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Financial re-regulation at a crossroads: How the European experience strengthens the case for a radical reform built on Minsky's approach

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"Institutions are both legislated and the result of evolutionary processes […] *We cannot, in a dynamic world, expect to resolve the problems of institutional organization for all time. On the other hand, we cannot always be engaged in radically changing institutions.* […] *Only as the inadequate performance of an economic and social order becomes evident and serious does it become necessary to engage in thorough-going reform. Such a time has arrived."*

Hyman P. Minsky, *Stabilizing an Unstable Economy*, p. 7.

1. Introduction

The current financial and sovereign crisis is pushing European politicians and EU bureaucrats to devise new institutional and policy solutions, all apparently implying 'more Europe'. On the financial side, the proposed so-called banking union should give the ECB a central role in banking supervision, while crisis resolution, potentially implying the use of fiscal resources, should be entrusted to EU institutions and authorities. In the meantime, the European Commission and the new European supervisory authorities are busily working on drafting a series of Directives and Regulations that aim at revising and homogenising the rulebooks and supervisory handbooks across the Union.

As in other jurisdictions, the new EU institutional framework and stricter regulatory requirements do not introduce significant changes in

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the *laissez-faire* nature of the regulatory approach. The private financial system is left free to innovate in both products and institutions, with the financial morphology being mainly endogenously determined by market forces. The belief persists that the authorities will be able to guide financial operators towards sensible risk evaluations.

The nature and the sheer size of the current re-regulation approach pose a series of problems. First, discussions abound whether higher capital and liquidity requirements will add to bank resilience with net long-term benefits to the economy (Admati *et al.*, 2010; Hellwig, 2010; Kashyap *et al*., 2010; Carmassi and Micossi, 2012; Goodhart, 2012). The revised regulatory scheme will also force supervisory authorities to increase their interference in banks' risk evaluation. One hard lesson from the crisis is being forgotten: since supervisors have no superior knowledge about the future, by imposing and validating unreliable risk measures they end up in the same club as the bankers (Haldane, 2012; Roncaglia, 2012; Tonveronachi, 2010a and 2010b).

Second, by adding complexity to an already over complex regulatory scheme, financial intermediaries will become more difficult to supervise, while increasing compliance costs for regulated entities and operational costs for supervisors. It has been suggested that after completing the Directives and Regulations with their necessary technical specifications, the EU financial regulatory rulebook could end up weighing in at 60,000 pages (Isărescu, 2012). In the banking sector, stricter requirements and disclosure obligations will add to the already high costs of regulatory compliance. The latter being mainly fixed costs, small and medium-sized banks will be subject to a further disadvantage with respect to large banks in addition to the higher risk weights coming from the adoption of standardised methods of risk evaluation. The social cost-benefit balance has also to include the amount of public resources necessary to manage such an increasingly complex supervisory framework. Adding the impossibility of supervisors being able to understand complex day-to-day bank operations (the recent trading losses by the strictly supervised JP Morgan are just one of the many examples), taxpayers are called on to pay not just for ex post remedial actions, but on a regular basis for a

complex yet ineffective structure. In other words, they pay increasing amounts for safeness while getting the same contaminated water.

Third, it is now widely recognised that this micro-prudential approach is not enough to close the door to systemic crises. Therefore, new macro-prudential institutions and policies are being devised to close the gap. Substantially, this new alarm system should be capable of spotting serious threats to financial stability in advance and be effective in dealing with them promptly. We are thus playing the same game as at the micro-prudential level. Instead of imposing ex ante a more resilient financial structure, the authorities confidently rely on some set of indicators taken from previous crises and then wait for troubles to become evident.[1]

Doubts surrounding a purely prudential approach are also evident in some proposals aimed at introducing structural changes. The Volcker rule puts limits to banking activities, banning proprietary trading and consistent participations in hedge and private property funds. As in the old Glass-Steagall Act, the separation should be complete, although encompassing a limited typology of assets. The ring-fence proposed by the Vickers Commission should insulate commercial banking inside a financial holding that includes wholesale and investment banking activities. The legal separation is limited, although broader in scope than the Volcker rule. [2] The European Commission, up to now reluctant to interfere with the universal banking model, has entrusted a High-level Expert Group with advancing proposals on possible reforms to the structure of the EU banking sector, such as limiting bank activities

[1] Let us consider for example the so-called 'too-big-to-fail' problem. Instead of dealing with it at its roots by imposing non-systemic individual and collective caps on banking size, which would interfere with the *laissez-faire* approach, systemically important financial institutions (SIFIs) must write down their living wills on how to be eventually resolved in an orderly way. We do not know if the people devising this solution have ever put an eye to the dynamics and complexity of the activities of such banks. Just going on numbers, let us think of the 5,193 subsidiaries of JP Morgan and the 5,572 of Deutsche Bank (data from Bankscope). The Dodd-Frank Act is the only legislation that, potentially, gives supervisors the power to dissolve a SIFI when it is thought to endanger financial stability. However, why should they touch JP Morgan if Deutsche is left untouched?

[2] Doubts on the effective implementation of these schemes are discussed in Kregel (2011) and Chow and Surti (2011).

(Volcker rule), bank size (Dodd-Frank) or introducing ring-fencing (Vickers Commission). As we will discuss later, the report of the Group favours a watered-down version of both Vickers' ring-fence and the Volcker rule.

Our opinion is that the entire re-regulation process does not go to the roots of how financial fragility endogenously accumulates; and how finally it produces a crisis each time starting from the weakest part of the financial system. In the second section, we will then succinctly present some basic points taken from Minsky's analysis on the role of the financial system, its fragility and regulation. Analysing the European banking sectors from this perspective, we show how domestic specificities add to the limits due to risk-based regulation and supervision (Section 3). Section 4 is devoted to the analysis of some recent developments in the European regulatory and supervisory framework. We then build on Minsky's regulatory proposals to present the skeleton of a simple alternative to the existing regulatory approach (Section 5). The last section offers some concluding remarks.

2. Following Minsky's approach

Minsky's main preoccupation regarding the financial system is the attainment of a sound and safe payment system and the funding of capital development.[3] More generally, financial stability and the funding of real growth to achieve full employment are his two references for an orderly and efficient financial system.

Two of Minsky's basic propositions are worth mentioning. The first concerns which assets should be financed with debt and which with own capital. Suitable assets to finance with debt are long-life general-purpose assets and short-life commercial assets, whose value is independent of the owner or user. On the contrary, plants and equipment, whose value depends on specific production processes and skills, should be financed with own capital. Using debt, especially short-term debt, to finance plants

[3] What follows is mainly based on Minsky (1987), (1994) and (1995).

and equipment means veering into speculative finance. Bank resilience thus also depends on which type of assets they contribute to finance.

Second, the capitalist system, especially when Big Government offers an effective economic and social cushion of safety, should be based on bankruptcy as the way to periodically purge the system from excessively speculative positions and Ponzi schemes. It follows that "if an economy is to be open to bankruptcy, no organization can be so large that its bankruptcy is politically unacceptable" (Minsky, 1987, p. 318). We must underline the general reference to organizations, not just financial intermediaries. Hence, the problem of 'too-big-to-fail' has structural economic and political implications for the stability and efficiency of the economy.

Coming to banks, Minsky views them as profit-seeking organisations ready to adjust promptly the typology and scale of their operations. Building on his flows and funds analysis, banks, as risk transformers, are natural speculative positions having to validate debt outflows with income inflows while managing maturity transformation. Their margins of safety come in the short period from their capitalisation (leverage) and collateralisation; in the longer period safety margins depend on banks' capability to earn profits. As for every other type of units, sustained periods of validated expectations lead banks to undervalue risks and overrate the margins of safety (stability leads to instability). Consequently, leaving banks unconstrained, their search for profit maximisation endogenously produces long spells of increasing bankarisation and increasing fragility.

Minsky knew all too well that bank regulation is not a once and for all affair. Technical innovations and transformations of the real sector call for changes in bank activities and management. However, regulation should constantly oversee that the financial system fulfils its two basic functions: to maintain a safe and sound payment system and fund capital development.

Two of Minsky's proposals are relevant to our discussion. First, public authorities should exert some control over the financial morphology so that the set of risks managed by financial intermediaries are well understood by both bankers and supervisors. This means limiting

the complexity of risks that an intermediary may manage and the types of financial contracts that it is allowed to stipulate. Second, regulation should constrain bank size so that none are too big to fail, and limit asset growth to avoid the rapid accumulation of fragility in this way. With regard to the latter, Minsky proposes the combination of two simple instruments: leverage and the payout ratio. Minsky considers it more flexible for both supervisors and banks to have a common leverage (he proposes a 5% leverage ratio) and then to act on individual payout ratio.

A simplified formal exercise may help to illustrate Minsky's point. If we assume that the growth of a bank's own capital only comes from internal resources, we may write the following accounting identity:

$$PCG = (1 - POR) \cdot ROA \cdot L \qquad (1)$$

Where *PCG* is the potential rate of growth of capital coming from internal resources, *POR* is the payout ratio, *ROA* is the return on assets (net profits after taxes / total assets), and *L* the leverage (total assets / own capital).

For a given value of leverage, the potential rate of growth of assets coming from internal resources (*PAG*) is equal to *PCG*.

The critical issue is when the growth of bank assets tends to differ structurally from the non-inflationary rate of growth of nominal GDP. Minsky's point is that if it is greater, we have increasing bankarisation and banks push themselves and the entire economy into more fragile, speculative and Ponzi positions. If lower, we may have a financial constraint on real growth, as often happens in some less-developed countries.

If we look at equation (1) from a regulatory perspective, where *POR* and *L* become the regulatory variables, we may write:

$$PAG = PCG = (1 - POR) \cdot ROA \cdot L_{\max} \qquad (2)$$

Supervisors could then fix *Lmax* for the entire economy at a level that permits them to obtain the desired result by adjusting individual *PORs*.

For this policy to be effective we must, however, assume that banks have no access to external capital.[4] If a bank has a *ROA* high enough to produce an excessive *PAG*, the attempt to slow down its growth by means of a higher *POR* may, on the contrary, favour the external supply of new capital. Furthermore, an effective constraint on each bank not to grow more than a policy threshold would substantially freeze the banking sector to its initial structure, with the exception of M&A operations. On the other hand, if the *PAG* of a bank were lower than the level assumed as a policy goal, a lower *POR* might serve as an incentive to raise its *PAG*. We have then an asymmetry in the effectiveness of using the *POR* as a policy instrument. As we will discuss later when presenting our proposal, our opinion is that a wider set of policy instruments is necessary to avoid excessive bankarisation and bank growth.

Minsky's proposals are, however, useful in directing our attention towards the merits of a different approach to bank regulation. Instead of adopting a micro-prudential approach based on risk evaluation, we are pushed to consider a structural approach whose rules should be devised with reference to the workings of the entire banking system.

The difference between the two approaches may become clearer if we rewrite equation (2) adopting the regulatory approach of the Basel Accords:

$$PAG = (1 - POR) \cdot ROA \cdot \frac{1}{MCR \cdot RW} \tag{3}$$

Where *MCR* is the minimum capital requirement measured by own capital/risk-weighted assets, and *RW* is the average risk weight. The regulatory variables are the minimum capital requirement and the set of rules on risk evaluation that produce *RW*. Regulators and supervisors must now enter into risk-sensitive calculations leading to the maximum allowed leverage.

To show some implications of the current Basel framework on bank morphology, the former exercise may be expanded by dividing bank

[4] We thank Jan Kregel for having directed our attention to this point.

activity into two main categories: the banking book and the trading book, applying different risk weights to each:

$$PAG = (1 - POR) \cdot ROA \cdot \frac{1}{MCR \cdot (RW_b \cdot \frac{A_b}{A} + RW \cdot \frac{A_t}{A})} \quad (4)$$

Where A stands for assets and the suffixes b and t stand for banking book and trading book.

If the portfolio composition (A_b/A_t) and the risk weights are maintained at a constant, the rate of growth for the banking and trading books must be equal.

Let us now assume as in Basel II that $RW_b > RW_t$. A higher value of A_t/A means a higher value of *PAG*, hence a higher potential rate of growth for both the banking and trading book. As a specialised institution, a commercial bank will have, for the same *POR* and *ROA*, a lower *PAG*. As long as the trading book is charged with a lower risk-weight, the universal banking model leads, *ceteris paribus*, to a higher *PAG* for both books. The result is like inserting safer assets into the banking book, with the difference that the trading book may not lower the overall profitability. The result does not come necessarily from the undervaluation of risks in the trading book. Assuming that a lower risk weight measures them correctly, mixing commercial and investment banking produces a higher potential growth for both classes of assets.

Considering some banks for which data are available, we have performed some rough calculations in order to have an idea of the quantitative implications of the above exercise. We have attributed to total loans the *RW* for credit risk, and to total securities the *RW* for market risks. For all banks we have applied an 8% of capital requirement in terms of own capital.[5] The results are shown in tables 1-8.

[5] The new Basel III requirement in terms of equity capital is 7%, which can be raised to 9% for the largest SIBs. The data for 2011 do not yet incorporate all the Basel III increases in risk-weights, especially for the trading book.

Table 1 – *Deutsche Bank, average 2010-2011*

	A	RWA	RW	Leverage at 8% of capitalisation	ROA %	1-POR	PAG standalone %	PAG universal %	Ref. country % change of nominal GDP
Loans	537,310	273,839	0.51	24.5			3.3		
Securities	1,297,051	45,876	0.04	353.4			47.7		
Total	1,834,361	319,715	0.17	71.7	0.18	0.77		9.7	4.1

Table 2 – *HSBC Bank plc, average 2010-2011*

	A	*RWA*	*RW*	Leverage at 8% of capitalisation	*ROA* %	1-*POR*	*PAG* standalone %	*PAG* universal %	Ref. country % change of nominal GDP
Loans	339229	169,033	0.50	25.1			2.5		
Securities	409225	45667	0.11	112.0			11.2		
Total	695841	214700	0.31	40.5	0.34	0.30		4.0	5.45

Table 3 – *Intesa Sanpaolo, 2010*

	A	*RWA*	*RW*	Leverage at 8% of capitalisation	*ROA* %	1-*POR*	*PAG* standalone %	*PAG* universal %	Ref. country % change of nominal GDP
Loans	415247	289172	0.70	17.9			4.8		
Securities	182992	30770	0.17	74.3			20.1		
Total	598239	319942	0.53	23.4	0.43	0.63		6.3	2.2

Table 4 – *Landesbank Baden-Wuerttemberg, 2011*

	A	*RWA*	*RW*	Leverage at 8% of capitalisation	*ROA* %	1-*POR*	*PAG* standalone %	*PAG* universal %	Ref. country % change of nominal GDP
Loans	121034	89,663	0.74	16.9			0.004		
Securities	188874	18012	0.10	131.1			0.030		
Total	309908	107675	0.35	36.0	0.02	0.01		0.01	3.8

Table 5 – *Bank of Tokyo-Mitsubishi, 2011*

	A	*RWA*	*RW*	Leverage at 8% of capitalisation	*ROA* %	1-*POR*	*PAG* standalone %	*PAG* universal %	Ref. country % change of nominal GDP
Loans	71934.9	63011.2	0.88	14.3			2.1		
Securities	69840.7	4624.1	0.07	188.8			27.6		
Total	141775.6	67635.3	0.48	26.2	0.43	0.34*		3.8	-2.1

* Approximate long-term value

Table 6 – *National Australia Bank, average 2010-2011*

	A	*RWA*	*RW*	Leverage at 8% of capitalisation	*ROA* %	1-*POR*	*PAG* standalone %	*PAG* universal %	Ref. country % change of nominal GDP
Loans	500928	308648	0.62	20.3			2.8		
Securities	107134	25223	0.24	53.1			7.3		
Total	608062	333871	0.55	22.8	0.685	0.2		3.1	7.28

Table 7 – *Royal Bank of Canada, 2011*

	A	*RWA*	*RW*	Leverage at 8% of capitalisation	*ROA* %	1-*POR*	*PAG* standalone %	*PAG* universal %	Ref. country % change of nominal GDP
Loans	351,489	205182	0.58	21.4			8.9		
Securities	351,761	61629	0.18	71.3			29.6		
Total	703,250	266,811	0.38	32.9	0.83	0.5		13.7	5.9

Table 8 – *Société Générale, average 2008-2011*

	A	*RWA*	*RW*	Leverage at 8% of capitalisation	*ROA* %	1-*POR*	*PAG* standalone %	*PAG* universal %	Ref. country % change of nominal GDP
Loans	420005	272049	0.65	19.3			2.3		
Securities	626587	153691	0.25	51.0			6.1		
Total	1046592	425741	0.41	30.7	0.245	0.49		3.7	1.4

Data source for all tables: Bankscope, Eurostat and OECD.

From a Minskyan perspective, the above rough exercise leads to some interesting results. Adopting the Basel approach, common rules on capitalisation and risk-weights do not fit with the necessities coming from the financing of the economic activity. In some cases the PAG falls short, and the universal model is of some help, but in most cases the universal model sustains the PAG well above the nominal growth of GDP. To note that the period for which data are available is not one of fat banks in terms of ROA. Furthermore, the attempt by supervisors to put a brake to the growth of asset of universal banks might be eluded by changes in the business model in favour of trading. The questioned limit of 33 for the leverage suggested by the Basel Committee results ineffective for 5 among the 8 banks, while it is always well above the implicit level of standalone commercial banking.

When and if the new stricter Basel III requirements for the trading book are fully applied, the boosting role of the trading book will perhaps reduce, although not by much.[6] Anyway, what calls for attention in our sample is the wide dispersion of risk-weights inside both classes of activity. This can hardly be put down to differences in risks alone, so the hand of national supervisors is well evident.[7] The relevant point is that these domestic adjustments do not seem to follow from local needs to finance different GDP growth rates given the wide structural dispersion of ROA. In other words, supervisory practices do not abandon the level playing field in order to take into account one of the basic functions of the banking system. What is, however, rather clear is that more homogeneous supervisory practices could harm domestic economic activities given so different levels of profitability.

The exercise poses other interesting questions. The specialisation between commercial and investment banking does not correspond to the separation of the banking book from the trading book. Minsky views

[6] A recent study by McKinsey (2012) shows that, contrary to what is commonly thought, the banking book would suffer from higher Basel III requirements and compliance costs too. Consequently, the difference in risk weighting for the two books may not decrease substantially.

[7] The existence of significantly different supervisory practices it is now widely recognised. See for example Basel Committee on Banking Supervision (2012) and Le Leslé and Avramova (2012).

some investment banking favourably, such as the cross-selling of services to corporations and households (cash management, debt underwriting, advisory activity in mergers and acquisitions, asset management), offered not only by large but also by local banks. It may also be a means to retain some profitability in commercial banking. Separating the banking and trading books could shrink the size of intermediaries and make them more easily supervised. However, this would not be a permanent solution if no other structural measures prevent an endogenous reaction of banks. After all, many commercial banks are too big to fail, resolve and supervise.

Despite the weight we have to give to financial globalisation, much domestic activity continues to be financed on a local basis and, as the exercise suggests, local commercial banking is far from presenting homogenous features. The next section is devoted to showing how much these differences weight across the European Union despite regulatory schemes that are more homogenous than the ones in force across different regions.

2. Banking in Europe

From an international perspective, the European banking systems present several relevant idiosyncratic features.[8] The specificities of European banking may be synthesised under three main headings, all of which are associated with relevant fragility factors: the systemic dimension of banking systems and large banks, which constantly increased in the last decades at a pace that often indicates the over-expansion of banking intermediation; the excessive dependency of funding from volatile sources; high leverages. Moreover, these fragilities are dispersed widely across the European systems, being associated with

[8] Since we are interested in singling out some structural features of the European banking systems, what follows generally stops at 2007, the year that marks the beginning of the recent crisis. From then up to now, the EU banking systems experienced a series of public interventions whose different national character and intensity mask what banks will be at the, still distant, exit from the crisis.

deep differences in national banking systems. The strong national specificities coexisting inside the EU reveal themselves in structural indicators and in the prevailing business models characterised by differences in activity composition, profitability and efficiency. These divergences are to a great extent explained by significant differences in national economies, by operative traditions of financial institutions and by several institutional factors, such as the reliability and efficiency of the respective legal systems (ECB, 2008). A different incidence of financial and fiscal rules and different styles of supervision also played a non-marginal role.

High levels and high rates of increase of bankarisation particularly characterise Ireland, the UK and the Netherlands. EU banks have consolidated their traditional centrality in financial intermediation, with growth rates largely higher than those of nominal GDP (table 9). In some EU countries, particularly those where banks are mainly retail oriented, the increased bankarisation is mainly due to a strong credit expansion, which – as in the UK, Ireland, and Spain – favoured the creation of real estate bubbles. Besides this, in those countries where the increase of total assets has been notably higher than that of loans – as in Ireland, the Netherlands and the UK – the dynamics of bankarisation has been significantly driven by the increased exposure towards other financial institutions and sovereign debt, both domestic and foreign. Such exposure, which was favoured by the increased integration of capital markets promoted by the monetary unification, is held for trading and investment purposes. The external position of countries such as Austria, Belgium, Finland, Germany and the Netherlands helped to finance the external imbalances of the Eurozone periphery and several Eastern European countries (Gros, 2012).

Table 9 – *Bankarisation*

	2007	Average (2005-2007) less average (1992-1994)°	
	Total assets/GDP at current prices, %	Total assets/GDP at current prices, %	Loans/GDP at current prices, %
Austria	326	91	27
Belgium	392	84	36
Denmark	247	111	56
Finland	156	7	-3
France	337	79	10
Germany	272	108	37
Greece*	148	73	58
Ireland[1]	711	511	232
Italy	215	47	24
Netherlands	580	347	165
Norway	137	48	38
Portugal*	232	65	80
Spain	269	95	86
Sweden	193	84	22
UK**	367	203	96
Canada	177	44	6
Japan	152	-22	-24
Korea	139	75	63
USA	99	18	13

° For Ireland (1995-1997).

[1] Part of the increase is due to abrupt increases in the number of registered banks.

* Commercial banks. ** Large commercial banks.

Source: OECD, National accounts and Banking statistics.

Because of widespread domestic and cross-border M&A operations, Europe is now the home of the majority of banks with systemic relevance. Of the 29 banks classified as SIFIs by the Financial Stability Board, 15 reside in the European Union.[9] Table 10 shows the threat posed by their size under present conditions where supervision and resolution are maintained at a domestic level. However, the threat hardly becomes irrelevant when measured at the Eurozone and EU level.

[9] Group Banque Populaire et Casse d'Epargne, Barclays, BNP Paribas, Commerzbank, Deutsche Bank, Dexia, Group Crédit Agricole, HSBC, ING Bank, Lloyds Banking Group, Nordea, Royal Bank of Scotland, Santander, Société Générale, Unicredit Group. See FSB, 2011.

Table 10 – *Too big to fail and resolve, year 2011*

Bank assets/Domestic GDP at current prices, %			
USA			
5 largest	56		
J. P. Morgan	15		
UK			
5 largest	413		
HSBC	109		
		Eurozone (17)	European Union (27)
Bank assets/Domestic GDP at current prices, %		Bank Assets/EZ GDP at current prices, %	Bank Assets/EU GDP at current prices, %
5 largest		91	78
Deutsche Bank (DE)	84	23	17
BNP Paribas (FR)	98	21	16
ING Group (NL)	212	14	10
Santander (ES)	117	13	10
Unicredit (IT)	59	10	7
Dexia (BE)	110	4	3

Data Source: Bankscope and Eurostat.

For almost all European banking systems, the high level of intermediation is associated with a funding structure that is vulnerable from the point of view of liquidity, interest and exchange rate risks (ECB, 2009). Loans to deposits ratios higher than unit and a low weight of customer deposits on total funding characterise countries where the increase of intermediation is mainly due to loans (Ireland, Italy and Portugal) and countries where it is associated with market activity (France, the Netherlands, Austria and Sweden). The funding gap requires to critically rely on short-term wholesale markets (interbank markets, money market mutual funds), the issuance of bank debt securities and securitised products, and the acquisition of cross-border liabilities (ECB, 2011a). The experience of the recent crisis has shown that a high share of non-deposit funding makes banks vulnerable to a crisis of confidence. This may manifest as a higher counterparty risk in the wholesale market – as happened in the first phase of the crisis before the Lehman debacle – or an increase of risk premia, as more recently experienced by countries hit by the sovereign crisis (Vasquez and Federico, 2012; BIS, 2012).

Table 11 – *Funding, average 1992-2007*

	Loans/Deposits	Deposits/Total liabilities, %
Austria	1.24	41.6
Belgium	0.91	39.3
Denmark	0.99	49.3
Finland	1.26	45.3
France	1.28	30.1
Germany	1.10	47.5
Greece*	0.60	75.3
Ireland	1.42	39.7
Italy	1.50	32.5
Netherlands	1.26	48.2
Norway	1.40	60.9
Portugal*	1.03	54.1
Spain	0.95	60.0
Sweden	1.02	44.9
UK**	1.07	52.7
Canada	0.98	67.0
Japan	0.85	75.0
Korea	0.95	66.0
USA	0.99	66.7

* Commercial banks. ** Large commercial banks.
Data Source: OECD, Banking statistics.

Quite all European countries experienced a decrease in the number of active banks, while the expansion of bank assets strengthened the increase of the average bank size (table 12). However, this process has not significantly altered the differences existing at the start of our observation period. The UK, Belgium and France remain the countries with the highest average bank size. Starting from the early 2000s, Ireland joined the group due to its quite anomalous asset growth.

Table 13 shows that relevant differences also exist in bank concentration and that they did not change significantly despite the general increase of the Herfindahl Index (the annual normalised standard deviation of the HI does not show any trend). The countries that were affected by significant banking crises generally experienced an increase of concentration after 2007, often due to the fact that authorities favoured crisis resolution though M&As. The notable exception is Belgium, where cross-border failing banks were dismantled and transformed in national entities.

Table 12 – *Average bank size by total assets, million Euros*

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Austria	482	528	601	651	682	700	763	847	931	1,044
Belgium	5,537	5,967	6,206	6,453	7,030	7,320	8,334	9,845	10,401	11,298
Denmark				2,151	2,472	3,003	2,759	3,284	3,744	4,346
Finland	305	325	359	413	468	492	573	658	713	806
France	2,689	2,975	3,309	3,719	4,062	4,475	5,080	5,927	7,006	8,409
Germany	1,556	1,748	2,033	2,372	2,579	2,803	3,002	3,228	3,412	3,639
Greece	1,448	1,664	1,953	1,980	2,020	2,167	2,378	2,702	3,187	3,856
Ireland	2,747	3,472	4,726	5,677	6,711	8,055	10,346	13,058	16,551	19,711
Italy	1,676	1,732	1,965	2,137	2,317	2,685	2,902	3,185	3,374	3,810
Netherlands	1,359	1,566	1,868	2,205	2,439	2,832	3,360	3,926	4,843	5,974
Portugal	883	1,017	1,211	1,337	1,486	1,720	1,749	1,815	2,085	2,355
Spain	2,261	2,525	2,837	3,319	3,685	4,177	4,834	5,747	6,753	7,751
Sweden					2,509	2,314	2,561	3,171	3,618	4,167
UK		8,461	10,666	12,268	13,409	14,208	17,053	20,134	23,601	26,874

Data source: ECB, Statistical data warehouse.

Table 13 – *Herfindahl Index of total assets*

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	515	515	511	548	561	618	557	552	560	534	527	454	414	383
Belgium	699	909	1518	1506	1587	1905	2063	2102	2112	2041	2079	1881	1622	1439
Denmark	1431	1442	1499	863	1119	1145	1114	1146	1115	1071	1120	1229	1042	1077
Finland	2150	2120	1960	2050	2240	2050	2420	2680	2730	2560	2540	3160	3120	3550
France	449	485	509	587	606	551	597	623	727	726	679	681	605	610
Germany	114	133	140	151	158	163	173	178	174	178	183	191	206	298
Greece	885	1165	986	1122	1113	1164	1130	1070	1096	1101	1096	1172	1184	1214
Ireland	500	473	500	500	500	600	600	600	600	600	700	800	900	900
Italy	200	210	220	190	260	270	240	230	230	220	328	307	298	395
Netherlands	1654	1802	1700	1694	1762	1788	1744	1726	1796	1822	1928	2168	2032	2052
Portugal	577	575	566	986	991	963	1043	1093	1154	1134	1098	1114	1150	1203
Spain	277	319	427	561	532	513	506	482	487	442	459	497	507	528
Sweden	830	790	790	800	760	800	760	854	845	856	934	953	899	860
UK	208	220	250	264	282	307	347	376	399	394	449	412	467	522

Source: ECB, Statistical data warehouse.

Table 14 – *Leverage as total assets/capital*

	1992	1994	1996	1998	2000	2001	2002	2003	2004	2005	2006	2007
Austria	20.6	19.3	23.1	21.1	22.6	21.1	20.7	19.7	19.5	19.6	17.2	14.9
Belgium	25.3	38.6	39.7	32.4	27.4	26.6	25.4	27.0	30.1	34.3	31.2	23.2
Denmark	16.9	15.2	14.5	15.8	14.9	16.2	17.3	16.8	17.5	17.4	15.7	17.1
Finland	18.3	19.7	15.5	14.9	15.6	9.2	9.2	9.5	10.7	10.8	10.7	12.7
France	24.9	21.8	24.3	24.4	21.9	21.7	20.3	19.7	21.1	25.4	24.0	26.2
Germany	24.4	23.6	24.6	25.6	24.9	24.5	22.6	22.4	24.5	24.1	23.6	24.2
Greece*	21.7	20.5	22.4	16.7	11.2	10.8	15.1	14.6	20.5	17.6	15.0	15.3
Ireland			15.0	16.6	15.9	15.2	17.5	19.3	20.1	25.1	23.5	23.8
Italy	14.7	14.3	15.3	14.8	14.7	14.7	14.7	14.5	14.9	14.0	14.7	12.4
Netherlands	24.9	21.7	21.9	26.0	24.9	26.0	26.8	26.9	28.6	37.5	30.2	25.2
Norway	28.4	15.4	14.4	14.5	14.2	14.8	15.9	16.6	16.3	17.5	18.7	19.4
Portugal*	9.2	11.1	10.9	9.7	8.9	8.5	8.2	8.2	8.2	9.4	9.1	9.6
Spain	10.9	11.6	12.7	12.9	12.1	12.1	11.8	12.4	11.7	13.0	13.9	14.2
Sweden	20.2	17.7	19.0	18.7	18.1	17.6	19.2	17.7	14.8	17.6	16.9	18.0
UK**	25.2	23.3	24.7	24.1	19.4	19.4	21.3	21.7	28.0	30.7	27.0	18.8
Canada	18.0	18.4	20.5	20.8	18.5	18.4	18.1	17.8	17.8	18.3	18.2	18.4
Japan	27.0	26.2	30.0	22.5	21.9	25.8	30.0	25.8	23.7	20.6	19.0	22.4
Korea	11.7	12.2	15.5	26.6	27.9	24.4	24.6	25.2	20.6	17.3	16.6	16.7
USA	13.6	12.6	11.9	11.6	11.6	11.0	10.8	10.9	10.0	10.0	9.7	9.8

* Commercial banks. ** Large commercial banks.
Data Source: OECD, Banking statistics.

Table 15 – *Leverage as Tangible total assets/Tangible equity**

	2007	2008	2009	2010
Austria		22.4	17.4	15.9
Belgium	25.8	39.2	28.3	26.7
Denmark		28.0	24.4	24.1
France	28.4	33.7	24.7	23.7
Finland	14.6	18.1	12.8	13.1
Germany		39.3	30.0	28.1
Ireland		22.9	19.3	23.5
Italy	19.8	24.0	19.5	19.1
Netherlands		34.5	24.1	24.3
Portugal	16.1	19.5	16.6	16.1
Spain		20.2	18.4	19.7
Sweden		26.7	23.3	22.9
UK		34.2	24.3	21.8
EU27	24.3	30.5	23.3	22.4
EU27 Large	27.2	36.0	26.0	24.6
EU27 Medium-size	16.4	21.2	18.7	18.8
EU27 small	8.3	14.2	13.1	13.4
EU27 Foreign	15.9	24.2	19.8	22.0

*Domestic banking groups and stand-alone banks.
Data source: ECB, Statistical data warehouse.

Table 16 – *Leverage of the 10 largest EU banks – Tangible assets/Common tangible equity*

	2004	2005	2006	2007	2008	2009	2010	2011
Deutsche			70.9	58.8	59.9	117.6	66.7	64.1
HSBC Holdings	24.4	23.4	24.3	24.9	36.8	23.2	20.2	20.9
BNP Paribas		41.0	40.7	44.2	63.7	38.2	33.6	36.1
Crédit Agricole	43.3	36.0	34.0	35.5	45.7	36.1	32.9	35.2
Barclays	51.3	55.6	51.3	78.7	87.7	34.4	32.5	32.5
RBS	57.8	43.3	40.3	61.3	61.0	26.5	27.0	28.6
ING Group		35.3	34.1	42.0	333.3	46.5	37.7	31.0
Banco Santander	34.5	32.9	29.4	36.4	34.0	29.2	30.7	30.2
Société Générale		41.5	38.8	57.5	49.5	37.9	37.2	36.5
Lloyds Group	66.7	57.5	54.1	45.2	67.6	30.8	26.4	26.0

Source: Bankscope.

On average, European banks show a significantly higher leverage than US banks, which, together with Portuguese banks, appear in this respect to be outliers.[10] As suggested by theoretical analyses (Minsky, 1987; Shin, 2009; Adrian and Shin, 2010) and confirmed by empirical evidence (IMF, 2012a; ECB, 2012), high leverages, especially if coupled with the undervaluation of risks and short-term funding, expose banks to structural and cyclical deleveraging pressures, ultimately leading to systemic crises.

Notwithstanding regulatory convergence, the heterogeneities shown by national banking systems and by banks of diverse size are highly significant. Countries where universal banks prevail (Germany) or where the average bank size is greater (France, Denmark, Ireland and the Netherlands) register higher levels of leverage.

The data from Table 16 are of particular relevance to the present analysis. Starting in 2008, the financial crisis first produced significant capital losses and then a rapid adjustment towards less extreme values of leverage, often aided by the injection of public capital. According to R&S (2009), the largest banks were able to increase their total assets in 2008, and often distribute generous dividends, thanks to the reduction of the risk-weight ratios allowed by the adoption of the advanced methods of Basel II, despite capital deterioration due to credit and market losses being higher than recapitalisation largely coming from the public purse.

As we can observe from the aggregate average composition of their balance sheets in the period under examination, the European banking sectors do not show homogeneous business models (table 17). Although in the majority of countries retail banks prevail – even though with heterogeneities regarding size, ownership structure and activity mix –

[10] International comparisons on leverage must, however, be interpreted with great caution. This is mainly due to differences in accounting rules both inside Europe – at least until 2005 when the International Financial Reporting Standards (IFRS) should have been implemented across the Union – and between Europe and other areas, the USA in particular. A relevant factor relates to different rules on derivatives, gross reporting according to the IFRS and net reporting according to the US GAAP. In general, the leverage results undervalued for all large banks with a consistent amount of off-balance sheet exposures (e.g. credit facilities and guarantees to special vehicles).

some systems (France and Belgium) seem more market-oriented, with a share of loans to the economy not much higher than 30%.

Table 17 – *Loans and securities on total assets, average 1992-2007, %*

	Loans/***TA***	Securities/***TA***
Austria	49.0	17.1
Belgium	34.6	29.9
Denmark	44.8	26.2
Finland	52.2	15.6
France	36.6	20.2
Germany	50.2	22.7
Greece*	41.6	30.0
Ireland	50.2	22.1
Italy	43.5	13.4
Netherlands	58.3	21.1
Norway	78.4	10.5
Portugal*	48.4	17.7
Spain	52.0	18.7
Sweden	42.8	22.1
UK**	52.7	17.9
Canada	61.9	20.6
Japan	60.9	20.3
Korea	59.1	17.6
USA	59.8	20.4

* Commercial banks. ** Large commercial banks.
Data Source: OECD, Banking statistics.

Equally heterogeneous are their sources of income. In some countries (Germany, Norway, Italy and Spain), interest income constitutes the major source of operating income, while in others (Austria, France, Sweden and the UK) income from commissions, fees and earnings from trading are the main drivers of profitability (table 18).

Table 18 – *Profitability, 1992-2007*

	ROA before tax		***ROE*** after tax	***IM***		NIOM		***NIOM***/ Operating income	***PFO***/operating income
	Average%	NSD	Average %	Av. %	*NSD*	Average %	NSD	Average	Average %
Austria	0.49	0.26	8.6	1.4	0.26	1.12	0.13	0.45	4.2
Belgium	0.46	0.31	11.0	1.1	0.21	0.66	0.53	0.38	19.6
Denmark	0.87	0.71	10.7	2.2	0.41	1.00	0.56	0.31	17.0
Finland	0.57	2.25	3.0	1.6	0.15	1.23	0.54	0.43	7.8
France	0.42	0.52	7.4	0.9	0.33	1.10	0.23	0.55	15.9
Germany	0.40	0.47	5.3	1.6	0.20	0.52	0.25	0.24	3.7
Greece*	1.24	0.45	14.1	2.4	0.20	1.82	0.47	0.44	13.9
Ireland	1.09	0.27	12.2	1.6	0.38	0.88	0.37	0.35	3.8
Italy	0.80	0.32	6.8	2.4	0.18	1.01	0.21	0.29	0.6
Netherlands	0.67	0.13	12.9	1.6	0.18	1.05	0.28	0.40	7.5
Norway	1.04	0.38	12.7	2.5	0.26	0.87	0.26	0.26	5.9
Portugal*	0.79	0.16	5.9	2.0	0.20	1.00	0.20	0.33	8.3
Spain	0.88	0.19	8.9	2.4	0.24	0.98	0.13	0.29	8.4
Sweden	1.00	0.37	14.0	1.7	0.42	1.64	0.34	0.50	6.7
UK**	1.00	0.25	16.2	1.9	0.27	1.57	0.23	0.45	15.6
Canada	0.98	0.22	13.4	2.2	0.17	1.69	0.18	0.44	n.a.
Japan	0.00	202.23	-2.8	1.2	0.05	0.10	2.79	0.08	-19.3
Korea	0.31	3.71	-0.4	2.7	0.07	0.45	2.02	0.14	-12.1
USA	1.67	0.12	12.8	3.3	0.08	1.99	0.14	0.37	1.1

* Commercial banks. ** Large commercial banks.

Data Source: OECD, Banking statistics.

Note: *IM* = net interests/total assets; *NIOM* = non-interest operating profit/total assets; Operating income = *IM*+*NIOM*; NSD=normalised standard deviation; *PFO* = profit from financial operations.

Mainly due to their higher leverage, European banks obtain levels of ROE that are on average higher than in the USA, even though ROA is decidedly lower. Many European countries show a very poor performance in terms of ROA, mainly due to high provisioning (table 19).[11] In addition, ROA is normally more volatile in Europe than in the USA, because of the lower contribution made by interest income that normally represents the more stable component of profitability.

Table 19 – *Provisioning, average 1992-2007*

	Provisions/operating income, %
Austria	13.10
Belgium	8.87
Denmark	14.35
Finland	1.88
France	13.08
Germany	13.14
Greece*	11.80
Ireland	3.97
Italy	14.46
Netherlands	6.55
Norway	6.38
Portugal*	16.10
Spain	15.63
Sweden	-6.33
UK**	9.69
Canada	8.39
Japan	33.51
Korea	70.25
USA	7.61

The two measures of efficiency computed in table 20 show that European banks follow a heterogeneous ascending path, which is similar

[11] The data for the Nordic countries and Korea must be read in the light of the crisis of the early 1990s for the former and of the 1997-98 Southeast Asian crisis for the latter. The data for Ireland also need a cautionary note since its aggregate data are distorted by statistical anomalies due to the disproportion in the growth of banks' balance sheets, largely financed abroad in wholesale money markets (European Commission, 2012a).

to that of non-European banks and is more pronounced for banks starting from less efficient positions.

Table 20 – *Efficiency, average (2005-2007) less average (1995-1997)*

	Cost/TA, %	Cost/income ratio, %
Austria	-0.57	-0.07
Belgium	-0.33	-0.06
Denmark	-1.00	-0.08
Finland	-1.17	-0.36
France	-0.39	-0.04
Germany	-0.20	0.02
Greece*	-0.84	-0.12
Ireland	-1.29	-0.11
Italy	-0.70	-0.09
Netherlands	-0.53	-0.02
Norway	-1.44	-0.16
Portugal*	-0.25	-0.07
Spain	-1.07	-0.16
Sweden	-1.31	-0.14
UK**	-0.80	-0.04
Canada	-0.09	0.01
Japan	-0.08	-0.11
Korea	-0.76	-0.39
USA	-0.36	-0.01

* Commercial banks. ** Large commercial banks.
Data Source: OECD, Banking statistics.

The factors affecting the potential endogenous growth of banks present macroscopic differences across the Union. Such differences come from large dissimilarities in tax rates and fiscal treatment of credit provisions and from different retention ratios, which are in part related to different ownership structures. As we have also seen in Section 2, a relevant role is also played by the maximum leverage allowed by regulatory capital requirements, with marked differences between countries - not least due to the divergence in average risk-weights.

Table 21 – *Income tax, Averages 1992-2007*

	Income tax/net income before provisions, %	Income tax/net income after provisions, %	Tax rate/ROA before taxes
Austria	7.5	13.2	16.0
Belgium	16.7	24.3	41.1
Denmark	14.8	20.2	76.1
Finland	11.6	12.2	30.4
France	13.3	24.8	77.7
Germany	25.6	44.0	66.3
Greece*	20.5	29.7	19.0
Ireland	20.4	21.8	19.2
Italy	25.1	46.0	36.0
Netherlands	19.9	25.3	29.9
Norway	17.5	17.0	14.9
Portugal*	10.1	16.2	12.8
Spain	12.1	21.3	14.6
Sweden	17.7	21.9	14.2
UK**	23.3	32.4	24.0
Canada	20.5	27.1	20.7
Japan	15.5	56.5	152.5
Korea	7.0	12.5	9.7
USA	25.9	32.2	15.6

* Commercial banks. ** Large commercial banks.
Data Source: OECD, Banking statistics.

Table 22 – *Capitalisation, averages 1992-2007*

	Retention ratio	Average Risk weight	Capital buffer
Austria	0.9	0.4	0.2
Belgium	0.3	0.3	0.3
Denmark	0.9		
Finland	0.6		
France	0.1		
Germany	0.4		
Greece*	0.4	0.6	0.4
Ireland	0.6	0.5	0.1
Italy	0.2	0.6	0.2
Netherlands		0.5	0.2
Norway	0.6	0.7	0.2
Portugal*		0.6	0.2
Spain	0.4	0.7	0.7
Sweden	0.5	0.4	0.3
UK**	0.4	0.5	0.1

* Commercial banks. ** Large commercial banks.
Data Source: OECD, Banking statistics.
Note Capital buffer = total regulatory capital minus 8%.

3. The reform of the financial architecture: towards a European Banking Union?

It was already evident before the recent financial crisis that the diffusion of cross-border banks and financial groups would clash with home-country control and the European passport. The risks of potential cross-border contagion were amplified by the increased size of international banks, too big to fail and to resolve, the operations of whose subsidiaries or branches often being a multiple of the GDP of the country in which they are located. The evolution of the European financial systems highlights an intrinsic contradiction. Following the goal of the single financial market, the EU authorities promoted cross-border financial activities, implicitly promoting larger bank sizes, while relying on national conditions for supervision, interventions of last resort (ELAs), deposit guarantee schemes, and crisis management and resolution regimes (Economic and Financial Committee, 2001; Enria and Vesala, 2003; Freixas, 2003; Garcia and Nieto, 2005; Goodhart and Schoenmaker, 2006; Eisembeis and Kaufman, 2007). The first phase of the recent crisis has shown how a system based on cooperation among national authorities and on national discretion promoted moral hazard, light touch supervision and difficulties in managing cross-border crises. The more recent crisis of sovereign debt has focused the EU authorities on the necessity of centralising the mechanism of crisis resolution in order to break the vicious loop between banking and sovereign crises.

The first response has been the reform of the architecture of financial supervision, which came into force in January 2011 and followed the guidelines of the *de Larosière Report*. The reform aimed to reconcile national competences with the need to reduce national discretion in the application of European regulation, increasing the convergence in micro-supervisory practices, defining more effective supervisory mechanisms for cross-border banks, and strengthening the macro-prudential supervision at the EU level.

Responsibility for the latter is charged to the European Systemic Risk Board (ESRB), which is chaired by the President of the ECB. The ESRB has no executive powers, and can only produce recommendations

to the EU institutions. Some micro competences for regulation and supervision are entrusted to three European Supervisory Authorities (ESAs), responsible for the banking sector (European Banking Authority, EBA), for capital markets (European Securities and Markets Authority, ESMA) and for insurance companies (European Insurance and Occupational Pension Authority, EIOPA). To these ends, the activities of the ESAs are framed under a new approach that, favouring the production of Regulations (directly enforced at national level) Directives, aims at to produce an enhanced regulatory and supervisory harmonization by means of single rulebooks.

As for banking regulation, the main task of the EBA is to draft technical standards, which once endorsed by the Commission, will make the Single Rulebook effective.[12] For micro-supervision, the "authority shall play an active role in building a common Union supervisory culture and consistent supervisory practices, as well as in ensuring uniform procedures and consistent approaches throughout the Union" (Regulation 1093/2010, art. 29.1). Day-to-day supervision and the effective knowledge of banks' health remain the exclusive competence of national supervisors and, for cross-border banks, of supervisory colleges. As recently clarified by the European Commission the "EBA should develop a single supervisory handbook to complement the single rulebook" (European Commission, 2012c, p. 5).

Single rulebooks and single handbooks would suggest a net shift from minimum to maximum harmonization. In reality, although reduced, national discretionary powers are not going to disappear. First, as shown by the proposal to translate Basel III into EU legislation, we are not witnessing the disappearance of Directives in favour of Regulations and

[12] The European Parliament and the Council may delegate legislative powers to the Commission, but not to the European agencies, among which are the ESAs. Therefore, each technical standard devised by an ESA will only be a draft law that must be endorsed by the Commission before becoming binding for national supervision agencies. Moreover, the areas in which the ESAs may define technical standards are each time specified by the European legislation. For the banking sector, presently the new Directives and Regulations on Capital and Liquidity Requirements are the main source of delegated powers to the Commission and EBA (Enria, 2012).

the same Regulations allow for national discretion.[13] Moreover, the Regulations that created the ESAs state that the production of technical standards must take into account national specificities. Second, it is not clear whether rulebooks and handbooks will cover all possible interventions, or if some aspects will be left to national authorities. Past experience shows that some fragility came from national discretion applied to aspects not included, or only partly included, in rulebooks. Examples include accounting rules for consolidating financial accounts, the evaluation of concentration risks and provisioning on non-performing loans (ESRB, 2012) and the many exceptions permitted in the implementation of the large exposure regime with respect to sovereign debt (Hannoun, 2011) and interbank exposures (CEBS, 2009). Taking also into account that Basel's Pillar 2 rests on significant discretionary powers given to supervisory authorities, we may expect greater harmonization than before, but certainly not a maximum harmonization of contents and scope for rules and practices.

The crisis of sovereign debt in the Eurozone has forced a further push towards centralization. Now the most relevant issue has become the need to break mutual interactions between banking and sovereign crises. Given the systemic dimension of banking crises when kept at national level, the proposed solution lies in pooling resources at the EU level for the recovery and resolution of failing banks. A precondition for agreeing on a common guarantee is to eliminate the moral hazard coming from the unequal severity in national supervisory practices experienced in the past.

Given the political inputs coming from the European Council (2012), the Commission is working on a series of proposals for the creation of the so-called Banking Union (BU) for the Euro Area. The BU rests on four pillars: a Single Supervisory Mechanism (SSM), a uniform single rulebook, a common Resolution Authority and a common

[13] The policy option adopted by the Commission is one of 'maximum harmonisation with some exceptions': "under this option the single rule book would provide for some flexibility to resort to gold-plating in areas rooted in market/local product specificities or the legal framework of MS" (European Commission, 2011a, p. 42).

Resolution Fund, and a single EU deposit guarantee scheme covering all EU banks.

The first step by the Commission has been the proposal of a Regulation on the SSM (European Commission, 2012d). In short, the ECB and national supervisors compose the SSM and ultimate responsibility rests with the ECB. The presence in the SSM of national authorities is justified by their "knowledge of national, regional and local banking markets" (*ibid.*, p. 5). Art. 4 of the Regulation lists the tasks for which the ECB would be exclusively responsible. Apart from customer protection, money laundering and the supervision of the branches of non-EU banks, which remain the responsibility of national authorities, all supervisory powers are shifted to the ECB. However, from an operational point of view, a crucial matter is that day-to-day supervision remains in the hands of national authorities.

The proposal attempts to not create significant supervisory differences between Euro and non-Euro countries. Apart from allowing non-Euro countries to participate to the SSM, the Commission emphasises, as we have seen before, the role of the EBA in the production of the single supervisory handbook in addition to the single rulebook. The relation between the ECB and the EBA should be the same as for national supervisors with respect to the production of technical standards and the single handbook. Once the single rulebook and handbook are in place, the ECB should comply with it as any other non-SSM national authority would. This means that the homogenisation of supervisory practices both inside the SSM and for the EU in general will depend on the level of harmonisation supplied by the so-called single rulebook and handbook.

The apparent homogenisation of supervisory practices represents the precondition for the establishment of the other two pillars of the BU related to the resolution of banking crises. Although up to now the Commission has not produced structured proposals, a common Resolution Authority will have access to the resources of a common Resolution Fund and ultimately to those of the European Stability Mechanism (ESM). "When an effective single supervisory mechanism is established, involving the ECB, for banks in the euro area the ESM

could, following a regular decision, have the possibility to recapitalize banks directly" (*Euro Area Summit Statement*, 29 June 2012). Together with a single pre-funded deposit guarantee scheme, the solution lies in pooling resources at the Euro-plus level; how much of these resources will come from contributions by the banking sector and how much from a public backstop is still a matter of heated discussion.

The process followed by the EU authorities was to strengthen the regulatory framework by adopting the new standards agreed upon at the international level; to homogenise and centralise rules and controls; and to pool resources for breaking the loop between banking and sovereign crises. Apart from the fact that Basel III does not properly address banking fragilities, especially those of the EU systems that we have discussed in the previous section,[14] a profound contradiction exists between the goal to homogenise rules and controls and a regulatory framework that with its expected 60,000 pages will leave ample room for interpretation and contradiction.

Two other aspects may be singled out in relation to the current discussions. The previous proposals accept, and in a certain sense validate, the systemic dimension of large banks and banking systems, and do not place limits on the activities of credit institutions, an aspect that partially relates to the problem of size.

The High-level Expert Group (Group) nominated by the Commission to suggest possible reforms to the structure of EU banking sector recently produced its final Report (*Liikanen Report* 2012). The Group advances five proposals, of which only two properly refer to structural reforms. The others call for strengthening existing proposals regarding the adoption of bail-in instruments, more robust and consistent risk-weights, and corporate governance rules. The two structural proposals amount, *de facto*, to a watered-down version of the Volcker rule as regards the degree of separation, and of the Vickers' proposal with regard to ring-fenced activities.

[14] It is highly significant that, while the EU claims to be "the first jurisdiction at a global level to transpose the G20 commitments" (European Commission, 2011b, p. 1), it has not yet attained an "unequivocal commitment to implement the leverage ratio and net stable funding ratio in 2018, as agreed under Basel III" (IMF, 2012b, p. 60).

> "Proprietary trading and high-risk trading activities should be assigned to a separate legal entity if the activities to be separated amount to a significant share of a bank's business and are above a certain threshold. This would ensure that trading activities beyond the threshold are carried out on a stand-alone basis and separately from the deposit bank" (Liikanen, 2012, p. 2).[15]

The second proposal obliges banks to draw up recovery and resolution plans, giving to a resolution authority the power to request a wider separation than the mandatory one. With respect to the Volcker rule, the Report follows the Vickers' proposal in making the separation incomplete; with respect to Vickers, wholesale banking remains inside the deposit bank. Curiously, the smallest banks are fully excluded from the separation requirement. This means that a small bank could be set up to collect deposits for funding mainly proprietary trading. More wisely, although not more effectively, a part of the Group proposes to subject trading activity to a non-risk-weighted capital buffer and to subject the separation to the supervisor's evaluation of the bank's recovery and resolution plan.

Although the major reforms to EU banking regulation are still at the stage of proposals, it is already clear that they are not going to mark a significant departure from the past. The overall framework is gaining in complexity, increasing the potential for regulatory elusion and arbitrage. The more ample discretionary power of supervisors to validate banks' risk management will not produce an effective single handbook and make the reappearance of light touch supervision a highly probable outcome. Two measures, like a strict cap on non-risk-weighted leverage and liquidity ratios, which, following the same dominant approach, would address some of the specific EU banking fragilities, are postponed to an indefinite point in the future. The attempt to centralise at the EU level the resolution of banks while leaving the size problem unresolved does not eliminate the problem of financial institutions and entire banking systems that are too big to fail, resolve and supervise. The adoption of some strict

[15] The text is not clear on whether the separate trading entity should manage the entire volume of trading or only the amount exceeding the threshold.

version of specialisation is not on the agenda. In other words, the reforms are driven by incremental additions to the existing framework.

4. A radical departure from the current regulatory approach

When assessing the effectiveness of the Basel Accords, Europe should be taken as one of the most interesting case studies. The construction of a unified market for financial and banking activities has gone *pari passu* with attempts to build a homogeneous regulatory and supervisory framework. This explains why the EU has been at the forefront of applying the Basel Accords not just to its international banks, but also to the rest of its banking sector as a whole.

Two questions are seldom discussed: what we mean by a single market for financial services and the public interest arising from its attainment. In the early years of its construction, the idea, for goods as for financial services, was that the single market would mean increased competition across the region, producing substantial advantages for consumers. Bringing down the old barriers and re-regulating with a competition-friendly approach, efficiency should have shot up and its gains passed on, partly to consumers and partly used to make institutions stronger. The neo-liberal mantra was, in Europe as elsewhere, that the long-run stability of a financial system would be attained by enhanced competition and efficiency. In this competitive environment, financial markets would allocate financial resources to their best use, both domestically and internationally. The Basel Accords did not intervene to change this picture. It was recognised that there was only one major market failure, in that banks did not sufficiently evaluate the so-called unexpected risks, to be covered with capital. This was the foundation of the Basel risk-based regulation and supervision, in which the authorities pushed for the general adoption of what they considered industry best practices. The question of how to serve the basic functions of finance was left entirely to the market.

In this general environment, the EU single market just represents a passport given to financial intermediaries to operate across the region,

stating the compliance of the home country in applying the agreed minimum regulatory and supervisory requirements. Banks are free to assume the business model they prefer and no restrictions exist to curb their operations. The EU competition authority looks for non-competitive practices, having no scope for size and concentration. This is just what we substantially find at the international level, except for the existence of a more homogeneous and complete set of Basel-inspired regulatory rules.

After decades of financial liberalisation and twenty years of Basel Accords, the previous two sections show how far Europe is from attaining financial stability and the single market. National banking systems continue to show no fewer idiosyncratic features than before. Bank size and concentration increased, with no visible sign of enhanced interbank competition. Bank profitability suffered from competition coming from non-bank institutions, pushing banking models towards riskier configurations for both assets and liabilities. Gains in efficiency higher than elsewhere are not visible and, moreover, they have not increased bank resilience. Capitalisation, according to more meaningful indicators than those based on doubtful risk measures, decreased sharply. Most indicators show higher and unequal fragility across the region.

The question then arises if, as things stand now, the EU needs more of the same medicine, the like of Basel III, while pushing for higher regulatory harmonisation and the centralisation of supervision, or if the entire regulatory approach must radically change. Since the rules coming from the international standard-setters treat international finance in terms of a single market, while at the global level specific country features are much more pronounced, the question has a more general relevance than the reference to the EU.

We think that the regulatory perspective must radically change. As briefly outlined in the second section, we must start from a well-founded theory of financial fragility and instability, one that like Minsky's, focuses on the basic functions that the financial system should perform. We must then single out its clear-cut normative implications and allow country differences to be reflected in policies and regulation.

In what follows, we present the basic outlines of our proposal under five headings: size, morphology, fiscal incentives, safety nets and supervision.

4.1 Size

We have recently observed renewed attention focused on the issue of financial institutions that are too big to fail, to resolve and to supervise. The British case is illuminating. The City's largest banks are either in public hands or are tainted by scandals such as Libor manipulation, money laundering or covering up forbidden Iranian transactions. The situation is not much better in the USA and elsewhere. We should not be surprised then that an increasing number of officials and people from the financial industry favour the dismantling of the largest banks (Johnson, 2012).

Recent and past scandals and bankruptcies show that they do not necessarily come from mixing commercial and trading activity. Every line of business has a history littered with scandal. The Volcker rule and the Vickers proposal on ring-fencing, however they are implemented, are not a solution. As Minsky suggested, we need to restore a basic law of the capitalist economy, the freedom to fail. Authorities should step in only to ensure the normal functioning of the payment system. As we noted in the Introduction, living wills by existing giant banks, currently being implemented in the USA, do not constitute a workable solution. The size of financial intermediaries, bank or non-bank, should not surpass the threshold of a systemic dimension. We can take as reference the results of empirical studies that do not discover genuine economies of scale beyond assets in the range of 50-100 billion dollars.[16] The reality of big banks is that their current size and international scope serve to economise on liquidity and capital and pay fat bonuses, i.e. to elude regulation. The argument that they are necessary to serve the funding necessities and international operations of large non-financial firms is totally unjustified (Kregel, 2009).

[16] Cfr. Haldane (2010) and Kregel (2009). According to Greenspan (2010, p. 32), "Federal Reserve research had been unable to find economies of scale in banking beyond a modest-size institution." Just to give an idea, the world's ten largest banks each have assets in the range of 1,900-2,800 billion US dollars.

1. *No financial intermediary should have assets higher than 100 billion dollars. Each country could fix a lower but not a higher cap.*[17]

A second issue on size concerns the growth of bank assets, even if they remain below the above cap. It is quite the ironclad rule of empirical finance that accelerated asset growth inevitably leads to a crisis. However, asset growth may lag behind what is necessary to finance real growth. As we have seen in the second section, an adjustable payout ratio could help to spur asset growth, but not avoid its excesses. We think that a high enough leverage, combined with the other parts of our proposal, could be enough to keep excessive growth in check.

2. *National supervisors should adopt a general measure of maximum leverage compatible with domestic growth conditions, and use a mandatory payout ratio to stimulate bank growth when significantly below the national policy goal.*

4.2 Morphology

As we stated in the Introduction, the laissez-faire approach to regulation has ultimately left markets to adapt the morphology of the financial system to their own interests. As it continues to be evident in the recent financial reforms in the USA and Europe, regulation follows the endogenous institutional dynamics of private interests, trying to single out the specificities of each typology and adjust to them its rules.

Our opinion is that, on the contrary, authorities should mould their rules according to public interest, and follow some basic principles of

[17] Our proposal doubles the 50 billion US dollars Dodd-Frank threshold for SIFIs. In a previous paper (Tonveronachi and Montanaro, 2010; building on Tonveronachi and Montanaro, 2009), we suggested the adoption of a function inversely linking leverage to size. We now think that a quantitative cap does not lend itself to manipulation, as could a function and the measure of leverage. A residual uncertainty concerns the measure of total assets. Even if all regulators accepted the International Accounting Standards Committee proposal to abolish off-balance sheet items, they should have to adopt homogeneous conversion rates regarding, for example, derivatives.

financial fragility on how to limit instability. If we go the foundations of Minsky's analysis, we see that the problem is represented by debt. In terms of flows, assets must generate enough income to serve the debt. In terms of stocks, actual and perspective own capital must cover eventual falls in asset values in front of a non-adjustable debt. Fragility increases in relation to a series of elements, such as maturity mismatch and asset volatility, that influence those relations. Since innovations elude how regulators have assembled the elements of fragility according to the existing institutional set-up, decided by the markets, there is no escape from the latter winning the game. The so-called shadow banking systems are a good representation of such a dynamics. If debt is the fundamental problem, debt must represent the basic divide for regulation.

3. *Regulation should distinguish between levered and non-levered financial institutions, where debt is defined as any commitment, actual or potential, ultimately affecting the own-capital of the intermediary. All levered institutions should be considered as banks.*

This means that hedge funds, private property funds and the like would have to operate without debt, unless they transformed themselves into banks. It also means that investment funds offering guarantees on the value of their liabilities would be treated as banks. In short, investors in non-levered institutions would take all the risks connected to the latter's operations. Our second proposal is then extended to all levered institutions, banks for short.

As Kregel (2012) explains, levered institutions must finance capital development by the direct or indirect creation of debt, a process finally leading to the creation of central bank liabilities. We follow Kregel in proposing to force on the levered sector the specialisation between two types of institutions. On the one hand, banks "providing transaction services, a store of value, or financing (for housing, consumers, or short-term business financing of commercial paper) [that] would then be limited to activities closely related to liquidity creation" (*ibid*., p. 17), which we will call commercial banks (CBs). On the other hand, banks that "would provide underwriting and capital market services for the

financing of productive investment" (*ibid*.), we will call investment banks (IBs). As far as CBs are concerned, this separation is consistent, although does not constitute a sufficient condition, with Minsky's contention that to limit fragility debt should not concern fixed capital.

4. *Regulation would force a strict specialisation within the levered sector between commercial banks (CBs), whose activity is restricted to traditional commercial banking, and investment banks (IBs), whose activity is restricted to underwriting and capital market services. The funding of IBs excludes retail deposits.*

In addition: For both CBs and IBs market risks must be contained or cushioned. Other conditions, in addition to small size and specialisation, are necessary to weaken the interconnections inside the financial sector. Restrictions should be placed on participations; allowed participations would be treated with the same limits reserved to large exposures. Access to the refinancing of the central bank should be limited to banks devoted to liquidity creation.

5.

a) *Both CBs and IBs would not enter into any activity relating to trading and market making.*
b) *Asset exposure to capital markets would be limited for CBs to national sovereign debt held to maturity or for liquidity reasons.*
c) *If IBs were publicly owned development banks, the most important issue is full transparency in their decisions and results.*
d) *Both types of institutions would only operate in organised markets.*
e) *No ownership or governance relations would exist between the two types of specialised levered institutions and between them and non-levered institutions.*
f) *Allowed participations would encounter the same limits as large exposures and no management relations would exist with them. In other terms, allowed participations would be treated as investments for portfolio diversification purposes.*

g) Foreign participations or full ownership in the same own typology of banks would be treated under the previous provision. Foreign subsidiaries would be completely autonomous and only local regulation and resolution regimes would apply to them.
h) Banking and insurance would be kept totally separate.
i) Simple, old-style, liquidity requirements would limit maturity mismatches for both CBs and IBs.
j) Lending of last resort by the central bank would be limited to CBs.

4.3 Fiscal incentives

Taxation is a powerful instrument for national authorities to influence the allocation of financial funds. When required, as in the EU, two issues should be given due attention: the re-intermediation of banks as regards customer deposits, and banks' low profitability. Tax rates on incomes derived from investing in the CBs should be kept substantially lower than from investment in non-levered institutions and financial markets. Income tax rates on CBs should be kept at low levels in order to avoid that low maximum regulatory leverages and the other costs due to regulatory compliance displace investment in their shares.

6. *National authorities should use taxation in the financial sector not just as a means to acquire funds, but mainly as a tool of industrial policy directed at influencing the allocation of funds in the desired direction and to make banks more resilient.*

4.4 Safety nets and crisis resolution

Since banks should be allowed to fail, authorities' only concern should be to avoid negative externalities to the payment system.

7. *An ex-ante funded deposit insurance would exist for CBs. The funds would be managed by public authorities, but not backed by them. A special resolution regime would exist, to safeguard only the operations of CBs, explicitly allowing for temporary nationalisation.*

Apart from retail depositors, all other investors should fully absorb bank losses.

4.5 Supervision

The above only represent the backbone of a complete regulatory framework. The main message is that the rules should be thought of in relation to the resilience of the financial system, not of a single financial intermediary. Decoupling the crisis of a bank from its systemic consequences implies that regulation and supervision will not have to mix with risk management, which should be entirely left to the responsibility of banks. Additional measures will have to be detailed, such as those referring to the conditions for granting and maintaining a bank licence (governance, accounting rules, etc.). We have tried to spell out mainly those conditions that mark the main departure of our proposal from the current approach to regulation and supervision.

Finally, we do not go into the regulation that would apply to the non-levered sector here. However, we want to single out one issue for its relevance to the levered sector. All financial operations should be traded in organised markets and should require negligible instrumental leverage, i.e. extremely high margins and haircuts, which, as Kregel (2012) points out, would also render highly speculative activity unprofitable.

5. Conclusions

Despite the extreme seriousness of the current financial crisis, the resolve shown by the G20 and national and regional authorities to make "It" not happen again is not leading to a profound revision of the financial regulatory approach. The effort to apply to the banking sector stricter versions of the same standards and make them more homogenously applied across national systems shows how deeply rooted the *laissez-faire* view of the functioning of the economy is. Without a radical change to the understanding of the fundamentals of how the capitalist system

really works, and of the enhanced fragilities coming from letting the private financial system practically self-regulate its activities, no durable improvement of systemic resilience may ensue. On the contrary, increasing the compliance costs of an ineffective regulation only leads to increased fragility.

Building on Minsky's approach, we have singled out the main factors that let fragilities accumulate, finally leading to systemic crises. We have then applied this perspective to the European Union to show the ineffectiveness of the regulatory approach developed in the last twenty years for both improving financial resilience and creating a single European financial market.

It is our opinion that one the fundamental misunderstandings stemming from the *laissez-faire* approach is to treat financial markets as if they were, in their very nature, a single market. Especially concerning commercial banking, the European experience clearly shows that even in a region apparently subjected to homogeneous rules and freedom of establishment, significant national differences do not disappear. Limits to competition are often invoked to explain such results. Many ingredients of the current approach, such as self-regulation, large size and too big to fail, are what actually impede effective competition. In any case, regulation well removed from the heterogeneous necessities of the various economies cannot but fail to reach its single market aspiration, wreaking serious damage in trying to do so.

We have mentioned some schemes whose implementation is currently discussed at the regulatory level: the Volcker rule, Vickers' ring-fencing and the Liikanen proposal.[18] They are supposed to disconnect to a certain extent commercial banking from market risks and their related incentives. Ring-fencing does not support a complete separation between activities, as the Volcker rule does, allowing commercial retail banking (SME and households) and wholesale and investment banking to coexist inside a common financial holding, each one with its own liquidity and capital endowment.

[18] Having received a cool reception from the European Commission, we do not go into the report by the High-level Expert Group here.

The existence of some sort of scope economy explains the decision to keep both types of activities inside a common holding (Independent Commission on Banking, 2011). We have seen in the exercises of Section 2 that, in so far as Basel rules keep risk weights for trading significantly low, and lower than in commercial banking, this would restrain bankarisation on the commercial side, but would give it a helping hand on the trading side. However, profit transfer inside the holding could have the same effect as in the universal banking model. The direct or indirect access to primary liquidity is of crucial relevance. If Vickers' wholesale and investment unit, which we must remember has no limits placed on its market operations, could draw on central bank's and/or on ring-fenced units' liquidity, the liquidity multiplier benefiting market activities would go unchallenged, capable of producing as in the past a huge and highly unstable pyramidal structure of low quality liquidity (Kregel, 2012; Tonveronachi, 2009). We can take a guess that wholesale lending would open to such a unit the central bank's refinancing window, and intra-group lending, although on a limited scale, would be allowed.[19] As a result, ring-fenced banks would not be shielded from market risks and big wholesale-investment banks would continue as now to be systemically relevant and unaccountable to supervisors.[20] Ultimately, the Vickers solution is not up to meeting its mandate, which was to shield taxpayers from banking crises. Anyway, a strict separation of activities, liquidity and capital, would not justify from a regulatory perspective both types of banking being hosted within the same holding structure. The Liikanen proposal gives an even feebler answer, adopting Vickers' weak separation for a limited class of activities.

A radical alternative is then necessary, based on the end of the financial *laissez-faire*. As stated by Minsky, we should start from the recognition of the fundamental duties of the financial system, those of offering a safe and sound payment system and helping to finance

[19] In response to the *Vickers Report*, the UK Treasury has affirmed that "the large exposures regime for third parties should be applied to the ring-fenced bank in its relations to the rest of its corporate group." (HM Treasury, 2011, p. 32).
[20] As for the too big to fail problem, the *Vickers Report* accepts the prevailing approach to tax large banks with higher regulatory requirements.

sustainable economic growth. As a result, regulation should not follow the market, but mould it. The design of the financial morphology should stem from a recognition of the forces that make fragility accumulate and finally explode. Along these lines, we have presented the skeleton of an alternative regulatory scheme whose main departures from the current approach concern morphology and size. We propose that regulation should only distinguish between levered and non-levered institutions, and force specialisation between traditional commercial and investment banking inside the levered sector. No trading and market making activity would be permitted for the levered sector. No form of debt on financial institutions' balance sheets would exist outside banking. In other words, we propose to disconnect the entire banking (levered) sector from market risks, and market-based institutions from debt funding. Strict quantitative limits to banks' size would end the problem of intermediaries that are too big to fail, resolve and supervise. Control on bank asset growth by means of actions on leverage, and eventually by the retention ratio, as suggested by Minsky, would permit national supervisors to match it with the nominal non-inflationary growth of GDP, thus avoiding both excessive and deficient asset growth. These, and the other regulatory measures we suggest, follow a very clear concept: supervisors should not mix with bank managers in evaluating risks. A simple worksheet would be enough to control size, leverage, retention ratio and few other micro, non-risk sensitive variables. The non-systemic size of banks would render bankruptcy a physiological way to purge the system of excessively fragile positions. Public authorities should step in only for managing crises of failing banks that would now be simple to resolve.

Although taking inspiration from the European experience, our proposal goes beyond the problems of this region. If the EU could benefit from it, the international financial landscape would even more so. For Europe, our proposal would eliminate the now much debated problem of institutional reforms tending to centralisation and homogenisation. A lowbrow EU clerk would be enough to oversee that each national authority complies with the rules agreed upon.

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