Credit and Product Market Effects of Banking Deregulation: Evidence from the French Experience

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Many economists believe that an efficient financial industry is central to economic development. While this conjecture dates back at least to Schumpeter, economists have only relatively recently taken up the systematic study of the impact of finance on economic growth. Starting with King and Levine's seminal paper (1993), a large number of studies have documented strong positive correlations between financial development, measured by the size of the financial sector, and growth and economic development. While these cross-country results are strikingly robust and consistent, they tell us little about the exact micro channels though which a more developed financial industry promotes growth.

In Bertrand, Schoar and Thesmar (2005), we undertook such a study of the micro channels by looking at the impact of financial market deregulation on the allocation of credit across firms, firms' behavior and product market dynamics. In particular, we analyzed the French banking deregulation in the mid-1980s. The French banking deregulation drastically reduced government interventions in banks' lending decisions, almost entirely abolished subsidized bank loans and allowed French banks to compete more freely in the credit market. In addition, several state-owned banks were privatized in the mid-1980s. According to most observers, the main effects of the reform were to move from a centrally-planned to market-based capital allocation, to decentralize the decision-making process on loan amounts and interest rates, and to introduce a stronger for-profit motive among banks.

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While our analysis was restricted to a single country, the scope of regulations in place in France prior to the reform matches the experience of many other countries with regulated banking sectors. In this regard, the French reform is quite representative of the multiple changes many other countries would have to implement to liberalize their banking sector.

Our focus on France was also motivated by the availability of comprehensive and very detailed firm-level accounting data for this country. While most commonly used international firm-level data sets cover only publicly traded firms, the data used in this paper includes both private and publicly traded firms. The coverage of private firms was central to our analysis. First, since these firms typically have access to few other sources of external finance besides bank loans, they may be most affected by any changes in the banking sector. Second, and equally important, these firms represent a very large fraction of overall economic activity, making their coverage in the data necessary to any study on the impact of the banking reform on industry structure and dynamics.

While the French banking deregulation constituted an economy-wide shock, we isolated its effect on firm behavior and product market dynamics by studying differential changes post-reform across sectors that were more or less reliant on bank finance prior to the reform. The identifying assumption at the basis of this empirical strategy is that industries that were more financially dependent on banks prior to the reform should be more affected by the deregulation. In practice, we also assessed the robustness of our findings by using a US-based measure of external financing dependence (à la Rajan and Zingales 1998) as an alternative source of cross-sector variation in the strength of exposure to the banking reform.

Our findings, which are summarized below, are consistent with a model where distortions in bank lending create artificial barriers to entry in the real sectors of the economy. New entrants may be discouraged by the easy access to cheap credit for incumbent firms. Once banks become less willing to provide such (cheap) credit to poorly performing firms, prospective new entrants find it more attractive to come in and compete with incumbents. A more efficient banking sector therefore appears to play an important role in fostering a Schumpeterian "creative destruction" process that has been theoretically, and

increasingly empirically, linked to higher economic growth.

Such evidence of distortions in bank lending being associated with relative sclerosis and lower restructuring activity in the real sectors of the economy is reminiscent of Caballero, Hoshi and Kahyap's discussion (2003) of the role Japanese banks have played in the slowdown of the Japanese economy over the last decade. Our findings also complement recent work by Black and Strahan (2002) and Cetorelli and Strahan (2004) who study changes in industry-level entry rate, number and size distribution of firms in the context of the US interstate banking deregulation. One major difference between these papers and our study (in addition to the obvious focus on a different set of reforms) is our access to firm-level data. This data allows us not only to look at restructuring activities at the firm level but also to study the reallocation of capital across firms within industries.

The French banking reforms of the mid-1980s

After World War II, the French financial sector came under the centralized control of the Treasury, whose general aim was to channel savings and deposits into priority industries. To control the credit market, the Treasury set up a deposit network, consisting of savings banks, the postal checking system, the Bank of Foreign Trade, and four large cooperative banks. This network had privileged access to some deposits and the bond market, and a monopoly over the distribution of subsidized loans allocated by the Treasury. Increased governmental control over savings collection and use was also achieved through the nationalization of some of the biggest banks.

The economic turmoil after the 1974 oil shock further strengthened bureaucratization and state involvement in the banking sector. The government had to balance conflicting objectives: limiting money growth to stabilize the Franc's parity with the Deutsche mark while stimulating credit and investment. This was implemented through the "encadrement du crédit" program, which consisted in setting monthly ceilings on credit growth for each bank individually. A direct consequence of the "encadrement du credit" was to further strengthen the relative importance of subsidized loans and government control over lending decisions. By 1979, subsidized loans amounted to nearly half of all new loans granted to the private sector. In May 1981, a new socialist government was elected: fiscal policy became more expansionary, and a further nationalization of the banking sector was implemented. The Treasury also increased the pressure on state-owned banks to bail out failing industrial groups. The number of different loan subsidization programs increased dramatically, as the Treasury focused more and more on "job preservation" and preventing the shut down of poorly performing firms. As a result, the credit market became even more opaque, supporting more than 200 different interest rates for different loan subsidization programs.

The expected benefits from an increased centralization of the banking system did not pan out. In the fall of 1984, the socialist government announced a drastic reversal of policy. The goal was to transform the financial system into a decentralized credit market, where interest rates would be used to match the supply and demand of capital for each type of project. More specifically, three sets of reforms of the banking industry took place in 1985.

First, starting in 1985, most subsidized loans were eliminated. Also, the distribution of these remaining subsidized loans was no longer the monopoly of the Treasury-controlled deposit network, which improved transparency and competition on the lending market.

Second, the "encadrement du credit" was abolished in 1985 and capital flows in the economy became much more determined by market forces. Between 1985 and 1987, credit growth limits were gradually removed and replaced by a system of reserve requirement against deposits. Monetary policy was now conducted through interest rates on the money market and legal reserve requirements instead of quantity controls. Resources became much more available to expanding private banks. The money market was also reformed to stimulate inter-bank lending: private banks could borrow more funds from the Treasury network, which now had little use for them. In addition, the system of capital controls, strengthened in 1981 to defend the Franc, was progressively eliminated through a string of reforms ending in 1990 (Naouri (1986).

Third, market conditions became more transparent and conducive to fair competition. The 1985 Banking Act partially unified a myriad of banking regulations, and progressively also eliminated subsidized loans. Partial monopolies over deposits and lending enjoyed by some banks were progressively disman-

tled. Banks also faced more competition from other providers of external finance, as firms' access to the bond and equity market was facilitated.[1] Last, with the disappearance of subsidized credit, private banks no longer faced the unfair competition from the members of the Treasury Network.

Finally, a number of banks were privatized in the 1986–88 period (about 10 percent of the banks and 20 percent of the banking assets). Most industry observers believe, however, that the other regulatory changes we described above were more important in reforming the French banking industry in the mid-1980s than this partial privatization effort. Part of the rationale driving this belief was that about half of the bank assets that were privatized in the mid-1980s had just been nationalized in 1982.

The widely (at least anecdotally) discussed consequence of the reform was a change in banks' behavior. The reforms signalled that the Treasury was willing to let market forces shape the credit market landscape for the long run. These new conditions forced banks to change their lending practices and restructure internally, in part with the help of the diffusion of new technologies. A survey conducted in 1985 among French bankers showed drastic changes in attitudes about the internal management of banks (Rémy and Sergent 1986). According to the survey, the focus of bank managers was increasingly on reducing costs, controlling risks and introducing tighter performance monitoring. The greater competitive pressures were most intensely felt by banks in the Treasury network, as these banks had lost their privileged access to deposits and loan markets. The Treasury network's share in all deposits decreased by 28 percent between 1985 and 1990, and its share of loans went down by some 25 percent (Plihon 1995).

Data

The firm- and industry-level data sets used in this study were based on accounting information available for all French firms, public or private, whose annual sales exceeded EUR 100,000 in the service sector and EUR 200,000 in other sectors. This accounting data was extracted from the tax files used by the Ministry of Finance for corporate tax collection purposes. French firms above these thresholds are required by tax authorities to fill in a detailed balance sheet and profit statement. Also included in the tax files is a four-digit industry classification code that is very similar to the SIC coding system in the US In addition, the data also contains reliable firm-level employment figures that have been cross-checked with information from employer labor tax reports. Individual firms can be tracked over time by the use of unique identifiers, which allows for the construction of a panel data set. We ended up with a data set of about 350,000 firm-year observations, which corresponds to about 15,000 firms per year. We excluded firms in the financial sectors from the sample (banking and insurance industries), since standard accounting measures are less meaningful in this industry.

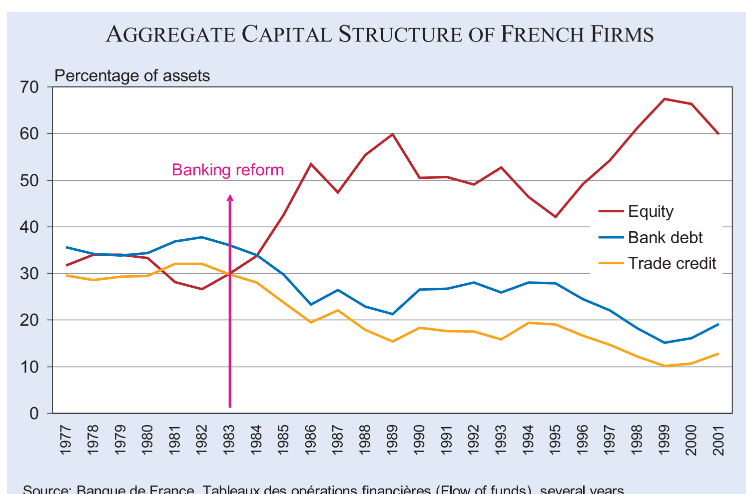
Changes in financial structure and bank lending practices

In aggregate, the level of indebtedness of French firms went down dramatically in the mid-1980s. The ratio of total debt to assets was very high in the early 1980s, around 70 percent. Two years after the reforms, this ratio went down by 20 percentage points and remained stable around 50 percent over the 1986 to 1996 period (Figure).

These aggregate figures conceal a sharp contrast between bank dependent and non- bank dependent firms. As it turns out, firms in more bank-dependent sectors display larger changes in capital structure

[1] Many reforms encouraging stock market finance and participation were undertaken in the mid-1980s. Among the prominent ones, in 1986, the monopoly of the Paris brokers was dismantled; between 1984 and 1990, capital controls were progressively removed; in 1986, the French stock market was among the first to become electronic. Tax breaks for stock market investment, simplifications of procedures for bond and equity issues were introduced at various points in the mid-1980s.

AGGREGATE CAPITAL STRUCTURE OF FRENCH FIRMS



Source: Banque de France, Tableaux des opérations financières (Flow of funds), several years.

post-deregulation. They experience a larger drop in debt post-reform, but this drop in debt finance is only partly compensated by an increase in equity finance. The gap is filled with trade credit, which increases more for firms in bank dependent sectors. The effect of the banking reform is also reflected in an increase in the cost of capital in the more bank-dependent sectors. Furthermore, the largest changes in capital structure occur among the worst performing firms.

While consistent with the idea that banks are becoming more selective in their lending behaviour, these results could however also be driven by changes in the demand for bank capital. Due to the increase in the cost of capital (the mid-1980s where times of sharp monetary tightening and rise in real interest rates), firms might have been optimally restructuring their financing by relying less on bank loans.

To alleviate this concern and understand in more detail whether and how banks are changing their lending behavior after the reform, we looked at the correlation between new net bank loans and shocks to firm performance. The hypothesis we investigated is that banks were more willing to "bail out" poorly performing firms prior to the reform and that this behavior was dampened after the reform. Indeed, we found that in bank dependent industries, the ability of firms with a sudden drop in performance to raise debt was significantly weakened, in particular for structurally weaker firms. This is consistent with banks becoming less inclined to bail out poorly performing firms after the deregulation.

Last, we analyzed whether, conditional on getting new bank loans, firms were more likely to improve their performance after the reform. Reduced distortion in lending and subsequent improvement in banks' monitoring and screening abilities should reduce the provision of credit to firms that will subsequently perform poorly. Again, we found that getting more bank credit became more closely tied to subsequent good performance after the reform, in particular in more bank-dependent industries. This is consistent with banks making much more use of their soft information to grant loans.

Real effects of banking reforms

The previous section showed that the deregulation significantly changed the incentives of banks and led to stricter lending practices post-reform. We then analyzed whether this generated pressures on firms to engage in more cost-cutting and restructuring activities. Such a response would be expected if firms face stronger incentives to strengthen their credit rating. We found that, in the bank-dependent sectors, firms experience slower than average wage growth, invest less and outsource more post-reform. It is interesting to note that these evolutions are even more pronounced among worse performing firms.

Second, we investigated the hypothesis that the banking reform improved the dynamics and competitiveness of product markets. Our first approach was to look at entry and exit rates in various industries. We found that bank dependent industries experience a larger increase in the entry and exit rates of firms after the reform. This is consistent with the fact that changes in bank lending practices have increased the rate of turnover within industries. Both creations and destructions have increased.

If increased reallocation rates are indeed symptomatic of more dynamic and competitive industry structures, we might also expect market concentration to decrease after the banking reform, especially in the more bank dependent sectors. We found this to be the case in our data.

We then asked more directly whether credit allocation between firms improved during that period. We found two pieces of evidence that support this view. First, badly performing firms were more likely to exit their industry after the reforms than before. This was especially acute in bank dependent industries. This first point is consistent with capital being "withdrawn" sooner from worse performers. Secondly, we found that the best performing firms tend to access larger market shares after the deregulation, in particular in bank dependent industries. This last point is consistent with relatively more capital being allocated to better performers.

Finally, evidence of increased competition and improved allocative efficiency led us to look at several measures of efficiency and cost structure at the industry level. We found that bank dependent industries experience a sharper decline in labor costs after the deregulation, as well as stronger increases in employment and labor productivity.

Conclusion

Overall, our findings suggest that a well-functioning banking sector plays an important role in fostering a

Schumpeterian process of creative destruction. The distortions in the banking sector prior to the reforms may have created artificial barriers to entry for new firms by unduly protecting incumbents and thereby dampening the efficiency-inducing effects typically associated with a more competitive environment. Our analysis documents a novel multiplier effect that works through the impact of bank lending on product market dynamics.

In the context of the current policy debate, the French reforms provide a template for a successful multi-tiered deregulation of the banking industry. Contrary to many other episodes of bank deregulation, the French reforms relied on a combination of increased competition, abolishing interest rate targets and directed credit, simplification of regulations and elimination of bank subsidies. Ultimately, these reforms led to a systematic change in the structure and efficiency of the banking system. We conjecture that such thorough reforms may lead to more sustained change than many other recent episodes of banking reforms that relied mainly on bank privatizations without improving any of the other structural dimensions of the banking industry.

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