to art. 177 of Code of Commerce).[64] Furthermore, the BoI soon realized that the accounting standards used by banks were very heterogeneous. After a discussion in late 1928 between the BoI and the Ministry of Finance,[65] the solution was to adopt two sets of call reports: one for the public and one for supervision purposes. With the Regio Decreto 20 December 1928, n° 3183, a new standardized form for the public call reports was introduced for all joint-stock banks. Asked by the Ministry of Finance to give their opinion on the new public form, the Ministry of National Economy replied:

> "This [new form] aims to give the call-reports the best possible clarity so that the public can make a useful read-out of them and take into consideration the current state of banking accounting practices, and the need of not creating extra expenses for banks with the request of additional documents, and finally the need of not disclosing information that it is inconvenient to disclose. It seems to be an equitable solution to conflicting issues".[66]

The new public form was more synthetic than the previous one, apparently disclosing less information. However, lacking standardized accounting standards, banks often misclassified balance sheet items in order to hide their wrongdoings. Only few banks filled the 'bad loans' item (*sofferenze*) correctly, while most banks left this item blank and disguised bad loans under other items. The Ministry of National Economy reported that the Fascist Banking Association, sitting in the commission that studied the solution to adopt, "committed to making sure that banks will fill in all the items of the new form, whereas it is well-known that in the current form […] most of these items were left blank".[67] On public call reports, the trade-off between more but less accurate information or less but more certain and homogenous information was resolved in favor of the latter. The solution was adopted in full agreement with banks. At the same time, however, a more detailed form was introduced for supervision purposes only. Indeed, this supervision form reported the full information (including for examples items such as 'unrealized losses', and 'bad loans'). In particular, under the previous public form, a bank could assign bad loans in different balance sheet items, while in the new form they would be included in the 'other credit' item. In the supervision form, the 'other

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[62] Private banks had only to disclose their annual balance sheet, whereas ordinary and cooperative joint-stock banks had to disclose their call reports every other month.

[63] With the Numero Unico 24411, on 29th March 1927, Stringher complained with all BoI's branches that sometimes Directors did not spend enough effort in commenting the documentation sent to Rome, and urged them to do so.

[64] The call-reports sent to tribunals are those on which the ASCI dataset is constructed.

[65] ACS, Ministero delle Finanze, Direzione Generale Tesoro, Ispettorato generale per i servizi monetari di vigilanza e controllo, Ufficio tutela del credito e del Risparmio Affari Generali, bb. 3, f. 42.

[66] 13th December 1928, ACS, Ministero delle Finanze, Direzione Generale Tesoro, Ispettorato generale per i servizi monetari di vigilanza e controllo, Ufficio tutela del credito e del Risparmio Affari Generali, bb. 3, f. 42.

[67] Cit. *Ibidem*.

credit' item would be displayed in a disaggregated form, so that the exact amount of bad loans would be known to supervisory authorities. This solution highlights the pragmatic approach of supervision authorities: rather than trying to impose from scratch a full disclosure, which would have created strong incentives for banks not to collaborate, they adopted a compromised solution that guaranteed banks cooperation, a full disclosure of information to supervisors, and made more homogeneous and consistent, although less detailed, the publicly available information.

In the beginning, supervised banks tried to resist the BoI's requests for additional documentation, such as nominative lists of their clients and the details of their portfolios. After initial resistance, thanks to an ingenious ploy explained in the next paragraph, the BoI managed to impose that the generous information requirement for on-site supervision was also extended to off-site supervision, so that any kind of documents could be requested by mail. The mandated disclosure of any document required in off-site supervision will settle as a consolidated practice and finally become law in 1936. Still, in the second half of July 1927, it was the subject of heated correspondence between the BoI and the Italian bank association (ABI).

The BoI asked banks that all kinds of documentation could be disclosed via mail, including detailed nominal lists of customers and breakdown of balance sheet items. ABI strongly rejected this interpretation of the law, maintaining that law requirements disclosure was limited to capital ratio and risk concentration, while additional documentation could be required only during on-site inspections. The explicit refusal to submit a mailed breakdown of their 'portfolio' and 'other debtors' by the Banca Marsaglia in Turin triggered an arm-wrestling between the BoI and the ABI.[68] The BoI argued that without such documentation, it would be impossible to have a clear idea of the operations of banks and their soundness, as banks adopted heterogeneous accounting standards and moved operations from one item to another to hide the real consistency of their balance sheets.[69] Submitting this documentation by mail would have also reduced the need for inspections – which could have alarmed the public. After the nth letter from the Turin director lamenting that banks were adamant about their refusal, Stringher decided to change his diplomatic approach. The hand-written note he leaves on the letter sent from Turin is telling: "we do not have time to lose nor we can prolong this: let's inspect them all".[70] Incidentally, a mild banking panic had erupted in Turin after the distress of Credito Biellese, and Turin's director suggests postponing the planned inspections to avoid shaking public confidence further. Stringher then requests again the documentation to be submitted by mail. Interestingly, the initial draft, later modified by Stringher, stated that if the bank had not wanted to submit the extra documents via off-site supervision, they would have been forced to send the on-site inspections, which was entitled to ask those documents, with all that this implies. We can only speculate on whether this message was then communicated verbally, but soon after the BoI in Rome received all the documentation and

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[68] Unless stated otherwise, all the correspondence quoted in this paragraph is in ASBI, Vigilanza, prat. 535, f. 1 (between ABI and the BoI), and in ASBI, Vigilanza, prat. 1948, f. 1 (between Banca Marsaglia and the BoI - both headquarters and branch).

[69] See the correspondence between the BoI headquarters and BoI's Turin branch on 21st and 29th July 1927 in ASBI, Vigilanza, prat. 587, f. 1.

[70] See the hand note on the margin of the letter sent by the BoI branch in Turin to the BoI headquarters on the 4th October 1927 in ASBI, Vigilanza, prat. 535, f. 1.

detailed explanations it had requested, and this became the standard practice from this moment onwards.

This paradigmatic episode exemplifies some interesting aspects of the operation of banking supervision and the way its operation evolved and consolidated. First and foremost, it shows that the actual implementation of supervision took advantage of ingenious arguments of the BoI to expand the actual provision well beyond what the law stated. The type of documentation the BoI could require not only during on-site supervision, but also through off-site supervision was the broadest possible. At the same time, however, the BoI did not do it arbitrarily, but ingeniously used analytical reasoning to expand through analogies what the law already stated. Secondly, it is important to stress that the BoI guaranteed in exchange not only the highest level of secrecy[71], but also made it crystal clear that under no circumstances would the information obtained through supervision be used for tax purposes.[72] This was reiterated both to ABI and the Turin's bank in the correspondence. Thirdly, this episode is telling about the intransigent stance of the BoI, or at least by Stringher, with respect to lobbying to water down the law after its enactment. As banks acknowledged the legitimacy of full disclosure during inspections but refused full disclosure via mail, the banks were put up against the wall: if they did not want to submit information via mail, then the BoI would have taken advantage of its on-site inspection powers to obtain the same results, but with a potential loss in term of credibility for the stubborn banks. Fourthly, intransigency was coupled with tactfulness: when inspections might have threatened to spread panic in Turin, Stringher chose to prioritize financial stability, rather than proving his point. Eventually, the BoI managed to obtain what it wanted and managed to secure supervisory powers that went well beyond the letter of the law.

While banks initially displayed a skeptical and hostile attitude towards the BoI's pervasive supervisory power, such mistrust between the supervisors and the supervised waned rather quickly and developed into an increasingly cooperative environment. By the 1930s, it seems that commercial banks started to appreciate and gladly accept BoI's action as supervisor. According to an internal memorandum summarizing the activity of the BoI's supervision in 1933:

> "It is worth highlighting the fact that today the very credit firms that are subject to supervision nearly always explicitly acknowledge the effectiveness of the supervising institution, that, ultimately, restored the necessary prestige to banking institutions".[73]

This does not seem to be just the opinion of a complacent supervisor. After WWII, even ABI suggested that the BoI's supervisory powers could be extended and the BoI allowed to obtain even more pervasive information. One of the issues discussed in the Economic Commission report to the 1946 Italian Constituent Assembly was whether the BoI should be allowed again to discount to the market like a commercial bank, as this granted high-quality

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[71] In explaining its reasons to Bianchini and the Banca Marseglia, the BoI highlighted that in performing their functions the inspectors were public officers, with all the criminal law consequences that breaching the secret in their position would imply.
[72] The BoI was very cautious in making it clear that inspections did not have any tax purposes, requiring nominal lists for credit exposure, but avoiding to ask lists of depositors. E.g. instructions for inspections in Genova, ASBI, Vigilanza, prat. 556, f. 1 22-27th February 1933.
[73] Cit. Promemoria dated July 1933, p. 9 in ASBI, Carte Baffi, Servizio Studi, prat. 52, fasc. 2.

information on the market conditions. The position expressed by ABI on this matter reveals how its perception of BoI's pervasive supervision had changed (in positive):

> "Direct discount to privates, although it offers the possibility of a better point of view on the market and its understanding that can be useful for its credit policy, does not seem to be the only way to achieve this: even now the Bank of Italy has a perfect understanding of the economic situation, through its peripherical branches and supervision framework: this function can be further developed by acquiring precious elements of judgement".[74]

The fact that ABI was explicitly in favor of a broader development of the BoI's supervision functions is evidence of the cooperative environment that had been established between the BoI and its supervisees. A generally positive view on the operation of the supervision functions by the BoI is also noticed in most of the interviews of bank's managers and representatives of the banking industry.[75] It shows that banks did not consider the BoI's supervision as a threat and did not try to lobby to ease it. Quite the contrary the ABI even suggested its supervisory powers should be enhanced so that the BoI's understanding of the market through supervisory disclosure was improved.

4. Evidence on capitalization and risk concentration

In this section, we investigate whether the 1926 banking law and the set-up of the supervision mechanism had significant effects on banks' capitalization and risk concentration.[76] Our empirical strategy relies on extracting and evaluating the information contained in the individual banks' files from the BoI's supervision archives.[77] We focus on the first 4 years of supervision, which was the time given to banks for complying with the new law and, incidentally, the time after which the effects of the international crisis unraveled in full scale. The section is organized as follows. First, we assess overall capitalization dynamics. Second, we define and discuss the provisions enforced by banking supervision. Third, we assess the relevance of these measures on a chosen sample of banks.

4.1 Stylized fact on capital dynamics in 1926-1930

The current rationale behind capital requirements is to reduce bank incentives to undertake risky activities and to enhance bank stability allowing to cope with potential losses (Mishkin 2000). While nowadays capital is usually evaluated as a share of total

[74] Cit. Ministero per la Costituente (1946), 'Risposta al questionario n° 5; Associazione Bancaria Italiana', in Rapporto della Commissione Economica, IV, Credito e Assicurazione, II, Appendice alla relazione, p. 332.
[75] E.g. 'Interrogatorio del dott. Raffaele Forcesi', 'Interrogatorio del dott. Ugo Foscolo', 'Interrogatorio del dott. Ambrogio Molteni', 'Interrogatorio del rag. Giovanni Goisis', 'Interrogatorio del dott. Nicola Carbone', 'Interrogatorio del dott. Antonio Rossi', in Rapporto della Commissione Economica (1946), IV, Credito e Assicurazione, II, Appendice alla relazione.
[76] If not stated otherwise, when we refer to capital we mean both paid-up capital and reserves. We use the terms 'capital ratio' and 'capitalization' interchangeably.
[77] ASBI, Vigilanza, various *pratiche* and *fascicoli.* For a detailed description of the documental material available in Italian banking supervision archives we refer to Molteni (2020).

(risk-weighted[78]) assets, the 1926 law set a minimum ratio on (households[79]) deposits. Considering the lack of any deposit guarantee scheme at that time, such a requirement was intended as a measure to protect common depositors against potential losses. In the following analysis, we will focus on the modern definition, accounting for capital on overall assets. Indeed, in this analysis, we take into account not only capital to deposit but rather the overall effect of a broader set of requirements, including minimum capital level, reserve accumulation, loss coverage, and risk concentration. Normalizing capital on assets rather than on deposits provides a less volatile and more reliable proxy of capital adequacy.[80]

In Figure 2, we show capitalization dynamics for a representative open sample of ordinary joint-stock banks (SOC), excluding the largest four banks. Bank balance sheets have been drawn from the Historical Archive of Credit in Italy (Natoli *et al.* 2016, henceforth ASCI).[81] We show weighted and unweighted capital to asset ratio and capital to deposit ratio. The trend is similar, although more volatile using the latter measure. We observe a considerable decrease in capitalization between the second half of the 1910s and the first of the 1920s, which can be related to war and post-war inflation, and sweeping growth in banking activity and deposits. From 1927 on, the trend turns upwards. The likely interpretations of this trend are both restrictive monetary policies (and resulting disinflation) and supervision activity.

In Figure 3, we assess the evolution of individual banks' capital ratios, plotting on the horizontal axis the value in 1925 and on the vertical axis the value at the end of the time it was given to comply with the new regulation, i.e. 1930.[82] Banks are mostly distributed above the 45° line, meaning that they increased their capitalization after the establishment of banking supervision. That is particularly true for banks starting with a lower level of initial capitalization: 86 per cent of banks below the initial 10 per cent ratio improved their initial capital level, compared to 60 per cent of those above it. However, this trend could also be due to a contraction of assets, rather than to capital accumulation. To check for that, we divide the sample between banks increasing their capital at least by 20 per cent, and banks that did not. The relatively higher density of banks on the left-hand side of the 45° line can be attributed to banks which significantly increased their capital. Overall, we confirm a trend of capital accumulation between 1925 and the beginning of the Great Depression.

4.2 The capital requirements and their enforcement

At this point, we discuss the requirements through which supervision could have affected capital accumulation. First, the 1926 law asked banks to have paid-up capital for at least 5 per cent of households deposits. Deposits in excess should be invested in government bonds or deposited at the BoI. This was the most explicit provision of capital adequacy, but

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[78] Risk-weighting assets has become the standard of banking regulation since Basel II, in 2004.
[79] *Depositi fiduciari*.
[80] At any rate, capital to deposit and capital to asset ratios are strongly correlated, and the following findings are qualitatively confirmed even using the former.
[81] All ordinary joint-stock banks (SOC) present in ASCI (Natoli *et al.* 2016) are included.
[82] If the bank closed before December 1930 but after December 1929, we use the 1929 capital ratio. If the banks closed before December 1929, the observation is removed from the sample.

its relevance had been weakened by the watering down of the initial draft of the law: around 6 per cent of joint-stock banks in ASCI had less than 5 per cent of capital, compared to 27 per cent if we consider the requirement of the previous draft, 10 per cent.

Nevertheless, these numbers are conceivably underestimated: it soon came out from BoI supervision that banks often classified part of households deposits as business deposits (i.e. 'correspondent accounts').[83] The rationale was a more beneficial tax treatment for clients in holding business deposits.[84] In addition, a few banks classified deposits as business ones to window dress large deposits withdrawals in the public accounting reports: if depositors withdrew large sums of deposits, banks could avoid changing the households deposits figure, and only adjust the business ones where large fluctuations were normal.[85] Thanks to the obligation to provide all relevant and disaggregated information to the BoI, households deposits disguised under the 'correspondent accounts' item could be accounted in the denominator of the capital to deposit ratio. In order to ensure banks cooperation, the confidentiality of shared information was assured, even to the tax authority.[86] That recalls a still-relevant issue in the economics of banking supervision, namely the trade-off between market disclosure and disclosure to the supervisor.[87] An explicit guarantee that supervision inspections would not disclose compromising information to tax authorities was given by the Governor of the BoI, Stringher, to the Head of the ABI in a letter sent on 23 July 1927.[88]

In short, ASCI public balance sheet data on aggregate households and business deposits do not allow to compute the denominator of the capital ratio, part of households deposits being disguised in balance sheets among business deposits. Rather, we deduce that the actual capital to deposits ratio is between a lower bound, where *de jure* households deposits are accounted, and an upper bound, where both business and households deposits are considered. In Figure 4, we show the share of banks not complying with the minimum ratio, according to these bounds. In both cases, the share of non-complying banks sharply decreases

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[83] For example, in February 1928 Banco Abruzzese di Teramo declared only 43,543,133 lire of fiduciary deposits and 71,575,604 lire of correspondent accounts, but 59,434,488 of these were in fact fiduciary deposits (ASBI, Vigilanza, prat. 7191, f. 1). This practice was very common among other banks too (Banca di San Vito al Tagliamento, September 1928, ASBI, Vigilanza, prat. 1692, f. 1; Banca Fratelli Molteni di Milano, February 1928, ASBI, prat. 8217, f. 1; Banca Regionale Lombarda, October 1930, ASBI, Vigilanza, prat. 7501, f. 1).

[84] The income from fiduciary deposits was taxed under the *Categoria A* of the Income Tax (*Ricchezza Mobile*).

[85] See for example Banca Popolare di Ferrara, June 1929, ASBI, Vigilanza, prat. 8409, f. 1 and Banca del Friuli, June 1931, ASBI, Vigilanza prat. 1691, f. 1).

[86] In its written correspondence, the supervision's approach on the matter was often very ambiguous, as exemplified by the case of Banca Sannitica di Benevento: on the 29th March 1929 the local branch of the BoI denounced that Banca Sannitica was hiding 7,413,613 lire of fiduciary deposits in the correspondent accounts, but that this was not with the purpose of cheating on the capital deposit ratio, but was due to fiscal reasons. He asked whether he should tell the bank to record these in the appropriate balance sheet item. A hand-written note, most likely by Niccolò Introna, on the margin of the letter is telling: "it was not considered appropriate to answer" (ASBI, Vigilanza, prat. 1505, f. 1). In other cases, the BoI formally asked to fix this but *de facto* no punitive measures were taken if banks did not abide by it.

[87] Refer, for instance, to Simpson Prescott (2008).

[88] ASBI, Direttorio-Stringher, prat. 17, doc. 3.

after 1925, being negligible from 1930 on. This confirms archival narrative evidence[89] of overall compliance towards the norm.

Second, the risk concentration provision: the law forbade outstanding uncollateralized credit on a single lender exceeding 20 per cent of capital. As we mentioned in the second section, tight industry-bank linkages were at the core of the Italian banking system fragility. This norm dealt partially with this issue, by cutting the lending linkages, albeit not the "equity" linkages, namely the extensive stock holdings in bank balance sheets. As of the beginning of 1927, the amount of these credit exposure exceeding this provision was around 11 billion of lire (Figure 5), which amounted to around a fourth of overall bank lending.[90] The apparent rationale of the norm was to diversify banks' risk rather than to increase capitalization. Nevertheless, archival evidence suggests that the most common way to comply with this rule was to increase its equity so that the share of the main credit would fall below 20 per cent of it. A few times, banks increased equity in order to enjoy more flexibility in future credit allocation. At any rate, archival evidence suggests that quite frequently this constraint was binding.[91] The amount of excess credit exposure fell quickly from 11 billion in 1927 to less than 2 billion after three years, being negligible afterwards.[92]

Moving to the third requirement, banks had to use at least 10 per cent of their annual profits to increase their reserves, upon reaching 40 per cent of paid-up capital. That brought effective long-run capital to deposit ratio to 7 per cent. From archival surveys, it appears that banks complied with this provision, which was also associated with tax incentives (namely halving income tax on accumulated reserves). In the rare cases of non-compliance, BoI's intervention enforced it.

Fourth, the obligation for banks to cover incurred capital losses. This requirement was not in the 1926 law, but rather in the 1882 Code of Commerce (art.146), applying to any

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[89] Banca Agricola Industriale di Rogliano, between December 1926 and February 1929, increased several times its capital, mostly in order to meet the capital to deposit ratio, which BoI's Supervision signal to be insufficient (ASBI, Vigilanza, prat. 7181, f. 1). Also Banca Piccolo Credito S. Alberto di Lodi was found several times not meeting the capital ratio. Thus, under Supervision pressure, raised several times the amount of capital and allocate to reserves a share of profits much higher respect to the one required by the law (ASBI, Vigilanza, prat. 6497, f. 1; prat. 6497, f. 2).

[90] The amount of bank lending amounted to around 45 billion as of December 1926 (Cotula and Spaventa 1993). This number encompasses also collateralized lending.

[91] On March 1927, Banca Lombarda di Depositi e Conti Correnti asked the BoI's authorization to raise capital from 12 to 24 mln to tackle credits exceeding the 20 per cent (ASBI, Vigilanza, prat. 1302, f. 1). On January 1927, Banca di Credito Canicattese set a capital increase from 200 to 500 thousands lire in order to have "more elasticity in granting loans" (ASBI, Vigilanza, prat. 1588, f. 1). In December 1928 an inspection to "Credito Industriale di Venezia "reported several lines of credit exceeding the 20 per cent limit on capital. As it was asked to undertake actions, the bank replied announcing a capital raise from 15 to 30 mln lire (ASBI, Vigilanza, prat. 1684, f. 1). On March 1927 Banca del Fucino asked to raise capital from 5 to 10 mln. While there is no explicit mention to the risk concentration requirement in this choice, that same bank struggled several times with it, asking for temporary exemptions (ASBI, Vigilanza, prat. 1262 f. 1).

[92] Figure 5 shows only uncollateralized credits that were outstanding before the enactment of the law. Details on new uncollateralized credit authorized by the BoI in 1927-1935 are available in Table A3 in the Appendix. The total sum of all uncollateralized credits authorized by the BoI in 1927-1935 was less than 2 billion lire, thus not a very large amount judged by pre 1926 law standards.

joint-stock company.[93] Still, the new supervisory mechanism, and the related obligation for banks to disclose all requested documents, allowed for its enforcement in such a way that was not possible before: BoI's supervisors were able to compute unrealized losses in bank balance sheets and to ask banks to cope with it.[94]

Fifth, the law provided a minimum level of paid-up capital, differentiated by geographic scope of activity.[95] According to the law, these requirements were binding only for new banks, and by which existing banks were not required to abide. However, at least in a few cases, these levels were made binding also for old banks. For example, Banco Abruzzese was a bank operating at the regional level in the Abruzzo region but with only 5 mln lire capital. In March 1927, the bank asked the authorization to open a new branch in Pescara. The supervisors agreed to ask the bank to raise its capital to 10 mln in order to authorize it.

4.3 Evidence on a sample of weakly capitalized banks

Descriptive statistics and narrative archival evidence presented in the previous subsection suggest noticeable enforcement of the capital adequacy requirements. In order to test whether this was actually triggered by the new regulation and the related supervision, we need to exploit qualitative archival evidence beyond the narrative level. We define a sample of joint-stock banks, upon which we conducted extensive analysis on supervision archival files. Out of this analysis, we categorize banks according to the regulation enforcement and supervision activity as well as outcomes on capital dynamics.

We design our sample in order to include banks that are more likely to be weaker in terms of capital adequacy, and thus being the target of banking supervision and related regulation enforcement. From the ASCI sample of joint-stock banks in 1925, we select those banks which had a capital to asset ratio lower than the median level (around 10 per cent). The sample is thus made of 121 banks, which are graphically shown in Figure 6, relating them with the initial and final capital ratios. In fact, the sample of banks considered is precisely the part of the distribution that drives the increasing trend shown in Figure 2. From the textual analysis of archival files, we classify our sample according to the following taxonomy:

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[93] Art. 146 stated that if the board of directors realized that losses were higher than 1/3 of the capital, the shareholder meeting had to be summoned in order to replenish the capital, acknowledge the loss and limit the capital to the new amount, or dissolve the company. If the losses were 2/3 of the capital, the dissolution was *de jure* if the shareholder meeting did not deliberate otherwise. Art. 146 also stated that if a company was in *stato di fallimento* the directors had to file for bankruptcy (*fallimento*) at the local tribunal.

[94] For example, Banca Agricola Commerciale di Licata was inspected in December 1929, and was found with hidden losses (mostly due to the local tax collectorship service that the bank operated) high enough to trigger art. 146. The board of directors was asked to follow the provisions of art. 146 (January 1930). Initially, the directors responded that in their opinion the conditions of art. 146 were not met yet (February 1930), but agreed to guarantee the losses with their own funds. In addition, the income for the year 1929 was used to amortise the losses. Requests by the BoI to amortize hidden losses and clear the balance sheets were frequent. See for example: Banca Agraria di Riesi (ASBI, Vigilanza, prat. 1803, f. 1); Piccolo Credito S. Alberto di Lodi (ASBI, Vigilanza, prat. 6497, f. 1); Banca Latina di Ronciglione (ASBI, Vigilanza, prat. 7260, f. 1). In other cases, even when the rebalancing of the balance sheets was not triggered by the BoI, supervision authorities monitored closely the process, e.g. Banca Agricola Commerciale di Chieri (ASBI, Vigilanza, prat. 7907, f. 1).

[95] See footnote n° 16.

- *explicit*: we observe that the bank increases capital because of a specific requirement. That is, we found evidence that the supervisor asked for that, or the bank states that it is doing it in order to comply with banking rules, or both instances.
- *implicit*: the bank was not complying with some content of the regulation and acts to comply with it, but we could not find explicit evidence of pressure from supervision even though the context suggests it was the case. For example, a bank with many uncollateralized credits that increase its capital by the right amount to avoid reducing its credit lines.
- *unclear*: we have insufficient evidence to assess the effects of supervision. If the bank is increasing capital, the likely rationale is enforcing compliance with the rules but explicit evidence is missing and the context is unclear.
- *no*: the bank does not increase its capital, or it states that it increases capital for different reasons than compliance.
- *resolution*: the bank was in distress and not able to raise new capital, but it goes through a crisis management process triggered or supervised by the supervisory authority.[96]

The aim of this taxonomy is to provide a synthetic categorization of our survey analysis on the supervision files. If any, we might have underestimated the pervasiveness of the new regulation, as we are not necessarily extracting cover to cover information of all supervision files for each sample bank. It is indeed possible that we missed a document that would have allowed us to classify as "explicit" a bank categorized as "implicit", or a document which would have allowed us to classify as "implicit"/ "explicit" a bank which is categorized with a "no" or "unclear". In this respect, we adopted a conservative approach, which estimates a lower bound of the impact of the new provisions.

The taxonomy outcome of our empirical analysis is shown in Figure 7: we find evidence of capital increases induced by regulation and/or supervision authorities in around half of our sample, either "explicit" (27 per cent) or "implicit" (21 per cent). In around 10 per cent of the sample, distress was so severe that the bank underwent a crisis management process under BoI guidance. In 35 per cent of the sample, we exclude any supervision-induced capital increase. Among this latter group of banks, the most can be considered as solvent banks that were already in line with regulatory thresholds, while a few of them, amounting to 14 per cent of the sample, were distressed banks unable to meet the requirements.

The likelihood of a supervision-induced capital increase was higher among the least capitalized banks: more than 60 per cent of banks with a capital ratio below 5 per cent increased it. This fact can be graphically observed in Figure 8, where we plot the capital to asset ratio in 1925 and the final one according to the observed supervision taxonomy outcome.

Next, we disentangle the relative contribution of the distinct requirements we discussed before. In Figure 9, we display explicit and implicit interventions according to the underlying requirements. Concentration risk definitely emerges as the most important one: around 58 of

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[96] The meaning of resolution in this text is a process of banking distress management overseen by a public authority. It may not completely overlap with the current meaning under the European framework set by the 2014 Bank Recovery and Resolution Directive. In particular, the interventions were *ad hoc*, lacking a standardized approach, and did not rely systematically on "bail-in", rather than a "bail-out" approach. For further details on crisis management in Italy in the 1930s, refer to Guarino and Toniolo (1993).

capital increases can be attributed to this requirement, alone or jointly with capital to deposit ratio. The latter encompasses 28 per cent of the cases. A smaller, but still significant, share of intervention is be attributed to BoI's requests to cover for unrealized losses and to reach minimum capital according to the bank geographic scope.

Capital strengthening happened through paid-up capital or through putting a larger share of profits into reserves. The former was the most relevant case, encompassing around 90 per cent of the time, and a few times it took place following a request by the BoI to make up for capital which was already booked but not yet paid.

All in all, our systematic archival evidence reveals the effects of the new regulation on capital accumulation on relatively weaker banks. As a caveat, our taxonomy allows us to gauge the effectiveness of the new regulation, but it cannot precisely disentangle the extent to which is attributable to the supervisory action, rather than to proactive bank self-reform after the new law. Nevertheless, ascertaining this distinction is troublesome, not only from an empirical point of view, but also from a theoretical one, as formal requests were mostly the extreme action of a supervision policy that preferred to use subtler moral suasion.

5. Lender of last resort (LOLR) and supervision information

While we focus on banking supervision, this research provides an interesting insight on the functioning of monetary policy at times of crisis, i.e. lender of last resort (LOLR) function of Central Banks. Hereby, we discuss whether, in our case, the supervisory activity of the BoI did inform its LOLR policy during the Great Depression.

LOLR is a key function performed by central banks to maintain financial stability. Without this policy tool, the likely outcome is credit rationing by the central bank, and lending contraction by commercial banks. Episodes of credit rationing in the past are abundant (Bignon, Flandreau and Ugolini 2012; Jobst and Rieder 2016; Anson *et al.* 2019), and limits on central banks liquidity provision during crisis still appear a policy issue in emerging economies (Calvo 2006).[97]

Information synergies are one of the main alleged advantages of appointing supervision to a central bank (Ampudia *et al.* 2019).[98] Furthermore, banking supervision may

[97] The capacity to perform lender of last resort functions is still a binding policy issue for emerging market economies, as their ability to provide credit to domestic banks is crippled in the event of a "sudden stop". As a consequence, in recent years, central banks of emerging countries around the world have increased their level of foreign reserves well beyond the level that standard macroeconomic models would predict (Obstfeld, Shambaugh and Taylor 2010). Without large foreign reserves, in the event of a crisis, central banks would be forced to ration credit to needing banks because expanding the money supply to sustain these banks would put under extreme pressure on the foreign exchange rate. This scenario has historical precedents: during the Great Depression, a country like Spain (which was not even constrained by Gold Standard) could not really adopt lender of last resort support to domestic banks, and lending contracted sharply (Jorge-Sotelo 2020). In other words, countries with an unstable capital account will face a "too-short-blanket-problem", only a limited amount of credit can be supplied, with too many applicants to provide with.
[98] In this regard, until the 1936-1938 reform, the BoI could take advantage of its commercial bank activity to have a better sense of market conditions.

provide high-quality information that could allow a central bank to distinguish between illiquid or insolvent banks when a LOLR intervention is requested. From a theoretical standpoint, LOLR support should be provided only to illiquid but solvent banks, although distinguishing between insolvency and illiquidity may not be very clear-cut (Freixas, Rochet and Parigi 2004). We argue that in the case of 1930s Italy, the central bank was able to take advantage of high-quality information from supervision activity to understand which banks were healthy and which ones were not. Therefore, even though there was credit rationing, healthy banks did not have to contract their lending, as the BoI was able to focus its limited resources on them.

The issue is of particular historical importance for the Italian interwar case: a well-founded suspicion is that the financial commitment required to rescue the mixed banks would have ended up sacrificing the other components of the banking system. The hypothesis is that in order to rescue the large mixed banks, under Gold Standard constraints, the BoI had to divert most of its liquidity facilities away from small and medium commercial banks, limiting the scope for LOLR interventions (Toniolo 1995). In support of this hypothesis, we know that the discount portfolio of the BoI (reconstructed in Cotula and Spaventa 1993) contracted sharply from around 4 billion before the crisis to around 2 billion in 1932-1933, thus suggesting a LOLR credit rationing by the BoI (Table 3). Arguably, there are two baseline scenarios behind it. In the first one, BoI restricted discounts to all commercial banks indiscriminately. Due to asymmetric information, thus not knowing which banks were viable, a credit rationing problem arises, with all the negative effects it entails.[99] The second scenario, instead, is one in which the BoI employs high-quality information from its supervision activity to reduce the information asymmetries and thus manages to efficiently allocate the limited funds – i.e. it provides LOLR support only to those banks who are illiquid and not insolvent, and thus able to overcome the temporary crisis.[100] In this second scenario, the credit restriction actually has much fewer negative effects than in the first.

The first scenario was revamped by Polsi (2002), taking the case of Piacenza's province as an example of how the BoI refused to provide LOLR support to the local banking system, which collapsed in late 1932. New evidence from the Ministry of Finance's supervision archives provides additional background to the actions taken by the BoI in those days.[101] The difficult situation in the province of Piacenza was well-known to the BoI and the Ministry of Finance, and the province was considered "overbanked" with 17 banks and more than 190 branches in a province with a population of just 290,455. Local banks had already approached the government in order to negotiate their financial support, but this had been denied. At the same time – the condition of the largest bank (Banca Sant'Antonino) was deemed desperate and its fall had been forecasted since the end of 1931. When the failure of one of the local private banks (Banca Raguzzi di Piacenza) triggered a run, local authorities

[99] In this perspective, the BoI is the bank and the firms being rationed are the commercial banks in need of liquidity.
[100] Here we draw a distinction between bail-out and LOLR. It is indeed possible that liquidity support and outright grants are given to the distressed bank, but this would be then considered bail-out, not LOLR.
[101] See the copious correspondence between the Ministry of Finance, the Piacenza's Prefetto, Mussolini, and the BoI between July and October 1932 in ACS, Ministero delle Finanze, Direzione Generale Tesoro, Ispettorato generale per i servizi monetari di vigilanza e controllo, Ufficio tutela del credito e del Risparmio Affari Generali, bb. 7, f. 52, sf. 1.

had already started negotiations with the government and the Ministry of Finance to rescue the local banks. However, based on the reserved information available, the losses (more than 57 mln were considered too high, and reports by the BoI's inspections highlighted that the position of these banks was already compromised in June 1929, thus not directly determined by the Great Depression. On this point, the BoI gave detailed information on each bank to inform the decisions. A consensus emerged among the BoI, the Ministry of Finance, and the government that no rescue should be attempted, and thus no LOLR support was provided. In the light of these facts, it seems that credit restrictions were not motivated by a monetary constraint due to the bail-out of the Credito Italiano and Banca Commerciale, but were rather an explicit and well-pondered choice based on supervision information.

Another insightful case study is Banca Bergamasca di DD. e CC. As sketched by Confalonieri (1994) it was a typical "captive bank", who was burdened by financial lending to the majority holding group and by dubious security holdings. Expanding beyond Confalonieri's account, our in-depth analysis of supervision files reveals interesting insights on the approach followed by the supervision authority in dealing with local distresses. Since 1926, a high level of dependence of Banca Bergamasca on BoI's discounting and doubtful maturity mismatches between assets and liabilities are internally reported.[102] Enduring suspicions on balance sheet figures and asset quality brought about an on-site inspection. The inspection confirms the suspicions, revealing a precarious situation in the Milan branch, which was characterized by illiquid assets and significant hidden losses.[103] After that, the Banca Bergamasca's President asked for a second inspection, hoping to convince the supervisors that the illiquid assets were nonetheless of high quality, with the aim to get access to additional discounting from the BoI. The request is rejected: BoI deemed that a better overall judgement in a second inspection was unlikely and that, even in that instance, it might have forced BoI to a moral obligation to provide financial assistance to the bank. This moral obligation would have damaged the credibility of supervision activity, because of the conflict of interest with the position as a creditor of the bank.[104] As the bank situation worsened, the BoI refused to provide discounting beyond safe and liquid assets, pointing to the persistence of high exposure of illiquid and doubtful assets, in particular securities of the controlling group. In this respect, that of Banca Bergamasca is another case where information acquired during the supervision process helped the BoI in making a more efficient allocation of its LOLR rediscounting facilities.

The cases of Banca Bergamasca and the province of Piacenza were definitely not isolated cases. It is interesting to notice that, as soon as the BoI's inspection found out that the Unione Bancaria Nazionale (a large interregional bank headquartered in Brescia) had losses exceeding its capital and reserves, all the BoI's branches were instructed to limit their discounting to those bills that are intrinsically solvent besides the signature of the Unione Bancaria Nazionale.[105] Similarly, when the BoI understood that the collapse of Credito Meridionale di Napoli was inevitable, Stringher instructed the branch of Ancona to limit the

[102] Promemoria Stringher, march 1926, ASBI, Sconti, prat. 66, f. 1.
[103] Internal report dating 9 April 1930, ASBI, Sconti, prat. 66, f. 1.
[104] Letter of BoI's Milan branch director in ASBI, Sconti, prat. 66, f. 1. Both the Governor (Azzolini) and the head of Supervision (Introna) supported this decision.
[105] ASBI, Vigilanza, prat. 6707, f. 1; ASBI, Sconti, prat. 197, f. 1. Letters to various branches sent between 31st December 1931 and early January 1932.

rediscounting for Società Bancaria Marchigiana, one of the major shareholders of the troubled bank and very exposed to it.[106] In July 1927, Banca Agricola Commerciale di Moncalvo asked for LOLR intervention, the BoI firstly asked to be provided with real information on the situation of the bank, and after having deemed it desperate, refused the rediscount.[107] Similarly, in February 1932, Banca di Pordenone was refused rediscount even though it actually had some safe bills eligible for ordinary discounting: the BoI assessed that even if those bills were rediscounted, the bank would not have survived the run it was experiencing because it was insolvent: the bank was let to fail.[108] The same story applied to Banca Mutua Popolare di Rovereto, which was found with hidden losses and illiquid activities by an inspection in September 1932: when the bank asked for LOLR support in February 1933, this was refused on the basis that the position of the bank was already irremediably compromised.[109]

The narrative evidence presented here shows that the BoI did discriminate against banks that supervision activity dubbed as insolvent and not viable, this being consistent with the second scenario advanced above. Plus, in none of the archival files consulted for this work, we could find single evidence pointing to a general credit restriction. To further explore this issue, we use the sample of ordinary joint-stock banks (SOC) present in ASCI to see whether viable banks received less rediscount starting in 1931. We define as "healthy" those banks that were alive in 1936 and did not receive any government or third-party support. Figure 10 plots the rediscounted portfolio declared by "healthy SOC"[110] between 1927 and 1936, compared to bankrupt and resolved banks. While from 1930 on the overall rediscounting decreased, the one granted to healthy banks showed a slight upward trend between 1930 and 1932. Furthermore, Figure 11 shows that healthy banks' lending (measured as a ratio to GDP to take into account the economic slowdown) did not decrease, but remained stable around 4 per cent throughout the period. Overall, this stylized fact, coupled with the suggestive narrative evidence, points to a second scenario interpretation, where the BoI was able to prevent a general LOLR rationing thanks to its supervision activity.

6. Conclusion

This paper has investigated the establishment and the impact of Italian banking supervision following the 1926 law. A disorderly growth in the number of banks and deposits brought to this law. We document gradually increasing on-site and off-site supervision undertaken by the BoI, although its action was limited by personnel scarcity both in terms of size and skills. While incomplete in size and scope by modern standards, at that time, this supervision mechanism was not common in international comparison. Overall, we stress that

[106] Letter from Stringher to the Director of the Ancona branch, 24th November 1928 in ASBI, Vigilanza, prat. 8144, f. 1.
[107] ASBI, Vigilanza, prat. 7261, f. 1.
[108] ASBI, Vigilanza, prat. 8139, f. 1.
[109] ASBI, Vigilanza, prat. 7093, f. 1.
[110] Healthy SOC are defined as those banks that are alive in 1936 and did not receive any government or third-party resolution support. Bankrupt banks are those banks that filed for bankruptcy between 1927 and 1936. All the remaining banks are considered distressed but resolved.

how supervision authority enforces new rules matters no less than the letter of the very rules. Rules enforcement does not come out of the blue, but it is rather the result of the complex and troublesome task of building a supervision mechanism from scratch.

A substantial degree of discretion allowed to better enforce the law content (the "spirit" of the law) and to fill some of the gaps and ambiguities (the "letter") of that law. By discretion, we do not mean arbitrariness but rather a proactive approach that went beyond a mechanical check of mandated capital and risk concentration ratio. It encompassed mandating information requirements that allowed detailed analysis of balance sheet items and even individual credit exposures, as well as the inclusion in capital to deposit ratios of household deposits disguised for tax purposes. Even the enforcement of pre-existing provisions (like loss coverage mandated by the Code of Commerce) helped to foster the purpose of the law of capital adequacy.

Our main quantitative evidence shows that supervision spurred risk mitigation measures among supervised banks. Based on systematic archival analysis on a large and representative sample of banks with below-median capitalization, we show that more than half of these increased equity thanks to the new regulation, often following supervision input. Lending concentration limits appeared as the most far-reaching norm, followed by capital to deposit ratio, minimum capital levels, and loss coverage. This suggests that, notwithstanding the lack of a strong sanctioning mechanism, substantial enforcement seemed to take place through moral suasion. After an initial period and reassurances on information confidentiality, supervised banks seemed mostly cooperative. This is confirmed by the overall positive judgement on supervision expressed by banking industry members in the surveys reported by the post-WWII Constituency Assembly works.

As already known, the new supervision could not avoid the dramatic crash of the larger universal banks. The lack of substantial norms dealing with bank-industry linkages in the 1926 law was arguably the main culprit of their distress. Still, we observe noticeable effects on medium-small size banking, which had disproportionately grown in the early 1920s. Our educated guess is that this mitigated the extent of banking distress in the early 1930s, allowing public authorities a larger room of maneuver to bail out the larger universal banks.

Preliminary evidence suggests that supervision enhanced lending of last resort function during the post-29 phase. Gold standard limited the liquidity availability during the crisis – potentially creating a credit rationing problem – but lending to healthy banks did not decrease. Based on archival evidence, we conjecture and provide preliminary evidence that supervisory information helped to discriminate between liquidity and solvency problems. In our judgement, this is a compelling issue, which would deserve systematic and specific research.

From a methodological perspective, this paper emphasizes the large information potential which could be exploited from historical supervision archives for research purposes. This seems particularly relevant, since confidentiality issues in banking supervision very often limit research.

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Tables and Figures

Table 1. The watering down of the 1926 banking law

	First 1926 draft (January)	Second 1926 draft (Spring/Summer)	Final law (RD 1511, 7/9/1926; RD 1830, 6/11/1926)
Supervisor authority	Ministry of Finance	Central Bank	Central Bank
Supervisory powers in regulatory compliance	Not explicitly defined	Not explicitly defined	Obligation to provide the BoI's officials carrying-out the inspection any and all documents required
Minimum capital ratio	10 % of deposits	10 % of deposits	5 % of deposits (4 years to comply)
Minimum reserve accumulation		10 % of annual profits to reserve, until the reserve reaches 10% of deposits	10 % of annual profits to reserve, until the reserve reaches 40 % of paid-up capital
Maximum risk concentration		15% of bank capital on uncollateralized credit to a single borrower	20% of bank capital on uncollateralized credit to a single borrower (3 years to comply)
Minimum liquidity	Short term assets covering half of short term liabilities	Short term assets covering half of short term liabilities	None

Table 2. Bank inspections by area of operations 1927-1934

	National	Interregional	Regional	Provincial	Local	Total
Banks in 1930	10	77	89	215	3,571	3,962
Inspections 1927-1930	1	52	64	175	1,323	1,615
Share 1927-1930	10%	68%	72%	81%	37%	≈40.8%
Inspections 1931	2	13	15	66	392	488
Share 1927-1931	30%	84%	89%	112%	48%	≈53.1%
Inspections 1932	1	7	15	29	377	429
Share 1927-1932	40%	94%	106%	126%	59%	≈63.9%
Inspection 1933		3	10	15	386	414
Share 1927-1933	40%	97%	117%	133%	69%	≈74.4%
Inspections 1934	1	1	3	4	275	284
Share 1927-1934	50%	99%	120%	134%	77%	≈81.5%

Source and notes: ASBI, Vigilanza, prat. 11, f. 5/7/8/11, prat. 13, f. 10. Some (but few) banks were inspected multiple times. 1930 is the first year for which the disaggregation by area of operation is available. Figures refers to banks registered in *Albo* and it excludes those removed from the *Albo* before 1930. This creates a bias, as it underestimates the denominator. This is not too problematic for our conclusions, because almost all banks removed from the *Albo* before 1930 were local banks.

Table 3. Bank of Italy's lending 1928-1935

Year	Ordinary portfolio (a)	Advances (b)	(a)+(b)	Portfolio and advances to "large banks" (c)	Portfolio and advances to other banks and public (a)+(b)-(c)
1928	3,221.3	1,761.9	4,983.2	902.5	4,080.7
1929	3869.6	1,802.2	5,671.8	1,481.6	4,190.2
1930	3546.5	1,661.7	5,208.2	1,821.7	3,386.5
1931	4598.1	1,066.6	5,664.7	2,805.6	2,859.1
1932	5249.6	1,289.6	6,539.2	4,538.6	2,000.6
1933	3683.7	1,009.7	4,693.4	2,711.1	1,982.3
1934	3645.1	2,449.7	6,094.8	3,321.9	2,772.9
1935	4539.5	4,090.5	8,630	3,875.7	4,754.3

Source: Cotula and Spaventa (1993).

Figure 1. Supervision framework for Italian commercial banks under 1926 banking law (1927-1935)

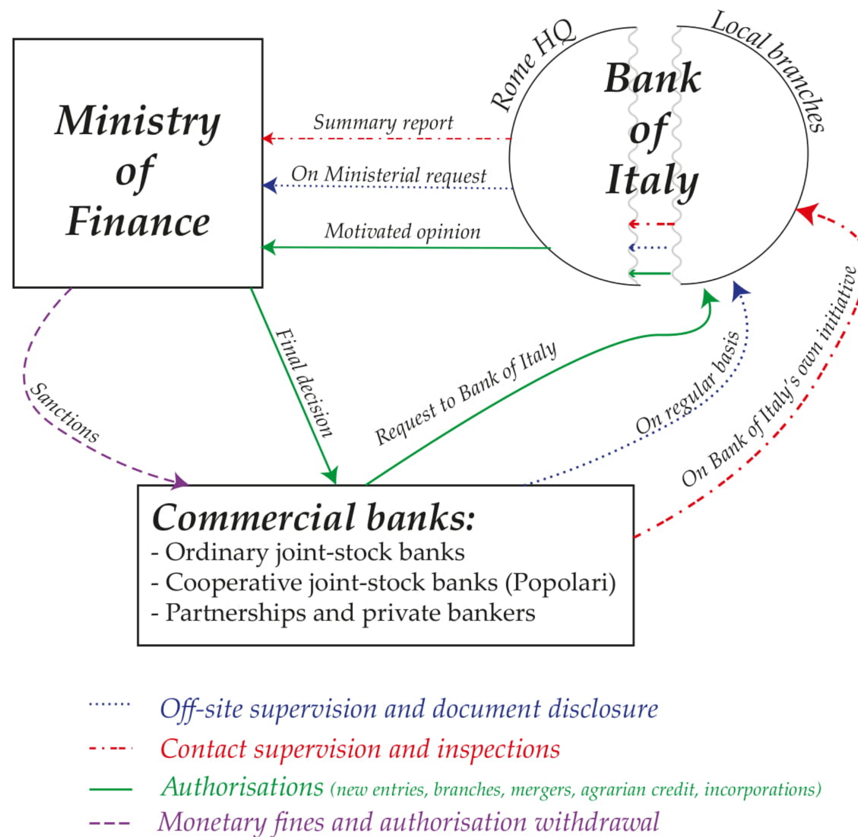
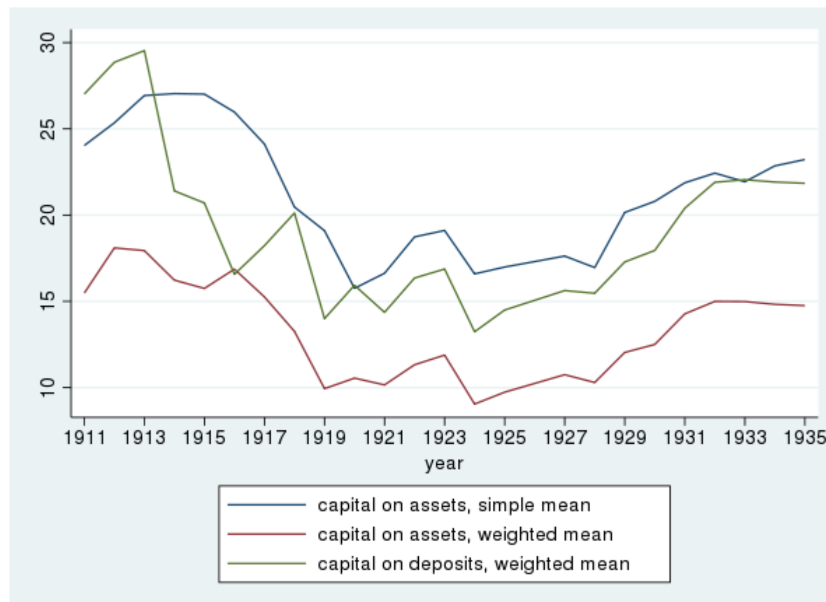
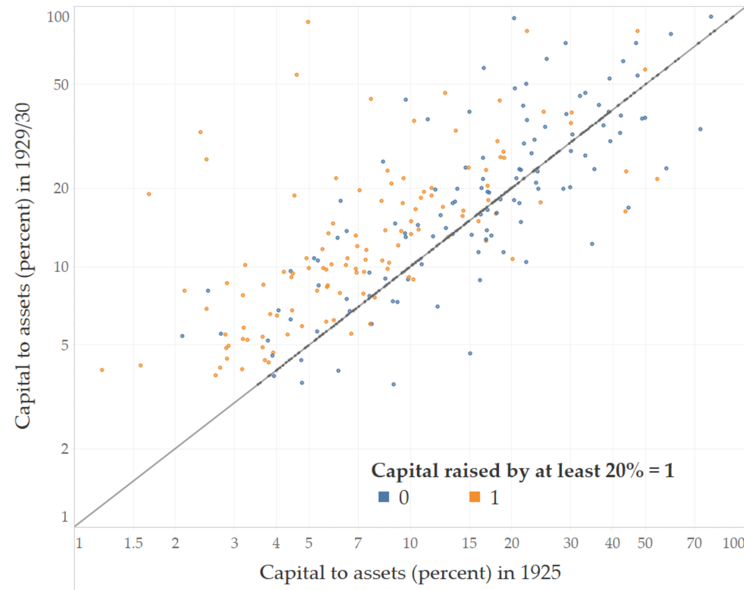


Figure 2. Capital ratios of joint-stock banks (percentage points, excluding major four banks)



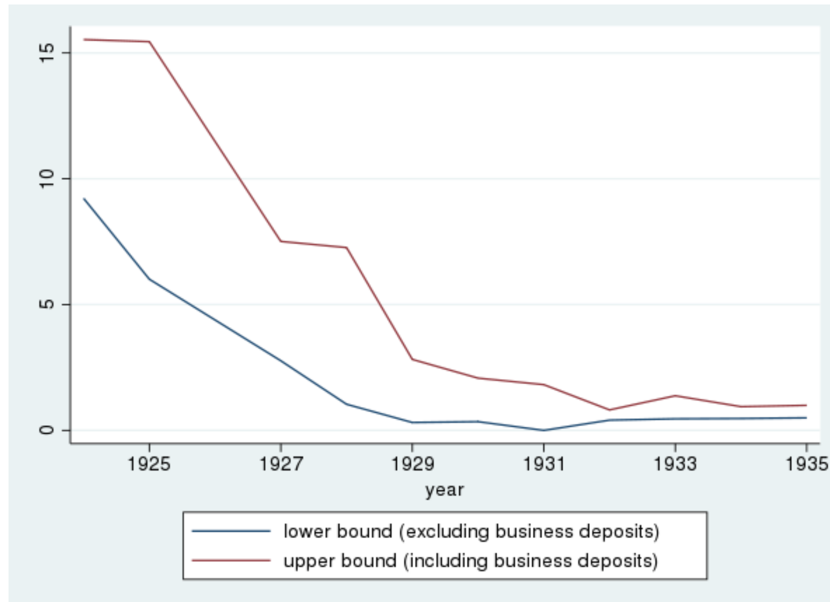
Source and note: elaboration on Natoli *et al.* (2016). Banks are weighted by households deposits.

Figure 3. 1925 and 1930 banks capital on assets ratio, by capital increase



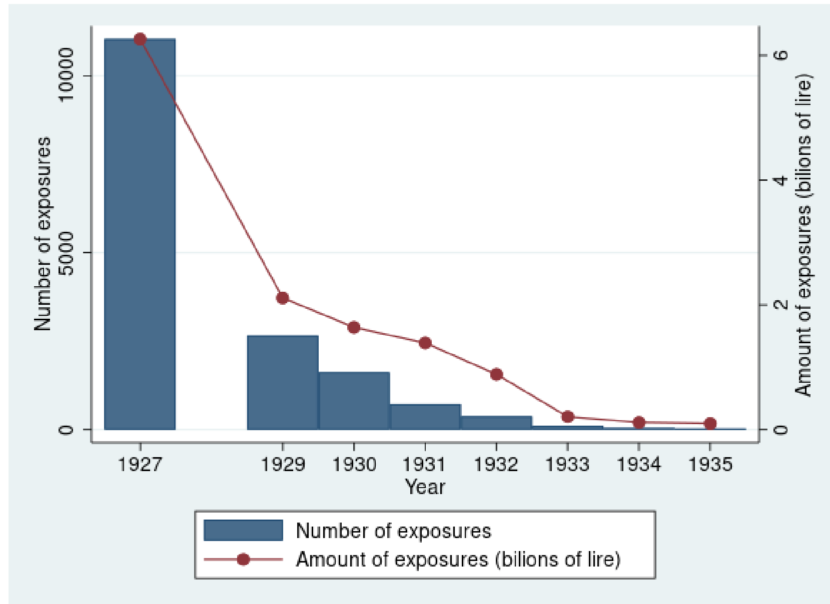
Source: elaboration on Natoli *et al.* (2016).

Figure 4. Percentage of joint-stock banks below 5 per cent capital to deposit ratio



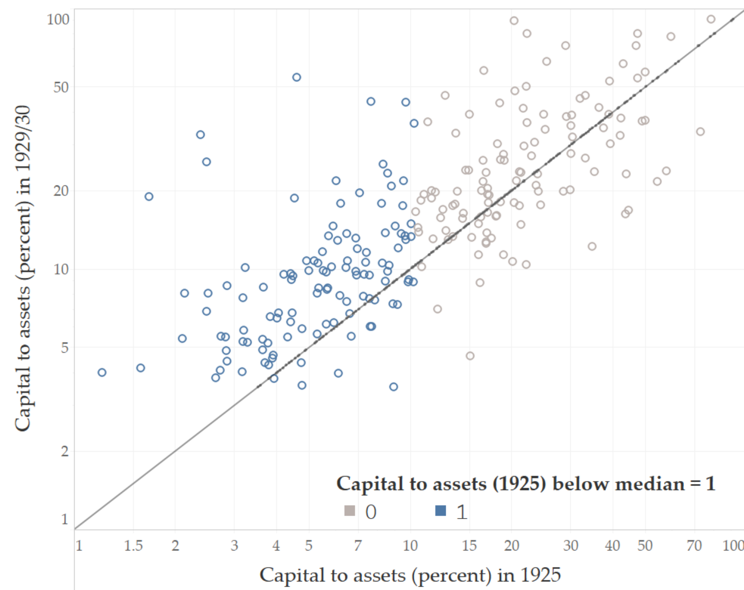
Source: elaboration on Natoli *et al.* (2016).

Figure 5. Uncollateralized credit exposure exceeding 1/5 of outstanding capital



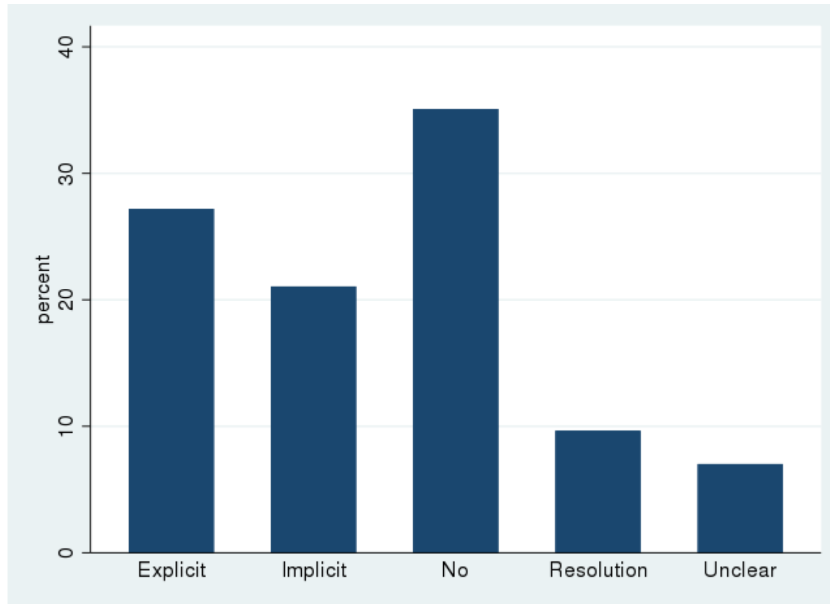
Source: elaboration on Bank of Italy's Annual Reports.

Figure 6. Sample of analysis



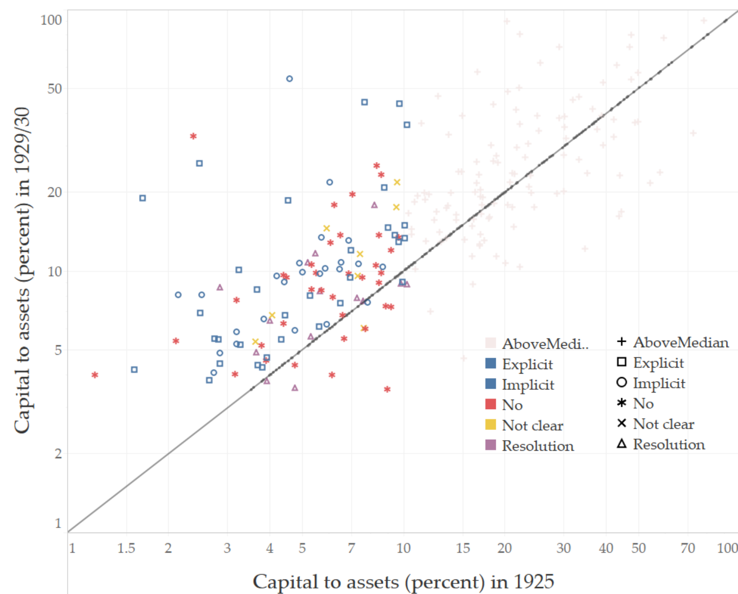
Source and notes: elaboration on Natoli *et al.* (2016). All banks with capital to assets below the median of the 233 full ASCI sample are included in the sample for which we perform the archival research. The final sample is 124 banks, i.e. 53 per cent of the ASCI sample and 36 per cent of all SOC existing in 1929 according to Cerrito (1996).

Figure 7. Supervision effects on capitalization



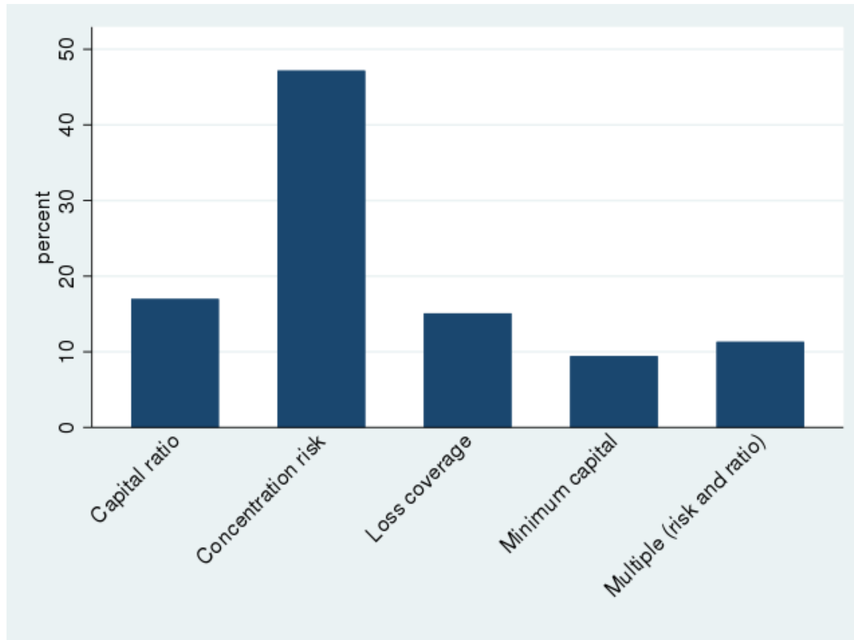
Source: elaboration on ASBI survey.

Figure 8. Initial and final capital ratio, according to supervision intervention



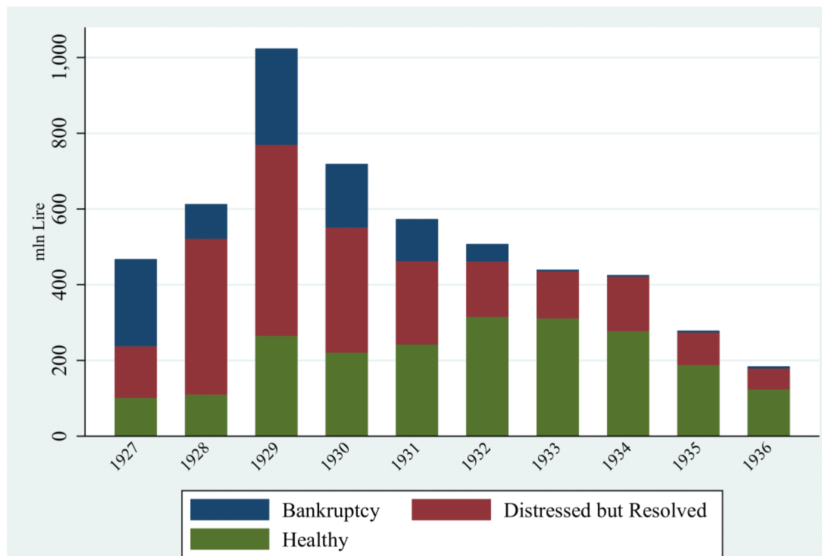
Source: elaboration on ASBI surveys and Natoli *et al.* (2016).

Figure 9. Regulatory requirements to which banks complied



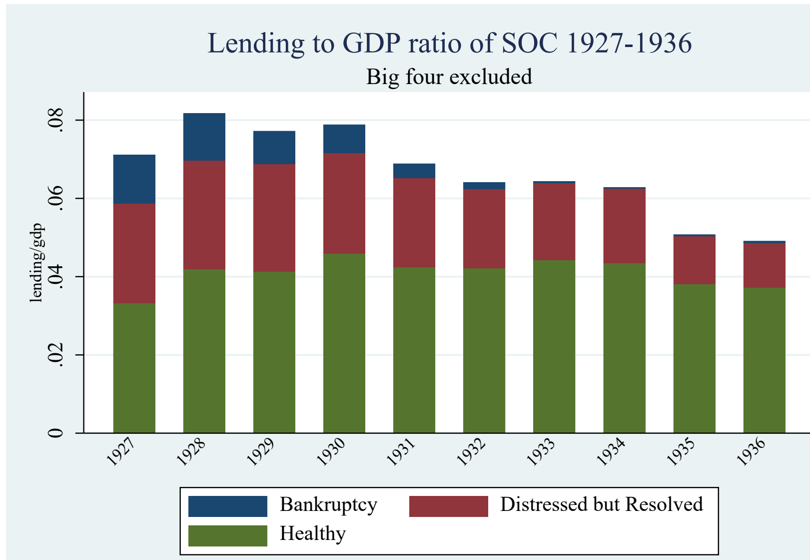
Source: elaboration on ASBI surveys.

Figure 10. Rediscounted portfolio of SOC



Source: authors' own elaborations on Natoli *et al.* (2016) and Molteni (2021).

Figure 11. Lending to GDP ratio of ordinary stocks banks



Source: authors' own elaborations on Natoli *et al.* (2016) and Molteni (2021).

Appendix

Table A1 - Provisions of the 1926 Banking law

Provisions		Legislative reference
Albo	An Official Register (*Albo*) of banks is instituted and every bank must be registered in order to provide banking services.	Art.1-2, R.D. 7/9/1926, n° 1511 Art.10-11, R.D. 6/11/1926, n° 1830
Authorizations	New banks must obtain the authorization of the Ministry of Finance - informed the Ministy of National Economy (from 1929 of Agriculture and Forests) and advised by the BoI.	Art.2, R.D. 7/9/1926, n° 1511; Art.5, R.D. 6/11/1926, n° 1830
	New branches of existing banks must obtain the authorization of the Ministry of Finance, advised by the BoI.	Art.2, R.D. 7/9/1926, n° 1511; Art. 9, R.D. 6/11/1926, n° 1830
	Mergers must obtain the authorization of the Ministry of Finance, advised by the BoI.	Art. 6, R.D. 6/11/1926, n° 1830
Capital	Every year, at least 1/10 of the profits must be used to increase the reserve until it reaches at least 40% of the capital.	Art. 3, R.D. 7/9/1926, n° 1511
	Minimum capital requirements are introduced. These are set according to the legal category and the territorial extension of the bank.	Art. 4, R.D. 6/11/1926, n° 1830
	A maximum deposit/equity ratio of 20:1 is introduced. Excessive deposits must be invested in State backed bonds or deposited at the BoI.	Art. 15, R.D. 6/11/1926, n° 1830
Uncollaterized loan (*Fido*)	The amount of credit provided to a single customer without sound collateral (*Fido*) cannot be higher than 1/5 of the equity of the bank.	Art. 16, R.D. 6/11/1926, n° 1830
Supervision	All the banks subject to the regulation are put under the supervision of the BoI.	Art. 4-5, R.D. 7/9/1926, n° 1511
	Supervised banks must disclose their balance sheets and call reports to the BoI at regular intervals.	Art. 4, R.D. 7/9/1926, n° 1511 Art. 12-14, R.D. 6/11/1926, n° 1830
	The BoI can send its officers to audit banks. During the inspection these are considered public officers.	Art. 5, R.D. 7/9/1926, n° 1511 Art. 17, R.D. 6/11/1926, n° 1830
Fines	Bank not abiding by these rules can be sanctioned with pecuniary fines. In cases of extreme gravity, the Ministry of Finance can revoke the authorization to operate.	Art. 19, R.D. 6//11/1926, n° 1830

Table A2 - Demands for new branches opening

	Demanded	Positive (BdI)	Negative (BdI)	Authorized (Min Fin)	Aut/Positive
Nov. 1926-1927	895	453	442	401	88.5%
1928	425	243	138	236	97.1%
1929	171	67	51	61	91.0%
1930	194	73	75	29	39.7%
1931	121	49	69	33	67.3%
1932	131	80	47	39	48.8%
1933	119	51	65	34	66.7%
1934	112	63	49	28	44.4%
1935	76	36	37	25	69.4%
Total	2,244	1,115	973	886	79.5%

Sources and notes: authors' on elaborations on ASBI, Vigilanza, prat. 11, ff. 3, 4, 5, 7, 8, 9, 10, 11; prat. 13 f. 2. When positive + negative < demanded the other cases are still being decided. Undecided cases are not included in following year figures. Figures refer to number of branches, not demands. Multiple branches could be asked through the same demand.

Table A3 - New uncollateralized credits requested and allowed by the BoI 1927-1935

Year	Requested		Allowed		Allowed/Requested	
	N°	Amount (lire)	N°	Amount (lire)	N°	Amount
1927	150	108,156,249	68	69,930,155	45%	65%
1928	143	137,402,500	93	91,236,064	65%	66%
1929	146	305,056,350	84	203,520,982	58%	67%
1930	114	389,270,340	78	322,795,615	68%	83%
1931	72	585,100,000	62	555,300,000	86%	95%
1932	54	179,025,000	42	146,279,000	78%	82%
1933	52	121,711,000	40	106,184,000	77%	87%
1934	41	315,616,367	32	269,761,367	78%	85%
1935	45	185,931,059	28	146,800,000	62%	79%
Total	817	2,327,268,865	527	1,911,807,183	65%	82%

Source and note: Banca d'Italia (various years). Figures refer only to new credit, those outstanding before December 1926 are not included.

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