

Financial Systems in Financial Crisis – An Analysis of Banking Systems in the EU

This Forum aims to systematically describe and analyse the evolution of national financial systems within the EU over the past three decades. It analyses the processes of financialisation that have dominated this period as well as the causes and consequences of the financial crisis from the perspectives of five individual member states – Germany, France, the UK, Italy and Spain. Furthermore, policy proposals which could change the role of the financial system to better serve economic and social objectives are also put forward.

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The German Financial System and the Financial Crisis

At the outbreak of the financial crisis in 2007, hardly anyone would have guessed that it would become one of the most serious financial crises since the Great Depression. At the same time, it came as a surprise that after the peak of the crisis in 2009, Germany, which had experienced one of the sharpest declines in GDP during the crisis, was able to recover so quickly. This is particularly surprising in light of the fact that the German banking system was highly exposed to US assets and, correspondingly, was severely affected. Many economists worried that the damage to the financial system could lead to a credit crunch that would aggravate and prolong the crisis.¹

This article discusses the financial crisis in Germany, focusing specifically on the role of the German financial sector. It will first give an overview of the main features of the German financial system and the most important developments prior to the crisis. Thereafter, the impact of the financial crisis in Germany is discussed. This paper argues that Germany was vulnerable to the financial crisis through two channels – the trade and the financial market channel. The impact of the financial market channel is discussed in depth. Credit aggregates are utilised to determine the impact of the problems in the financial sector on the real

economy. This paper argues, subsequently, that in particular the savings and cooperative banks sustained credit supply, thereby ensuring that a credit crunch did not prevent a recovery once global trade recovered.

Main features of the German financial system

The German financial system has long been a prime example of a bank-based financial system. Despite some changes, it is still dominated by banks today, while its financial markets are relatively undeveloped. Compared to the US, German firms are financed to a larger extent by bank loans, and households hold a larger share of their financial wealth in the form of bank deposits. Consequently, firms use markets less often to obtain financing, which can be seen by the relatively low number of listed companies and the low stock and bond market capitalisation and activity in Germany (see Table 1).

Historically, the German regulatory system was geared towards bank intermediation and enabled the central position of banks in the German system. The Banking Act (*Kreditwesengesetz*) of 1961 put few restrictions on the types of financial service activities banks could pursue and so followed a universal banking principle. At the same time, direct interventions into the business decisions of banks (e.g. through interest rate regulation) were relatively limited or abolished early on. The main instrument used to ensure the viability of banks was the setting of liquidity and capital standards. At the same time, the Banking Act had a relatively wide definition of banks. Most financial activities fell under its regulation, so that competition

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¹ See e.g. Deutsche Bundesbank: Monthly Report September, Frankfurt 2009.

Table 1
Financial indicators for Germany and the USA, 1992-2011

	Germany				USA			
	1992	2000	2007	2011	1992	2000	2007	2011
Stock market capitalisation to GDP (%)	19	66	58	37	69	161	142	110
Stock market total value traded to GDP (%)	21	47	91	45	34	255	273	206
No. of listed companies per 10,000 population	825	1 243	800	819	2 612	2 667	1 703	1 339
Private bond market capitalisation to GDP (%)	40	57	35	24	71	95	114	92
Deposit money bank assets to GDP (%)	110	147	126	127	57	55	65	62
Private credit by deposit money banks to GDP (%)	88	116	105	104	48	49	59	53
Bank deposits to GDP (%)	54	91	100	114	65	63	73	81

Source: World Bank.

from unregulated non-banks and the establishment of a shadow banking system was limited.²

While banking was tightly regulated, financial market regulation was underdeveloped. Security exchanges were organised regionally and were largely self-regulating. The German regional states (*Länder*) were the formal supervisory authorities, but they pursued a policy of non-interference.³ The regulatory framework was characterised by a lack of transparency and accountability, low protection of minority shareholders and no binding rules against insider trading. Additionally, German accounting rules emphasised creditor protection.⁴ Capital markets were dominated by the big banks, which also had strong positions in

most of the self-regulating bodies of the German exchanges and used their power to stabilise the regional structure.⁵

Another unique feature of the German banking sector is the so-called “three-pillar” banking system comprised of private banks, savings banks and cooperative banks. As a result, roughly 50 per cent of the banking sector consists of not-for-profit organisations. At the same time, many banks

5 S. Lütz, op. cit., pp. 79-89.

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2 D. Detzer, N. Dodig, T. Evans, E. Hein, H. Herr: The German Financial System, FESSUD Studies in Financial Systems No. 3, Leeds 2013.

3 S. Lütz: Der Staat und die Globalisierung von Finanzmärkten. Regulative Politik in Deutschland, Großbritannien und den USA, Frankfurt 2002, Campus, pp. 79-89.

4 D. Detzer et al., op. cit., pp. 115-136.

have a regional or even a local focus. This turned out to become a major advantage during the financial crisis.

The private segment of the banking sector is dominated by four big banks: Deutsche Bank, Commerzbank, UniCredit and Postbank. Traditionally, the big banks have acted as house banks to the larger German industrial enterprises. They provided long-term loans for investment and had close links with those firms via cross-shareholdings and supervisory board seats. This, however, changed when the big banks' business model came under pressure in the late 1970s. Consequently, they gradually moved into investment banking and trading activities while reducing their links to the industrial sector. The rest of the private banking sector consists of regionally focused banks or branches of foreign banks.

The savings bank sector is comprised of 421 locally oriented primary savings banks (*Sparkassen*), all of which are legally independent institutions, nine regionally oriented *Landesbanken* and a range of specialised institutions. The primary savings banks are owned by city or county governments, and their mission is to serve the public interest. While they should avoid making losses, they are not required to maximise profits and can pursue other goals such as supporting local cultural, social and economic development. The *Landesbanken* originally had two purposes: acting as bankers to the regional state and representing central institutions for the savings banks in their respective regions. However, they also developed a wide range of commercial and investment banking activities.⁶

The cooperative banking sector has a structure similar to that of the savings bank sector. It consists of 1,078 primary cooperative banks, two regional institutions and a range of specialised institutions at the national level. The cooperative banks also have a dual objective: they must support the economic undertakings of their customers and at the same time operate as sustainable businesses.⁷

The primary institutions of both the savings bank and the cooperative bank groups are focused on providing financial services to the general public and acting as house banks to German small and medium-sized companies. The primary institutions in both groups follow a so-called regional principle. They are supposed to conduct business only within their respective region. Due to their local orientation, there is little competition among the individual institutions within each group, so that they are able to see each other as peers and partners rather than competitors. This enables them to benefit from being part of a dense

network of closely connected but legally independent institutions. Due to their network structure, they are able to benefit from economies of scale by centralising certain services and can offer a full range of banking services without losing their local focus.⁸ This allows these relatively small banks to compete with the larger private banks on equal footing. With the exception of the *Landesbanken*, the banks in the cooperative and savings bank sectors, as well as the regional private banks, exhibit higher average profitability and lower profit volatility than the big private banks (Table 2).⁹ While the profitability of the German banking sector is relatively low when compared internationally, it is often noted that the German banking system provides better financial inclusion (in particular to low-income households), cheaper and better financial services, and lower-cost funding to SMEs compared to countries with purely profit-driven private financial sectors. Thus, this lower profitability may be outweighed by overall welfare gains.¹⁰

Main changes to the German financial system since the 1970s

There have been many different forces that have impacted the financial sector. First, the profitability and the overall scale of business that the big banks receive from large industrial firms has declined since the 1970s due to lower investment demand and increased competition. In response to this declining business, the big banks initially tried to enter the previously neglected retail and SME business. However, the strong position of the savings and cooperative banks in this sector made entry difficult. Therefore, the big banks tried to enter the investment banking business and pushed for the development of capital markets in Germany. To achieve this, they acquired foreign investment banks in the 1990s, loosened their ties with industry and lobbied for a regulatory framework more conducive to market-based finance.¹¹

Simultaneously, attempts to harmonise banking and security market regulation were made at the European Economic Community (EEC) level. Regulatory initiatives at the EEC level began to appear at the end of the 1970s, but

6 D. Detzer et al., op. cit., pp. 73-92.

7 Ibid.

8 D. Bülbül, R.H. Schmidt, U. Schüwer: Savings Banks and Cooperative Banks in Europe, White Paper Series No. 5, Center of Excellence SAFE Sustainable Architecture for Finance in Europe, Frankfurt 2013.

9 For a detailed discussion on efficiency and profitability, see D. Detzer et al., op. cit., pp. 151-178.

10 See for example A. Mullineux, E. Terberger: The British Banking System: A good role model for Germany?, Anglo-German Foundation for the Study of Industrial Society, London 2006; and International Monetary Fund: Germany. Banking Sector Structure, Washington 2011.

11 U. Perina: Angst vor der Macht am Main, Die Zeit, No. 14, 30 March 1990.

Table 2
Profitability of German banks

Banks by banking group, November 2013	Number	Assets in billion €	%	Return on equity before tax, 1994-2010		Return on equity after tax, 1994-2010	
				Average	Standard deviation	Average	Standard deviation
Total	1845	7780.5	100.0	7.9	6.4	4.3	4.4
Private banks	276	2888.4	37.1	7.1	10.3	4.4	8.0
Big banks	4	1827.4	23.5	7.0	15.5	4.5	11.7
Regional banks	164	829.0	10.7	8.3	4.4	5.0	3.2
Branches of foreign banks	108	232.0	3.0	-	-	-	-
Savings bank sector	430	2233.5	28.7	-	-	-	-
<i>Landesbanken</i>	9	1126.1	14.5	4.1	6.8	1.8	5.6
Primary savings banks	421	1107.4	14.2	12.8	5.3	5.6	1.5
Cooperative bank sector	1080	1038.3	13.3	-	-	-	-
Regional institutions	2	276.9	3.6	7.6	7.7	6.5	4.8
Primary cooperative banks	1078	761.4	9.8	11.7	3.8	6.0	1.5
Special banks	59	1620.4	20.8	-	-	-	-
Mortgage banks	18	455	5.8	6.4	9.0	3.2	7.0
Building and loan association	22	204.8	2.6	-	-	-	-
Special purpose banks	19	960.6	12.3	-	-	-	-

Source: Deutsche Bundesbank.

they lacked traction. Beginning in the early 1990s, the impact of these regulations strongly increased, so that by today there is hardly any area of financial market regulation not affected by EU legislation.¹²

Both the shift in the national actors on whom the banks focused their attention and the rising influence of EU legislation led to major changes in German financial regulation, in particular securities market regulation. The authorisation of new financial innovations in the 1980s and the four financial market promotion acts enacted between 1990 and 2002 increased investor protection, criminalised insider trading, yielded new financial actors and set the general framework for a market for corporate control. This changed the regulatory structure in a way that was more favourable to the development of financial markets.¹³ Despite an increase in private market capitalisation and increased stock market participation by households during the new technology boom at the turn of the century, market capitalisation in bond and stock markets remains low.

12 T. Heinrich, H. Hirte: Bankrechtskoordination und -integration, in: P. Derleder, K.-O. Knops, H. G. Bamberger (eds.): Handbuch zum deutschen und europäischen Bankrecht, Berlin 2009, Springer, pp. 2181-2199.

13 R. Deeg: Finance capitalism unveiled: banks and the German political economy, Michigan 1999, pp. 73-122.

Some of this could be explained by the retreat of households from direct equity investments after the collapse of the stock market bubble in 2001.¹⁴

Additionally, there has been constant pressure from international institutions, such as the IMF,¹⁵ the OECD¹⁶ and national actors like the German Council of Economic Experts,¹⁷ to reform the three-pillar system and to open savings banks for private capital. For a long time, despite these constant pressures, German politicians resisted liberalising or privatising the savings bank sector, and the same general structure continues to prevail today. However, supporters of liberalisation achieved a partial success when a complaint by the private banks to the European Commission in 1994 compelled Germany to remove the government guarantee for public banks by 2005.¹⁸

14 D. Detzer et al., op. cit., pp. 73-92; D. Detzer: Financial Market Regulation in Germany – Capital Requirements of Financial Institutions, FESSUD Working Paper Series No. 26, Leeds 2014.

15 International Monetary Fund, op. cit.

16 OECD: OECD Economic Surveys: Germany, 2012, OECD Publishing.

17 Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung: Das deutsche Finanzsystem. Effizienz steigern – Stabilität erhöhen, Expertise im Auftrag der Bundesregierung, June 2008.

18 T. Döring: German Public Banks under the Pressure of the EU Subsidy Proceedings, in: Intereconomics, Vol. 38, No. 2, 2003, pp. 94-101.

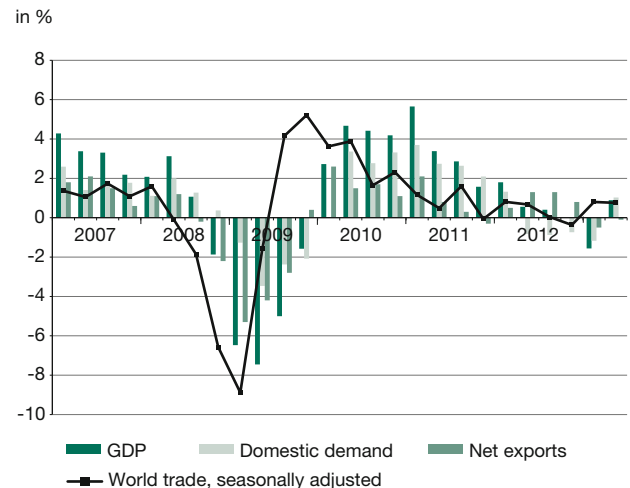
Impact of the financial crisis in Germany

Unlike many other countries, Germany did not experience a housing bubble or strong domestic credit growth before the crisis. Nevertheless, it was heavily affected by the international financial crisis. This is largely related to the German growth model, which can be characterised as “export-led mercantilist”. Wage moderation by the unions and the establishment of a low wage sector due to comprehensive labour market reforms led to stagnating wages in the years prior to the crisis. Correspondingly, domestic consumption growth in Germany was low. Contrary to the promises of many economists and politicians, wage moderation did not lead to higher investment demand, which was relatively low throughout the period. With the public sector trying to consolidate its accounts at the same time, the total growth contributions of domestic demand from the early 2000s until 2008 amounted to only 0.85 percentage points. Economic growth was weak, averaging 1.44 per cent, and a large portion of this depended on external demand (0.58 per cent).¹⁹ The high current account surpluses also meant that Germany built up large financial claims with the rest of the world. This model left Germany highly vulnerable to two channels of crisis transmission: the trade channel and the financial markets channel.

The trade channel

Compared to other EU countries, Germany is much more integrated in international trade²⁰ – and also much more dependent on it. Additionally, the German export industries are specialised in more volatile goods, such as investment or intermediate goods, which makes Germany even more vulnerable to economic slowdowns in its foreign markets. The great degree to which Germany was affected by the slowdown in international trade and the corresponding decline in external demand can be seen in Figure 1. Germany’s GDP growth started declining after the third quarter of 2008 when world trade collapsed and declining net exports increasingly affected growth. Only thereafter did internal absorption of the crisis follow (largely via a decline in investment demand). The recovery, which began in the first quarter of 2010, was also largely driven by the rapid resumption of exports to emerging markets, where growth recovered faster than in the indus-

Figure 1
Growth of real GDP and growth contributions in Germany vs. growth of world trade, 2007-2013



Sources: Statistisches Bundesamt, World Trade Organization.

trialised countries. Domestic demand only followed in the second quarter of 2010.²¹

The financial market channel

The second channel through which Germany was affected was the financial market channel. Germany was vulnerable through this channel because it had rapidly increased its international financial integration in recent decades (Figure 2). At the end of 2007, Germany had foreign assets of over €5 trillion, about half of which were held by German banks. This was an almost tenfold increase since 1991. In terms of GDP, foreign assets increased from about 58 to 207 per cent. Additionally, empirical research shows increasing correlation between foreign and domestic asset prices since the mid-1990s, making the German financial system more vulnerable to external shocks.²² Germany’s foreign asset position has weakened since 2007. While cumulative current account balances were about €350 billion in the years 2007/2008, net foreign financial assets fell by €16 billion. This suggests valuation losses of about €366 billion. At the same time, when US stock markets collapsed, Germany’s major stock price indices followed suit, leading to heavy losses on domestic financial investments. The Bundesbank estimates the wealth losses due to the collapse of the CDAX²³ at around €800 billion.

19 E. Hein: *The Macroeconomics of Finance-dominated Capitalism – and its Crisis*, Cheltenham 2012, Edward Elgar.

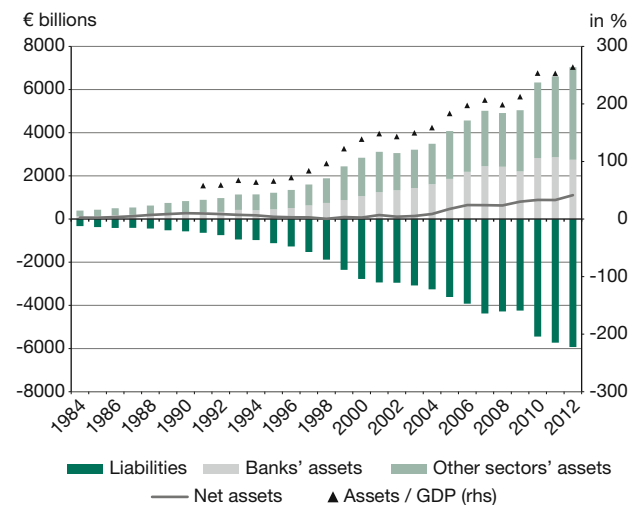
20 The trade-to-GDP ratio for Germany increased from 1991 to 2008 from 52 per cent to 90 per cent. The ratios for France, Italy and the UK in 2008 were between 50 per cent and 60 per cent. See Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung: *Deutschland im internationalen Konjunkturzusammenhang*, Expertise im Auftrag der Bundesregierung, November 2009.

21 Deutsche Bundesbank: *Monthly Report March*, Frankfurt 2011.

22 Sachverständigenrat 2009, op. cit.

23 The CDAX includes all companies listed for official trading at the Frankfurt stock exchange.

Figure 2
Germany's international investment position



Source: Deutsche Bundesbank.

These losses can have repercussions on the German economy via various potential mechanisms. Financial losses could negatively impact consumption via wealth effects and investment via Tobin's Q. However, empirical research has shown that wealth effects for Germany are rather low, and the evidence for an effect on investment through Tobin's Q is relatively weak. Therefore, direct effects on internal demand via the losses due to the financial crisis seem to be rather low.²⁴

Overall, Germany seems more vulnerable to financial contagion via the banking sector. A large proportion of the German company sector depends on bank loans for its external financing. If the financial crisis caused liquidity or solvency problems in the banking sector and thus led banks to restrict their lending to the non-financial sector, this would have the potential to aggravate the crisis or to undermine a recovery via a so-called credit crunch.

German banks were heavily exposed to the US real estate bubble via their asset holdings. The write-offs of large German financial institutions (banks and insurance companies) directly related to the financial crisis amounted to €102 billion²⁵ in the period from 2007 to August 2009.²⁶ To put this into perspective, the total capital and reserves of German banks at the end of 2007 stood at €428 billion,²⁷ while that of insurance companies stood at €284 billion.²⁸

24 Sachverständigenrat 2009, op. cit.

25 In comparison, France had write-offs amounting to only €52 billion.

26 Sachverständigenrat 2009, op. cit.

27 Deutsche Bundesbank: Monthly Report January, Frankfurt 2014.

28 Deutsche Bundesbank: Statistik über Versicherungen und Pensionseinrichtungen, 2014.

Problems related to those losses first materialised in July 2007, when the IKB Deutsche Industriebank AG – a German bank specialising in business with medium-sized industrial companies – got into trouble due to refinancing problems at Rhineland Funding, a special purpose vehicle related to IKB. By the end of 2008, three *Landesbanken* – Sachsen LB, Bayern LB and West LB – and the IKB needed government assistance. In autumn 2008, Hypo Real Estate unveiled problems at its Irish subsidiary Depfa Bank plc and received an emergency loan of €50 billion before being nationalised in October 2009. Commerzbank, one of the largest private banks, also encountered major difficulties shortly after the collapse of Lehman Brothers. The problems were related to a range of acquisitions before and during the crisis, in particular the purchase of Dresdner Bank. The government was forced to provide guarantees and recapitalise the bank. When further support was needed, Commerzbank was partially nationalised in January 2009. Many banks which did not have to resort to government assistance nonetheless had problems due to the financial crisis. Deutsche Bank, the biggest German bank, never asked for official help, but there are reports which claim the bank was able to unload substantial amounts of assets to IKB before they became toxic. Additionally, the bank came under fire for not registering its losses, failing to mark to market and misvaluing some positions. Had it not done so, it would have needed government support as well.²⁹

To contain the problems within the financial sector, the German government intervened on a massive scale, providing guarantees of up to €168 billion. It also recapitalised banks with almost €30 billion and allowed them to transfer their toxic assets to government-owned bad banks. Despite the fact that all of the guarantees have now expired or were returned without costs to the taxpayer, the bad banks still hold a substantial amount of assets and the capital injections have not been fully repaid, so that a substantial risk remains for the government. The Federal Agency for Financial Market Stabilisation expects losses of €22 billion.³⁰ Additionally, there were costs for the budgets of the *Länder* and municipalities related to the stabilisation of the *Landesbanken*.³¹ All together, these interventions contributed to the stabilisation of the German financial sector and the avoidance of a widespread German banking crisis.

Nonetheless, the government, different industry associations and some economists were concerned that a credit

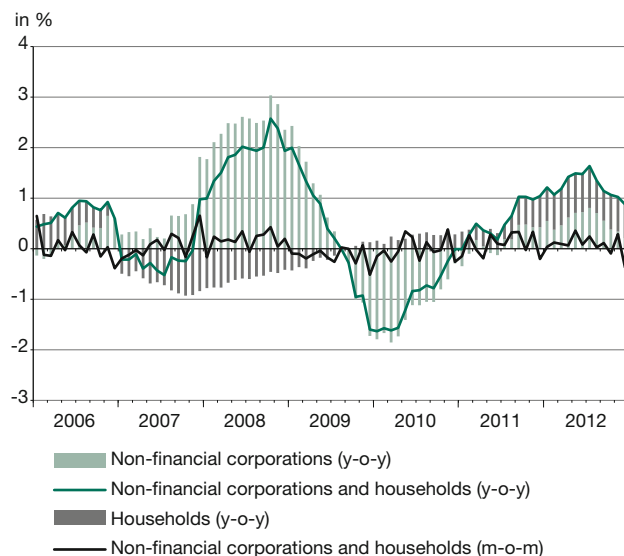
29 D. Detzer et al., op. cit., pp. 228–234.

30 Bundesministerium der Finanzen: Monatsbericht des BMF Dezember, 2013.

31 Deutscher Bundestag: Drucksache 18/424 from 4 February 2014.

Figure 3

Growth of bank credit to the domestic non-financial sector and growth contributions by sector, Germany, 2006-2012



Source: Deutsche Bundesbank.

crunch might occur and spread the problems from the financial sector to the real economy (see Figure 3).³² After relatively dynamic credit growth persisted until November 2008, it became negative in January 2009. This was mainly related to the decline in credit available to non-financial corporations, while credit to private households stabilised credit volumes. It was not until December 2010 that growth rates on a yearly basis became positive again. The increased credit constraint facing firms can also be seen in their subjective evaluation of credit availability, shown in Figure 4. While more firms reported stricter credit standards starting in August 2007, the number of firms that evaluated lending behaviour as “strict” exploded in August 2008. A return to pre-crisis levels did not occur until the spring of 2011.

So was this a credit crunch? On the one hand, actual credit volumes declined during the crisis and firms evaluated the lending behaviour of banks as stricter. On the other hand, there are various explanations for the decline in credit, and it was not necessarily bank-induced. When economic uncertainty increases, firms may curb their investments and households may delay larger purchases, resulting in a demand-induced credit decline. Also, during a recession it is normal for banks to curb their lending to a certain degree when the economic situation deteriorates and the creditworthiness of their borrowers declines.³³

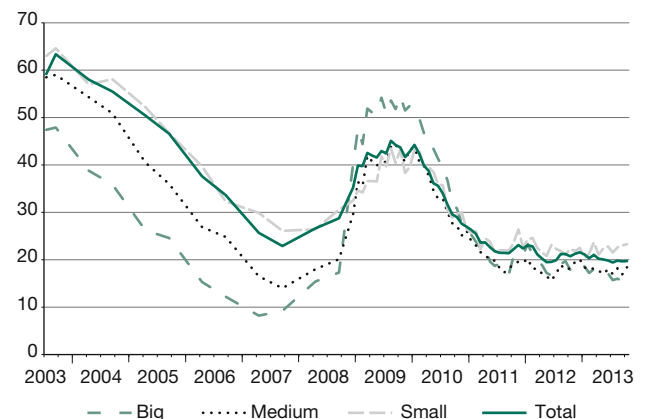
32 Deutsche Bundesbank: Monthly Report September, Frankfurt 2009.

33 Ibid.

Figure 4

Credit hurdle, 2003-2013

Evaluation of German companies about the credit standards of banks



Source: ifo Konjunkturtest.

The Bundesbank stated that credit growth was not extraordinarily weak from a historical perspective, given the scale of the recession.³⁴ Also, looking at Figure 4 again, it is clear that the overall subjective evaluation of credit availability by firms had been even worse in 2003. Therefore, on the aggregate, the German banking system seemed to have functioned quite well, despite the severe problems of some institutions, and it did not significantly aggravate the crisis in the real sector with overly restrictive credit policies.

More disaggregated data reveals a more diverse picture. Returning to Figure 4, it comes as a surprise that credit hurdles increased most drastically for the big firms, which traditionally have the best access to bank credit.³⁵ Table 3, which displays the growth of credit to domestic enterprises and self-employed persons by banking group, can help to explain this phenomenon. In the years 2009 and 2010, the decline of credit volumes was not homogeneous throughout all banking groups. The big banks, the *Landesbanken* and the mortgage banks reduced their lending most dramatically. Smaller private banks, the regional institutions of the cooperative sector and subsidiaries from foreign banks also reduced their lending. In contrast, the primary savings and cooperative banks played a stabilising role and extended their loan portfolios. This difference in lending behaviour during the cri-

34 Deutsche Bundesbank: Monthly Report October, Frankfurt 2010.

35 While in the past, the bigger firms increasingly relied on market finance and loosened their ties with house banks, reverting to equity and debt markets for finance was very expensive or even impossible, especially in the early phases of the crisis. Ibid.

Table 3

Growth of bank lending to domestic enterprises and self-employed persons, 2006-2012

in %

	2006	2007	2008	2009	2010	2011	2012
All banks	0.4	4.6	5.8	-0.4	-0.7	3.9	0.7
Commercial banks	-0.6	2.5	2.4	-1.2	-1	1.9	-0.1
Big banks	-0.8	0.8	-0.1	-0.4	-0.6	0.7	-0.1
Regional banks	0.1	0.9	1.9	-0.2	-0.3	1.3	0.4
Subsidiaries of foreign banks	0.1	0.9	0.6	-0.6	-0.1	-0.2	-0.4
<i>Landesbanken</i>	0.7	1.1	1	-0.4	-0.7	0.3	-0.9
Savings banks	0.1	0.6	1.1	0.7	0.8	0.7	0.9
Cooperative regional institutions	0	0.2	0.2	0	-0.2	0.1	0.2
Cooperative banks	0.1	0.3	0.6	0.5	0.6	0.6	0.9
Special purpose banks	0.9	0.2	0.8	0.6	0	0.5	0.4
Mortgage banks	-0.8	-0.4	-0.3	-0.7	-0.4	-0.3	-0.9

Source: Deutsche Bundesbank.

sis can be explained by a range of supply-side factors.³⁶ First, the institutions that curtailed their lending the most were those most affected by the crisis. As depicted above, the big private banks, the *Landesbanken* and the mortgage banks had to bear heavy losses from the crisis. The drain on their equity may have forced them to reduce their lending.³⁷ Additionally, those bigger banks depended much more on wholesale funding, which made them more vulnerable to liquidity problems when the interbank market was inhibited. Banks reported that in particular in the early phase of the crisis, refinancing conditions in the money and bond markets played an important role in their restrictive credit policies.³⁸ This helps to explain the phenomenon that, while firms of all sizes had greater problem in accessing bank credit, the most severe problems were experienced by big firms. The easier access to credit enjoyed by small and medium-sized companies can be explained by the fact that they obtain their external credit financing more often from the primary cooperative and savings banks. Due to their different business model, which focuses more on the ordinary loan and deposit business, these banks were not directly hit by the financial crisis, and due to their large deposit bases, they were also less dependent on wholesale funding. Hence, there

were no internal factors that prevented them from providing credit to their customers.

An examination of the disaggregated figures reveals that while there was no overall credit crunch, the big banks and *Landesbanken* restricted their credit growth, and thus their traditional customers, the bigger firms, were more affected by the problems in the financial sector. Conversely, the smaller banks of the savings and cooperative sector extended their lending throughout the crisis so that their borrowers were less affected by the financial crisis. It is also likely that they supplied loans to customers of the bigger banks and so eased the general pressure within the system.

Conclusions

Germany was heavily affected by the financial crisis due to its “export-led mercantilist” growth model and its high degree of international financial integration. The collapse in international trade hit the German real economy directly and led to a sharp decline in GDP. However, when demand from a range of emerging market economies for German goods increased, the German real economy was able to recover quickly. The German financial sector suffered due to heavy losses on its foreign assets, and heavy government intervention was needed to stabilise the financial system. While it managed to prevent a widespread banking crisis, there were fears that the damaged banking system would undermine a timely recovery by restricting access to credit. In fact, credit growth to the German real economy and to German households slowed and then grew negative in 2009. While the reduction does not seem large enough to speak of an overall credit crunch,

36 Additional possible explanations for the differences can be found looking at demand-side factors. The export-oriented manufacturing sector was hit particularly hard by the crisis, so that demand for credit in this sector may have been particularly weak. If big banks and *Landesbanken* were disproportionately focused on this sector, this may explain the decline in credit growth.

37 The *Landesbanken* and the big banks reduced their risk-weighted assets from the beginning of 2009 to mid-2010 by 21 and eight per cent respectively.

38 Deutsche Bundesbank: Monthly Report September, Frankfurt 2009.

disaggregate data reveals that big firms were much more affected than small and medium-sized firms. This was due to the fact that the big banks, the *Landesbanken* and the cooperative regional institutions, which together were the main financiers of the big firms, were most heavily affected by the financial crisis and had a business model which made them more vulnerable to problems in the wholesale markets. Therefore, they strongly curbed their lending. In contrast, small and medium-sized companies, relying on savings and cooperative banks for their financing, had fewer problems in obtaining credit. Those smaller banks were hardly affected by the financial crisis and had much more stable funding sources and were thus able to uphold credit supply during the crisis.

Altogether, it seems that the diversity in the German banking system – in which private, public and cooperative banks

as well as small and big banks co-exist, a feature that was prevalent in the banking systems of most European countries until 25 years ago – proved very effective during the financial crisis. This diversity, including the small, regionally oriented, not strictly profit-maximising banks that make up a large segment of it, is an asset to the German economy and it should not be discarded, despite claims to the contrary from international organisations or market liberals, which praise the superiority of privately owned banks. This seems of particular importance when one recognises that these sectors have developed historically and that they cannot easily be re-established by government decision once they have been privatised or dissolved. Therefore, despite the problems with the *Landesbanken*, which may need reforms, policy makers must ensure that no changes are made that would undermine the highly successful German three-pillar model in the long term.

Jérôme Creel, Fabien Labondance, Sandrine Levasseur*

The French Banking and Financial System and the Crisis

The goal of this paper is twofold. First, we describe briefly the French banking sector, presenting its main development since the 1980s and its key characteristics. Second, we analyse the consequences of the financial crisis on the French economy and its banks. In particular, we emphasise the resilience of the French banking model, as no major bankruptcy has occurred in the banking sector since 2008 and private agents have continued to finance their activity without intense credit rationing. However, concerns over the soundness of the French financial system remain unaddressed.

Most French banks operate according to the “universal bank” model, in the sense that the diversification of business activities should effectively protect the bank from idiosyncratic shocks in any particular banking division, whether in domestic retail banking (households, corporations, SMEs), international retail banking, specialised financial services (consumer credit, leasing, etc.), corporate and investment banking, or asset management. However, as an effective barrier between retail and investment activities within a universal bank does not exist, some have recent-

ly argued that separating retail and investment activities could make the banking sector safer.¹

Description of the French banking system

At the beginning of the 1980s, the French banking system was highly regulated, compartmentalised, uncompetitive and closed internationally. Moreover, the French financial markets were underdeveloped. The left-wing government led by François Mitterrand faced two main challenges: (i) the need to open the financial system internationally, under the impetus of European and global integration; and (ii) the crisis in the banking and financial system due to its unbalanced organisation and poor profitability. The government responded by implementing profound legal and regulatory changes which modified the banking and financial landscape. These changes included:

- the nationalisation of banks, with 36 deposit banks and two investment banks becoming state-owned;
- the free determination of interest rates – subject to interventions by the central bank – thus signalling the end of almost all regulated or subsidised interest rates;

* We acknowledge financial support from the EU FP7 project FESSUD under grant agreement No. 266800, and we thank Christophe Blot for his comments.

1 See e.g. J.L. Gaffard, J.-P. Pollin: Is it pointless to separate banking activities?, OFCE Blog, 19 November 2013.

- the endorsement of the Banking Act in 1984, which made all financial institutions subject to the same regulatory and supervisory authorities;
- the development of new financial instruments and markets, including very short-term debt securities for professional investors (certificates of deposits), and markets for futures (MATIF) and for options (MONEP).

The bank nationalisations gave the state control of virtually the entire banking sector, meaning that it could now steer investment and reform the financial system. In this context, the Banking Act aimed at “unifying, renovating and streamlining the laws and regulations governing the banking industry, promoting competition within the banking sector and making banking a more widespread activity”. Thus, the French banks were brought in line with the model of the universal bank, as recommended by the Mayoux Report in 1979.

However, the process of nationalisation began to be partially reversed in 1986 with the arrival of a right-wing government in the context of the “cohabitation regime”.² Pressure from the European Union’s policy on competition and the need to find fiscal revenues (the proceeds from privatisation immediately helped to reduce public debt) explain the pursuit of privatisations initiated in 1986. However, most of the privatisations were only partial: the state continued to hold the majority of shares in formerly fully state-owned banks (e.g. Le Crédit Lyonnais). Left-wing politicians were perceptive in foreseeing how to take advantage of the market economy’s benefits, determined to make Paris an important financial centre. Thus, when the left-wing government came back to power in 1988, the nationalisation process was once again pursued.

The opening of the French banking and financial system began in the late 1980s with the dismantling of foreign exchange controls in 1989 and the removal of almost all administrative barriers to foreign entry in the banking sector. Moreover, France’s stock exchange watchdog (the *Commission des Opérations de Bourse* or COB) saw its power and independence strengthened, which enhanced its credibility and consequently the attractiveness of Paris in the eyes of international investors. In the context of increased competitive pressures, a first wave of banking concentration was undertaken in 1991-92 to generate productivity gains and to streamline both structures and activities. Later, the internationalisation of French banks

gained momentum with the adoption of the euro. This was conducive to a second wave of concentration, in particular in the field of investment banking. The increase in the size of the potential market led to a search for an optimal size and economies of scale. The result was an intensification of international competition in the French market, leading the country’s banks to diversify into other regions and into the major foreign financial centres.

Two other important trends which contributed to the internationalisation (or at least Europeanisation) of the French financial system also have to be mentioned: the mergers and clustering of European stock markets (leading notably to Euronext) and adhesion to the “wholesale” payment system TARGET2, which enables transactions to be settled in real time using central bank money.

A consequence of the movement towards deregulation is the recent financial crisis. That is the only systemic French banking crisis acknowledged by the IMF, but one must nonetheless keep in mind that the development of the French banking system since the 1980s has not been linear.³ The crisis encountered by Crédit Lyonnais in the 1990s is a good example of the occasional instability of this system.

Key characteristics

Degree of concentration

The French banking sector is highly concentrated, with the two largest banks (Crédit Agricole and BNP Paribas) accounting for 44 per cent of total French banking assets and the five largest banks (adding Société Générale, BPCE and CIC-Crédit Mutuel) for 78 per cent at the end of 2012 (Figure 1). That put four French banks on the G20 list of major systemic banks in 2013.⁴

The degree of concentration is even more impressive when activities are divided between commercial and investment activities. For instance, Crédit Agricole and BNP Paribas together account for 70 per cent of derivatives operations in the French banking sector.

The implications of such concentration are important in terms of the so-called “too-big-to-fail” hypothesis and for the debate related to the separation of banking activities.

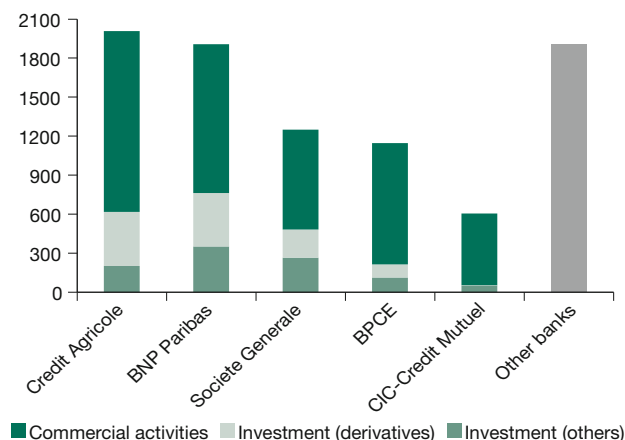
² A “cohabitation” arises when the President of the French Republic and the Prime Minister are from opposing political parties. In 1986, the President of the French Republic was François Mitterrand and the Prime Minister was Jacques Chirac.

³ See L. Laeven, F. Valencia: Systemic Banking Crises Database: An Update, IMF Working Paper, No. 163, 2012.

⁴ By contrast, Germany had only one bank on the list (Deutsche Bank), though it is the most systemically important one.

Figure 1
Major French banks, end 2012

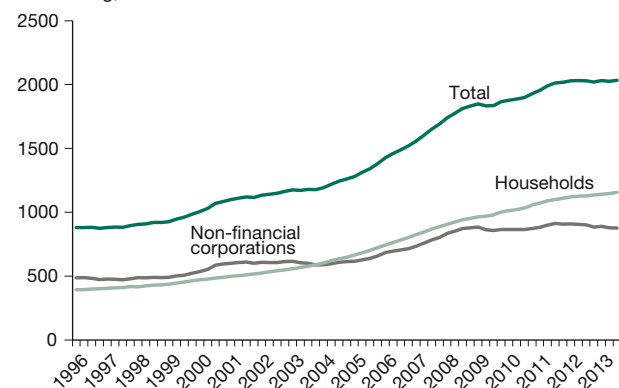
in terms of banking assets, € billions



Source: www.les-crises.fr.

Figure 2
Loans to the private sector

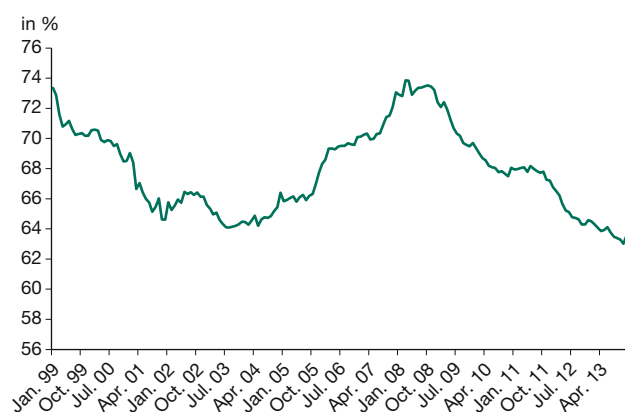
outstanding, in € billions



Source: Banque de France.

Figure 3
Intermediation rate of non-financial corporations

share of banking loans in total debt of non-financial corporations



Source: Banque de France.

The disintermediation process

In France, the disintermediation process has been relatively mild, as the amount of credit to households and non-financial corporations has continued to increase (see Figure 2). The value of outstanding banks loans to the private sector has grown by 230 per cent since 1996, reaching more than 120 per cent of GDP in 2013. In the 2000s, the indebtedness of French households was mainly driven by the large increases in housing prices, which grew by 220 per cent in nominal terms between 2000 and 2014.

If, among private agents, we consider only non-financial corporations for which the opportunity exists for a trade-off between bank loans and market debt to finance their business, the intermediation rate shows large fluctuations within the range 65-75 per cent (Figure 3). Since 2008 in particular, corporations have been financing themselves increasingly through market debt as opposed to through intermediated traditional bank loans. If we were to take shadow banking into consideration, the decreasing importance of traditional banking intermediation would be even more significant.

Internationalisation

With regard to the openness and internationalisation of the French banking system, the evidence is rather mixed. To some extent, the level of internationalisation is quite high, with external assets and liabilities in June 2013 amounting to 102.1 per cent and 70.3 per cent of GDP respectively. However, cross-border banking outflows outpace inflows by more than 30 percentage points of GDP. In fact, the French banking system is predominantly domestically owned, with assets under foreign control amounting only to 11 per cent of total banking assets in France (against 26 per cent for the EU27 average). Low inflows indicate protectionist features of the French banking system.⁵

The French banking capital outflows are relatively well-diversified, meaning *ceteris paribus* that France has low exposure to a foreign shock in any particular country or region.⁶ However, only BNP Paribas can be considered a “European bank”, defined as a bank with less than 50 per cent of its business activities on French territory and more than 25 per cent in the rest of Europe.⁷ Crédit Agricole, BPCE, Société Générale and CIC-Crédit Mutuel are all classified as “domestic banks”, with more than 50 per

5 F. Allen, T. Beck, E. Carletti, P.R. Lane, D. Schoenmaker, W. Wagner: Cross-Border Banking in Europe: Implications for Financial Stability and Macroeconomic Policies, CEPR, 2011.

6 Ibid., based on figures for 2009.

7 D. Schoenmaker: The European Banking Landscape after the Crisis, Duisenberg School of Finance, DSF Policy Paper, No. 12, 2011.

Table 1
Simplified description of the French banking system income situation

	2004	2005	2006	2007	2008	2009	2010	2011	2012
Net banking income (in % of total assets)	2.08	2.00	1.84	1.50	1.08	1.49	1.39	1.33	1.38
Cost-to-income ratio (in %)	63.9	64.3	62.4	68.4	84.4	60.2	64.4	65.4	61.5
Gross non-performing loans (in € billions)	62.3	59.3	56.3	58.9	67.0	90.7	97.4	100.3	101.7
Gross non-performing loans (in % of total loans)	5.1	4.5	3.8	3.5	3.7	4.9	5.1	5.0	5.1

Source: ACPR: The French Banking Market in Figures, Banque de France, 2012.

cent of their business activities in France. No French bank is classified as “global” according to Schoenmaker.⁸

Profitability

The banking sector’s profitability is always a tricky subject to deal with, especially during periods of crisis. Data availability is constrained by banks’ financial disclosures, and their communication is only partial. They do not declare all their activities, especially with the growth of the shadow banking sector, and they have a certain ability to play with accounting rules in order to hide some elements of their balance sheets in order to reassure their stockholders.

The French banking system has been strongly hit by the financial crisis. Table 1 illustrates that the net banking income ratio dropped to a mere 1.08 per cent in 2008, while the cost-to-income ratio increased sharply to 84.4 per cent. Since then, both indicators have improved. However, these positive outcomes cannot hide unfortunate developments. In particular, the number of non-performing loans has been rising since the beginning of the financial crisis.

Additional information

France has a mature retail banking market. Some 99 per cent of French residents over the age of 18 have a banking account, and they possess an average of seven products per client. French banks also offer insurance products. The French banking system includes 48 million customers, 68 million current accounts, 157 million savings accounts and 64 million bank cards, mostly debit cards which are used for both payments and cash withdrawals through a nationwide network of terminals and ATMs.⁹

The legal and regulatory framework of the banking system follows or, in some cases, outpaces European directives. France has separate supervisory institutions for the main

financial sectors: banking, insurance and securities. Arrangements have been put in place to ensure adequate co-ordination among these authorities. All banking and financial laws are codified in the *Code Monétaire et Financier*. Further details related to the legal and regulatory framework can be found in Blot et al.¹⁰

Consequences of the financial crisis on the French economy and its banks

Since 2008, the deterioration of the financial environment and the resulting impact on the real economy have severely tested the strength and resilience of the French financial system. The financial turmoil arising from the US subprime crisis spread to all segments of the financial market and created a challenging operating environment for banks, which also faced a generalised crisis of confidence. The macroeconomic environment did not spare the French banks. Overall, however, the French banking system appears to have weathered the crisis well: no major bankruptcy has occurred in the banking sector since 2008, and private agents have continued to finance their activity without major credit rationing.

The macroeconomic consequences of the financial crisis

A major characteristic of the financial crisis is the distrust among banking institutions across the world, illustrated by jumps in the money market interest rates. To calm markets that were suddenly confronted with a huge rise in uncertainty, major central banks like the Fed, the BoE and the ECB decreased their interest rates, implemented unconventional policies and acted as lenders of last resort. These measures allowed banks to finance themselves with very low interest rates and unlimited amounts of liquidity for a long period of time. Despite the effectiveness of the inter-

⁸ Ibid.

⁹ EBF: European banking sector: Facts and Figures 2012, European Banking Federation, 2013.

¹⁰ C. Blot, J. Creel, A.-L. Delatte, K. Durand, A. Gallois, P. Hubert, J. Le Cacheux, S. Levasseur, M. Vienne: The French Financial System from Past to Present, FESSUD Studies in Financial Systems, No. 2, 2012.

est rate channel,¹¹ credit growth to the private sector decreased (Figure 4).

This is partly explained by the fact that since the crisis, credit conditions have been tightened. Currently, the extension of credit is much more dependent on the level of risk than it was before the crisis. By extension, new firms, smaller firms and firms with bad credit ratings have less access to credit. Nevertheless, this tightening of credit conditions does not seem to be the main explanation for low credit distribution to the private sector. More significant is the fact that the financial crisis created a negative demand shock, and weakened firms, especially SMEs, have reduced their credit requests.¹²

Government support to French banks

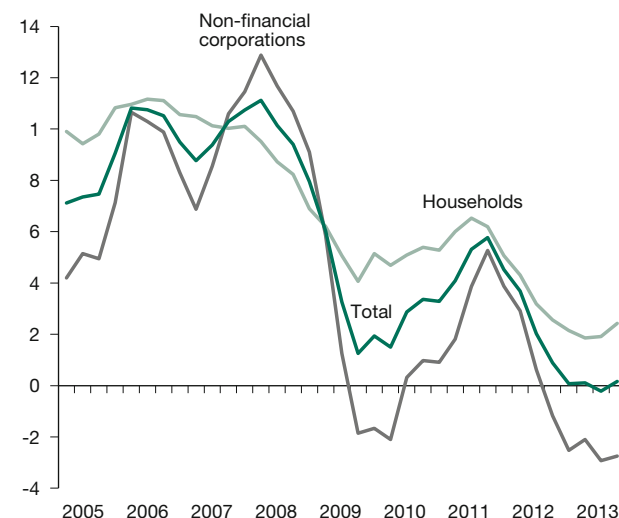
Soon after the beginning of the financial crisis, the French government undertook various policy actions to support the banking sector in order to avoid negative feedback effects on the real economy.

Between late 2008 and early 2009, the government granted loans to the five largest banks totalling €20.75 billion (or 1.1 per cent of French GDP). These loans bore high interest rates (around 7.5 per cent) and came with the condition that the beneficiary banks had to continue providing credit to the private sector at a yearly growth rate of four per cent. Initially granted for five years, nearly all of the banks had repaid the loans within a year (BPCE being the lone exception). The combination of several factors (i.e. the high interest rate, the private credit-growth constraint and a general unwillingness to depend on government support) explain why the repayment occurred so early. An additional explanation is provided by Grossman and Woll, who argue that to avoid stigmatising any particular bank, the French government would have struck a deal with the main institutions requiring all of them to accept the loans, even though not all of them needed one.¹³

Recourse to explicit debt guarantees was another important tool to support French banks, especially at the beginning of the financial crisis. The government de facto “lent” its creditworthiness to the beneficiary banks, thereby containing

Figure 4
Growth of loans to the private sector

year-on-year change in %



Source: Banque de France; authors' computations.

their funding costs and mitigating liquidity risk.¹⁴ In the case of France, the total amount of guarantees approved by the government (and approved by the European Commission in conformity with the State Aid Policy) was €320 billion (or around 16 per cent of French GDP). But, “only” €93 billion was actually used (or less than five per cent of GDP).

Indeed, two French banking institutions had to be recapitalised and/or dismantled. The first one was Natixis, the investment branch of Banque Populaire and Caisse d'Épargne, which was heavily exposed to both the subprime crisis and the Madoff fraud. By the fall of 2008, the value of Natixis stock had dropped by 95 per cent. In a deal brokered by French President Nicolas Sarkozy, the two banks merged to become BPCE. In mid-2009, Natixis received €35 billion in guarantees from BPCE on toxic assets on its books, while the French government invested €3 billion in BPCE's preferred non-voting stock, giving it a 20 per cent stake. The second entity is Dexia, a French-Belgian joint venture which specialised in loans to local authorities. Facing huge liquidity problems, Dexia was gradually dismantled and received a recapitalisation amounting to €5.5 billion from the Belgian and French states. Another major step in the (French) dismantling plan was the sale of Dexia Municipal Agency to the French state, the Caisse des Dépôts and La Banque Postale. The Belgian and French states are now the group's main shareholders, with 50.02 per cent and 44.40 per cent respectively of Dexia SA's capital.

11 C. Blot, F. Labondance: Bank interest rate pass-through in the Eurozone: monetary policy transmission before and after the financial crash, in: *Economics Bulletin*, Vol. 33, No. 2, 2013, pp. 973-985.

12 S. Kremp, P. Sevestre: Did the crisis induce credit rationing for French SMEs?, in: *Journal of Banking and Finance*, Vol. 37, 2013, pp. 3757-3772.

13 E. Grossman, C. Woll: Saving the Banks: The Political Economy of Bailouts, in: *Comparative Political Studies*, Vol. 47, No. 4, 2014, pp. 574-600.

14 E. Breton, C. Pinto, P.-F. Weber: Banks, moral hazard, and public debts, Banque de France, in: *Financial Stability Review*, No. 16, April 2012.

In the context of asset losses due to euro area debt problems, in particular exposure to Greek debt, estimates of the recapitalisation needs of European banks were carried out. The first estimates, carried out in October 2011 by the European Commission, indicated that French banks needed €8.8 billion of capital. This represented 8.3 per cent of the total EU recapitalisation requirements of €106.4 billion. The second estimate in January 2012 was a bit lower for French banks, at €7.3 billion, or 6.4 per cent of total EU needs. Meanwhile, considerable uncertainty arose regarding the quality of the banks' balance sheets, their treatment of sovereign debt and systemic risks.¹⁵ Consequently, estimates by the European Commission are based on stress tests, the thoroughness of which should be considered with due caution. For instance, Dexia passed its European Commission's stress test in July 2011 but needed a financial rescue just a few months later.

Some argue that the budgetary cost of supporting the French banking sector is considerably higher than currently estimated.¹⁶ Implicit subsidies, as opposed to explicit ones, constitute an additional budgetary cost via the negative effect they have on the country's credit rating, which increases the cost of public debt.¹⁷ Implicit subsidies to banks arise when the market expects that the government will act as a guarantor of last resort during a financial crisis. This allows some banks, in particular the largest ones, to borrow at a lower funding rate than they otherwise would. For French banks, implicit subsidies are estimated to be between US\$7.5 and 22.5 billion, or 0.35-1 per cent of GDP for 2012.¹⁸ Moreover, implicit subsidies have distortionary effects by creating a competitive advantage for banks benefiting from the subsidies, by inducing banks to take more risks, and by lowering the incentives of depositors, bondholders and shareholders to monitor the risk profiles of banks. In accordance with the "too-big-to-fail" hypothesis, the larger the bank, the larger the implicit subsidy.

Conclusion

To date, French banks have held up rather well to the financial crisis and its feedback effects on the real economy.

15 S. Merler, G.B. Wolff: Ending uncertainty: recapitalisation under European Central Bank supervision, Bruegel Policy Contribution, Issue 2013/18, December.

16 See A. Kloeck: Implicit subsidies in the EU banking sector, Intermediary Report, January 2014; and S. Schich, S. Lindh: Implicit Guarantees for Bank Debt: Where Do We Stand, in: OECD Journal: Financial Market Trends 2014, Vol. 2012/1, among others.

17 A. Kloeck, op. cit.

18 Implicit subsidies are not directly observable from the prices of financial instruments: they have to be estimated. To evaluate the funding cost advantage, the more intuitive approach consists of computing the difference between the "support" and "stand-alone" credit ratings of banks provided by rating agencies. This approach is used by S. Schich, S. Lindh, op. cit.

Compared to other EU countries, no major bailout was needed. However, several questions remain open with regard to the soundness of the French banking system in the medium and long run.

First, there is uncertainty regarding the capacity of French banks to comply with the new Basel ratios without damaging the real economy. Some argue that French banks may lack liquidity.¹⁹ In particular, the weakness of the four largest banks would be seen in their short-term liabilities, which, excluding derivatives, amounted to 28.4 per cent of assets in 2012 (compared with 22.1 per cent on average for 37 European banks). Thus, major upheaval in the French banking sector cannot be reasonably excluded. In particular, there are recurrent fears about two large banks, Crédit Agricole and Société Générale. The "too-big-to-fail" assumption would probably apply, at a large cost for taxpayers.

Second, the size of the shadow banking system in France is unknown and is quite difficult to measure. According to the Financial Stability Board, assets of "other financial institutions" (a broad definition that excludes the banking sector, insurance and pension funds) accounted for 26.3 per cent of total banking assets domiciled in France or, put differently, for 96.2 per cent of French GDP at the end of 2012. As shadow banking operates, to a large extent, beyond prudential regulations, the risks associated with this alternative financing are difficult to evaluate. As traditional banks are often linked through complex cross-holdings to shadow banks, difficulties arising from the latter could spread to the former and generate a new financial crisis. The rationale and the need for better regulation of the shadow banking system should be promptly recognised and acted upon by supervisory authorities.

Third, the closeness between those with political power and the French banking industry is worth noting. Numerous CEOs of banks previously worked in the government. This gives them easy access to those with political and regulatory power, allowing the banking industry to exercise strong lobbying strategies. These actions undermine the effectiveness of regulations which aim to minimise the size of this specific and systemic industry. The recent controversy in France over the Barnier proposal on banking regulation is a good example. While this initiative merely attempted to separate banking activities, in accordance with the recommendations of many recent reports on the question (e.g. the Liikainen report), the French banking lobby quickly and effectively criticised the proposal and succeeded in defeating it.²⁰

19 D. Brierley: Liquidity, French banks' Achilles' heel?, Alpha Value Publication, 13 June 2013.

20 See e.g. J. Gaffard, J.-P. Pollin: The Barnier proposal on banking regulation: whence the wrath?, OFCE Blog, 10 February 2014.

Mimoza Shabani, Jan Toporowski, Judith Tyson*

The Financial System and Economic Policy in the UK: Problems of Internationalisation

For nearly two centuries, the British financial system has been a major centre for global finance and the source of many innovations, in particular in long-term finance and international banking. However, an image of success based on the rapidly growing scale of the British financial system between its deregulation in 1987 and the recent financial crisis masked structural changes that have made the financial system less “functional” in intermediating resources and in serving as a conduit for policy execution.

This paper reviews the changes in the structure of the financial system that have resulted in these problems. It proposes that, while the financial sector has grown hugely in terms of scale and profitability, the sector has not functioned well for the economy. Productive investment has lagged behind foreign competitors, and credit-driven asset bubbles have not only created greater pro-cyclicality and instability in the economy, but have also undermined monetary and fiscal policy tools that could counterbalance its negative effects.

Structural changes in the UK financial system

From the abolition of foreign exchange controls in 1979, many of the regulatory controls on the British financial system that had been in place since the Great Depression were swept away. In the subsequent decades, banking and finance boomed under the new “light-touch” regime, becoming a dominant sector in the UK. Indeed, in 1997 the financial sector had assets of US\$ 10.5 billion, and its value represented only 1.9 per cent of GDP; by 2007, assets were US\$ 40 billion, and its share of GDP was 4.8 per cent,¹ representing an approximate quadrupling of the scale of the sector between deregulation and the financial crisis.

Further, there was growth not only in the scale of the industry but in its complexity – with innovation in products and risk profiles – and in the scale of individual institutions due to repeated mergers and acquisitions to create “universal banking” conglomerates. In addition, the UK became a major international centre for finance, with

both increasing levels of cross-border transactions and increasingly dominant international banks, as illustrated in Figure 1. As a result, the assets held by foreign banks rose from US\$ 8.1 billion and an 85 per cent market share in 1997 to US\$ 39.9 billion and an 89 per cent share by 2007.²

However, this boom was not confined to the financial sector. The broader economy also appeared to be in excellent condition, as illustrated in Figure 2, with, in what became known as the “Goldilocks” period, steady GDP growth and low unemployment accompanied by low inflation and interest rates. Many attributed this boom to the claimed benefits of deregulation, specifically greater competition and innovation in the financial system that, in turn, increased efficiency and productivity.

However, the risks associated with huge growth in the scale and complexity of finance, as well as its globalisation, materialised post-2007 with the globalised financial system transmitting shocks from the collapsing subprime mortgage market in the United States and, in 2008, multiple major bankruptcies, including Lehman Brothers, Northern Rock and AIG. Banks responded by sharply increasing risk aversion, leading to a severe credit contraction. Liquidity for financial institutions was sharply reduced, prices in asset markets fell and the UK government had to rescue Northern Rock, Lloyds Bank and the Royal Bank of Scotland. Central banks undertook unprecedentedly loose monetary policies, reducing interest rates to record lows, followed by open market operations to increase bank reserves and quantitative easing programmes.³

More importantly, the banking crisis was rapidly transmitted to the real economy, with the UK plunging into a sharp recession with an acute contraction of GDP in 2008 and 2009, followed by a chronic phase of minimal GDP growth from 2010 onwards.

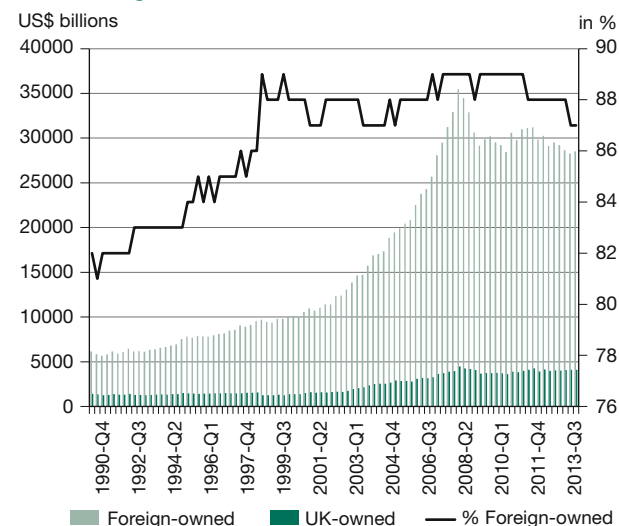
* The research leading to this paper has received funding from the European Union Seventh Framework Programme (FP7/2007-2013) under grant agreement No. 266800.

1 Office for National Statistics; Bank for International Settlements.

2 J. Toporowski, T. McKinley, M. Shabani, J. Tyson: Studies in Financial Systems: UK Country Report, Financialization, Economy, Society and Sustainable Development, 2013 provides a much more detailed historical and analytical account of the period.

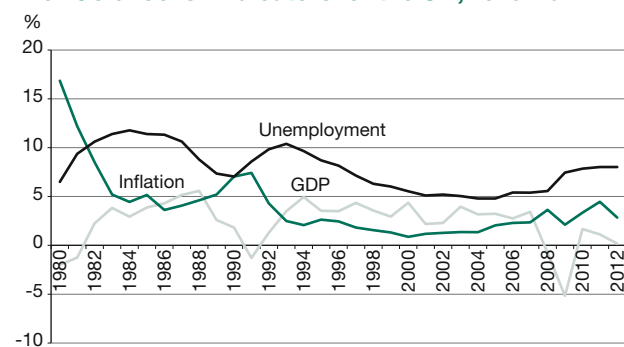
3 Independent Commission on Banking: Final Report: Recommendations, 2011. In addition to this report, there are numerous detailed accounts of the events of the financial crisis of 2007 onwards in the UK including J. Toporowski et al., op. cit., and the authors refer readers unfamiliar with a historical overview of events to these references.

Figure 1
UK banking assets, 1990-2013



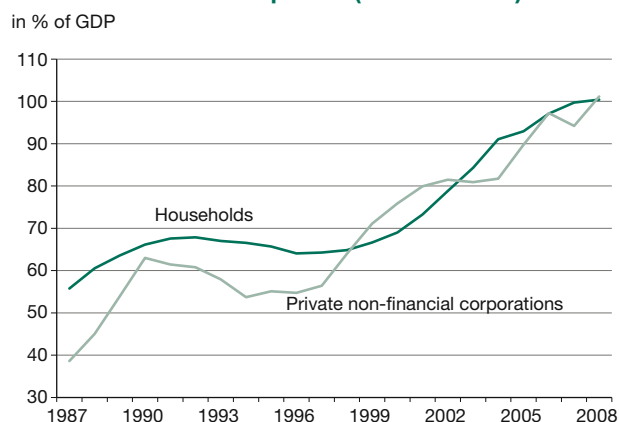
Source: BIS locational banking statistics.

Figure 2
The “Goldilocks” indicators for the UK, 1975-2011



Sources: Bank of England, Datastream.

Figure 3
UK household and corporate (non-financial) debt



Source: R. Barwell, O. Burrows: Growing Fragilities? Balance Sheets in the Great Moderation, Financial Stability Paper No. 10, Bank of England, 2011.

Structural changes in the UK non-financial sector

Given the apparent prosperity and stability before 2007, the crisis was unanticipated by many. However, underlying this stability were structural changes in finance that were corroding the basis of the economic stability and growth.

Amongst these changes was the increasing level of leverage in the non-financial sectors of the economy. Domestic sector credit to the private sector as a share of GDP almost doubled, rising from 115 per cent in 1997 to 208 per cent in 2007.⁴ As illustrated in Figure 3, this expansion of credit was to both the corporate (non-financial) and households sectors, accelerating from relatively stable pre-1997 levels of less than 65 per cent to reach over 100 per cent by 2007. However, the two sectors channelled funds into different purposes with different structural implications for the economy.

In the corporate sector, prior to the financial crisis, access to bank debt was easy and at low risk margins, reflecting the common belief that the economy had been permanently stabilised. Bank lending became a primary source of finance for business. Lending to the private non-financial corporate sector increased from £214 billion in 1997 to a peak of £657 billion in 2008, with bank loans accounting for over 65 per cent of UK corporate debt by 2008.⁵ However, these funds were not channelled into productive investments: between 1997 and 2008, bank lending to productive investments fell from 30 per cent to ten per cent of lending to the corporate sector.⁶

Instead, funds were channelled into the “financing of finance” via mergers and acquisition activity and investing in commercial real estate, described by the Bank of England as “a debt-fuelled overextension of the commercial property sector, and an increase in balance sheet restructuring, in which debt was taken on to increase the return to equity, in particular via private equity firms”.⁷ Further, this structural shift in the scale and use of leverage by corporations was directly linked to the increasing scale of finance. Investment banks became more active in providing advice and financing for mergers and acquisitions, as well as taking on the role of principle investors via shadow banking entities. In addition, this surge

⁴ World Bank.

⁵ Data obtained from Bank of England Statistical Database. Amount outstanding of UK resident monetary financial institutions in all currencies, not seasonally adjusted.

⁶ Bank of England: Trends in Lending, August 2009.

⁷ R. Barwell, O. Burrows: Growing Fragilities? Balance Sheets in the Great Moderation, Financial Stability Paper No. 10, Bank of England, 2011, p. 22.

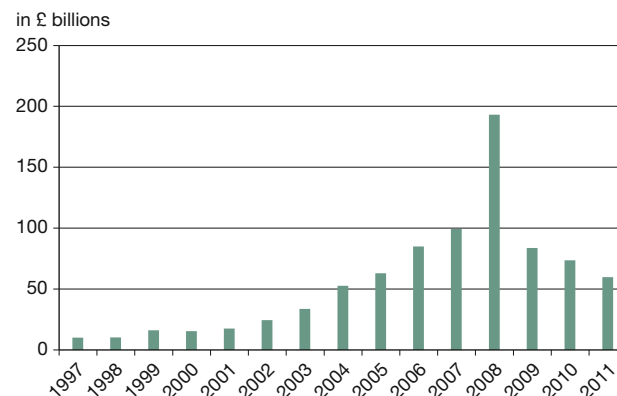
in M&A activity had feedback mechanisms to and from equity markets and was a driver of asset inflation in UK stock markets. This failure to direct finance to productive investment in the non-financial sector had important implications. In particular, drawing in foreign funds to finance balance sheet restructuring led to an overvalued currency and a loss of industrial competitiveness. But the more rapid turnover of capital in the financial system was regarded as a positive aspect of the de-industrialisation of the UK, where the share of manufacturing in GDP fell from 30 per cent in 1990 to 12 per cent in 2012. Although other advanced economies also experienced such declines, the pace of this de-industrialisation in the UK was greater than in any other nation.⁸

In the household sector, similar negative consequences of rising leverage were also apparent. However, leverage was being channelled into different structural shifts, namely consumption and housing. Between 1997 and 2008, banks extended lending for mortgages with an almost twenty-fold increase in outstanding mortgage lending at UK banks, from £9 billion to £193 billion (see Figure 4).⁹

This huge expansion in mortgage lending was accompanied by house price inflation which, as a Minsky cycle of speculation accompanied by leverage developed, encouraged further borrowing to acquire inflating housing assets. As the housing market inflated, mortgages as a multiple of income grew to record levels, and the value of housing stock – which was relatively stable in real terms – grew from £1.4 trillion to £4.9 trillion between 1994 and 2007 due to house price inflation of nearly 400 per cent from 1997 to 2007. This cycle was closely linked to the structural changes in the financial sector. Financial institutions not only provided increasing levels of direct lending; the securitisation of housing loans drew more credit into the housing market, which was expanded by lower credit standards, regardless of the increasing risk associated with subprime debt.¹⁰

Accompanying this leveraging by households to acquire housing assets was a rise in borrowing to finance consumption. Much of this borrowing was secured through unrealised gains in housing assets. Termed “equity withdrawal”, such borrowing grew every year from 1997 to 2007, peaking at £140 billion in 2006, before sharply

Figure 4
UK outstanding mortgage lending, 1997-2008



Source: Bankstats, Bank of England.

declining during the financial crisis.¹¹ Unsecured borrowing through credit cards also expanded significantly, with consumer credit growing from £50 billion in 1990 to a peak of nearly £250 billion in 2008. Retail bank lending to households primarily through credit cards and overdrafts grew by an average of over 20 per cent annually from 2000 to 2005.¹²

The cumulative effect of these “wealth effects” was a “delusion of successful thrift among the middle classes” as asset markets created paper gains for the property-owning classes.¹³ The reality of growing leverage and borrowing for consumption meant falling savings rates for households as income was either spent or used for debt payments. The result was a structural decline in household saving, which fell from 9.6 per cent in 1997 to an all-time low of 2.0 per cent by 2007.¹⁴

These changes would have important macroeconomic implications, as consumption in the economy became closely linked to house price inflation and banks’ willingness to extend consumption lending. This resulted in a consumption boom up to 2007, with consumption accounting for a rising share of GDP. However, in a classic boom-bust cycle, inflated consumption fell after the crisis struck and was a major cause of the prolonged recession that occurred in the UK post-2007.¹⁵

8 <http://www.guardian.co.uk/business/2011/nov/16/why-britain-doesnt-make-things-manufacturing>.

9 R. Barwell, O. Burrows, op. cit., p. 11.

10 R. Barwell, O. Burrows, op. cit.; K. Reinold: Housing equity withdrawal since the financial crisis, in: Bank of England, Quarterly Bulletin, 2011/Q2, pp. 127-133.

11 K. Reinold, op. cit.

12 R. Barwell, O. Burrows, op. cit.

13 J. Toporowski: Why the World Economy Needs a Financial Crash and Other Critical Essays on Finance and Financial Economics, London 2010, Anthem Press, p. 93.

14 Bank of England: Trends..., op. cit.

15 See K. Kamath, K. Reinold, M. Nielsen, A. Radia: The financial position of British households: evidence from the 2011 NMG Consulting survey, in: Bank of England, Quarterly Bulletin, 2011/Q4, pp. 305-318. In addition to unemployment and high inflation, decreases in real wages were also important.

The deflationary effects of such high leverage in the household sector materialised during the crisis, when the economy and the housing market started to weaken in 2007. Firstly, the combination of high leverage, falling house prices and high credit risk amongst marginal borrowers resulted in a surge in arrears, with 3.5 per cent of mortgage borrowers in arrears by 2009. The number of borrowers with negative equity, in which the value of the house is less than the outstanding mortgage, rose to approximately one million by 2009,¹⁶ and other borrowers were only kept solvent by the historically low interest rates. The feedback from such credit quality developments to banks resulted in substantial increases in bad debt provisions.

Further, these changes in the household sector were accompanied by another important structural shift in the economy – rising inequality in relation to both asset and income inequality. House price inflation, in particular, was closely linked to rising asset inequality.¹⁷ By 2010, the aggregate total wealth of all private households in the UK was £10.3 trillion. But the top decile of households held £4.5 trillion, or 44 per cent of wealth, making them 4.3 times wealthier than the bottom 50 per cent of households combined. The top two deciles owned 62 per cent of all wealth, or £6.4 trillion, and held 92 times the wealth of the bottom two deciles, which amounted to a mere £0.06 trillion.¹⁸ These figures are illustrated in Figure 5.

This growth in inequality was to be expected, since house price inflation created large gains to the property-owning classes. Conversely, those excluded from asset ownership, due to inadequate income to support high debt levels, and those who acquired property through high leverage but late in the asset cycle were excluded from the gains. As Toporowski comments, there was “a marginalisation of those without appreciative wealth... An unequal distribution of income is thus enhanced by a growing distinction between the ‘balance sheet’ rich and the ‘balance sheet’ poor”.¹⁹

In relation to income inequality, the UK’s Gini coefficient rose from 46 in 1981 to 52 by 2007. There were two drivers of this. Firstly, the compositions of income saw a sharp shift in favour of capital, with labour’s share of national income declining from an average of 60 per cent in the 1970s to an average of 52 per cent in the 2000s.²⁰

16 J. Tatch: Homeowner housing equity through the downturn, in: Council of Mortgage Lenders, Housing Finance, No. 1, 2009.

17 R. Barwell, O. Burrows, op. cit.

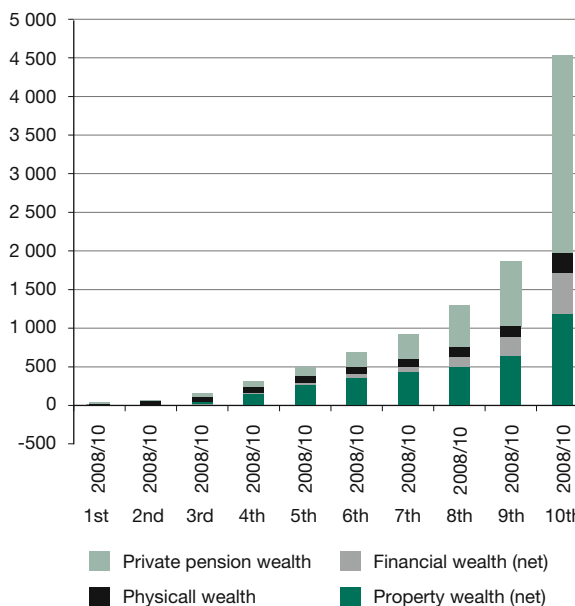
18 Office for National Statistics: Wealth and Assets Survey 2008-10.

19 J. Toporowski, op. cit., p. 95.

20 See Office for National Statistics.

Figure 5
Total aggregate wealth by decile, 2010

in £ billions



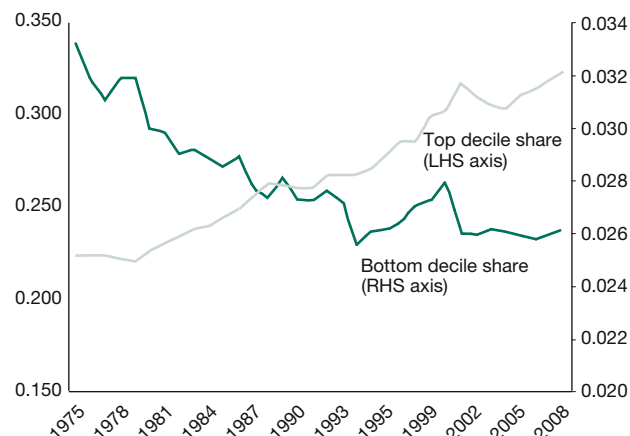
Source: Office for National Statistics: Wealth and Assets Survey 2008-10.

Secondly, there was also a shift towards greater inequality in the distribution of labour income, with a continual increase in the share of employment income accruing to the top decile and a continual decline in the share accruing to the bottom decile. As illustrated in Figure 6, in 1970 the top decile received 22.4 per cent of labour income, but this reached 29.6 per cent by 2008. Conversely, the share of labour income going to the bottom decile consistently fell from 3.4 per cent in 1970 to 2.5 per cent by 1990, before becoming broadly stable through 2008.

These shifts in income inequality (as opposed to asset inequality) were less closely associated with financial inflation and more related to changes in institutional and regulatory structures.²¹ The lowest earners and the least skilled workers experienced falls in their share of income as protective structures such as traditional labour unions were removed. Deregulation in pursuit of “flexible labour markets” disproportionately weakened the bargaining power of those at the bottom of the income distribution, whose job security steadily eroded and who consequently became increasingly subject to low wages with little bargaining power to increase wages and improve conditions. Consequently, the income of the poorest fell or stagnated.

21 OECD: An Overview of Growing Income Inequality in OECD Countries, 2011.

Figure 6
Shares of total wages for top and bottom decile earners



Source: B. Bell, J. Van Reenen: Bankers' Pay and Extreme Wage Inequality in the UK, Centre for Economic Performance, London School of Economics, 2010.

However, at the top end of earners, finance contributed notably to growing inequality. Those workers at the very top end of the labour market who have been highly successful in capturing an increasing share of national income were highly concentrated in financial services and related business services.²² Indeed, tax-based studies show that 72 per cent of gains in national income by the top decile from 1998 to 2007 were captured by finance workers, with a further 53 per cent being captured by related business services. Thus, a total of 125 per cent of the gains in income in this top decile accrued to those workers involved in financialisation.²³

Overall, the elites in international banks and financial institutions added to income inequalities in the UK, with adverse consequences for markets in scarce resources, such as housing, and for the provision of public welfare and services, which those earning higher incomes do not use but are required, with decreasing effectiveness, to contribute towards in taxes. The growing reliance of the elite and the middle classes on asset inflation to support their consumer debt and the growing use of such debt to replace state welfare services fostered hostility towards state welfare provision. Such provision was increasingly concentrated on the least well off, who did not pay towards that provision, and was paid for by the elite and the middle classes, who received the least benefit from state

provision. Successive waves of welfare “reform” forced many on low incomes into debt unsupported by asset inflation. This then added to the fragility of the system.²⁴

International aspects

The position of the UK as an international financial intermediary was crucial in the failure to support productive investment in UK industry, while providing excess credit to fuel speculative bubbles in real estate and financial asset markets that added to wealth and income inequalities in the UK and undermined the social consensus necessary for state welfare provision. The UK's international financial intermediation role also prevented the reform of the financial system to provide more effective support for fiscal policy and productive activities. In particular, the agenda for the reform of the financial system has been increasingly set by the foreign banks and financial institutions which now dominate the UK financial markets and intermediate the international capital flows coming through those markets. This has three important implications.

Firstly, far from stabilising balance sheets in the financial system through diversification of risks, this internationalisation provided a conduit through which disturbances in all parts of the world were transmitted to the UK economy, as evidenced by the impact of the US-originated financial crises in 2000 and 2008. These exposures blocked effective regulation, which was progressively dismantled following the 1987 “big bang”. Regulatory arbitrage made enforcement difficult. Such arbitrage could only be overcome by consensus regulation with other financial centres. However, without similar financial systems in the other financial centres, a globally consistent financial architecture and its regulation was not possible. This regulatory failure reinforced the fantasies of spontaneous order in the global financial system that have inspired deregulation.²⁵

Secondly, international financial intermediation has effectively constrained the monetary and fiscal policy of the UK. In relation to monetary policy, the integration of UK money markets with those of the US meant that monetary policy is increasingly dependent upon policy in the other two main monetary areas. For example, UK interest rates and exchange rates are contained within range of the exchange rates and interest rates in the US and the European monetary union. As evident in Figure 7, interest rate movements in the UK, US and eurozone follow the same pattern. However, movements in the UK and US rates are more closely associated with each other, with

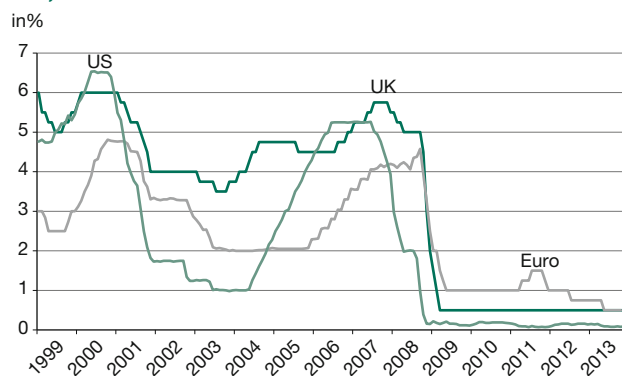
²² Mainly accounting, law and management consulting, whose major UK clients are within the financial services industry.

²³ The figure is above 100 per cent since a number of industries saw drops in their shares of national income within the top decile. This included public administration, education and manufacturing.

²⁴ J. Toporowski, op. cit., pp. 93-95.

²⁵ J. Toporowski, op. cit., chapter 3.

Figure 7
UK, US and euro interest rates

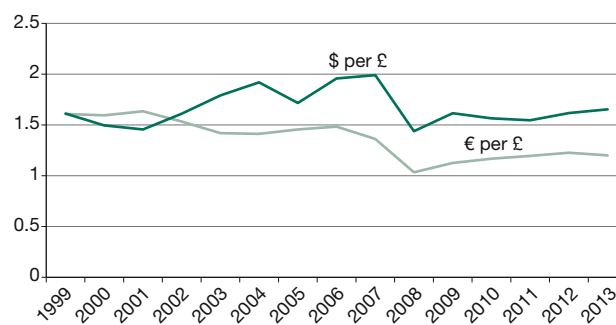


Sources: Bank of England, Federal Reserve and ECB.

the US Fed Funds rate taking the lead. In effect, this implies that when US interest rates decline, the UK benchmark rate follows suit. Effectively, the UK is constrained to follow US monetary policy because to do otherwise would destabilise international capital flows passing through London. Since the late 2000s, movements in the UK official rates have followed in the same direction as those in the other two economies' interest rates. By contrast, the European interest rate trend shows slightly more stability than do those of the UK and US over the period. In the aftermath of the financial crisis, all three central banks – the Bank of England, Federal Reserve and the European Central Bank – have cut interest rates to historically low levels.

Similarly, the international financial instability imposes serious constraints on UK fiscal policy, requiring fiscal policy to be conducted according to standards set by international investors rather than domestic economic and financial considerations. The UK experienced a substantial increase in both inward and outward investment following the abolition of the capital control in October 1979. The country has run a current account balance of payment deficit in every year from 1984 to 2011. In 2011 the UK recorded a current account deficit of 1.9 per cent of GDP, financed almost wholly by capital flows. The UK's International Investment Position (IIP) shows the balance of foreign assets and liabilities and reflects the growing internationalisation of the UK's financial system. Both gross foreign assets held by UK residents and gross liabilities which are UK assets held by foreign residents have displayed an upward trend in the last two decades. The UK's external assets accounted for 180 per cent of GDP in 1990, increasing to 260 per cent of GDP by 1999. The trend continued in the last decade, in which UK gross liabilities grew by 266 per cent and assets grew by 275 per cent. In 2009 the UK's gross assets amounted to over

Figure 8
Exchange rates



Source: Bank of England.

£6.5 trillion, and gross liabilities totalled £6.7 trillion.²⁶ The UK has recorded a net liability position since 1994 but with some volatility. The fluctuations are mainly due to exchange rate movements. Exchange rate effects can be significant because the majority of UK external assets are denominated in foreign currency. In fact, from 2000 to 2004, the depreciation of the sterling against the euro led to a positive revaluation of UK external assets. Conversely, the appreciation of sterling against the dollar from 2005 to 2006 had a negative effect on the UK's IIP.²⁷ In the period 2006-08, sterling depreciated against both the dollar and the euro, as shown in Figure 8, which greatly contributed to the improvement of the country's IIP.

The UK's external debt is also very high, reaching a peak of nearly 440 per cent of GDP in 2008. The biggest component of the foreign debt is the banking sector, which has a debt-to-GDP ratio of nearly 250 per cent, reflecting the international character of London's money market.

Thirdly, the international transmission of foreign financial disturbances through the UK created a dependence on the US Federal Reserve for support in the form of swap agreements in order to cope with the recent financial crisis.

Conclusion

A general image of success through growing value and turnover in the British financial system, in particular during the three decades before the recent financial crisis, masks structural changes that have made the financial

26 D. Whittard, J. Khan: The UK's international investment position, in: *Economic & Labour Market Review*, Vol. 4, No. 6, 2010, pp. 25-34.

27 D. Whittard: The UK's External Balance Sheet – The International Investment Position (IIP), Office for National Statistics, 2012.

system less “functional” from the point of view of the rest of the economy. These dysfunctions may be summarised as follows:

- A deregulation of the financial system, in the name of increased “competition” and “efficiency”, has in fact increased the internationalisation of the system. In turn, this greater internationalisation has resulted in a financial system dominated by foreign financial and banking institutions.
- This has been associated with a failure to support productive investment in UK industry while providing excess credit, fuelling speculative bubbles in real estate and financial asset markets.
- Domination by foreign banks and financial institutions makes regulation less effective. Specifically, it is difficult to enforce regulations that go beyond the consensus regulation in other financial centres in order to meet the special regulatory requirements of a highly international capital market.
- The large bureaucratic hierarchies in international banks and financial institutions add to income inequalities in the UK, with adverse consequences for markets in scarce resources such as housing as well as for the provision of public welfare and services which those on higher incomes do not use but are required, with decreasing effectiveness, to contribute towards in taxes.
- Far from serving as a stabilising force through the diversification of risks, this internationalisation provides a conduit through which disturbances in all parts of the world are transmitted to the UK economy, as evi-

denced by the impact of the US financial crises in 2000 and 2008.

- This transmission of foreign financial disturbances through the UK created a dependence on the US Federal Reserve for support in coping with the recent financial crisis, through swap agreements.
- The pole of attraction for international financial instability imposes serious constraints on UK fiscal policy, requiring fiscal policy to be conducted in accordance with international capital flows rather than domestic economic and financial considerations.
- The integration of UK money markets with those of the US mean that monetary policy is also increasingly set elsewhere, so that UK interest rates and exchange rates have to stay within channels determined by exchange rates and interest rates in the US and in the European monetary union. This is ironic at a time of vocal concern in some sections of the public and by one of the ruling parties about limitations on British sovereignty imposed by membership of the European Union.

Remedying the dysfunctions of this system is clearly a long-term proposition and could not be done without international co-operation. Failing this, an alternative, more functional system might be built up alongside the existing one. The experience of the British building societies after their “reform” in the 1980s suggests that a more functional system would need to be insulated from internationally exposed money markets. Such a system might be a public or co-operative system of banking, regulated separately and with its own money markets and access to central bank facilities.

Costanza Consolandi, Giampaolo Gabbi, Massimo Matthias and Pietro Vozzella*

Inequality, Debt and Financial Crisis – The Case of Italy

Many authors have noticed that there might be a link between rising inequality and the financial crisis,¹ but the process explaining this relationship remains unclear.

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1 J. Stiglitz: *Freefall: Free Markets, and the Sinking of the World Economy*, Norton & Co., New York 2010; R. Wade: *The global slump. Deeper causes and harder lessons*, in: *Challenge*, Vol. 52, No. 5, 2009, pp. 5-24; R.G. Rajan: *Fault Lines: How Hidden Fractures Still Threaten the World Economy*, University Press, Princeton 2010.

Malinen demonstrates that income inequality increases the leverage of the private sector.² Kumhof and Rancière assert that rising inequality led – at least in some countries, like the US – to a private credit expansion and ultimately to a financial crisis.³ They show empirically that the periods 1920-1929 and 1983-2008 were characterised by large increases in the income share of the rich

2 T. Malinen: *Is there a relationship between income inequality and leverage?*, University of Helsinki and HECER Discussion Paper No. 362, 2013.

3 M. Kumhof, R. Rancière: *Inequality, Leverage and Crises*, IMF Working Paper No. 10/268, 2010.

and growing leverage for everyone else through an expansive monetary policy, resulting both times in financial and economic crises. The consequent rise in unemployment, along with a weak social safety net, modest compensation and insufficient health assistance, explain how the ultimate impact of the crisis was the further growth of inequality.

In many countries, fiscal policy has played a significant role in trying to reduce income inequality, primarily on the expenditure side but also through the progressive taxation of income.⁴ Here, the public sector can use its leverage to redistribute opportunities, especially via public services, and compensate those suffering from poverty and social exclusion.

The case of Italy provides a good illustration of how both private credit expansion as well as the public credit boom have characterised the link between inequality and financial unsustainability. Our purpose is to demonstrate that the Italian experience started with a high level of inequality which triggered ineffective public and private financial behaviours that ultimately accelerated the crisis and, consequently, further increased inequality.

In this paper, we start by focusing on the main features of inequality which characterise the Italian income distribution over time as well as the North-South divergence. We then describe the response of the public sector, whose debt was originally aimed at balancing these gaps but has been employed in the pursuit of different goals since the 1980s. The weakness of the Italian public finances has been amplified by the liberalisation of capital movements, the introduction of the euro, and the resulting dependence on foreign institutional investors, whose emphasis on short-term results affected the commercial banks' credit policies. Once the financial crisis struck, the combination of the previously listed risk factors negatively affected the banks' funding costs, leading to a credit crunch that was mainly concentrated among micro and small firms. The overall result was the impoverishment of the weakest social constituents, who were affected by an increased unemployment rate and a further decline of the average income.

Alpha and omega: inequality

The severity of the 2007 crisis has highlighted the impact of finance on economic growth and inequality. The 2011 OECD report on income inequality documented that the gap between rich and poor in OECD countries had wid-

ened continuously over the three decades leading up to 2008, when it reached an all-time high.⁵

The distribution gap of Italian households' disposable income had increased considerably since the 1980s: the Gini coefficient of the average household disposable income increased by 2.2 points from the early 1990s to 2007. Stark differences in income distribution across Italian regions were also present. In 2010 the disposable income in Northern and Central Italian regions was approximately 50 per cent higher than in Southern regions.

The increase of inequality is confirmed by other indicators. The average income of the richest ten per cent of households was about 11 times greater than that of the poorest ten per cent in 2010, compared to nine times in 1989. The ratio of the average income of the richest ten per cent and the least well-off 50 per cent rose from 0.95 in 1989 to 1.03 in 2010. At the end of 2010, median household wealth was €167,000, with huge differences within the country which had also widened over the preceding two decades. In 2010 the median household wealth in the North and Centre was respectively 59 and 80 per cent greater than that in the South and on the islands. By comparison, these gaps were 44 and 55 per cent in 1987.⁶ Moreover, the share of households living in poverty dramatically increased from 11.1 per cent in 2007 to 12.7 per cent in 2012, again with significant differences within the country similar to those previously described, reflecting the increase in household disposable income inequality.⁷

The debt crisis, ineffective privatisations and the missing growth stimulus

In the face of these economic imbalances, either households could borrow money to increase their living standards or government spending could be targeted towards combatting poverty and social exclusion. The former course of action is concordant with the Rajan analysis,⁸ while the latter seems to be more consistent with the Italian experience. Paradoxically, the economic policy employed to reduce inequality in the three decades following World War II did not increase public debt (see Figure 1). A noteworthy increase in public sector debt first took place in the 1980s. From 1980 to 1990, government debt as a percentage of GDP grew from 58 per cent to

4 F. Bastagli, D. Coady, S. Gupta: Income Inequality and Fiscal Policy, International Monetary Fund Working Paper, June 2012.

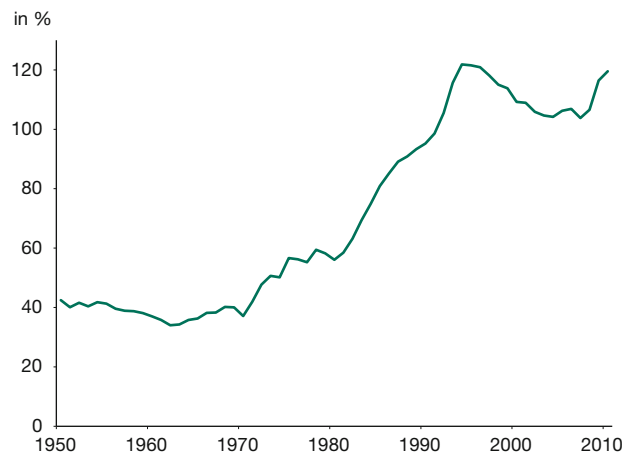
5 OECD: Divided We Stand: Why Inequality Keeps Rising, Note on Italy, Paris 2011.

6 Banca d'Italia: Survey on Household Income and Wealth, Rome 2010.

7 The relative poverty incidence is the ratio of the number of households whose monthly consumption expenditures are lower than or equal to the poverty line and the total number of households.

8 R.G. Rajan, op. cit.

Figure 1
Ratio of Italian public debt to GDP, 1950-2010



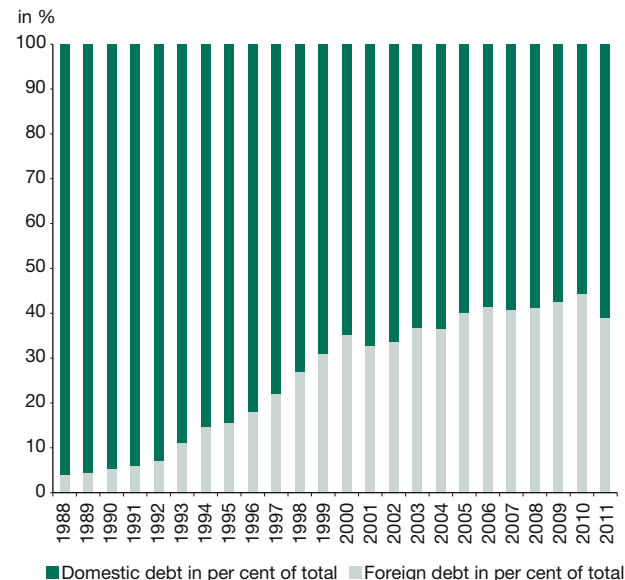
Sources: ISTAT (1960-2010); Banca d'Italia (1950-2010). Data on GDP before 1960 are based on historical series elaborated by N. Rossi, A. Sorgato, G. Toniolo: *I conti economici italiani: una ricostruzione statistica, 1890-1990*, in: *Rivista di Storia Economica*, 2nd Series, No. 10, 1993, pp. 22-23.

96 per cent. The highest value of the debt-to-GDP ratio was experienced in 1996, when it reached about 122 per cent.

Even though during the first decade of this century public health care expenditures increased from 6.3 to 7.6 per cent of GDP and social protection expenses increased from 17.6 to 20.4 per cent of GDP, these expenditures still remained lower than the EU average. Moreover, expenditures for education decreased from 4.1 to 3.8 per cent of GDP (while the EU average increased from 4.2 to 4.9 per cent), and recreation and culture expenditures dropped from 5.6 to 5.3 per cent of GDP (while the EU average increased from 6.3 to 6.8 per cent). On the other side, the deficit expense component – concentrated on general services, defence and other items which are not directly associated with welfare – was higher than the EU average. On balance, the high level of Italian public debt cannot be explained by high expenditures for social and welfare purposes.

Indeed, one of the reasons behind this trend is the 1981 agreement between the Bank of Italy and the Italian government to reform the bidding system for government bonds (also known as the “divorce” between the Bank of Italy and the Treasury), removing the mandatory underwriting role of the Bank of Italy in the sovereign bond auctions and allowing the central bank to buy bonds in the secondary markets. The rationale of this decision was to increase the accountability of the central bank and its capability to control inflation. Despite the fact that the Italian

Figure 2
Domestic and foreign public debt, 1988-2011



Source: Own elaboration of Bank of Italy data.

government's primary balance is the highest in the euro area,⁹ the government lost the power to administrate the interest rate in the primary market and, consequently, it lost control of a deficit covered by the debt service.

Other sources of weakness were introduced at the EU level in 1992 with the completion of the liberalisation of capital movements and in 1999 with the establishment of the European Economic and Monetary Union. The freedom of investors to take on exposure to foreign markets and the elimination of the currency risk within the euro area led to Italian dependence on foreign institutional investors for about 40 per cent of Italy's total public debt (Figure 2).

One of the policy consequences of the increasing debt load was the adoption of a neo-liberal economic model characterised by an extensive privatisation process.¹⁰ The overall evaluation of the effects of privatisation in Italy during the last two decades shows how the goals of increasing managerial efficiency and reducing the public debt have been disregarded. From 1992 until 2009, Italy undertook 93 privatisation operations, including the relinquishing of the state's remaining control of credit institutions in 1998. Altogether, these privatisations yielded

9 OECD: *Social spending during the crisis. Social expenditure (SOCX) data update 2012*, Paris 2012.

10 Corte dei Conti: *Relazione sull'attività svolta*, Rome 2013.

Table 1
Interbank Deposit Protection Fund interventions authorised by the Bank of Italy, 1987-2011

Name	Type of intervention	Size of intervention (in million euros)
C.R. Prato (1988)	Support to banks	413
Banco Tricesimo (1990)	Reimbursement of depositors	4
Banca di Girgenti (1991)	Transfer of assets and liabilities	37
Banca di Credito di Trieste (1996)	Transfer of assets and liabilities	78
Credito Commerciale Tirreno (1997)	Transfer of assets and liabilities	52
Sicilcassa (1997)	Transfer of assets and liabilities	516
Banca Valle d'Itria e Magna Grecia (2010)	Transfer of assets and liabilities	5
BER Banca (2011)	Support to banks	16
Banca MB (2011)	Transfer of assets and liabilities	40

Source: M. De Cesare, A.L. Lombardo, F. Pluchino, R. De Lisa: *Trattamento delle banche deboli, prevenzione e gestione complessiva delle crisi a livello UE*, Fondo Interbancario di Tutela dei Depositi, FITD Working Papers, No. 10, 2013.

about €119 billion. Nonetheless, the ratio of public debt to GDP increased from 95 to 110 per cent.

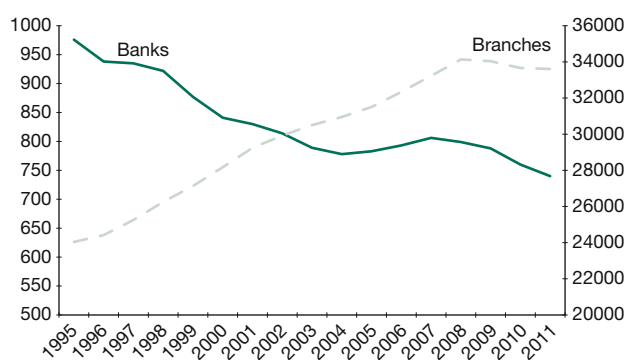
The mutation of credit institutions

The strong dependence of the Italian Treasury on the fixed income market explains the huge stock of sovereign bonds in banking and trading books and the crowding out effect suffered by the real sector. This behaviour was induced not only by the dynamics of the real interest rates after the divorce between the government and Bank of Italy but also by the banking regulation.

Until the end of the 1980s, banking supervision was mainly structural, directly affected by the “structure, conduct and performance” paradigm postulating barriers to entry as a determinant of industry stability.¹¹ As a consequence, the Bank of Italy was responsible for not only the granting of licenses to enter the banking sector but also for the geographical diversification of legal entities and branches. The goal of imposing safe and sound behaviour and avoiding turmoil within the banking system was substantially achieved: Italian depositors never experienced a bank run or losses. Since 1987 the

11 J.S. Bain: *Industrial Organization: A Treatise*, 2nd ed., John Wiley, New York 1959.

Figure 3
Banks (left-hand scale) and banking branches (right-hand scale), 1995-2011



Source: Own elaboration of Bank of Italy data.

safety net managed by the Interbank Deposit Protection Fund (following authorisation by the Bank of Italy) has intervened just nine times in the pursuit of its goals: supporting banks, transferring the assets and liabilities of distressed bank to other banks, and reimbursing depositors (Table 1).

With the First Bank Directive (1985) and the application of the Basel 1 proposals (1988), the style of banking supervision changed from structural to prudential. According to Article 5 of the 1993 Banking Act, the purpose of regulation was not only to maintain financial stability but also to reach a higher level of efficiency.

Consequently, the bank concentration process accelerated. Between 1990 and 1995, the assets of the five largest banks amounted to around 30 per cent of total assets in the Italian banking system; by 1999 this value had risen to 48 per cent. Concurrently, with the liberalisation of the banking system, the number of bank branches increased by about 40 per cent between 1996 and 2008 (Figure 3). The regional distribution of lending activity confirms the small share of resources received by Southern regions, whose percentage of the total distributed loans ranged from 15 to 18 per cent.

The liberalisation of the banking market and the introduction of capital requirements, set according to risk-weighted assets, allowed credit institutions to increase their risk appetite under the assumption that risk management metrics would be able to manage the risk factors. The introduction of capital requirements was actually aimed at reducing the risk appetite of banks when their profitability was insufficient to pay back the cost of capital. In fact, until 1996 only the credit losses were assumed to

be covered by the capital requirements. Banks thus had an incentive to increase their financial exposure – which they did chiefly via proprietary trading in sovereign bonds – without any additional capital absorption, since the market risk was not supposed to be covered in the 1988 Capital Accord (Basel 1).

The prudential supervision design introduced regulatory arbitrages, inducing banks to save capital by securitising loans and mortgages. According to Panetta and Pozzolo, some banks were overaggressive in their use of securitisations and other credit transfer operations in order to benefit from the possibilities offered by the new techniques to remove risky exposures from their balance sheets and reduce the cost of capital.¹²

Therefore, the banking business model significantly changed from an originate-to-hold model to an originate-to-distribute one. Italy's asset securitisation market developed much later than in the US, but legislative changes and the launch of the single European currency hastened its expansion. The growth in euro-denominated securitisation started in 2000 and accelerated strongly from the end of 2004 onwards; by the end of 2006, the annual net flows of asset-backed securities issued in Italy was around 23 per cent of total securitised assets in the euro area. Italian banks predominantly securitised mortgages to households, the volume of which increased from 1.9 per cent in 2000 to 7.1 per cent in 2006 (Table 2).

The financialisation of commercial banking, the adoption in 2003 of the International Accounting Standards and the mark-to-market approach, and the pervasive top management incentive schemes aimed at reducing agency conflicts with shareholder value all explain the short-termism of many banks, especially those which also operated in international markets. Their business model changed from relationship banking to transactional banking, resulting in a higher functional distance between branches and corporate headquarters. This shift had negative effects on local SMEs and industrial districts in terms of increased credit rationing, lower financial innovation and a diminished capability to reduce the asymmetric information between borrowers and lenders.¹³

12 F. Panetta, A.F. Pozzolo: Why Do Banks Securitize Their Assets? Bank-Level Evidence from Over One Hundred Countries, mimeo, 2010.

13 P. Alessandrini, A.F. Presbitero, A. Zazzaro: Banks, distances and firms' financing constraints, in: *Review of Finance*, Vol. 13, No. 2, 2009, pp. 261-307; G. Gabbi, M. Matthias (eds.): *Relationship Lending. Le informazioni qualitative nel processo del credito*, EGEA, Milan 2013.

Table 2

Securitisation of household loans, 2000-2006

Year	Total lending to households (in million euros)	Sold loans (in million euros)	Sold loans as a % of previous year's total lending
2000	55 524	811	1.9
2001	64 466	3 238	5.8
2002	81 445	2 589	4.0
2003	100 930	5 490	6.7
2004	129 861	3 468	3.4
2005	163 523	5 344	4.1
2006	195 853	11 567	7.1
Total	791 602	32 507	5.3

Source: U. Albertazzi, G. Eramo, L. Gambacorta, C. Salleo: Securitization is not that evil after all, Banca d'Italia Working Papers, No. 796, 2011.

The Italian bank trap and the crisis of the real sector

The privatisation of the banking industry and the public sector's increasing dependence on financial markets have radically inverted the corporate governance of the financial system. Until the 1980s, banks used to invest only marginally in securities, generally when there was decreasing demand in the credit market. The government divorce from the Bank of Italy led to a "forced marriage" with banks and other institutional investors, such as mutual funds and foreign financial firms, which were induced to underwrite bonds in the primary market. Inevitably, the dominant partner in this marriage became the financial system, which was able to play the determining role in the pricing process, a role that was only slightly diminished by the introduction of competitive auctions.

However, the Italian banks soon became ensnared in a trap of their own making. Their large exposure to Italian government bonds became a major problem when, soon after the Greek shocks of April 2010, the Italian bond spread increased from 30 to 170 basis points. In the second half of 2011, the unreliable political circumstances in Italy negatively impacted the risk perception of the country, sparking another jump in bond spreads, which reached a peak of 570 basis points in November 2011.

One of the principal effects of the liberalisation of capital movements along with the introduction of the euro has been the continentalisation of financial portfolios. Moreover, the capital absorption introduced by the capital regulation provided an incentive for banks to invest in sovereign bonds, preferably those offering higher returns.

Table 3
Non-performing loans (NPL) and credit crunch by company size

Year	Household and micro firms		Non-financial small companies		Non-financial medium/large companies	
	NPL/ total loans in %	% change short-term loans	NPL/ total loans in %	% change short-term loans	NPL/ total loans in %	% change short-term loans
1998	49.7		14.8		10.3	
1999	39.6	7.5	13.0	5.3	9.1	5.7
2000	31.8	8.2	11.1	6.7	6.8	7.3
2001	25.1	4.7	8.9	2.9	5.0	3.6
2002	21.4	6.4	8.3	4.7	4.8	3.7
2003	20.0	2.9	8.5	2.0	5.4	3.2
2004	18.5	4.1	8.7	0.7	5.6	3.7
2005	13.0	7.9	7.3	5.5	4.4	9.3
2006	11.8	6.7	7.3	4.8	4.1	10.6
2007	10.1	6.4	6.5	4.4	3.6	7.6
2008	9.0	-0.2	5.6	0.2	2.9	-0.3
2009	10.9	8.0	7.3	0.2	4.6	-5.9
2010	12.4	-3.6	9.2	-6.1	6.1	-3.1
2011	17.2	-6.4	12.6	-6.2	8.6	-2.9

Sources: Own elaboration of Bank of Italy data.

Italian banks were trapped in a vicious circle that originated in the deleveraging process they had engaged in since the onset of the crisis. The effect was a generalised capital loss suffered in the trading books, particularly those exposed to Italian bonds with longer durations. Both capital and liquidity became insufficient to support the credit demand from the private sector and to guarantee the rollover of sovereign bond issuances. Foreign investors engaged in a group flight to quality, switching from Italian government bonds to alternative securities regarded as safer, thereby compounding concerns related to the valuation of banks' assets and capital adequacy.

The evidence of the impact on the real economy can be appreciated by looking at the behaviour of banks in the credit market. Table 3 shows the dynamics of the ratio of non-performing loans (NPL) to total loans to households and micro companies, small companies, and medium and large companies. The trend is almost uniform, but the size of the ratio is negatively correlated with company size. Thus, in addition to reducing credit risk, Italian banks curtailed the number of loans they made, particularly short-term ones, a departure from their behaviour

during the period 1998-2000, when NPL incidence was even higher.

The corporate governance of banks and the substantial absence of investment and merchant banks oriented towards supporting the economic growth and innovation of small and medium-sized companies increased the vulnerability of these companies to the credit and liquidity crunch.

Conclusions

With regard to Rajan's interpretation of the link between income inequality, private credit availability and unsustainable leverage resulting in a financial crisis,¹⁴ the Italian lesson shows that inequality and financial behaviour have been strictly linked to each other by the ambiguous role played by the public sector since the early 1980s.

From 1950 to 1980, Italian economic policy was essentially driven by a Keynesian model, using tools like public monopolies, fixed wages and strictly controlled common services tariffs. Such a policy, which had played a positive role in helping to exit the Great Depression of the 1930s,¹⁵ also held public debt below the "Maastricht-compliant" level of 60 per cent of GDP.

Neo-liberal policies introduced in the 1980s, based on liberalisations, privatisations and mark-to-market prices, stimulated increasing public deficits, essentially due to unsustainably high interest rates. The goal of reducing income inequality through fiscal policy was ineffective, and Italy is far from reaching the European Commission's goal of reducing poverty by 2020. In fact, the number of people living in poverty increased from 14.6 million in 2010 to 18.1 million in 2012.

Revising the policy model should be the starting point to interrupt the vicious circle preventing the reduction of income inequality and depressing economic growth. Changing the composition of the public deficit, introducing the control of common services tariffs, orienting fiscal policy towards the reduction of income and wealth gaps, and offering the financial sector incentives to return to a model based on relationship lending and growth financing could all help to reduce the inequalities that led Italy into financial crisis.

14 R.G. Rajan, op. cit.

15 G. Eggertsson: Was the New Deal contractionary?, Federal Reserve of New York Working Paper, June 2008.

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The Spanish Financial System and the Crisis

The global financial crisis has had such a profound impact on the Spanish economy that it has entered one of the deepest crises of its recent history. In Spain the financial system has played a fundamental role in the origin, transmission and depth of the crisis. The problem of private indebtedness relates to the economic structure on which the economic strategy was based in the years leading up to the crisis, namely a private debt-led growth strategy. In this paper, which stems from the Report on the Spanish Financial System¹ and subsequent discussions within the FESSUD project, we analyse the links between the Spanish financial system and the global financial crisis (and later, the European sovereign debt crisis) in the context of the European integration process.

The Spanish financial system has been characterised by the strong participation of the banking sector. In addition to its importance to the financial system, the banking sector has traditionally owned a substantial part of Spain's non-credit institutions. The Spanish financial system has gone through multiple stages since financial liberalisation began following the restructuring crisis of the mid-1970s. However, steps towards liberalisation did not result in a higher share of foreign banks in the domestic market because healthy Spanish banks used takeovers as a deliberate strategy to prevent this. The process of financial liberalisation remained on a sustainable path until the end of the 1990s, when the growth of the size of the assets of credit institutions accelerated thanks to the increase in credit for non-financial corporations and, to a lesser extent, the growth of mortgages given to households. Parallel to the growing indebtedness of the non-financial private sector, financial institutions' indebtedness also grew, increasingly dependent on funding from international financial markets.

A marked characteristic of the Spanish financial sector which has been maintained throughout the processes of liberalisation and financialisation is the large number of loans on the balance sheets of credit institutions. The international financial crisis of 2007 led to a re-composition of these loans, as

the domestic private sector carried out a process of deleveraging in which the only increase in loans was to the domestic central government.

Another characteristic of the recent developments in the Spanish financial system is the change in the liabilities structure. Since 2002 total deposits have exhibited a declining trend, which has been accompanied by annual increases in the size of securities other than shares. This pattern explains why the recent credit creation process was not financed by deposits but through non-traditional funding sources. Moreover, the 2007 financial crisis has led to a fall in the deposits at credit institutions. In fact, the financial crisis has also affected the evolution of the relationship between deposits held by domestic agents and deposits held by the rest of the world, as the share of deposits held by foreigners has fallen sharply.

In addition, beginning with Europe's entry into the third stage of the Economic and Monetary Union (EMU) in the mid-1990s, both financial and non-financial corporations significantly increased their borrowing. Indeed, the extraordinary upsurge of funding from international markets – due to the combination of the removal of exchange rate risk thanks to the adoption of the euro and the enthusiastic expectations of high growth in the peripheral euro countries – exerted downward pressure on nominal interest rates. Those inflows were accompanied by demand-side pressures in Southern European countries, increasing prices and wages there. These four factors – high growth expectations due to a catching-up process, elimination of the exchange rate risk, historically low nominal interest rates and high inflation (relative to the core eurozone countries) – enabled and encouraged the indebtedness of the private sector in the Spanish economy.

At the outset of the international economic crisis in 2007, the outstanding liabilities of financial and non-financial institutions were around 410 per cent and 381 per cent (relative to the size of the GDP) respectively, and household liabilities were around 89 per cent of GDP. These figures reinforce the idea that private sector debt in the Spanish economy was concentrated mainly in financial and non-financial corporations rather than in households. In sum, the financialisation process in the Spanish economy was not led by private consumption or household purchases but by investments through funding from abroad. The abundance of resources, the financialisation of the Spanish economy, the lack of adequate regulation and the excessive risk-taking in certain sectors and industries (with special emphasis on the residential

* The research leading to these results has received funding from the European Union Seventh Framework Programme (FP7/2007-2013) under grant agreement n° 266800 and from the Basque Government (Consolidated Research Group IT712/13). The views expressed during the execution of the FESSUD project (www.fessud.eu), in whatever form and by whatever medium, are the sole responsibility of the authors.

¹ See A. Altuzarra, J. Ferreiro, C. Gálvez, C. Gómez, A. González, P. Peinado, C. Rodríguez, F. Serrano: Report on the Spanish Financial System, Studies in Financial Systems, No. 6, Fessud, 2003.

construction sector) led to a process of excessive and unsustainable indebtedness for both private agents and credit institutions.

Since the outbreak of the crisis, a process of deleveraging in the Spanish private sector has been carried out, even though the public sector has increased its level of indebtedness. The strength, depth and duration of the global financial crisis, along with the errors in fiscal policy made by the Spanish government and the subsequent European sovereign debt crisis, have had significant effects on Spain's public finances.

The growth of finance and its role in the financialisation in Spain

The financialisation process in Spain began with the liberalisation of the Spanish banking system. This started during a major restructuring in an economic crisis in the mid-1970s with the liberalisation of the setting of interest rates and the freedom to open bank branches. Further liberalisation of the banking system continued through the late 1980s. However, it was not until the arrival of the democratic system in Spain that the liberalisation process really received a boost. Savings banks were allowed to expand their offerings, enabling them to carry out the same operations as other banks. Deposit and credit rates were liberalised. Minimum investment ratios were suspended, and foreign bank operations were authorised. Furthermore, a law governing the securities market was enacted in 1988 with a view to expanding financing opportunities for those demanding capital. Spain's accession to the European Union did not entail any serious adaptation problems for the Spanish financial system. On the contrary, EU membership served to reinforce the already existing tendency in Spain to treat all financial institutions in the same way and with the same regulations.

The liberalisation of the financial sector in the 1980s gave rise to growing competition and, as a consequence, triggered a reorganisation of the banking sector, which led to a decrease in the number of commercial and savings banks. Banking concentration processes were inaugurated with the 1989 merger of Banco Bilbao and Banco Vizcaya, giving rise to Banco Bilbao Vizcaya (BBV). This merger was further expanded in 1999 with the incorporation of Argentaria – which had itself come into being as a result of the merger of public financial institutions – giving rise to the current BBVA. Two additional major banks – Banco Central and Banco Hispano Americano – merged in 1991 to form Banco Central Hispano (BCH). Nine years later, Banco de Santander merged with BCH to create Banco Santander, currently the largest bank in the eurozone by market capitalisation.

The number of foreign banks in Spain increased with the introduction of the common banking market, but their degree

of penetration in the Spanish market is very limited. However, BBVA and Banco Santander have both been quite successful in their internationalisation processes. At the beginning of the 21st century, both banks started making successful foreign investments, first in Latin America and later in the EU and the US. In 2009 the size of the foreign loans, securities other than shares and other equities held by Spanish credit institutions peaked at 39.6 per cent of their total assets. These two banks accounted for nearly the entire amount.

This liberalisation of the banking sector enabled the financialisation process of the Spanish economy, to which we now turn. In terms of the value added by the financial sector to total GDP, the growth of finance was not as impressive as Spanish firms' balance sheets had indicated. It grew from 4.2 per cent of GDP in 2000 to 5.9 per cent in 2011. Even in terms of jobs linked to financial services, the proportion of this added value to total employment has generally remained stable at approximately 2.5 per cent throughout the last decade. However, the size of the total assets of credit institutions increased from 170 per cent of national GDP in 2000 to 317 per cent in 2011. Thus, the systemic role played by the financial sector is due primarily to the amount of resources intermediated by it, especially by credit institutions (banks).

Domestic agents (public and private) have always been the main destination of funding from Spanish credit institutions. However, since the end of the 1990s, the rest of the world's share of Spanish loans and securities has increased considerably. This has been helped by the internationalisation process initiated during these years by two major Spanish private banks, BBVA and Santander.

It is important to emphasise that the financialisation process in Spain has come without altering the traditional structure of the asset side of the banking business, which still predominates in terms of the loans on banks' balance sheets. The quantity of the securities held by Spanish banks oscillates with a lower bound of approximately 13 per cent of Spain's total assets. This figure is more sensible than comparable figures in other countries (e.g. the United Kingdom).

However, the structure of liabilities has changed significantly. Since 2002 a declining trend has been observed in deposits, which amounted to 68 per cent of the total liabilities in 2012. This gap has been fuelled by wholesale funds, making the banking system more dependent on this more volatile type of funding.

Regarding non-monetary financial institutions, the size of this sector's aggregated balance sheet as a percentage of GDP registered rapid growth, increasing from 14 per cent of GDP in 1994 to 83 per cent in 2007. This sub-sector is clearly dominated by three types of institutions; by order of

relevance, they are as follows: asset securitisation vehicles, portfolio investment institutions and issuers of preference shares. In addition, the size of insurance corporations and pension funds grew considerably from five per cent in 1980 to almost 35 per cent in 2011 (relative to GDP).

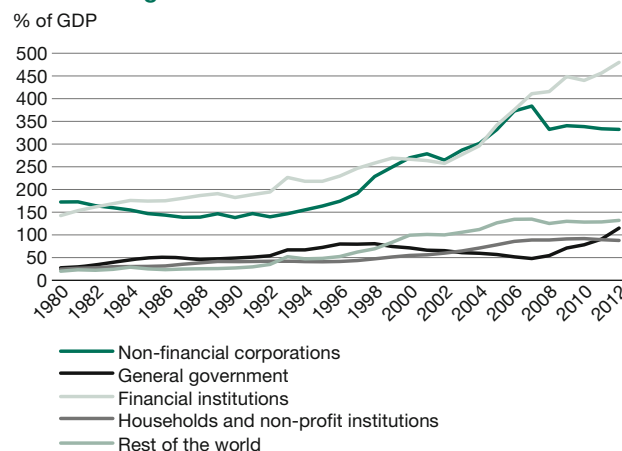
Another relevant indicator to measure the degree of financialisation of the Spanish economy is the activity of the Spanish stock exchange market. The turnover of shares grew exponentially from 16.3 per cent of GDP in 1996 to 159 per cent in 2007. This growth was mainly due to the privatisation of formerly state-owned companies, the internationalisation of Spanish corporations and the lengthy period of general economic expansion, which was accompanied by a lax monetary policy. It is worth mentioning that the banking sector itself took advantage of this expansion: whereas it accounted for 22 per cent of all traded shares in 1991, by 2008 this sector accounted for close to 35 per cent of traded shares.

The financialisation process that has developed in the Spanish economy has resulted in the intense growth of financial liabilities (debt). Since the late 1990s, the private sector, which mainly consists of financial institutions and non-financial corporations, rapidly increased its borrowing (see Figure 1). At the onset of the crisis in 2007, the outstanding liabilities on the balance sheets of financial institutions and non-financial corporations amounted to 410 and 381 per cent of Spanish GDP respectively. In comparison, the size of households' liabilities was much lower, at 89 per cent of GDP.

These data show that the process of borrowing in the Spanish economy was not led or fuelled by the household sector but rather by financial institutions and non-financial corporations. In other words, it was not private consumption or the purchases of houses that drove the financialisation process in Spain but the increase in investments financed via external funding and the development of the financial sector.

The crisis has led to a process of deleveraging in the Spanish economy. The only exception to this process is the central government, whose liabilities increased by 39 percentage points relative to GDP between 2007 and 2011 (rising from 47.8 to 86.8 per cent). The most remarkable change was observed in non-financial corporations, whose liabilities fell 65 percentage points relative to GDP in this period (from 381.2 per cent to 316 per cent). It is important to emphasise that this fall in the (relative) size of the liabilities took place in the context of a deep recession. Indeed, between 2008 and 2011 Spanish GDP fell by 1.3 percentage points. Consequently, the aforementioned drop in the debt ratios of non-financial corporations was not due to greater economic activity but to a substantial fall in the absolute values of the liabilities of different agents.

Figure 1
Outstanding financial liabilities



Source: Own calculations based on Bank of Spain, Boletín Estadístico, Financial Accounts of the Spanish Economy.

Current account imbalances, capital flows and debt-led growth

Academic and policy debates since the onset of the crisis have analysed the role of capital inflows into Spain with respect to the origin, effects and transmission of the crisis in the Spanish economy. As a whole, the EMU has presented an external balance close to equilibrium. However, member countries have had different external positions, with some of them having persistent surpluses (e.g. Germany, Luxembourg, the Netherlands and Finland) and others having persistent deficits (e.g. Portugal, Spain and Greece). Various hypotheses have tried to explain these imbalances, which have increased since the beginning of the third EMU stage.

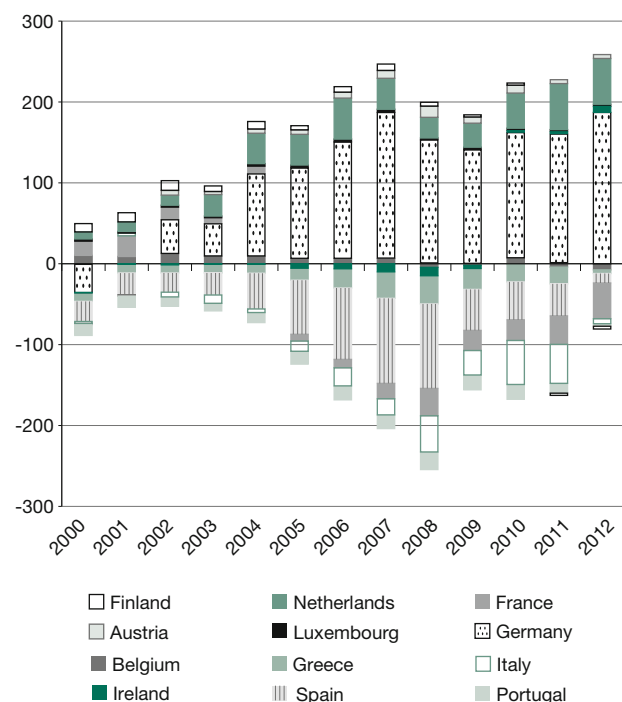
The first hypothesis points to a process of convergence among peripheral and core eurozone countries.² When the single currency was introduced and the exchange rate risk disappeared, capital flows from core to peripheral eurozone countries increased, as investors sought higher profitability via the catching-up process. In parallel, Southern European countries boosted their expectations of future growth, which reinforced their attractiveness to foreign capital sources. In the process of economic and financial integration deep within the EMU, France, Germany and the Netherlands served as intermediaries between global financial markets and Southern European countries.³ The positive effects of the introduc-

2 See A. Belke, C. Dreger: Current account imbalances in the euro area: Does catching-up explain the development, in: *Review of International Economics*, Vol. 21, No. 1, 2013, pp. 6-17 and the references therein.

3 See R. Chen, G.M. Milesi-Ferretti, T. Tresselt: External Imbalances in the Eurozone, in: *Economic Policy*, Vol. 28, No. 73, 2013, pp. 103-142.

Figure 2
Current account balances in Europe

net, billion euros



Source: Eurostat.

tion of the euro are as follows: it eliminated exchange rate risk, decreased uncertainty, achieved relative homogeneity among the financial markets of those EMU countries that have both a high degree of sophistication and institutional quality, and it encouraged capital flows towards the Southern European economies. These effects have created diverging imbalances in the external positions of EMU countries.

Another hypothesis to explain the presence and persistence of external imbalances in EMU countries emphasises the economic growth strategies of these countries.⁴ The combination of a neo-mercantilist export-led growth strategy in some member countries and a debt-led growth strategy in others enabled the growth and persistence of the current account imbalances in some member countries of the euro area (see Figure 2). The emergence and increase of these European imbalances during the single currency period indicates that the current economic and policy structures in the eurozone need to be reformed to avoid these persistent imbalances and the risk they represent to the functioning of the EMU.

4 See E. Hein: The crisis of finance-dominated capitalism in the euro area, deficiencies in the economic policy architecture, and deflationary stagnation policies, in: Journal of Post Keynesian Economics, Vol. 36, No. 2, 2013-14, pp. 325-354.

Table 1
Labour costs and productivity (total economy)

	Unit labour cost (annual growth)		Labour compensa- tion per unit labour input (annual growth)		Labour productiv- ity per unit labour input (annual growth)	
	Spain	Germany	Spain	Germany	Spain	Germany
1995	2.45	2.09	3.66	4.83	0.69	2.68
1996	2.92	0.14	3.87	2.42	0.92	2.28
1997	2.03	-1.26	2.08	1.26	0.05	2.55
1998	2.07	0.19	1.59	1.46	-0.47	1.27
1999	1.97	0.87	1.86	1.56	-0.11	0.69
2000	2.70	0.09	2.76	3.24	0.05	3.14
2001	2.99	-0.02	3.15	2.78	0.16	2.80
2002	2.96	0.24	3.26	1.94	0.29	1.69
2003	3.14	0.76	3.54	1.77	0.38	1.01
2004	2.61	-0.84	2.95	0.46	0.33	1.31
2005	3.58	-1.07	3.86	0.28	0.28	1.37
2006	3.10	-2.45	4.07	1.18	0.94	3.73
2007	3.87	-1.53	5.57	0.70	1.64	2.26
2008	5.54	2.10	6.46	2.14	0.87	0.04
2009	1.26	6.73	3.83	3.58	2.54	-2.95
2010	-1.70	-1.87	0.17	0.29	1.90	2.20
2011	-1.50	0.88	0.69	2.71	2.22	1.82
2012	-3.21	2.75	0.44	3.29	3.77	0.53

Source: OECD.

In the Spanish case, the capital inflows from abroad helped establish a debt-led growth strategy, leading to the emergence of a bubble in the residential construction industry, which has close ties to the Spanish financial system. These capital inflows exerted upward pressure on prices and wages in the Spanish economy, which had a correspondingly negative impact on productivity growth. With the elimination of exchange rates as an adjustment mechanism due to the adoption of a single currency, the divergence between domestic and foreign prices (wages) was reflected in a loss of competitiveness with respect to the core economies of the eurozone (see Table 1).

Final remarks on the crisis: the Spanish experience

The global financial crisis, and particularly the EU sovereign debt crisis, has shown the unsustainability of the current intra-EU imbalances. In the case of Spain, we have discussed several hypotheses which try to explain the origin, depth and intensity of the financial crisis, which has proven to be more intense and longer-lasting there than in much of the rest of the European Union. First, the Spanish economy was more

Table 2
Selected macroeconomic variables for Spain

	Government 10-year debt interest rate (EMU convergence criterion) (1)	Net savings rate (% of net disposable income) (2)	General govern- ment gross debt (% of GDP) (1)	General govern- ment net lending/ borrowing (1)	Inflation differentials (Spanish minus German consumer inflation based on HICP) (3)	Net debt-to-income ratio, after taxes, of non- financial corporations (1)
1995	11.27	9.95	63.3	-7.2		
1996	8.74	9.68	67.4	-5.5		
1997	6.40	8.60	66.1	-4.0	0.4	
1998	4.83	7.21	64.1	-3.0	1.2	
1999	4.73	7.02	62.4	-1.3	1.6	
2000	5.53	6.14	59.4	-1.0	2.1	
2001	5.12	5.91	55.6	-0.6	0.9	639.11
2002	4.96	5.83	52.6	-0.3	2.2	640.17
2003	4.12	6.68	48.8	-0.3	2.1	669.65
2004	4.10	5.20	46.3	-0.1	1.3	756.94
2005	3.39	4.75	43.2	1.3	1.5	1021.57
2006	3.78	3.90	39.7	2.4	1.8	1286.57
2007	4.31	4.03	36.3	2.0	0.5	2233.75
2008	4.37	7.76	40.2	-4.5	1.3	2049.45
2009	3.98	12.19	54.0	-11.1	-0.4	1322.67
2010	4.25	7.86	61.7	-9.6	0.8	1055.22
2011	5.44	6.79	70.5	-9.6	0.6	1014.99
2012	5.85	4.42	86.0	-10.6	0.3	856.23

Sources: (1) Eurostat; (2) AMECO; (3) own calculations based on Eurostat.

highly dependent on the international financial market. In Spain, the recourse to external sources of capital to finance investments led to a skyrocketing increase in the volume of external debt. This increase was mainly due to the banking system and non-financial companies, which used external borrowing to continue financing property promoters and households' mortgages. This high level of external debt made the Spanish economy particularly vulnerable to monetary and financial shocks when the international financial crisis struck.⁵

A second point to be highlighted has to do with the fiscal policy strategy⁶ followed by the Spanish government both in the years prior to the financial crisis as well as during the first years of it. In the years before the crisis, when the economy was still booming, an expansionary fiscal policy was implemented (see Table 2); this policy was mainly based on

cutting direct taxes and increasing expenditures. Had the government opted for a countercyclical policy, the external debt would not have increased so dramatically and overall economic growth would have been more sustainable for the country.

Moreover, just after the onset of the crisis, the Spanish government implemented an expansionary fiscal policy. As a consequence of this policy measure, when Spain entered recession in the second half of 2008, it had a fiscal deficit equal to 4.2 per cent of its GDP. If this countercyclical strategy had not been followed, Spain would have entered the recession with a 1.2 per cent surplus. Additionally, the fiscal policy strategy pursued by the Spanish government, which was marked by cutting taxes, was not effective. On the one hand, it was based on the policy instruments with the lowest fiscal multipliers. On the other hand, even if the private sector received higher disposable incomes, people's negative expectations led them to increase savings, to the detriment of aggregate demand. Finally, Spanish administration in general suffers from a problem of coordination between the central government, which represents 52 per cent of total public expenditures, and the sub-national governments composed of regional and local administrations, which represent the re-

5 See J. Ferreiro, F. Serrano: The Economic Crisis in Spain: Contagion Effects and Distinctive Factors, in: P. Arestis, M. Sawyer (eds.): The Euro Crisis, International Papers in Political Economy, Palgrave Macmillan, United Kingdom, 2013, pp. 235-268.

6 F. Serrano: The Spanish fiscal policy during the 'great recession', in: Journal of Post Keynesian Economics, Vol. 32, No. 3, 2010, pp. 371-387.

maintaining 48 per cent of total expenditures. Thus, even when the central administration has significantly reduced its deficit, the rest of these administrations have consistently increased theirs. This shortcoming is mainly due to the fall in tax revenues, which were highly linked to construction activities.

The third explanation for the deeper impact of the crisis on the Spanish economy in comparison with the rest of the EU is due to the labour market.⁷ The Spanish labour market is highly pro-cyclical: it creates employment rapidly in expansions and it destroys employment rapidly in recessions. There are two main features which can explain this dysfunctional pattern. The first is the excessive use of temporary contracts. While the labour markets in the rest of the EU are flexible and allow for a reduction of the number of hours worked when necessary (e.g. in a recession), such a readjustment in Spain is made mainly by firing workers with fixed-term contracts.

⁷ See J. Ferreiro, F. Serrano, *op. cit.*

As a consequence, the destruction of employment when a crisis begins is higher than in other countries. Additionally, this feature of the labour market impacts the behaviour of consumers working on temporary contracts. Households respond to job destruction by increasing their savings, both to compensate for a lack of access to bank credit and for precautionary reasons. As a consequence, there is a macroeconomic impact associated with Spain's dysfunctional labour market.

The second feature that explains the dysfunctional labour market in Spain is its model of collective bargaining, which is too centralised. After the outbreak of the crisis, trade unions, which represent workers in the agreements signed with employers' associations (which represent employers), rejected wage moderation. As a consequence, real wages in Spain continued to grow at the beginning of the crisis. It was not until 2010 that moderation was accepted, allowing for an adjustment to real wage costs.