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## The Great Expansion: The Exceptional Spread of Bank Branches In Interwar France

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Abstract

that, after World War I, France experienced an unprecedented expansion in bank branches mostly due to the creation of temporary branches in rural areas. The banking crisis in early 1930s paused this expansion. Nevertheless, the number of bank branches

Using newly collected data at the city level between 1910 and 1938, this article shows

per capita remained four times higher than before the war. Also, the expansion of bank branches was not associated with an increase in the ratio of bank assets to national income. These findings re-evaluate the Great Reversal hypothesis in banking and reveal the disconnection between geographical expansion of banks and standard measures of

financial development. Both trends can be reconciled if one considers that banks are multi-product firms - not just lenders - and that competition for new customers is not

always associated with greater credit activity.

Keywords: banking, French financial history, bank branching

JEL codes: G21, G34, N14, N24

Introduction

After significant developments in the banking and financial markets before the First World War

(hereafter, WWI), the interwar period has often been characterized by the opposite trend, which

Rajan and Zingales (2003) called the Great Reversal. Banking and finance caught up partially

after WWI, but this trend ended abruptly due to the Great Depression. France, the most

financially developed country then, suffered the same fate. Rajan and Zingales (2003) used the

best available data to show that the ratio of bank deposits to the gross domestic product (GDP)

stagnated between 0.42 and 0.44 from 1913 to 1929, then inexorably declined.

Their arguments raised to support the Great Reversal align with the part of the French

banking historiography, which has dated the banking recession back to WWI. Based on a

limited number of bank balance sheets, there was a decline of French banks that affected the

expansion of the Belle Époque (Bouvier, 1984; Gueslin, 2016; Lescure, 2016), characterized

by the disappearance of local banks and a concentration of large banks (Baubeau, 2016;

Gueslin, 2016). The banking sector thus never recovered from WWI.

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However, such literature contrasts with Hubert Bonin's research. Using many banking archives, Bonin highlighted that the 1920s was a period of great expansion in the network of bank branches and commercial efforts by both larger<sup>1</sup> and smaller banks (Bonin, 2000). According to Bonin, the 1920s marked the success of the second banking revolution because access to banking services became the norm for middle (rural) class citizens. This unprecedented expansion, halted by the Great Depression, later shaped the banking network of the *Trente Glorieuses* (Bonin, 2000).<sup>2</sup>

Our article seeks to clarify this debate by using new micro-level data on balance sheets and branch locations of the entire French banking system. Given the absence of banking regulation in France before 1941, no official statistics exist on banks. Thus it is necessary to use private sources of information. (Bonin, 2000) used dispersed quantitative sources without providing a comprehensive picture of the banking network. Hoffman et al. (2015, 2018) collected and used data from bank branches before 1914 but could not compare them to bank balance sheets. Baubeau et al. (2021) used new bank balance sheet data from the interwar period but did not assess the bank branch network. Our article extends prior research by using balance sheet data from 1901 onward and bank branch data during the interwar period that can be compared to pre-1914 data.

Our findings are twofold. First, we found that the number of bank branches dramatically increased after WWI. The 1920s enjoyed a radical improvement of bancarization, defined as households' and firms' geographical access to banks. From 1920 to 1930, 95% of all new bank branches were opened in towns with fewer than 10,000 inhabitants, while 64% were opened in towns with fewer than 2,000 inhabitants. However, this increase did not lead to more considerable bank assets and deposits as a share of national income. In line with Lescure (2016), our data on bank balance sheets reveals stagnation and even a decline in these ratios during the 1920s. Furthermore, the Great Depression halted the network expansion but did not cause a reversal. Though the French population was similar in 1910 and 1930, the number of bank branches during the 1930s remained four times greater than before the war. The number of banks in small towns and rural areas did not decline either. Before the war, less than 10% of bank branches were in towns with fewer than 2,000 inhabitants, compared to an average of 25%

<sup>&</sup>lt;sup>1</sup> Such as the *Crédit Lyonnais* or *Société Générale*.

<sup>&</sup>lt;sup>2</sup> For more on banking, financial development, and economic growth in France during the *Trente Glorieuses*, see Monnet (2018).

during the 1930s.<sup>3</sup> Their share of the total number of branches rose from 11% to 32% between 1920 and the 1930s. On this basis, the interwar period was thus a Great Expansion rather than a Great Reversal in France.

Secondly, we show that two forces shaped the banking network expansion. On the one hand, the 1920s was characterized by increased regional banks<sup>4</sup> and fiercer competition between them and national banks. By 1930, both types of banks controlled most of the network (33% held by national and 40% by regional banks). The expansion of the banking network occurred at an intensive margin (i.e., existing banks opening new branches), rather than by a multiplication of new banks. It was achieved mainly by opening temporary branches in rural areas and small cities. According to Bonin (2000), temporary branches, open only for a few days a week, especially on market days, were vital for this great expansion. Their share in the total number of branches rose from 11% to 32% between 1920 and the 1930s.

On the other hand, the violent crisis between 1930 and 1931 affected regional banks negatively<sup>5</sup>. During the 1930s, the share of regional banks in the network declined in favor of large national banks. In 1938, the former represented only 31% of the branches, the latter nearly half. Nevertheless, this bank concentration was not accompanied by a significant decline in the network size. This was partly due to the consequences of large national banks taking over the networks of regional banks that experienced difficulties during the banking crises of 1930 and 1931.

These results contribute to the existing literature in several ways. First, we shed new light on the French banking network patterns during the interwar period, which is a crucial

<sup>&</sup>lt;sup>3</sup> The number of bank branches in 1929 (about 12,000) was not reached again before the late 1960s, and the ratio of bank branches per inhabitant was not reached again before the mid-1970s. See Feiertag (2011) and *Rapports Annuels du Conseil National du Crédit*.

<sup>&</sup>lt;sup>4</sup> In the study, we distinguish four types of banks: national banks, regional banks, district banks, and single-branch banks. See the section "Categories of banks" for a formal definition of these four categories.

<sup>&</sup>lt;sup>5</sup> In other countries, there is mixed evidence on the concentration versus expansion of banks. In the United Kingdom, for example, a wave of mergers occurred between 1880 and 1918, with the disappearance of many small banks (Braggion et al., 2020). After WWI, the British banking sector was led by an oligopoly of five large banks (Braggion et al., 2020; Capie & Billings, 2004). In the United States, the concentration of the banking sector began later, during the mid-1920s (Fohlin & Jaremski, 2020). The concentration of the Dutch banking sector remained more moderate (e.g., alongside large banks, smaller ones continued to operate). It was however accompanied by a new phenomenon: the formation of larger and larger networks and the opening of new branches (Colvin et al., 2015). During the 1920s, Italy experienced an increase in the number of branches, the number of banks, and competition among them. Concentrations observed elsewhere did not begin until the following decade (De Bonis et al., 2018). Recent research by Molteni (2021) also documented that the Italian expansion of bank branches in the 1920s did not translate into a credit boom.

period of its development. Thus, we contribute to the Great Reversal debate propagated by several authors (Baubeau, 2016; Bonin, 2000; Lescure, 2016; Rajan & Zingales, 2003). Also, we documented and analyzed the Great Expansion from a banking network perspective using large-scale quantitative data. Thus, we contribute to debates on the development of banking networks during the interwar period in France by highlighting the stagnation and even a decrease in the aggregate real volume of its banking activity.

According to existing literature, two main arguments might explain the evolution of the banking network. The first argument is that competition among banks led them to open branches to limit the entry of new competitors. It is the first-mover advantage obtained from building clientele, learning by doing, or economies of scale, enabling incumbents to earn rents, even when new entries occur (Berger & Dick, 2007; Degryse et al., 2009). The second argument is that the sharp increase in the branch network in the 1920s might result from high inflation. Inflation would make banks open branches to expand loans at a quicker rate than inflation rate, thus preserving the real value of their assets (Jonker & Van Zanden, 1995). In the case of France, the argument on inflation must be put into perspective. In line with the extant literature (Lescure, 2016), we do not find evidence of a credit boom and increased risk-taking. Moreover, inflation does not explain why the expansion of the network began before WWI. Therefore, we consider banks as multi-product firms to understand why competition is an essential driver of network expansion despite real credit declines. Credit, especially discounts on commercial bills, is an essential dimension of competition. However, banks compete in other markets, such as deposits, security placement, and wealth management services. Thus, competition can become more complicated if the real credit volume does not increase and interest rates do not reduce<sup>6</sup>.

Secondly, our contribution to existing literature focuses on the impact of bank branches on financial stability. Some studies suggest that creating bank branches contributes to better risk diversification (Cherin & Melicher, 1988; Wheelock, 1995; White, 1984) and increases

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<sup>&</sup>lt;sup>6</sup> Unfortunately, data on lending rates do not enable us to state whether increased competition in the credit market led to a significant decline in the real interest rate. Consistent series of lending rates of commercial banks during this period are unavailable (Bouvier, 1984). The only relevant interest rates at our disposal (see Monnet et al., 2021) are the discount rate of the central bank (which was seen by contemporaries as a good proxy for the average cost of credit across France), the money market rate (3-month commercial paper traded by a small number of the largest banks in Paris), and the lending rate of the *Crédit Agricole*, a cooperative bank whose role and specificity is extensively discussed in this article. Nominal rates decreased in the second half of the 1920s, in line with the stabilization of inflation (Monnet et al., 2021). Considering the inflation rate, real lending rates were thus stable on average in the 1920s and increased slightly in the 1930s because of the deflation caused by the Great Depression. Computations of the real interest rate should be used with caution, given the volatility and mismeasurement of inflation during this period.

bank competitiveness (Carlson & Mitchener, 2009). Others suggest that expanding networks can be detrimental to lending quality (Goetz et al., 2013) and bank efficiency (Bernini & Brighi, 2017). Some highlight that it may increase the bank's default probability (Carlson, 2004; Colvin et al., 2015) or reduce its expected lifespan (Grodecka-Messi et al., 2021). Meanwhile, several studies reveal more mixed effects of bank branching (Berger & DeYoung, 2001; Garrì, 2019; Nguyen, 2019).

During the interwar period in France, the most prominent French banks did not suffer from the crisis. They maintained and even expanded their network while regional banks suffered the consequences. In Canada, during the Great Depression, large banks with many branches contributed more to financial stability than the multiplication of single-branch banks (Bordo et al., 2015). However, the remarkable expansion of branches and the strengthening of regional banks at the expense of single-branch banks during the 1920s led to the greatest banking crisis in the country's history in 1930 and 1931. This apparent paradox can be explained by the typology of banks and their relative experience in managing a rapidly growing network (Barnes & Newton, 2018). Before WWI, national banks had already accumulated the expertise required to collect information and manage large networks. On the other hand, regional banks had less experience and were less efficient in performing organizational tasks, which translated into a much greater risk of default. The scale of analysis and, particularly, the type of bank can, therefore, significantly alter the conclusion drawn regarding the link between bank branch multiplication and financial stability. Thus, analyzing banking typologies in France during the interwar period needs clarifications from this perspective.

Thirdly, from a methodological standpoint, our conclusions warn against the almost exclusive use of bank credit (or deposit) to GDP ratios as an indicator of financial development. Cross-country comparisons from Beck et al. (2007) have suggested a strong correlation between indicators of banking outreach (bank account or branch density) or ratio of credit or deposit to GDP, with financial development. Our article, however, suggests that these two types of indicators do not always lead to the same conclusions.

The rest of this article is structured as follows. In the next section, we present France's interwar period's economic and banking context. In the third section, we describe our data and sources. The fourth section shows the evolution of the banking network during the interwar period. The fifth section refines the branch network analysis and discusses its expansion's

geographical and rural dimensions. The sixth section discusses the evolution of banks' balance sheets in relation to their network, and we conclude in the last section.

#### The French economy during the interwar period

The post-WWI decade was a period of economic recovery (Sauvy, 1984). The financing needs of companies grew significantly (Bonin, 2000; Daviet, 1995). The 1920s were characterized by widespread inflation and monetary instability at the macroeconomic level. Until the stabilization of the franc in 1926 and the adherence to the Gold Exchange Standard in 1928, inflation greatly impacted the value of banking operations (Cassiers, 1995; Sauvy, 1984).

After the war, competition among banks increased. Regional and district banks accelerated changes in their business models, which began before the war, to become progressively like large national banks. Before the war, large national commercial banks extended their network to collect deposits and nurture their discounting activity, security placements, and wealth management services (advice, stock exchange operations, payment of dividends and coupons, etc.). Notably, the Société Générale began an aggressive network expansion strategy to challenge Crédit Lyonnais, which was the market leader. Regional and district banks were familiar with developing close and long-lasting relationships with firms by granting long-term credit (often in the form of renewed short-term credit based on overdrafts) to local firms and merchants with low or no guarantees and by collecting deposits from the same economic actors as well. At that time, some regional banks, including large district banks, began following the example of national banks to diversify their businesses to less risky activities, such as security placements, client wealth management, and discounts. To develop this strategy, they expanded their networks to reach clients beyond their usual clientele of local merchants and entrepreneurs. By expanding their networks across the country's districts and regions, they found a way to make their business safe, maintain liquidity, and increase profitability (Ambigapathy, 2004; Bonin, 2000; Lescure, 1995). However, the pre-WWI expansion did not significantly change the social profile of bank clientele. New clients still came from large and medium firms and urban high to medium social classes (Bouvier, 1976; Lévy-Leboyer, 1976).

After the war, some regional banks accelerated the change in their business model and established cooperations with national commercial banks to participate in syndicates and issue securities. The network expansion followed. *Crédit Lyonnais* reacted to the ongoing expansion

of *Société Générale*'s network and the aggressive strategy of external growth of the newly created *Banque Nationale du Crédit*<sup>7</sup>. Inflation and the subsequent pressure on costs and salaries pushed these banks to create temporary branches.

At the same time, new public and parastatal players joined the banking sector due to subventions or guarantees from the State (Baubeau, 2016; Gueslin, 2016). *Crédit Agricole* and *Banques Populaires* (cooperative banks), for example, were supported by the State in their mission to provide credits and loans to small businesses in the agriculture sector. Such players were, thus, perceived as potential "unfair" competitors by private banks. However, savings institutions like *Caisses d'épargne* were strong competitors and an incentive for private banks to expand their networks. In addition to the existing private *Caisses*, the State founded the *Caisse Nationale d'Epargne* in 1882. In the early 1930s, it joined the country's post office network with over 15,000 branches nationwide. Savings institutions collected large deposits thanks to State guarantees and higher interest rates. However, they were not allowed to grant credits, place securities, and receive stock exchange orders (Baubeau et al., 2021; Lescure, 1995; Monnet et al., 2021).

Despite the network expansion, private banks were not granting more credits to the private economy. With riskier forms of credit such as security holdings and advances declining, private banks faced a shortage of (sound) commercial bills, as discounting was their main credit activity. Furthermore, private banks preferred to focus on treasury bills (*Bons de la Défense Nationale*) discounting, which became an essential part of their portfolio, though difficult to quantify. The banks' real equity capital was decreasing due to inflation. Thus, stable deposits in the countryside became a crucial resource for banks since issuing shares became costly. In the 1920s, deposits from professionals and urban elites were volatile, mainly because of changing monetary conditions and related capital flights<sup>8</sup> (Baubeau, 2016; Bonin, 2000; Lescure, 1995, 2016). The search for "sleeping" money in the countryside was a driver of the network expansion (Bonin, 2000). In addition to issuing public securities, private securities escalated after the monetary stabilization within the bullish market context. The remunerative and safe business of security placement was an important field of competition and a driver of expansion (Ambigapathy, 2004). Within this context, wealth management services such as

<sup>&</sup>lt;sup>7</sup> According to Bonin (2000), the number of correspondents in the countryside of private banks decreased. This decrease could be an additional incentive for the extension of bank networks. Moreover, the increase in the number of *Villes rattachées* to the Banque de France could have facilitated the expansion of the network because it gave banks more access to "bankable" bills (bills discountable at the Banque de France).

<sup>&</sup>lt;sup>8</sup> Inflation unleashed capital outflows in search of safe havens (Baubeau et al., 2021).

collecting and transmitting stock exchange-related operations (collecting market orders, redirecting clients' capital to finance repos) became critical.

The 1930s crisis hit the French economy hard and the monetary context contributed to the economy's decline (Baubeau et al., 2021; Sauvy, 1984). Until 1936, France remained on the Gold Exchange Standard and formed the Gold Bloc, which aggravated the deflation that began in the early 1930s. After the abandonment of the gold standard and the devaluation of the franc in 1936, the depreciation of the currency and the economic crisis continued, and short economic recoveries (notably in 1932 and 1933, and 1935 and 1936) were followed by relapses until 1938 (Sauvy, 1984).

The crisis particularly affected the banking sector. At the beginning of the 1930s, many banks failed, including small banks, bankers, some old local and regional banks, and even a national bank, the *Banque Nationale de Crédit*, which the government eventually bailed out (Baubeau et al., 2021; Bonin, 2000; Bouvier, 1984; Daviet, 1995). Fear and panic motivated fund transfers from commercial banks to safe institutions (Baubeau et al., 2021) like savings institutions (*Caisses d'épargne*) and the central bank. The central bank, however, did not play its role as a lender of last resort to stop the panic. Furthermore, the four largest banks in the country did not suffer from the crisis. Bouvier (1984) suggests that this reorganization of the banking sector might have represented a necessary cleansing. Monnet et al. (2021) question this argument and suggest that the decline in banking activity caused by waves of bank runs affected economic activity negatively.

#### **Data and sources**

The macroeconomic history of the French banking system during the interwar period is incomplete due to a lack of quantitative data. It can be explained by the absence of banking regulation in France before 1941. Before that date, neither the French government nor the Banque de France produced comprehensive statistics on the banking system. To assess the evolution of the French banking system during that period, scholars had to rely on the balance sheets of the four or six largest French banks, readily available due to the preservation of such archives, assuming that these large banks represented the remainder of the banking system

<sup>&</sup>lt;sup>9</sup> This trend of decreasing deposits in commercial banks combined with a marked increase in deposits in savings banks is not specific to France. It is a general feature of the 1930s in countries that experienced banking crises (Degorce & Monnet, 2021).

(Bouvier, 1984; Saint Marc, 1983). This assumption was, however, contradicted by more recent studies, which found high failure rates among small banks (Bonin, 2000; Laufenburger, 1940; Lescure, 2016; Plessis, 1996). After discovering new archival sources, Baubeau et al. (2021) built a database that contained the balance sheets of all commercial banks (i.e., joint stock companies that collected deposits and discounted commercial paper). They quantitatively demonstrated that the influence of the banking crisis of 1930 and 1931 was much more substantial than previously found. They also show that the evolution of the largest banks' balance sheets was not representative of the entire banking sector. In the next section, we shall discuss new data on bank branches and their sources. We shall also briefly discuss bank balance sheet data from Baubeau et al. (2021) and explain how to cross-check them with branch data.

#### Permanent and temporary bank branches: The Favre and the Bottin yearbooks

Our primary data source was the *Annuaire des banques et banquiers*, also known as the Favre yearbook. It listed the bank branches opened in France annually and included information such as their location (e.g., city and district) and address. Appendix 1 (Figure 9) shows an example of a page from the Favre yearbook. The branches were classified according to their location (Paris or elsewhere), then alphabetically in order of districts, then cities within each district. This information was published throughout the interwar period, between 1921 and 1939, for branches operating between 1920 and 1938. Thus, the 1921 edition listed banks' branches that operated in France in 1920.

We did not find two editions of the Favre yearbook—1932 and 1934 (for 1931 and 1933 branches, respectively). To complete the data, we used a complementary source, the Bottin yearbook (also known as the *Annuaire du commerce Didot-Bottin* or *Annuaire et almanach du commerce et de l'industrie*). This source was a professional directory that detailed the list of professions and professionals who operated within each banking sector. In the first part of the Bottin yearbook, companies were classified by trade: in the second part, they were classified by city and trade. We used data only from the second part because they were more complete.

We also used the Bottin yearbook to obtain data prior to WWI. Without the Favre yearbooks, the Bottin yearbook was the only available data source for this period. Hoffman et

<sup>&</sup>lt;sup>10</sup> Paris is usually immediately followed by the two districts of the Paris region at the time (i.e., Seine and Seine-et-Oise), and then provincial districts are listed alphabetically.

<sup>&</sup>lt;sup>11</sup> In the remainder of the article and unless otherwise noted, we consider *data* or *branch* years, not *edition* years.

al. (2018) used the Bottin yearbooks to study 19th-century banks and notaries. We used their data from 1881 to 1910. However, they did not include data from Paris, so we collected data on Parisian branches for 1910 from the Bottin yearbooks. Both yearbooks were based on self-reporting. According to these sources, a bank is an organization if the managers wish to present it as so, and a bank branch is an outlet that the organization's managers want to present to the public.

We discovered that the Bottin yearbook on branches was less exhaustive than the Favre, with the former particularly underreporting single-branch banks. The use of the Bottin explains the decrease in the reported number of branches in 1931 and 1933, but it does not affect the trends we highlighted during the interwar period. Due to source differences, we might overestimate the comparisons between 1920 and the pre-WWI period, during which information came from the Bottin yearbook. The differences in the sources led us to consider another source for bank branches called the Album (see the following section), used to refine data analysis between 1910 and 1920. The Album offers a more restricted but homogeneous definition of banks from 1901 to 1938 (see the following section for their definition).

The information was reported in both yearbooks when a bank had multiple branches in the same city. Rather than just listing the presence of a bank by city, the sources displayed a list of branches operating in each city (see Appendix 1, Table 2 for a list of the collected variables). They also specified when the branches were open only temporarily, which enabled us to distinguish between *permanent* and *temporary* branches.<sup>13</sup> Such temporary branches were frequent in smaller cities and rural areas. They were "small bank shops"<sup>14</sup>, opened only one or two days a week, a few days a month, or only on market days or during fairs. According to fiscal law, temporary branches must depend on a permanent branch for accounting and human resources. They were also characterized by daily movements of funds to and from the permanent branch (Durand, 1938; 1918). Nevertheless, they offered all banking services, including collecting deposits, discounting paper, delivering and receiving means of payment,

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<sup>&</sup>lt;sup>12</sup> Their data are available online (the source for 1910 was from Bazot (2014). https://didomena.ehess.fr/collections/v118rd64z?locale=en&view=masonry

<sup>&</sup>lt;sup>13</sup> Temporary branches correspond to branches associated with information such as fair days (*jours de foire*), opened twice per week (*ouvert 2 jours par semaine*), or open on Tuesday and Friday (*Mardi et Vendredi*). For analysis, we focus on metropolitan France and exclude the colonies and Algerian districts. We also exclude branches of the Banque de France and the *Crédit Foncier de France* for their peculiar features. We link each municipality to a corresponding identifier of the *Institut National de la Statistique et des Etudes Economiques* (INSEE), considering mergers or deletions of communes. The purpose is to match branch data with population censuses from 1921, 1926, 1931, and 1936. We thus distinguish rural (fewer than 2,000 inhabitants) and urban (more than 2,000 inhabitants) cities, considering changes between the censuses.

<sup>&</sup>lt;sup>14</sup> "Des petites boutiques de banques" (Bonin, 2000, p. 299).

receiving market orders, selling new securities, and paying dividends and coupons. Their equipment was basic, and their sites had no fancy decoration; only posters advertising issues on securities and presenting the main bank operations covered the walls. Employees left the permanent branch each morning with their typical leather bags ready for the day and returned each evening (or more often if needed) to deposit the funds and related documentation on daily operations (Bonin, 2000).

#### Bank balance sheets: the Album

Standardized balance sheet data between 1901 and 1938 came from an original archival source called the Album (Baubeau et al., 2021). It is a ledger that was created by *Crédit Lyonnais*, the most important bank in France. It contains annual balance sheets for all French banks grouped as limited-liability companies (*sociétés anonymes*) that collected deposits and discounted commercial paper. *Crédit Lyonnais* could not obtain information on banks besides those with the *sociétés anonymes* legal status because they did not publish their balance sheets. *Crédit Lyonnais*'s definition of banks corresponded to that of commercial or universal banks and was very close to the one used by the French regulator in 1941. The Album also contains information on bank branches. *Crédit Lyonnais*'s sources of information are the banks' annual reports. Baubeau et al. (2021) provide more details about the history of this source, demonstrating that the total number of balance sheets collected corresponded to 98% of the bank balance sheets that the regulator subsequently recorded. The Album, however, excluded the *Haute Banque* (e.g., Rothschild, Neuflize, Mallet, etc.). Such merchant banks did not open multiple branches to collect deposits to lend to small businesses. Thus, their absence in this source is not a significant issue for this study.

#### Categories of banks

To refine our analyses, we classified banks into four categories: national, regional, district, and single branch. We used the location of the branches to arrive at this categorization. National banks are those present in more than 45 districts (i.e., half of the French territory, based on France's former territorial administration)<sup>15</sup>. Over the entire period studied, four banks exceeded this threshold: *Société Générale*, *Crédit Lyonnais*, *Comptoir National d'Escompte de Paris*, and *Banque Nationale pour le Commerce et l'Industrie* (built from the *Banque Nationale* 

<sup>&</sup>lt;sup>15</sup> During the interwar period, France was partitioned into 90 metropolitan districts (*départements*). This threshold was chosen to observe the divide between large banks, already documented as truly national institutions, and other banks of lesser scope, notably regional banks.

du Crédit in 1932). These four major banks are commonly considered national banks by historians of the French banking system (Bouvier, 1984; Laufenburger, 1940; Lescure & Plessis, 2004). The *Crédit Industriel et Commercial (CIC)* is usually considered one of the largest banks, but it was a banking group comprising banks that maintained their legal existence. We, therefore, treat it as a special case, discussed later in this section.

Regional banks correspond to those present in more than 1 district but fewer than 45 districts. During the 1920s, when regional banks flourished, the largest regional bank was present in 40 districts and the smallest national bank in 72 districts. District banks were present in a single district but had more than one branch in the district. Single-branch banks had only one branch, typically private bankers and financiers. Thus, they are not recorded by the Album.

Mutual and cooperative banks do not fall easily into these categories. They had a pyramidal structure with a central body that supervised regional entities, and they supervised local banks. Regional and local entities nevertheless enjoyed much autonomy. This structure makes it difficult to classify them into a category of banks that is defined by the number of branches. These mutual and cooperative banks included branches of *Crédit Agricole* and *Banques Populaires*. Thus, depending on their branch structure, we treated them as regional or district banks because regional and local entities enjoyed autonomy. These entities are therefore considered banks, independent from each other 17. However, mutual and cooperative banks represented only a tiny portion of the banking network 18. Banks attached to the *CIC* also belonged to this special case, though they were not cooperative banks but a banking group 19. We conducted additional analyses to ensure that our results did not change depending on the treatment of these banks. During these analyses, we alternatively considered that all networks that belonged to *Crédit Agricole*, *Banque Populaire*, or *CIC* belonged to a single bank. This

<sup>&</sup>lt;sup>16</sup> Funding and subsidies from the state also distinguished them from other private banks, which might explain different development strategies, especially regarding branch openings.

<sup>&</sup>lt;sup>17</sup> For example, the Caisse Locale de Crédit Agricole Mutuel, Caisse Régionale de Crédit Agricole des Hautes-Alpes, Caisse Régionale de Crédit Agricole du Doubs, and Caisse Nationale de Crédit Agricole are considered four different banks.

<sup>&</sup>lt;sup>18</sup> Between 1920 and 1938, we calculated that these banks, treated separately from the four other types, represented between 0.60% and 3.30% of the French banks but less than 1% of the branches throughout the period.

<sup>&</sup>lt;sup>19</sup> Similar to the *Caisses de Crédit Agricole* and *de Banques Populaires*, the *CIC* was a central entity on which several regional entities depended, such as *Société Lyonnaise de Dépôts et de Crédit Industriel*, the *Société Nancéienne de Crédit, Crédit de l'Ouest*, and so on. The *Société Générale des Banques de Province* was another large banking group with a structure similar to the *CIC*, but it went bankrupt in 1921.

study does not consider savings institutions like *Caisses d'épargne* that collected deposits but did not lend to firms. By law, they had to invest deposits only in government securities<sup>20</sup>.

#### Comparing the Album and the Favre

The Album covered only a small number of banks (227 per year, on average, between 1920 and 1938) compared to the Favre yearbook (2,495 per year, on average, between 1920 and 1938). Nevertheless, the Album's coverage was much more significant in terms of the number of branches. As shown in Table 1, only 9% of the banks included in the Favre yearbook were present in the Album, but the latter covered 64% of all branches in the Favre. Unsurprisingly, the Album covered very few single-branch banks (5% of those in the Favre). Such single-branch banks were usually private bankers who operated as partnerships and were thus excluded from the Album. Robustness analysis (Appendix 3) suggests that all main conclusions concerning the evolution of the banking system remain unchanged if only bank branches in the Album are considered.

[Table 1 about here]

#### The French interwar period: between competition and consolidation

Using the newly compiled dataset on bank branches, we quantified the evolution of the French banking network during the interwar period through the lens of competition and consolidation. The violent banking crisis from 1930 to 1931 suggests that we distinguish the 1920s and 1930s from each other.

#### Banking expansion and competition between national and regional banks during the 1920s

The period following WWI was characterized by the expansion of the French banking network. Figure 1 shows an increase in the total number of branches over the period. Before the crisis, the French banking network developed from about 6,000 branches in 1920 to nearly 12,000 in 1929. New branches were opened mainly by banks that were already operational at the time. There was only a slight increase in the number of banks operating in France (Figure 2). Thus, the average number of bank branches sharply increased over this period (Figure 3).

[Figure 1 about here]

[Figure 2 about here]

[Figure 3 about here]

<sup>&</sup>lt;sup>20</sup> See Laufenburger (1940), Baubeau et al. (2021), and Monnet et al. (2021) for a description of these institutions and their role in the interwar French financial system.

A comparison between data from the Favre yearbook (available from 1920) and data on the number of branches before WWI from the Bottin yearbook shows strong growth in the number of branches between 1910 and 1920. Meanwhile, the number of branches in the province (i.e., outside Paris) was largely stable before 1910. There were 4,212 branches in France (Paris and province) in 1910 and nearly 6,000 in 1920, a ten-year increase (+43%), to be compared to what was observed during the following decade (+91% between 1920 and 1930). However, the growth rate observed between 1910 and 1920 might be overestimated for two reasons. First, due to the disparities between sources previously highlighted: the Bottin yearbook displayed about 80% of the branches in the Favre yearbook. Applying this adjustment coefficient to correct Bottin's data, the growth rate between 1910 and 1920 would be closer to 13%. Secondly, France reacquired the Alsace and Moselle territories after the war, which were previously under German rule. The exclusion of Alsace and Moselle from the sample drives this upward trend slightly down<sup>21</sup>. Excluding these territories, 5,846 branches remained in France, suggesting a 39% increase from 1910 to 1920.

We used data on branches from the Album to explore this growth in detail. In a subsample of 70 banks, *Crédit Lyonnais* reported the number of branches from 1910 to the early 1920s in the Album. The annual change in the number of branches for these 70 banks is shown in Figure 12 (Appendix 3). In this sub-sample, the number of branches increased quickly around 1910 but ended with the war and the moratorium<sup>22</sup>. This observation is in accord with that of Kaufmann (1914), which is based on data from the three largest French banks from 1910 to 1912. When WWI ended, the expansion of bank branches resumed and reached the same pace as observed during the 1920s<sup>23</sup>. These results prove that a substantial increase in bank branches began during the few years that preceded WWI but was stopped by the war and resumed at a faster pace when the war was over.

<sup>&</sup>lt;sup>21</sup> During the war and its aftermath, some traders, retired traders, and "capitalists," who were used to discounting papers with their capital, particularly in the countryside, ceased their activities. If it is impossible to quantify this phenomenon, it suggests an overestimation of the increase in discounting services before and after the war.

At the outbreak of the war, France established a moratorium suspending debt payments. This moratorium froze most financial activities even though it was progressively lifted in law and practice during the war. For example, banks resumed the free reimbursement of deposits.

<sup>&</sup>lt;sup>23</sup> The *Crédit Lyonnais* reported 661 branches in 1910 and 888 in 1913. The number of branches decreased during WWI, down to 767 branches in 1916, and then started increasing again. In 1919, there were nearly as many branches (837) as in 1913.

Branch expansion during the 1920s occurred at different speeds, depending on the type of bank, altering the network composition. In 1920, the distribution between three (out of four) types of banks were balanced: 26% of branches were held by regional banks, 31% by national banks, and 35% by single-branch banks. District banks had only 7% of branches, a share that remained stable throughout the decade. Regional and national banks quickly grew and gained market share at the expense of smaller banks during the 1920s. In 1929, regional banks represented approximately 40% of total branches, and national banks 32%. The share of branches of single-branch banks dropped considerably, from 37% to about 20% (Figure 4). This change was reflected by the sharp increase in the average number of branches in regional and national banks. Their average number of branches doubled between 1920 and 1929, from about 10 to 20 and 500 to 1000, respectively (Appendix 4). Therefore, the 1920s were characterized by competition between regional and national banks, and the share of single-branch banks collapsed. Complementary analyses conducted on *Crédit Agricole*, *Banques Populaires*, and *CIC* lead to a similar conclusion (Appendix 2, Figure 10 and Figure 11): these banks' branches doubled during the 1920s.

#### [Figure 4 about here]

These general dynamics co rrespond to those described by Bonin and Stoskopf based on specific cases of major regional and national banks. For example, *Crédit Lyonnais* tripled its branches, from 436 in 1920 to 1,451 in 1931 (Bonin, 2000). The *Société Générale* created about 400 branches during the 1920s, from 1,097 to 1,514 (Bonin, 2000). *Comptoir de Mulhouse*, a large regional bank in eastern France, underwent tremendous expansion, increasing its branches eightfold, from 94 to 751, between 1913 and 1930. Such changes highlight the branch race interrupted by the war from 1911 to 1913 (Stoskopf, 2016).

#### Bank concentration in the 1930s

The crisis in the early 1930s stopped this upward trend and started a consolidation phase. After reaching its peak in 1929, the total number of bank branches declined gradually until 1938. However, the decline did not upset the boom observed during the previous decade. Although the total number of bank branches in 1938 was lower than when it was at its peak, it was still nearly four times higher than in 1910 (Figure 1). This meant a fourfold increase in bank branches per inhabitant because the French population was the same in 1930 as in 1910 (41.5 million). Also, the average number of branches per bank remained stable during the 1930s

(Figure 3). Although the total number of banks decreased (Figure 2), surviving banks did not close many branches they opened before the crisis.

This concentration benefitted the national banks that survived the crisis (Baubeau et al., 2021; Bonin, 2000). The average number of their branches continued increasing, especially during the first half of the decade (Appendix 4). Also, their share in the banking network increased considerably. In the 1930s, their branches represented 40% of all branches operating in France (Figure 4). They also represented 60% of total assets, compared to 40% before the crisis (Appendix 3, Figure 12 and Figure 13) (see also Baubeau et al., 2021). This increase in the weight of national banks in the network was at the expense of regional banks, whose share dropped by 10 points (Figure 4). Again, excluding or including *Crédit Agricole*, *Banques Populaires*, and *CIC* did not change these findings (Appendix 2, Figure 10 and Figure 11).

Overall, banking coverage improved in France during the interwar period despite the concentration in the banking sector in the 1930s (Figure 19). Although in 1920, most districts had fewer than three branches per 10,000 inhabitants, in 1938, many had three or four branches per 10,000 inhabitants.

[Figure 19 about here]

#### The geographical and rural dimension of the banking expansion

Most French districts followed the national trend characterized by a sharp increase in regional banks relative to national ones during the 1920s and a decline of the former to favor the latter in the 1930s.<sup>24</sup> However, in the center and west of France (Poitou, Midi-Pyrénées, Pays de la Loire, and Auvergne regions), few districts did not experience the rise in the 1920s and the decline in the 1930s of regional banks relative to national banks. Several districts in the Paris region (Ile-de-France) did not have this experience either. Moreover, three districts in eastern France (Franche-Comté region) experienced the rise of regional banks in the 1920s but did not experience their decline in the 1930s vis-à-vis national banks. Nevertheless, the main feature of network expansion was the bancarization of rural areas and small cities (see Figure 5, Figure 6, and Figure 19).

[Figure 5 about here]

[Figure 6 about here]

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<sup>&</sup>lt;sup>24</sup> Out of 95 districts, 75 experienced a rise of regional banks at the expense of national banks in the 1920s; 83 out of these 95 districts experienced the subsequent decline of regional banks relatively to national banks in the 1930s.

#### Geographical expansion of the 1920s

The expansion of the banking network was driven by the opening of new branches in rural areas and small cities. Two indicators highlight this phenomenon: (1) the number of temporary branches, typically opened in villages and small cities during fairs, market days, or on a predefined number of days during the week or month; and (2) the share of bank branches in municipalities with fewer than 2,000 inhabitants. The number of temporary branches proportionate to the total number of branches thus increased throughout the interwar period, especially during the 1920s (Figure 5). Temporary branches represented only 11% of the network in 1920 but 30.3% in 1927. This proportion remained stable during the crisis and continued to increase during the second half of the 1930s, reaching 35% in 1938. National and regional banks mainly drove this increase (Appendix 4, Figure 16 and Figure 17).

The case of national banks is striking: at the end of the war, temporary branches represented only one-fifth of the network. Yet, they accounted for nearly half of it during the banking crisis of 1930–1931. Overall, the number of cities having at least one bank branch sharply increased over the period (Figure 6). In 1920, banks were present in more than 1,700 cities; in 1929, more than 3,000 cities had at least one bank branch. This phenomenon is even more salient when considering smaller municipalities in rural areas with fewer than 2,000 inhabitants (Figure 6). The bancarization in these small municipalities was even faster than in cities with fewer than 10,000 inhabitants. Although in 1920, only 520 cities had at least one branch, in 1929, more than 1,400 cities had at least one branch. Overall, 64% of the new branches between 1920 and 1929 were established in cities with fewer than 2,000 inhabitants, and 95% were found in cities with fewer than 10,000 inhabitants. In the 1920s, regional banks opened rural branches more frequently than national banks (Appendix 4, Figure 18) and managed one-third of rural branches, rising to more than half by 1930. The expansion of the banking network led to the bancarization of rural areas and small towns where untapped savings were considerable.

#### The absence of a Great Reversal after the crisis

The crisis in the 1930s stopped the geographical expansion and marked a decline of the network, but it did not cause a great reversal. With the stable population, the number of branches during the 1930s remained four times greater than before the war. Although the number of temporary branches in the network decreased slightly between 1930 and 1934, it increased, then stabilized from 1935 onward. During the 1930s, temporary branches represented at least half of the

network of national and regional banks (Figure 5 and Appendix 4, Figure 17), while the share of cities having at least one bank branch decreased only slightly (Figure 6). Despite the crisis and the concentration, the number of cities having less than 2,000 inhabitants with at least a branch was remarkably stable (Figure 6). However, the network composition changed as national banks significantly strengthened their positions in the rural areas, accounting for more than 40% of branches opened (Figure 4 and Appendix 4, Figure 18).

Summarily, the expansion of the French banking network during the interwar period occurred at an intensive margin by opening new, mainly temporary branches in rural areas and small towns. This was driven by competition between national and regional banks. The expansion was not just the result of a few banks taking market shares from others already established in rural areas and small towns; it was a genuine bancarization of these underserved areas (see Figure 19). Our systematic quantitative analyses are consistent with Bonin's (2000), who posits that banks' strategy is to collect deposits from the countryside and provide broader access to financial services and products for the middle class.<sup>25</sup> Thus, living in the city was no longer required to open a bank account and access banking services.

#### Expansion of the banking network and decrease in real bank assets

Due to extreme variations in the GDP and banking activity during WWI and its aftermath, the relationship between the expansion of the banking network and the decrease in real bank assets substantially varied. Banking assets decreased more than the GDP until 1916 because of the war-induced crisis and the moratorium on payments. From 1917 to 1919, banking assets stabilized, and the GDP decreased. Ratios of banking assets and deposits to the GDP thus reduced until 1916 and increased in subsequent years (Figure 7 and Figure 8).

[Figure 7 about here]
[Figure 8 about here]

From 1920 onward, the network of bank branches witnessed an unprecedented expansion. The size of banks' balance sheets, loans, and deposits increased in nominal terms, though not as fast as the GDP (Appendix 3, Figure 14 and Figure 15). Consequently, the series of real balance sheet aggregates showed stagnation and even a decline in banking activity, a conclusion similar to that of Lescure (2016), who focused on national banks and used the consumer price index as a deflator.

<sup>&</sup>lt;sup>25</sup> See Cardoni (2016) on the growing bancarization of French households.

Therefore, in real terms, despite this stagnation, the French banks quickly expanded their network during the 1920s and maintained it after the 1930-1931 crisis. According to Bonin (2000), competition was the main driver of this expansion. Banks compete in different markets because they are multiproduct firms. Though credit is a crucial dimension of competition, other activities, such as security placement and client wealth management, are equally important. Also, the search for stable deposits in the countryside to balance the real equity capital decrease and mitigate the international volatility of deposits is equally important. Thus, competition can become more difficult if the real credit volume is not increased and the interest rates are not deduced. During increased competition, new branches are opened to block new banks' market entry. Hence the more extensive the branch network, the wider the customer base to which the bank has access, the higher its market share, and the more difficult it is for new entrants due to high entry costs (Barnes & Newton, 2018; Degl'Innocenti et al., 2018; Dick, 2006; Huysentruyt et al., 2013; Jayaratne & Strahan, 1996; Stiroh & Strahan, 2003). The first-mover advantage comes from building a clientele, learning by doing, or economies of scale, which enables incumbents to earn rents even when new entries occur (Berger & Dick, 2007; Degryse et al., 2009). Branches represent higher fixed costs that the new entrants need to overcome (Assunção, 2013; Dick, 2007). These fixed costs are as varied as investing in more physical assets, hiring additional employees, forming a new customer base, and overcoming high switching costs.

In the interwar period, regional banks progressively adopted the business model of national banks, expanded their network, and exacerbated competition in various markets. If credit (particularly the discount) became a driver of competition, other less risky activities represented additional crucial dimensions of competition. In the second half of the 1920s, security placement, wealth management, and stock exchange-related operations (collecting market orders, directing clients' capital to repo financing) were critical. This period saw the emergence of many regional and district banks, such as *Société Nancéienne*, *Société Marseillaise*, *Banque d'Alsace et de Lorraine*, and *Banque Privée*. The competition was fierce among national banks: *Société Générale* and *Banque Nationale de Crédit* became serious challengers to *Crédit Lyonnais*, the market leader; *Comptoir d'Escompte*, despite its aggressive but different expansion strategies, lost ground because of its reluctance to open new branches (Bonin, 2000).

According to Petersen and Rajan (1995), collecting personal information on households and firms could reinforce the first-mover advantage. Indeed, by opening more local branches, banks improved their access to personal information and thus were more efficient in estimating their borrowers' probability of default (Degl'Innocenti et al., 2018; Ergungor, 2010). This led

to the capture of France's high-end and more remunerative clientele (Bonin, 2000). The expansion of the network was a way to diversify risks and compete more safely (Barnes & Newton, 2018; Keil & Müller, 2020). Thanks to this geographical diversification, banks could spread their depositors and borrower base to become less dependent on local market conditions. However, while French banks expanded their networks to collect stable deposits in the countryside, deposits of professionals and urban elites became more volatile because of the changing monetary conditions and capital outflows. Also, geographical diversification made it possible to reduce the risks of discounts of bills and to facilitate the placement of securities beyond the usual clientele of "local" merchants and entrepreneurs whose solvability and savings depended on local conditions (Aupetit et al., 1912; Bazot, 2011; François-Marsal, 1930; Lescure, 1995). According to Greve (2000), the probability of opening a new branch in a given area was an inverted U-shaped branch density function that also depended on the area's desirability. The more branches there are in an area, the more new entrants will follow and open additional branches, up to a certain extent when competition becomes too fierce. This threshold also depends on the business the area could generate, which might be why all the cities with more than 10,000 inhabitants had at least one branch of the three main national banks.

An alternative argument explaining the network's expansion relates to inflationary pressures on banks' balance sheets. Banks are encouraged to lend more when experiencing increases in deposits and decreases in the real value of loans, a credit race that exacerbates risktaking. Banks must compete to find customers to maintain a constant real volume of credit in an inflationary situation. Jonker and Van Zanden (1995) used this argument to explain how the rapid development of banking in Europe during the early 1920s led to increased banking sector fragility and, thus, to the crisis. They argued that inflation led to risk-taking and the deterioration of portfolio quality. However, in line with existing literature (Lescure, 2016), we do not observe increases in risk-taking when analyzing French banks' assets during the 1920s. The riskiest loans and security holdings did not take a larger share of the French banks' assets. Contrarily, we find an increase in the share of commercial portfolios (i.e., discounting) and liquid assets (i.e., central bank reserves or cash). According to Bonin (2000), banks increasingly developed risky overdraft credit, a conclusion contested by Lescure (2016) that we cannot directly observe in our data given their level of aggregation (see Appendix 3, Figure 14 and Figure 15). Discounting commercial paper is the safest form of credit because it is guaranteed by signatories (Lescure, 2016) and represents the most liquid type of credit. However, it is difficult to assess the quality of the portfolios. On the one hand, treasury bills were an important part of a commercial portfolio; on the other hand, financial bills (paper not issued in association with a sale but representing a loan) were present in these portfolios. Moreover, the argument on inflation must be put into perspective for two reasons. First, the growth in bank branches did not start at the beginning of the 1920s but before the war, a period characterized by the absence of inflation. Secondly, the increase in bank branches was continuous during the 1920s, while inflation stabilized for the first time in 1922 and again from 1926 to 1928.

#### **Conclusion**

The interwar period was a time of unprecedented, long-lasting expansion of the French banking network, an observation that counteracts the Great Reversal argument. Network expansion was mainly driven by an increase in the number of branches during the 1920s in rural areas and small cities. Temporary branches played a crucial role in this expansion. National and regional banks competed aggressively, and the latter significantly increased their market share in terms of branches during the decade. Although the banking crisis of 1930–1931 halted the expansion, there was no reversal in the size of the banking network. The crisis hit regional banks, and the primary change effect was a concentration of the network on national banks.

During the interwar period, the expansion of the network achieved a second banking revolution, ensured the bancarization of the rural middle class, and provided easy access to banking services for many small and medium enterprises located in rural areas that were the backbone of the French industrial system. This exceptional expansion, halted by the Great Depression, later shaped the banking network of the *Trente Glorieuses*. Some contemporary researchers criticized the excessive competition in the banking system due to network expansion. During World War II, the Vichy regime established the first French banking regulation and aimed to rationalize the branches' network, an effort that continued after the Liberation. However, studies underlying this effort showed that the network in 1939 was well balanced and satisfied the population's and the economy's needs. The network of branches was thus left almost untouched, and the network inherited from the 1930s thus remained stable until the second half of the 1950s.

The expansion of the banking network occurred at a time when the level of real banking activity was stagnating or even decreasing. Geographic expansion of access to banking services may thus constitute a different historical process from what is usually called financial development, measured in terms of balance sheet aggregates vis-à-vis the GDP. We discussed two potential explanations for the disconnection between the bank network and activity based on extant literature: competition and inflation. We suggest that competition was the driving

force of the tremendous expansion of bank networks since they are multiproduct firms that could provide other financial services besides credits. However, we do not find clear evidence of a credit boom or clear signals of risk-taking in the banks' balance sheet data that supports the inflation argument. Credit is an important dimension of competition, but banks compete in other markets, such as security placement, wealth management services, and deposits. Thus, competition can become tougher if real credit volumes are not increased, and interest rates are not reduced.

During the decade that preceded the most severe banking crisis in history (1930–1931), France did not experience a boom in bank credit, nor have we observed clear risk-taking at the aggregate level. Although we cannot dismiss the idea that such expansion was accompanied by risk-taking, we can hypothesize that the effect of network expansion on the crisis came through another channel. In banks with a low organizational experience in managing large networks, the rapid recruitment of new clientele might have weakened them and left them at the mercy of new depositors' loss of confidence, and thus of the bank turns that France experienced in 1930 and 1931, a hypothesis that warrants more research.

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#### Disclosure statement

The authors report that there are no competing interests to declare.

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**Eric Monnet** is an economic historian, Professor at the EHESS and Paris School of Economics, and CEPR research affiliate. He has held visiting and research positions at Columbia University, Rutgers University, Ghent University, the IMF, the think tank Bruegel, and previously worked as an economist at the Bank of France. His work focuses on the history of European financial systems, central banking and on the international monetary system in the 19th and 20th century. He has published articles in leading journals in history, economic history and macroeconomics. His recent book Controlling Credit. Central banking and the planned economy in postwar France (1948-1973) was published by Cambridge University Press (2018). **Angelo Riva** is full private professor of finance and director of the faculty and research at the European Business School. He is also affiliate researcher at the Paris School of Economics and academic fellow at the Institut Louis Bachelier. Angelo has been the principal investigator of the H2020 project EURHISFIRM devoted to the development of a European Infrastructure to collect, align, enrich historical data on financial markets and firms. He has also been the principal investigator of the project "Systemic Risk in the 1930s" funded by the French National Agency of Research and devoted to the study of systemic risk in the interwar period. He uses methods and theories from economics and management to better understand the long-term development of firms and financial institutions. He published extensively on these topics in journals such as Economic History Review, Business History, Explorations in Economic History, Cliometrica, Entreprises et Histoire.

#### **Data availability statement**

The data that support the findings of this study are openly available in Didomena (EHESS) at <a href="https://didomena.ehess.fr/concern/data\_sets/gf06g596g?locale=fr">https://didomena.ehess.fr/concern/data\_sets/gf06g596g?locale=fr</a>, DOI: 10.25721/8dg3-tw38.

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## **Appendix 1: The Favre yearbook**

[Figure 9 about here]

[Table 2 about here]

### **Appendix 2: Mutual and cooperative banks**

For ease of language, we include in the group of mutual and cooperative banks the banks attached to the networks of the *Crédit Agricole (CA)*, *Banques Populaires (BP)*, but also those belonging to the *Société Générale de Crédit Industriel et Commercial (CIC)* (see Figure 10 and Figure 11).

[Figure 10 about here]

[Figure 11 about here]

## Appendix 3: The banks in the Album

[Figure 12 about here]

[Figure 13 about here]

[Figure 14 about here]

[Figure 15 about here]

## Appendix 4: Bank categories and share in the banking network

[Figure 16 about here]

[Figure 17 about here]

[Figure 18 about here]

## **Tables**

Table 1. Comparison of banks in the Album and Favre

	(in %)	Banks	Branches
	All banks	9.08	64.07
	National banks	100	100
	Regional	35.22	74.48
banks			
	District banks	25.96	38.67
	Single-branch	5.10	5.10
banks			

Note: This table details the share of banks (column "Banks") and their branches (column "Branches") present in the Favre yearbook and mentioned in the Album. All values are in percentage. Each value is an average calculated over the 1920–1938 period. For example, on average, 35.22% of regional banks and 74.48% of the branches of regional banks in the Favre yearbook were also present in the Album.

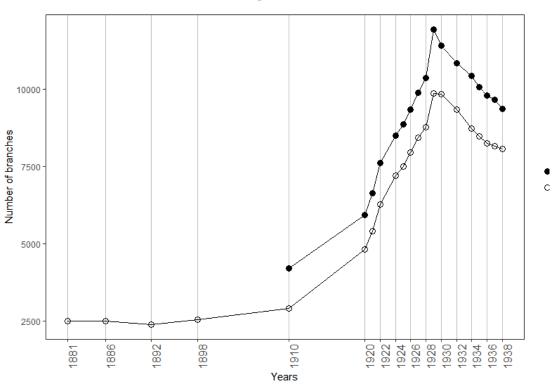
Table 2. Information collected for each branch

City	City in which the branch was located (cities existing between 1920 and 1938)				
District	District of the city in which the branch was located (according to the territorial				
	administration between 1920 and 1938)				
Bank	Name of the bank that opened the branch				
Job	Filled if (1) the bank operated in a specific activity line ("job") or (2) the bank				
	was a banker operating in one of these activities ("job"). Jobs vary: money-changers				
	(changeurs), discounters (escompteur), agent (agent de change), etc.				
Temporary	Filled if the branch was open only on a limited number of days every week or				
	month (for instance, "every Tuesday", "every first Sunday in the month", etc.)				
Fair days	Filled if the branch was open only during fair or market days				

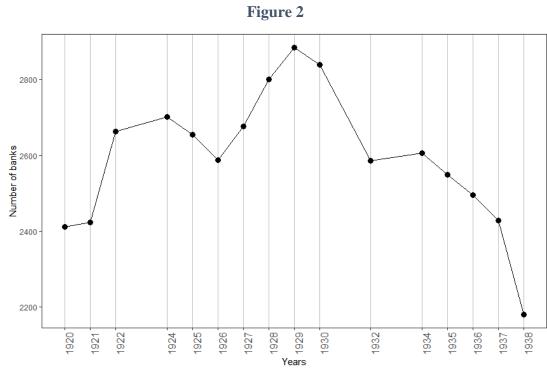
Note: This table lists the variables (and their definitions) collected in the Favre yearbook.

## **Figures**

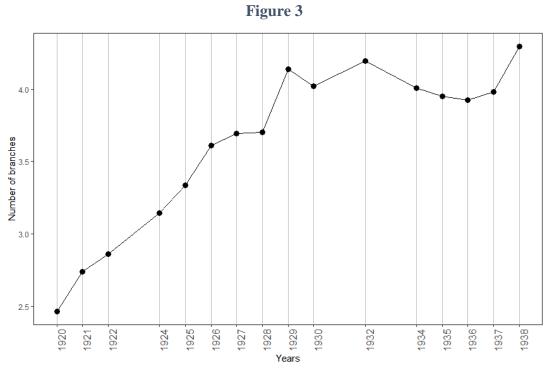
Figure 1



Note: This figure displays the total number of bank branches annually between 1881 and 1938 in France, and excluding Paris (province). Source: For the years before 1914, the source is the Bottin (data by Hoffman et al. [2018] and Bazot [2014]; computations by the authors of this study). The source for the years after 1914 is the Favre (data and computations by the authors).

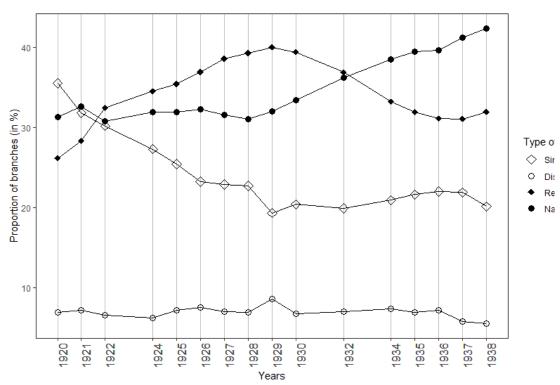


Note: This figure displays the number of banks in France every year between 1920 and 1938. Source: Favre (data and computations by the authors).

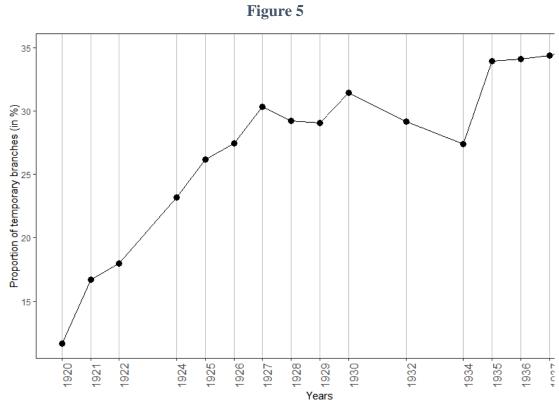


Note: This figure displays the average number of branches per bank in France every year between 1920 and 1938. Source: Favre (data and computations by the authors).

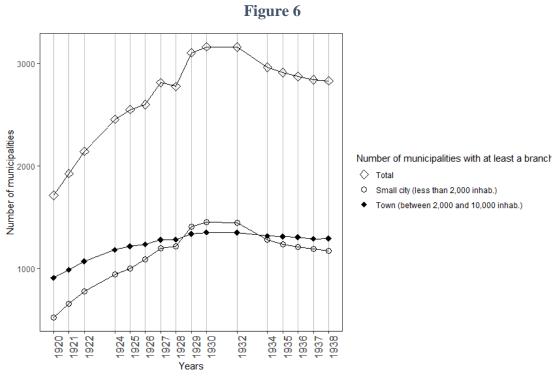




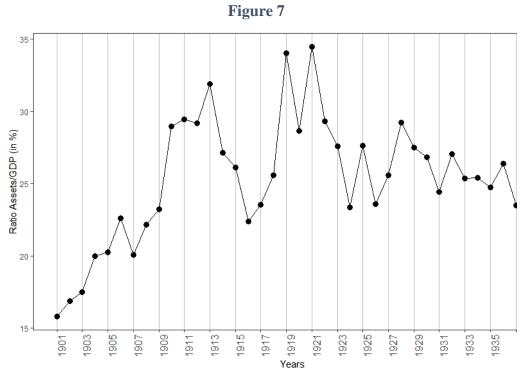
Note: This figure displays the proportion of the branches of each type of bank (single-branch, district, regional, national) in the entire branch network in France annually from 1920 to 1938. For instance, in 1920, national banks' branches represented slightly more than 30% of all branches. Source: Favre (data and computations by the authors).



Note: This figure displays the proportion of temporary branches in the entire branch network in France every year between 1920 and 1938. For instance, in 1927, temporary branches represented about 30% of all branches in France. Source: Favre (data and computations by the authors).

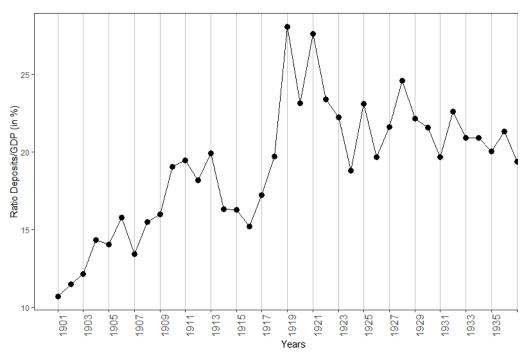


Note: This figure displays the number of cities ("Total" line), the number of cities with fewer than 2,000 inhabitants ("Small city" line), and the number of cities having between 2,000 and 10,000 inhabitants ("Town" line) that had at least one branch in France in each year over the 1920–1938 period. Source: Favre (data and computations by the authors).



Note: This figure displays France's annual average asset-to-GDP ratio between 1901 and 1938. Each year, it is measured as the average of the asset-to-GDP ratios of all banks. Sources: Computations by the authors using the Album for the size of the balance sheet (measured by the total of assets) and Piketty (2001) for the GDP.



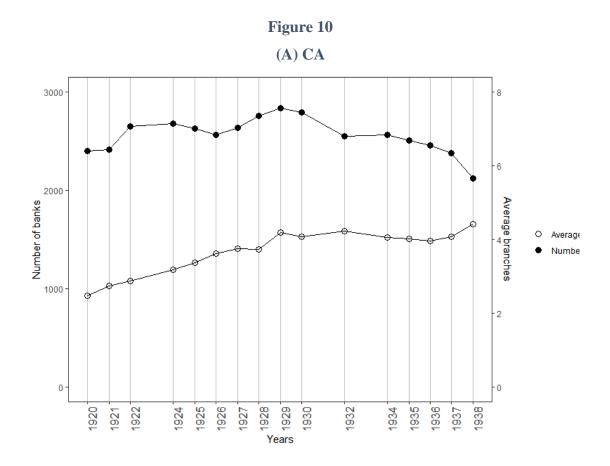


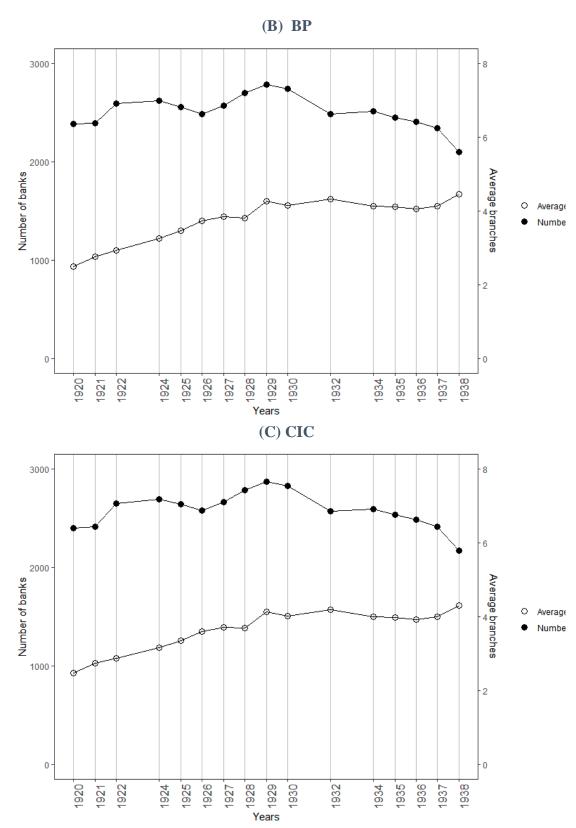
Note: This figure displays France's annual average deposit-to-GDP ratio between 1901 and 1938. On a given year, it is measured as the average of the deposit-to-GDP ratios of all banks of the year. Sources: computations by the authors using the Album for the amount of deposits and Piketty (2001) for the GDP.

Figure 9

326 Alpes-Maritimes. — Are	dêche	Ardèche	327
Crédit Financier du Sud-Est, 11, ru		27 ma Boissyad'Angles	
2.25 Crédit Foncier de France, 6, rue Guh		0.48 Dumas (J.), 37, rue Boissy-d'Anglas	Annonay
Lis	1774	Banque a Warra of Cio	Aubenas
0.06 Crédit Lyonnais, 15, avenue de la toire		0.08 Banque E. Marze et de 10.00 Banque Privée, I. faubourg Gambetta	
24.89 Lloyds and National Provincial For Bank Ltd., 7, jardin du Roi-Albe	reign	0.27 Societe National d'Escompte de Paris	7.
20.78 Société Générale, 8, avenue de la Vi	ctoire	(le jeudi et jours de foire)	ourg-St-Andéol
3.05 Société Marseillaise de Crédit, 45, av de la Victoire		0.03 Pradelle frères Banque Privée, Grande-Rue	_
Société Régionale de Banque, 35, au de la Victoire	venue	comptoir National d'Escompte de Paris	Joyeuse
Union Économique du Littoral, 3, ra	ie du	(mercredi et jours de foire)	
1.62 Carlone et Cie, 8 avenue de Verdun		Fabre (H.) (mercredi et jours de foire) Banque Privée (mardi et vendredi)	· -
5.14 Echampe, Agt H. P. 3, place Massé 44.85 Fontanel (J.), 68, avenue de la Victo	na	Lafaurie (Albert)	Lamastre
Geofroy, Rem., 30, rue Gioffredo		Picq 0.17 Banque Privée, le Chemin-Neuf	Largentière
44.09 Graindorge et Lefebvre, 17, avenue Victoire	=	Societe Generale (lundi et jours de foire).	
26.72 Lautard et fils, 9, place Masséna Michel (F.), 2, rue de la Préfecture			llte-a-Rhône Le Cheylard
9 71 Robin fils, 48, rue Gioffredo		Grasset (Louis) et Cie	Le Pouzin
Sibeud, Rem, 14,, avenue Notre-Da Viborel (Ch.)	Puget-Théniers	Société Générale (samedi et inue de f	_
Caisse Agricole			Les Vans
0.28 Banque Privée, 45, avenue du	Golfe	Banque de la Vallée du Rhône Banque de France Crédit Foncier de Pro-	Le Teil Privas
(ouvert 2 fois par semaine) Mascarelli		l'Esplanade	Frivas
Nitard Société Régionale de Banque			-
Bociete Regionale de Bunque		Banque Privée	
		Jouve (Firmin) Frace du Marche S	Ruoms aint-Agrève
DÉPARTEMENT DE L'AR	DECHE	Banque Privée. St-Sauveur Cheize (Emile) (2º et 4º mardi)	-de-Montagus
0.33 Banque de France, 36, r. Boissy-d'Al	nglas Annonay	Cuminal et Cie	Satifieu
3.93 Banque Nationale de Crédit, r. Montgo 2.50 Banque Privée, 1, rue Montgolfier			Serrières Tournon
3.54 Comptoir National d'Escompte de P	aris,	0.23 Generale, 14, quai Gambatta	-
boulevard de la République, 15 2.10 Crédit Lyonnais, 10, rue Boissy-d'Ang		D. Generale (jendi 15 -1 C	
Société Financière Franco-Maroci 3, place de la Rotonde		Banque Privée. Villes  0.05 Doucède (Léopold)	als-les-Bains
2.46 Société Générale, 5 et 6, pl. des Cordel 1.14 Béchetoille et Cie, 43, rue Boissy-d	iers.	0.05 Doucède (Léopold)Villes	- Learner
glas			
2.76 Chaize (Émile), 4, rue de Tournon			

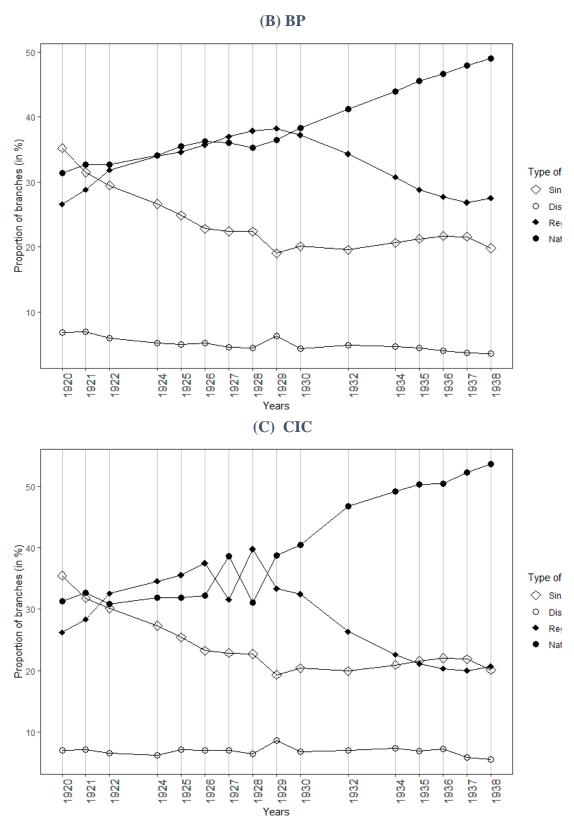
Note: This figure shows a page of the Favre yearbook, edition 1923 (branches/data as of 1922).





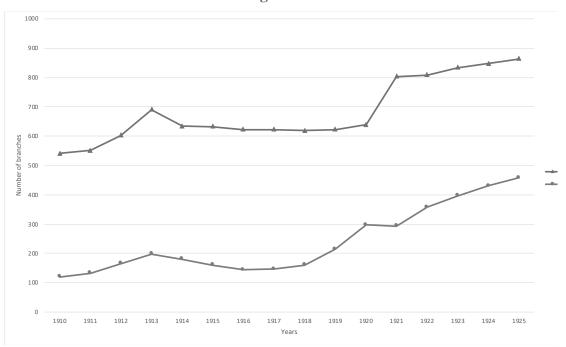
Note: These figures display (1) the total number of banks (left axis) and (2) the average number of branches per bank (right axis) in France every year between 1920 and 1938. In group A (group B and group C, respectively), the *Crédit Agricole* banks (*Banque Populaire* and *CIC*, respectively) are considered one single bank. Source: Favre (data and computations by the authors).

Figure 11 (A) CA 40 -Proportion of branches (in %) Type of ♦ Sin O Dis Re Nat 10 1922 1925 1926 7 Years 1932 1935 1921 1924 1927 1934 1937



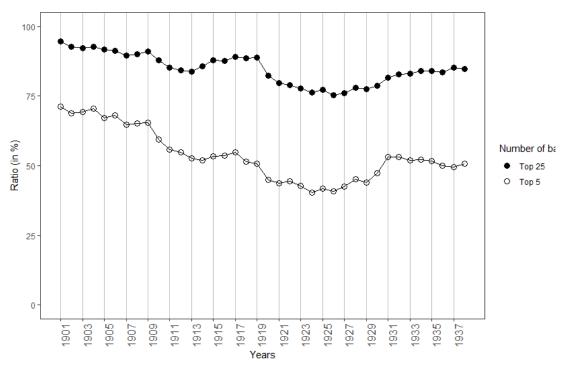
Note: This figure displays the proportion of the branches of each type of bank (single-branch, district, regional, national) in the entire branch network in France each year between 1920 and 1938. In group A (group B and C, respectively), the *Crédit Agricole* (*Banque Populaire* and *CIC*, respectively) banks are considered one single bank. In group C (*CIC*), in 1927, the trends for regional and national banks were reversed due to the momentary shift of *CIC* (considered in this specification as a single bank) into the "National banks" category. Indeed, this institution was present in more than 45 districts (only) in 1927. Source: Favre (data and computations by the authors).

Figure 12

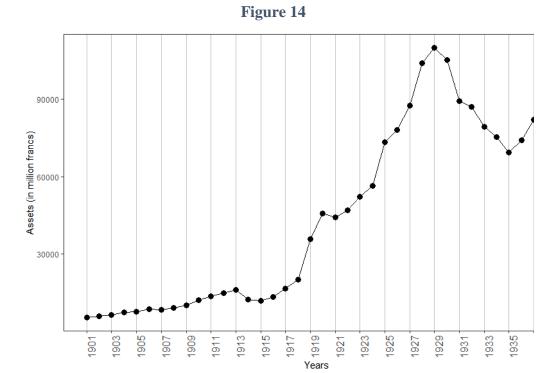


Note: This figure displays, on an annual basis between 1910 and 1925, the number of branches of the 70 banks for which the Album continuously specifies information ("Number of branches") between 1910 and the early 1920s. The group "National banks" includes the *Société Générale* and the *Banque Nationale pour le Commerce et l'Industrie* (for the two other banks identified as national in this study, *Crédit Lyonnais* and *Comptoir National d'Escompte de Paris*, the number of branches is not reported between 1910 and the early 1920s in the source). Source: Album (data and computations by the authors).



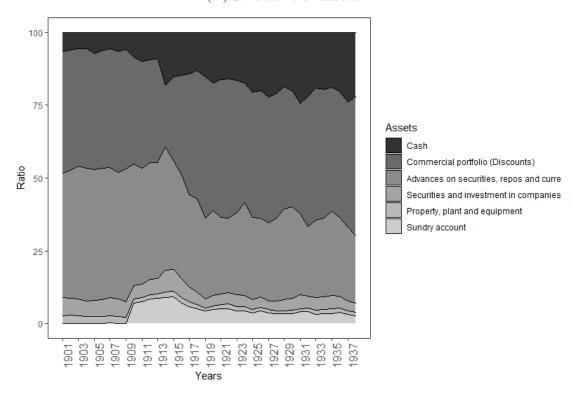


Note: This figure displays the proportion of the assets of the Top 25 and the Top 5 banks in the total amount of assets in France every year between 1901 and 1938. "Top 25" (respectively, "Top 5") refers to the 25 (respectively, 5) largest banks (in terms of the total assets of balance sheets). Source: Album (data and computations by the authors).

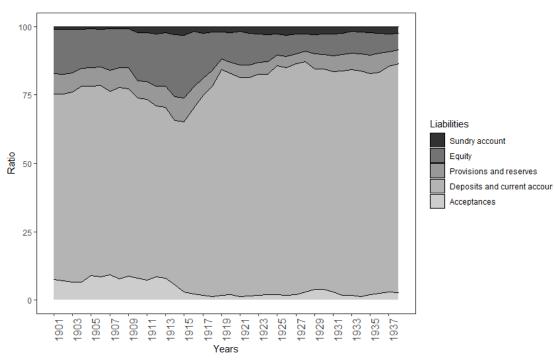


Note: This figure displays the total amount of bank assets (size of the balance sheets) in France every year between 1901 and 1938. Source: Album (data and computations by the authors).

Figure 15
(A) Structure of assets

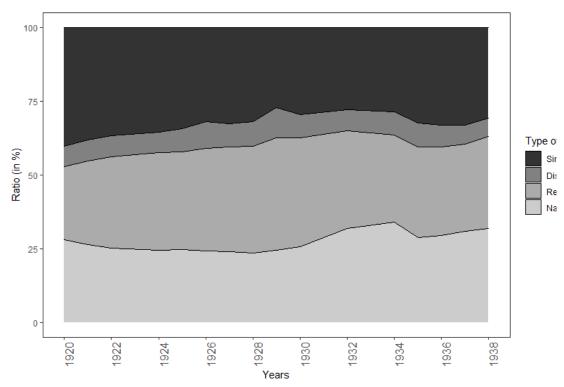


## (B) Structure of liabilities



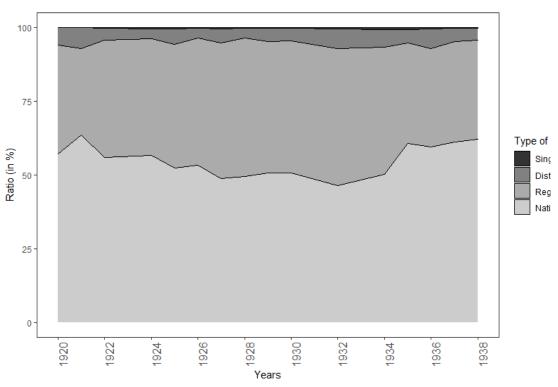
Note: Panel A of this figure displays the average proportion of each asset item (cash; commercial portfolio; advances on securities, repos, and current accounts; securities and investment in companies; property, plant, and equipment; sundry accounts) in the total amount of assets in France every year between 1901 and 1938. Each year, it is measured as the average of each bank's ratio of asset item over total assets. Panel B of this figure displays the average proportion of each liability item (sundry accounts, equity, provisions and reserves, deposits and current accounts, acceptances) in France's total liabilities between 1901 and 1938. Each year, it is measured as the average of each bank's ratio of liability item over the total liabilities. Source: Album (data and computations by the authors).

Figure 16



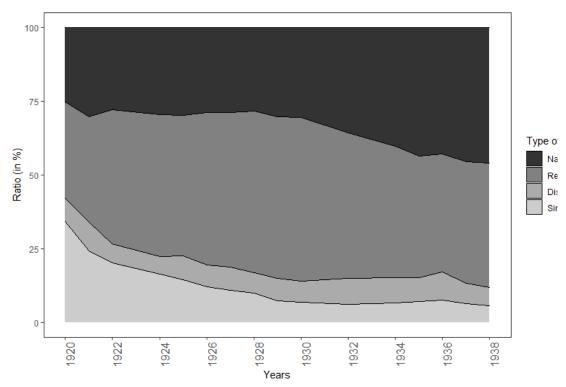
Note: This figure displays the share of each bank category in the permanent branch network in France every year between 1920 and 1938. For instance, in 1920, 28% of permanent branches were owned by national banks, 25% by regional banks, 7% by district banks, and 40% by single-branch banks. Source: Favre (data and computations by the authors).

Figure 17



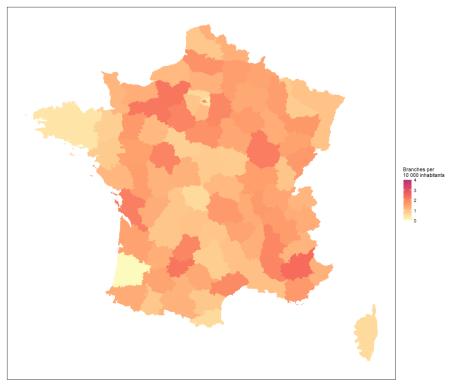
Note: This figure displays the share of each bank category in the temporary branch network in France every year between 1920 and 1938. For instance, in 1920, 57% of the temporary branches were owned by national banks, 37% by regional banks, 8% by district banks, and 0% (0.14% exactly) by single-branch banks. (The figures here are rounded to the nearest whole number.) Source: Favre (data and computations by the authors).

Figure 18

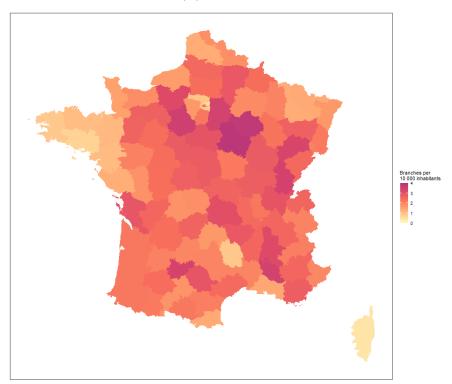


Note: This figure displays the share of each bank category in cities with fewer than 2,000 inhabitants in France between 1920 and 1938. For instance, in 1920, 25% of the branches opened in these cities were operated by national banks, 33% by regional banks, 8% by district banks, and 34% by single-branch banks. Source: Favre (data and computations by the authors).

Figure 19 (A) In 1920



(B) In 1938



Note: This figure sorts French districts based on the average number of branches per 10,000 inhabitants in 1920 and 1936. For example, in the Alpes-Maritimes district (the most extreme southeastern district, excluding Corsica), there were, on average, between one and two branches per 10,000 inhabitants in 1920 and between two and three branches per 10,000 inhabitants in 1938. Source: Favre (data and computations by the authors).

## Figure captions

- Figure 1: Number of branches
- Figure 2: Number of banks
- Figure 3: Average number of branches per bank
- Figure 4: Proportion of each type of bank in the banking network
- Figure 5: Share of temporary branches in the banking network
- Figure 6: Number of cities with at least one branch
- Figure 7: Size of balance sheet in percentage of GDP (Album)
- Figure 8: Deposits in percentage of GDP (Album)
- Figure 9: One page of the Favre yearbook
- Figure 10: Number of banks and average number of branches per bank
- Figure 11: Share of each type of bank in the banking network
- Figure 12: Number of branches (Album) between 1910 and 1925
- Figure 13: Share of the assets held by the largest banks
- Figure 14: Size of bank balance sheets (Album)
- Figure 15: Structure of the balance sheets of the banks in the Album
- Figure 16: Share of each bank category in the permanent branch network
- Figure 17: Share of each bank category in the temporary branch network
- Figure 18: Share of each bank category in cities with fewer than 2,000 inhabitants
- Figure 19: Number of branches per 10,000 inhabitants (district-level)