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Competition Policy in Banking

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Abstract

This paper summarizes some of the arguments relating competition and banking instability, draws connections between regulation and competition policy, and surveys and analyzes the role of competition policy in the banking sector in a financial crisis. It is argued that a trade-off between competition and stability is bound to persist despite improvements in regulation, that the banking sector specificity should be recognized by competition policy, and that competition policy and regulation need close coordination.

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I. INTRODUCTION.

Competition policy in banking has fluctuated between attempts to suppress rivalry to liberalization and promotion of competition. The deep financial crisis which began with subprime mortgage problems in 2007 has posed a host of new questions about the relationship between competition and stability, and between competition policy and regulation in banking.[1]

It is instructive to consider the various phases of competition policy in banking. Over a long period from the crisis in the 1930s up to the liberalization of the 1970s in the US, competition was suppressed and competition policy was not enforced despite the importance of banking and the inefficiencies created by financial repression. Until relatively recently, central banks and regulators in many countries were complacent about collusion agreements among banks and preferred to deal with a concentrated sector with soft rivalry. This changed with deregulation and the view that competition enhances efficiency, be it productive, allocative, or dynamic (innovation). Competition policy was then taken seriously in the banking sector.[2] In fact, up to the crisis, competition policy in banking was essentially implemented as in any other sector of the economy.

The crisis starting in 2007 with subprime mortgages, and becoming systemic after the collapse of Lehman Brothers in September 2008, has overridden competition policy concerns, with state aid and public commitments in the EU and US of up to 30% of GDP and increasing market power resulting from mergers. The public aid programs distorted competition and created an uneven playing field in the cost of capital. Mergers have created a weak competitive environment and increased concentration within and across countries, and across business lines .

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[1] For an extended assessment of the relation between competition and banking stability and its regulatory implications see Vives (2011a), on which the present paper is partially based.

[2] In the US, banking became subject to competition law in the 1960s with the end of its antitrust exemption. In the EU, the European Commission has intervened since the 1980s against national protectionism, mergers, price agreements, abuse of dominance, and state aid. See Carletti and Vives (2009).

Each phase in the evolution of competition policy has been accompanied by a supporting line of argument. In the first phase, competition was thought to be damaging to stability; in the second the idea that competition is good for stability gained ground; it remains to be seen what will be the dominant thesis in the post-crisis phase. What is true is that in the first period very few crises occurred while there has been much more instability in the second one, culminating in the current crisis.

The crisis has put both regulation and competition policy in banking into question.[3] The naïve view that banking was like any other sector in the economy in regard to competition policy has been blown away by the massive public intervention involving considerable competitive distortion.

The underlying questions are:

- Is there a significant trade-off between competition and stability?
- If there is, can it be regulated away?
- If not, how should regulation and competition policy be combined?

Note that if there is no trade-off between competition and stability then competition policy need not be fine-tuned for the banking sector. And even if there is, if the trade-off can be regulated away then again the implementation of competition policy is easy and clean, and it can be done independently of regulation. Only if it cannot be regulated away then a banking sector specific competition policy needs to be considered and the interaction between regulation and competition policy taken into account. More specifically, consideration needs to be given to whether regulation and competition policy are complementary or substitute policy tools, and how they should be coordinated. In general, the question is what should be the role of competition policy in banking and the financial sector in the post-crisis regulatory era.

[3] A good example of the public policy questions is provided by the "Issues Paper" of the UK Independent Commission on Banking (2010).

The plan of the paper is as follows. Section 2 examines trends in the banking sector following the crisis. Section 3 examines the trade-off between competition and stability in banking from a theoretical perspective, from the point of view of both fragility and potential excessive risk taking, and it surveys the empirical evidence available. Section 4 considers whether the competition-stability trade-off can be regulated away. Section 5 examines the competition policy response to the crisis and offers some concluding remarks.

II. TRENDS IN THE BANKING SECTOR AND THE CRISIS.

The process of liberalization and deregulation in banking, started in the 1970s, has been accompanied by advances in information technology, transaction processing (automatic teller machines, telephone and electronic banking), computer capacity, management techniques and risk coverage (for example, the use of derivative instruments and securitization techniques). The liberalization of international capital movements and the general reduction in transport costs and barriers to trade, namely financial globalization, have been an integral part of the process. Liberalization involved the lifting of controls on interest rates and banking investment activities, geographical restrictions (Riegle-Neal Act, US, 1994), compulsory investment coefficients, and a convergence among the activities of different types of institutions (for example, savings and ordinary banks, commercial banking and investment banking, and, with the repeal of the Glass-Steagall Act in the 1999 Financial Services Modernization Act, between banking, insurance and brokerage services).

The stability of the period of tight regulation, from the 1940s up to the 1970s, contrasts with the sizeable increase in the number of failures and crises in the post 1970s period when the sector was liberalized and competition introduced.[4] International evidence points to liberalization as one of the factors behind banking crises, together with inadequate macro policies, adverse macro shocks, and external vulnerability. In short, liberalization, even when controlling for a wide range of factors, increases banking

[4] See Reinhart and Rogoff (2008a,b).

fragility. There is also evidence that a poor institutional environment (e.g. in terms of the rule of law and contract enforcement) and inappropriate regulation in the liberalization process exacerbate the development of crises.[5] Regulatory failure seems to have played an important role in the crises in such diverse places as the United States (the savings and loan crisis), Japan, Scandinavia and Spain.[6] Despite this, financial liberalization has generally contributed to financial development and output growth.

The result of liberalization has been an increase in competition, from outside as well as within the banking industry, with banks facing direct competition from financial markets and the development of disintermediation and financial innovation. Market integration (in Europe and elsewhere) has contributed to stronger competition in wholesale and investment banking. However, the share of assets held by banks relative to non-bank financial intermediaries is declining in developed economies (even though bank assets are not declining relative to total financial assets) because the share of non-bank intermediaries is growing relative to directly held assets. The liberalization process has also resulted in a tremendous expansion of financial intermediation, with the financial assets of intermediaries increasing sharply as a percentage of GDP.[7]

Before the 2007-8 financial crisis, banking was evolving from the traditional business of taking deposits and granting (and monitoring) loans to the provision of services to investors (investment funds/asset management, advice and insurance) and to firms (consulting, insurance, mergers and acquisitions, underwriting of equity and debt issues, securitization, risk management), and proprietary trading.[8] Margin business lost out to fee

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5 See, for example, Demirgüç-Kunt and Detragiache (1998, 2001).

6 See Dewatripont and Tirole (1994) for the U.S. case and Hoshi and Kayshap (2000) for Japan. A typical story is for increased competitive pressures on financial institutions (for example, competition from non-bank intermediaries allowed by deregulation) leading to overexpansion in risky lines of business (for example, real estate), which were not restricted because of lax supervision and regulatory forbearance combined with implicit protection of entities in trouble. See Honkapohja (2009) for Scandinavia, and Caminal, Gual, and Vives (1990) for Spain.

7 See Vives (2011a).

8 The infamous case of “originate-and-distribute” banking, where banks try to get rid of credit risk by originating mortgage loans and quickly securitizing them, leaving the monitoring of mortgages in limbo, is a good example of the evolving banking process.

and commission business and there was a switch from investment in bricks and mortar (the branches) to communication networks, information technology, and highly specialized human capital. After the crisis there has been a return to traditional banking, margin business has regained importance and the share of banks' assets in financial assets has increased from pre-crisis levels.

Consolidation is increasing together with the restructuring of the sector. The number of banks declined from 1997 to 2007 in both the US (by 22%) and Europe (EU-15 by 29%). In Europe, domestic and, more recently, cross-border, and in the US, interstate mergers have been widespread:, in 19 of 27 EU markets, the CR5 in assets was over 50%, in 2007. (See Figure 1 for the US and Figures 2 and 3 for the EU-15.)

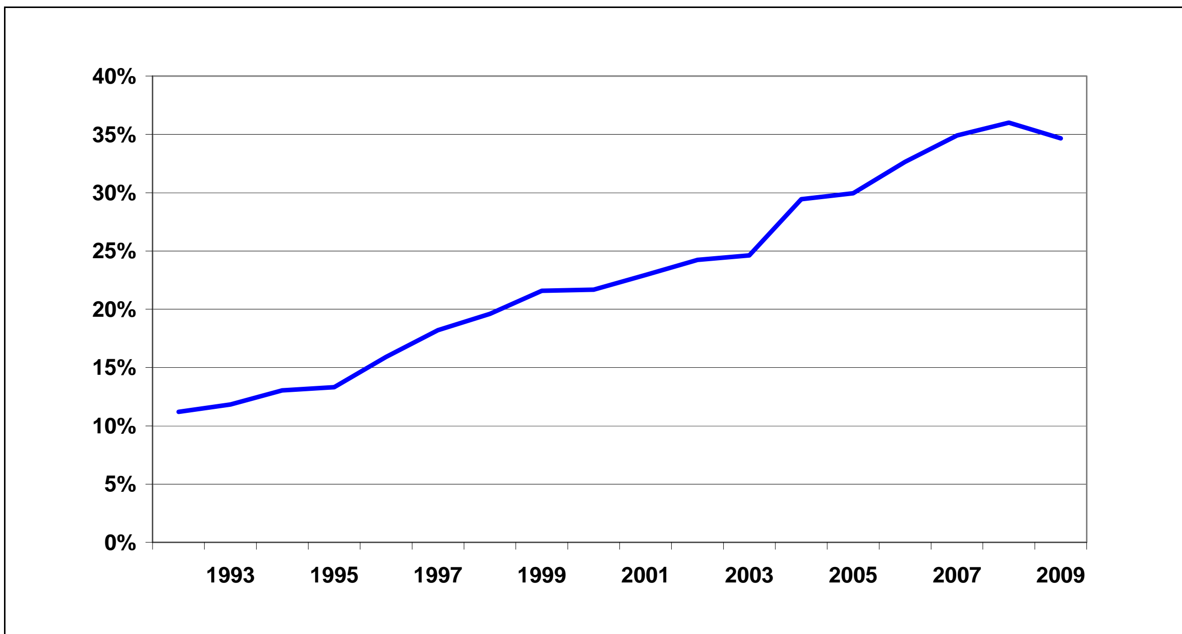

Figure 1. US CR5 ratio. Share of the five largest depositary institutions expressed as a percentage of total assets.[9] Source: FDIC and Federal Reserve.

[9] The merger of Wells Fargo and Wachovia is accounted for from 2008.

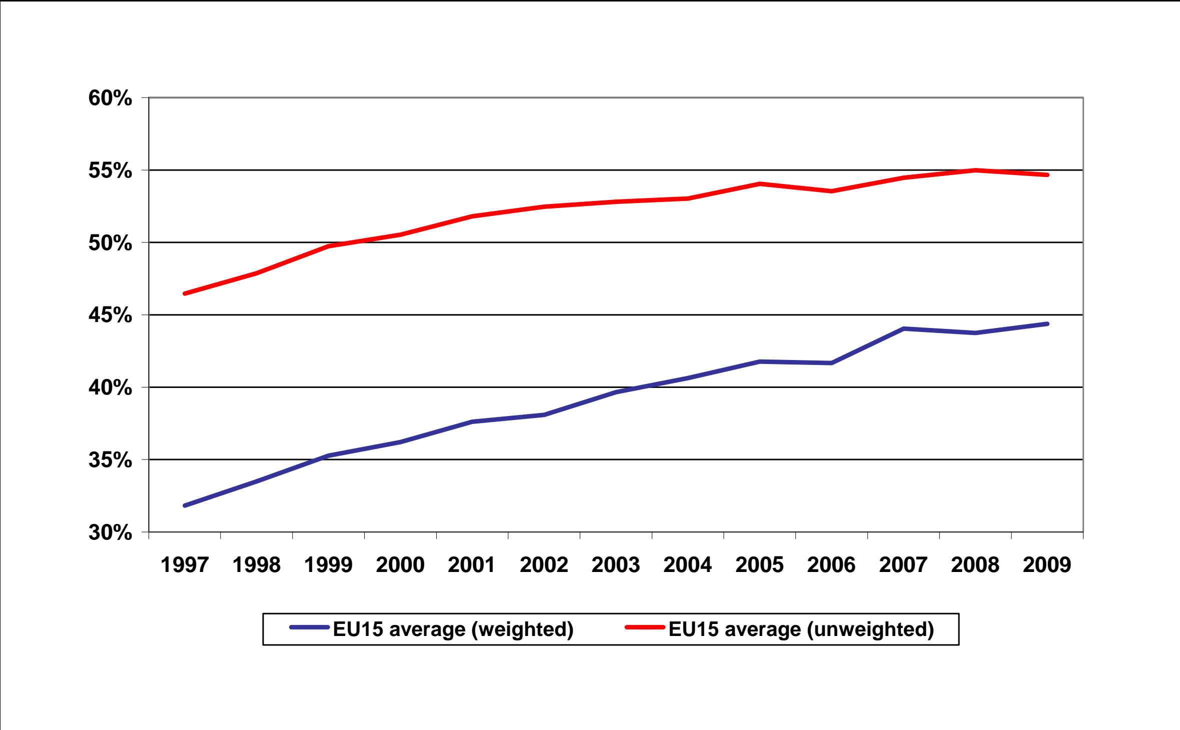

Figure 2. Share of the largest five depository institutions in EU15 as a percentage of total assets (CR5). Source: ECB (2006, 2007, 2010).

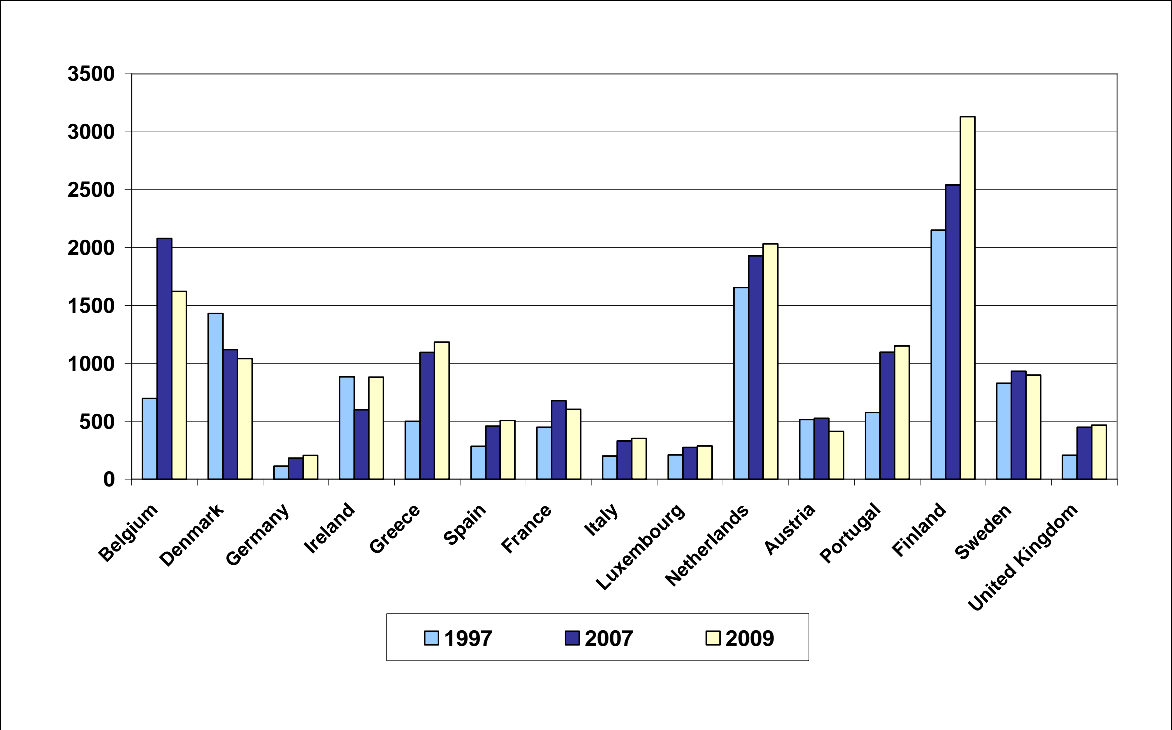

Figure 3: Herfindahl index of banks in EU15 (total assets). Source: ECB banking structures report (2004, 2010)

In the US, the CR-5 ratio for assets rose from 23% in 2001 to 36% in 2008 (with several post-crisis operations, including JP Morgan-Washington Mutual and Wells Fargo-Wachovia). This contrasted with a smaller increase in the EU-15, from 52% to 54.5% (unweighted average) and from 37.6% to 44% (weighted average) over the same period. In Figure 3 we see how the Herfindahl index for asset concentration has evolved in the EU before and after the crisis. So far, after the crisis concentration has gone up in Germany, Greece, Spain, Italy, the Netherlands, Portugal, Finland and the UK, and down in Belgium, Denmark, France, Austria and Sweden.

In summary, liberalization has been associated with an increase in competition faced by financial intermediaries and with an increase in the incidence of crises. At the same time, banking has transformed itself into a services provider and restructuring has tended to increase aggregate concentration (though the consequences of this have been different in relevant retail local markets in the US and Europe). The crisis marks a return to traditional banking and greater concentration.

III. COMPETITION AND STABILITY: THEORY AND EVIDENCE

Banks are unique because of their particular mix of features which makes them vulnerable to runs with potentially systemic consequences and important negative externalities for the economy. The fragility of an unregulated competitive banking system is typically excessive[10] and financial regulation comes at the cost of side effects and regulatory failure. The most important one is the potential moral hazard induced by bailouts extended to failing institutions. Is there a trade-off between competition and stability in banking? Both theory and empirical evidence suggest that there is along at least some dimensions.[11]

[10] This is so either in the presence of a moral hazard problem of bank managers (see Gale and Vives (2002)) or of a social cost of failure (see Matutes and Vives (2000)).

[11] See section 3 in Vives (2011a) for a more complete review of the literature.

III.1 Theory

Competition has the usual efficiency benefits in banking of reducing allocative and productive deadweight losses as well as fostering innovation. However, there are two channels through which competition may increase instability: by exacerbating the coordination problem of depositors/investors on the liability side and fostering runs/panics, and by increasing incentives to take risk on the asset side and raise probabilities of failure.

Runs may happen independently of the level of competition but more competitive pressure worsens the coordination problem of investors/depositors and increases potential instability, the probability of a crisis, the range of fundamentals for which there is coordination failure of investors (and the institution is solvent but illiquid), and the impact of bad news on fundamentals. This is so because an increase in the intensity of competition raises the strategic complementarity of the actions of the investors/depositors in the bank and makes the institution more fragile.[12] However, this does not imply that competitive pressure has to be minimized since the socially optimal probability of a crisis is not zero in general because of its disciplining effect.

With regard to funding and investment policy, once a certain threshold is reached, an increase in the level of competition will tend to increase risk taking incentives and the probability of failure of banks. Banks will have excessive incentives to take risk in the presence of limited liability (for shareholders and managers) and moral hazard (non-observable risk on the asset side). This is exacerbated by flat deposit insurance and the presence of a social cost of failure.[13] The problem is particularly acute for banks close to

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[12] See Vives (2011b); Goldstein and Pauzner (2005) also show how increasing the deposit rate increases the probability of a run of depositors. Chang and Velasco (2001) find that financial liberalization increases the expected welfare of depositors but may also increase fragility. In Matutes and Vives (1996), with a differentiated duopoly à la Hotelling, an increase in rivalry does increase the probability of failure in an interior equilibrium of the depositor's game where banks have positive market shares.

[13] Matutes and Vives (2000) consider an imperfect competition model where banks are differentiated, have limited liability, and failure involves social costs (which could include a systemic component). The authors show that deposit rates are too high when competition is intense and the social cost of

insolvency/bankruptcy. Indeed, limited liability means that banks will take excessive risk on the asset side, unless the bank's risk position can be assessed (for example, by large holders of CDs). A bank, then, cannot increase its market share and profits by taking more risk, because investors will discount it. However, introducing flat premium deposit insurance (or bailouts) destroys the market's disciplinary effect market, by eliminating investor concerns about potential bank failure.[14]

Intense competition may worsen the excessive risk taking problem because high profits provide a buffer and increase the bank's "charter value". In a dynamic setting, market power enhances the bank's charter value, making it more conservative.[15] With heterogeneous borrowers, tougher competition may lead to a riskier bank portfolio and higher probability of failure.[16] However, competition tends to push down the rates that firms pay for loans and may, therefore, improve the average quality of loan applicants and/or reduce the need to ration credit. This is a force that tends to align competition and stability.[17]

A question arises as to whether an agency conflict between owners and managers may be at the source of the excessive risk-taking problem. Without dismissing the possibility it is necessary to point out that shareholders are the beneficiaries of the risk taken by banks under the protective umbrella of TBTF policies. Shareholders will design compensation

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failure high. If the risk assumed by bank investments is not observable, then the incentives to take risk are maximized

[14] Flat premium deposit insurance tends to make banks more aggressive, by increasing the elasticity of the residual supply of deposits available to the bank (this is also the result in Matutes and Vives (1996)). Furthermore, with risk-insensitive insurance, deposit rates will be too high with intense competition, even when there is no social cost of failure and no discipline on the asset risk taken. Allen and Gale (2004) consider banks competing à la Cournot in the deposit market and choose a risk level on the asset side. With insured depositors they show that as the number of banks grows, banks have increased incentives to take risk on the asset side.

[15] See Besanko and Thakor (1993), Boot and Greenbaum (1993), and Allen and Gale (2004).

[16] See Broecker (1990) and Riordan (1993).

[17] See the arguments in Caminal and Matutes (2002), and Boyd and De Nicoló (2005). Martinez-Miera and Repullo (2010) point out that lower rates also reduce the banks' revenues from non-defaulting loans. When this is incorporated there is a U-shaped relationship between competition and the risk of bank failure.

contracts that protect managers from failure and incentivize risk taking. There is evidence that this occurred before the crisis.[18]

Consider a monopoly banking regime, then an increase in competition will probably be beneficial because it will increase customer surplus and productive efficiency with small effects on the probability of failure. However, increasing competitive pressure we will reach a point where the benefits at the margin equate to the social cost of failure, and further increases will be socially harmful.[19] In conclusion, despite the complexity of the relationship between competition and risk taking, it seems plausible to expect that, once a certain threshold is reached, an increase in the level of competition will tend to increase risk taking incentives and the probability of bank failure. This tendency may be held in check by appropriate regulation and supervision.

III.2 Evidence

The evidence points to the presence of a charter value effect reducing risk taking,[20] liberalization increasing the occurrence of banking crises and a strong institutional environment and adequate regulation mitigating these effects.[21]

The relationship between concentration and stability is complex. On the one hand, a concentrated banking system with a few large banks may be easier to monitor and banks may be more diversified. On the other hand, large banks may be too-big-to-fail (TBTF), receive larger subsidies, and have incentives to take more risk. Indeed, there is evidence that larger banks tend to be better diversified, but may also assume more risks.[22]

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[18] See Fahlenbrach and Stulz (2011), Cheng et al. (2010), Bebchuk and Spamann (2010), and Bebchuk, Cohen and Spamann (2010). The statement of Chuck Prince, CEO of Citigroup (*Financial Times,* July 2007) is also consistent with this evidence: “When the music stops, in terms of liquidity, things will be complicated. But as long as the music is playing, you've got to get up and dance. We're still dancing.”

[19] This is the result in Matutes and Vives (2000), for example.

[20] Keeley (1990), Edwards and Mishkin (1995), Demsetz et al. (1996), Galloway et al. (1997), Saurina et al. (2007), and Salas and Saurina (2003).

[21] Demirgüç-Kunt and Detragiache (1998, 2001), and Dell’Ariccia et al. (2008).

[22] For example, Acharya et al. (2010) find that diversification to different sectors increases risk by impairing screening and monitoring of loans in a sample of 105 Italian banks over the period 1993–1999.

Furthermore, large banks tend to be more complex, harder to monitor, and more interdependent (increasing systemic risk). The evidence also points to a complex relationship between concentration and stability with a positive association between some measures of bank competition (e.g. low entry barriers, openness to foreign entry) and stability. [23] We have to be aware, however, that aggregate concentration need not be a good proxy for competition. The pertinent connection is between concentration in relevant markets and competition. Indeed, there is broad evidence that higher concentration in relevant deposit and loan markets leads to market power (worse terms for customers)[24] and to cost inefficiency of much larger magnitude than the deadweight loss induced by mispricing.[25]

Can we draw any lessons from the 2007-8 financial crisis? This crisis seems to have affected banks in countries characterized by different concentration levels and market structures. It has been pointed out that concentrated banking systems like those in Australia and Canada have fared better in the crisis than unconcentrated ones, such as those in the US or Germany. However, countries with concentrated systems, such as Belgium, the Netherlands or the UK (in retail banking), also ran into trouble. Moreover, in Canada (and to a lesser extent Australia), banks funds come mostly from retail deposits and not the wholesale market and are subject to strict regulations. Departures from traditional banking have proved to be a source of increased risk and vulnerability. For example, among the 72 largest commercial banks in OECD countries, those which relied less on wholesale funding, and had higher capital cushions and liquidity ratios, fared better during the crisis (in the sense of having smaller equity value declines and being

[23] Beck et al. (2006) claim that systemic crises are less likely in concentrated banking systems (measured by the three-firm concentration ratio on total assets, controlling for macro, financial, regulatory, institutional, and cultural characteristics) and that fewer regulatory restrictions (on entry, activities, facility for competition) are associated with less systemic fragility. See the broad review of the evidence in Vives (2011a) for contrasting views and results.

[24] See the reviews in Degryse and Ongena (2008) and in Scherer (2010)). Concentration will affect margins in the presence of barriers to entry. We should take into account also that concentration is, in fact, endogenous and more competition may increase concentration in a free entry world (as there is less room for entrants, see Vives (2000).).

[25] See Berger and Hannan (1998).

subject to less government intervention).[26] Furthermore, it is not evident that certain types of institutions have been more vulnerable than others. Both specialized investment banks (in fact, all the US ones), insurance companies like AIG, and universal banks (UBS, Citigroup, or German and UK banks) have suffered.

IV. COMPETITION AND THE LIMITS OF REGULATION.

Banking and financial markets display a whole array of classical market failures: externalities (fragility with coordination problems and contagion), asymmetric information (excessive risk taking with agency problems, moral hazard and adverse selection), and market power. This has led regulation to protect the system and the small investor, and, more recently competition policy to foster market competitiveness. A problem is that facilities to preserve stability like the lender of last resort, deposit insurance and "too big to fail" policies introduce further distortions and exacerbate the excessive risk taking problem.

The introduction of competition in banking has been accompanied by policies to control risk taking through capital requirements, encouraging banks to rely on their own internal models to assess and control risk, and including disclosure requirements for financial institutions in order to increase transparency and foster market discipline – the capital requirements, supervision, and market discipline pillars of the Basel II framework. The rationale for this framework was to make capital requirements for risk sensitive. Supervisors would assess how well banks are matching capital to their risks and banks would disclose information on their capital structure, accounting practices, risk exposures and capital adequacy. In summary, capital requirements plus appropriate supervision and market discipline were seen as the main ingredients for maintaining a sound banking system.

[26] See Ratnosvski and Huang (2009). See also Baele et al. (2007), De Jonghe (2010), Demirgüç-Kunt and Huizinga (2010).

The present crisis is a testimony to the failure of the three pillars of the Basel II system. Disclosure and risk assessment have been deficient (think for example about the failure of rating agencies), and market discipline has been ineffective because of the blanket insurance offered by too big to fail (TBTF) policies. To this may be added a collective moral hazard problem of "too many to fail" since when the risks of many institutions are correlated, as in the 2007-8 crisis with high direct and indirect exposure to real state, then the central bank and/or the regulator are compelled to bail out failing banks ex post. The incentives to herd are particularly strong for small banks.[27] Capital regulation has not taken into account systemic effects (the social cost of failure), and capital requirements have been softened and assets restrictions lifted in response to pressure from investment bank lobbies. Supervision has proved ineffective since it has allowed a shadow banking system to grow unchecked. The crisis has uncovered massive regulatory failure.

In the present regulatory framework banks have been insured without paying the appropriate risk premiums thereby encouraging risk taking. Optimal regulation needs a combination of risk-based insurance for deposits (which implies that insurance premiums are contingent on the rates offered by banks and their asset risk position, eliminating or offsetting limited liability) and systemic capital charges that internalize the social cost of failure of banks. To this should be added macro-prudential measures that limit maturity transformation, avoid risk concentration in a sector, and control credit in booms to alleviate the collective moral hazard problem. If banks' asset risk position is not observable, then insurance cannot be contingent on it and banks will be encouraged to take excessive risk on the asset side. This should be controlled by restrictions on the asset side of the balance sheet (for example, separating banking and proprietary trading/investment banking activities).

[27] Farhi and Tirole (2011) show how private leverage choices of financial intermediaries are correlated as a consequence of monetary policy. This makes it optimal for banks to adopt a risky balance sheet with too much maturity mismatch and correlated risk. Acharya and Yorulmazer (2007) show how the regulator has incentives to bail out ex post failed banks when many institutions have problems. This provides incentives for banks, particularly small ones, to herd in their investment policies and increase the risk of collective failure.

In an ideal world we could regulate away the trade-off between competition and stability by fine tuning regulation to internalize the externalities through sophisticated risk-based insurance mechanisms, credible liquidation and resolution procedures, contingent convertibles, and capital requirements.[28] In this context competition policy should be given the simple mandate to maximize competitive pressure. This is so because if we manage to eliminate market failure arising out of asymmetric information and externalities we will be better off with more competition. The problem is that we live in a second (or third) best world and it is doubtful that we will manage to eliminate completely market failures derived from asymmetric information and externalities with regulation. Given the massive regulatory failure that the crisis has uncovered it is a good idea to concentrate on regulatory reform to provide the correct incentives for banks but, if the past is any guide to the future, at the same time we should be aware of the limitations of regulatory schemes. This indicates that regulation can alleviate the competition-stability trade-off but not eliminate it. In that case, a certain degree of market power may alleviate the externality problem of a social cost of failure. It follows that the design of optimal regulation has to take into account the intensity of competition. For example, capital charges should account for the degree of friction and rivalry in the environment of the banks, with tighter requirements in more competitive situations.[29] The coordination of prudential regulation and competition policy in banking is necessary.

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[28] With the help, for example, of tax-subsidy schemes à la Pigou which correct for the contribution to systemic risk of a financial institution (see Acharya et al. (2010)). The Independent Commission on Banking has launched the idea of ring-fencing retail activities from investment banking activities in separately capitalized divisions of a bank holding company (ICB (2011)). This is a compromise to alleviate the gambling problem with public insurance while allowing some scope economies within banking activities. This structural measure has the potential to alleviate the competition and stability trade-off but the devil is in the details and, even in the most optimistic scenario, will not eliminate it. One reason is that the definition of the boundary between the divisions will leave an important grey area and generate perverse incentives. Another reason is that the regulatory boundary problem persists: risky activities migrate to areas where regulation is lax and reproduce the problems that we have witnessed during the crisis in the shadow banking system. The outcome may be that the investment bank part may need to be rescued if it becomes systemic.

[29] According to Matutes and Vives (2000), the capital requirement level should be an increasing function of both the social cost of failure and the intensity of competition in the market. This is because typically the level of friction in the market is not only a behavioral parameter but one that enters the utility function of customers (since they value differentiation, a source of friction and market power, and an increase in differentiation means that banking customers will value the services offered by the bank more and therefore a more lenient capital requirement becomes appropriate). According to Vives (2011b) an increase in the intensity of competition increases the strategic complementarity of the

The trade-off between competition and stability is bound to persist and it does not seem prudent to strive for the complete elimination of market power in banking. However, in the present situation there is room to improve both stability and competition with better regulation. The analysis suggests an optimal intermediate degree of concentration.. In fact, in a world where behavioral regulation is imperfect, regulation of structure and entry may help in providing environments conducive to a better performance of the industry. Note that a fragmented banking structure, avoiding the TBTF problem, need not be safer since it may be subject to the "too many to fail" collective moral hazard problem.

In any case, what is clear is that competition should be limited for institutions close to insolvency. This should be done in a prompt corrective action frame where the supervisor has to intervene as capital is depleted. [30] The uniqueness of banks should be recognized (and not only in crises) and appropriate lessons drawn for the implementation of competition policy.

V. COMPETITION POLICY IN A CRISIS.

Competition policy in banking has been geared towards avoiding anticompetitive effects in individual crisis or failures. The subprime crisis has raised the question of what should be done in a systemic crisis where there is strong pressure to stabilize the system. In the aftermath of the current crisis we have witnessed an array of asset purchases and guarantee schemes (including extensions of deposit insurance, and guarantees in the interbank market and in mutual funds), capital injections, nationalization and forced mergers. All this represents a tremendous distortion in terms of moral hazard, long term effects in market structure, protection of inefficient incumbents, and creation of an uneven playing field (among different institutions and different countries). For example, assisted institutions which have proved to be TBTF end up with a lower cost of capital

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actions of the investors/depositors in the bank making the institution more fragile. It follows that in a more competitive environment the solvency requirement has to be strengthened.

[30] This is the idea of the US Federal Deposit Insurance Corporation Improvement Act (FDICIA) of 1991 to reduce the discretion of the regulator with intervention rules that are gradual.

than others (not only in the short term but also in the long-term because of the implicit guarantee they obtain). Ex-ante this fosters incentives to take excessive risk. All this is compounded by subsidy races to help national champions (apparent in the EU with a threat to the single market).[31] The aid may foster regulatory forbearance to cover losses. There is indeed evidence that regulatory forbearance is prevalent when the banking sector is weak.[32]

State intervention, even with partial ownership, has been necessary to stabilize the system. In some situations capital injections have not been accompanied by the corresponding ownership stakes, contrary to good governance principles. However, state ownership is distortionary: government is on both sides of the regulatory relationship; political objectives/and incentives rule[33]; if not disciplined by competition it induces less competitiveness of the banking system, inefficiency, and less financial stability with higher risk exposure and more bank losses; it eliminates the market for corporate control; creates an uneven playing field (with implicit and explicit guarantees); and ends up inducing less competition and lower financial development.[34]

Policy intervention in a crisis has to combine the support measures to avoid contagion and protect financial stability, and the desire to maintain vigorous long-term competition. Unavoidably some trade-off between the two objectives, particularly in the short-term, will exist. When a systemic crisis strikes there is little time to react and support measures have to be implemented very quickly. Central banks, regulators and fiscal authorities provide the support measures and the competition authority has to watch for distortions

[31] Another dimension of state intervention is the tendency of some countries to promote a financial centre. While, when promoting national champions government support will tend to be distortionary, in this instance the evaluation is more complex since competition among financial centers may deliver benefits for investors.

[32] S&Ls, Japan's banking crisis and in emerging countries, according to the evidence on 21 emerging countries of Brown and Dinç (2011), the government is less likely to close or take over failing bank when the banking system is weak.

[33] The evidence presented by Hau and Thum (2009) on board incompetence in German public banks links larger losses borne in the crisis to the lack of professionalism in boards.

[34] See Barth, Caprio, and Levine (2004), Caprio and Martinez Peria (2002), De Nicolò and Loukoianova (2007).

on competition (including the formation of market structures not conducive to competition).

There is a difference between state aid provided in the banking and other sectors. Help to a bank typically provides a positive externality to other banks since it limits the spread of the crisis and protects the system by avoiding contagion, be it informational or because of interbank exposures. This does not distort competition if it is liquidity help that allows a sound bank to avoid contamination and ride the crisis. If the bank is in distress but has a solvency problem then this indicates that it should be restructured and help needs to come with strings attached so that competition is not distorted with "bad" banks displacing "good" ones in the business of customers. The counterfactual for whether help is distortionary has to take into account what would have happened if there had not been a coordination failure of investors from the point of view of the distressed institution, that is, extracting the panic component in market behavior. This is not an easy task, particularly when compounded by regulatory failures which induce excessive risk taking.[35]

Both structural (e.g. asset divestitures) and behavioral restrictions can be used to limit competition distortions. Structural commitments may also help reduce the post-crisis over-capacity of the banking sector accumulated during the asset boom in some countries. The period of expansion with low interest rates has led to overexpansion of banking via credit particularly in those countries where there has been a real state bubble (e.g. US, Ireland, UK, Spain). This means that branches and personnel are to be cut together with the balance sheet of institutions even if credit is normalized (because it will stabilize below the pre-crisis bubble levels). In any case, care must be taken that the commitments, either structural or behavioral, leave the restructured bank as a viable competitor.[36] An important point to check moral hazard may be the removal of the

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[35] See Vives (2011b) for a model where illiquidity risk is disentangled from insolvency risk.

[36] Beck et al. (2010) go as far as recommending against divestitures of distressed institutions in a crisis situation and limiting their growth to organic growth. This is an appropriate recommendation for an institution that has a liquidity problem. However, if the problem is solvency (and in this crisis this may go together with overcapacity) then restructuring is unavoidable.

management of the helped institution that has behaved imprudently. In this case the behavioral restrictions on the helped bank could be relaxed.

The approaches to limiting distortions from public assistance have been different in the US and in the EU. Merger policy, during and after the crisis, deserves separate consideration.. Let us deal with these issues in turn.

V.1. Competition policy and regulation in the EU and in the US

In the EU the competition authority has played an active role in controlling the distortions created by public assistance because it has the unique capability, among competition authorities, to control state aid. In the EU state aid control in banking had two reference cases before the crisis: Credit Lyonnais in France (with costs up to 2.5% of GDP), and the state guarantees in Germany for the Landesbanken and saving banks (to comply with capital requirements). Since the crisis the EU has dealt with many banking aid cases (taking 22 decisions in 2008 alone and 81 decisions as of December 17, 2009). Most of the cases (75) were approved without objection.[37] The EU has stated conditions for state guarantees/recapitalization, namely non-discriminatory access to state help so that a level playing field among institutions and banking sectors is maintained; help should be limited in time and scope (only necessary liabilities) with contributions from the private sector; and with appropriate market-oriented remuneration for support or recapitalization. Furthermore, beneficiaries should be subject to some behavioral rules, incentives should be given for state capital to cease eventually, and a distinction should be made between fundamentally sound (but potentially distressed because of contagion) and other distressed banks (with recapitalizations only for fundamentally sound institutions).[38] The

[37] With 66 more cases cleared under a temporary framework to support lending to firms (DG Competition (December 17, 2009), State id: overview of national measures adopted as a response to the financial /economic crisis). See Beck et al. (2010) for a thorough analysis and policy evaluation of bank bailouts in Europe during the crisis.

[38] EU Communications October-December 2008. Those conditions have been formalized in temporary guidelines on restructuring aid to banks (EU Communication of July 2009, according to A. 87.3b of the Treaty of the EU in relation to State Aid in case of serious disturbance of the economy). The principles are: the long-term viability of the assisted bank (with a stress test); not to allow a sale if consolidation is anti-competitive unless the induced distortions are addressed; relaxing burden sharing by aided bank (but maintain responsibility and remuneration for State Aid); limiting competition distortions preserving the single market (e.g. if the institution has a lending target it should applying in a non-

conditions are sensible since they try to minimize the distortions introduced by public help, in particular for non-fundamentally sound institutions.[39]

The regulatory tools used are structural (with balance sheet reductions and divestitures) and behavioral (with restrictions on pricing, publicity or compensation for employees). For example, the recapitalized Dutch bank ING was forced to shrink its balance by almost half by selling its insurance business and ING Direct US. Northern Rock was forced to split into a "good" bank, with an opening balance sheet of around 20% of the pre-crisis level, which will continue mortgage lending and deposit taking, and a "bad" bank which will hold the majority of the legacy mortgage loans of Northern Rock. Both ING and Northern Rock were not allowed to exercise price leadership (best deals) or to advertise public assistance. RBS was ordered to sell some retail operations, insurance, and commodity-trading business. Interestingly, for retail (and corporate banking for small and medium-sized enterprises-SME) the Commission mentions concentration concerns with RBS being the leader, while for insurance and commodity-trading business it mentions also the benefits of the divestments in terms of limiting moral hazard. Commerzbank was required to sell the real-state lender Eurohypo, and WestLandesbank was required to sell the proprietary trading desk and restrict the banks' activity to core banking. Quite a few of the restructurings have implied large balance sheet reductions.

Some of the measures can be understood as attempts to minimize competitive distortions of the aid, and others in terms of checking moral hazard in the future. In principle, the mission of the competition authority is to preserve competition, not to limit moral hazard, which is the role of the regulator. The important point is that even the measures purely aimed at competitive distortions will have an impact on ex ante incentives since a bank

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discriminatory way to Member States); and imposing behavioral constraints on aided banks (not allowing offers of business terms which cannot be matched by competitors which do nore receive assistance, not allowing acquisitions within in three years, and pricing and marketing limitations, e.g. State help can not be used in publicity).

[39] There is a potential exception to the behavioral requirement which implies a commitment to expand lending. This is contradictory to the restrictive behavior that should be imposed on assisted institutions (which are non-fundamentally sound) and it may induce bad practices since the business of a private bank is lending and what is required are policies that address the underlying causes of the failure of the bank to lend.

will know that help in case of trouble will come with restrictions. This has a connection with the TBTF issue since the concept of competitive distortion may encompass competition based on the advantage of being under the TBTF umbrella. The bottom line is that the restrictions on lines of activity outside the regulated core banking business may make sense although they go somewhat beyond the standard competition concerns and analyses. The RBS case points to the need for coordination between the competition authority and the regulator.

The important side benefit of state aid control in the EU is that it limits the incentives of bankers to take excessive risk in the expectation of a bailout if things go wrong. That is, it addresses the TBTF issue. The competition authority may internalize the fact that when an institution fails it gets help competition will be distorted. Limiting the size (or better the systemically-corrected size) of an institution with break up once they receive public assistance (something that the EU seems to be implementing) extends the scope of competition policy.

The activism of the EU Commission poses the question of competitive balance with US banks which were recapitalized without divestitures. This may be particularly significant in the segments of the banking business in which there is global competition. The Obama administration, under the advice of Paul Volcker, advocated limits on size and scope (mostly on proprietary trading) of banks to avoid the TBTF problem as well as controlling risk taking.[40] What the European Commission tried to accomplish with state aid control, the US may try to accomplish by regulation. The US is following another route where TBTF is explicitly not an antitrust problem (see White (2009)). The Dodd-Frank Act (passed in July 2010) introduced a mild version of the limits on proprietary trading and strengthened some limits on size (extending the Riegle-Neal Act (1994) which prohibits any merger or acquisition that results in the combined banking organization controlling more than 10% of domestic deposits at the national level to all

[40] See http://www.whitehouse.gov/the-press-office/president-obama-calls-new-restrictions-size-and-scope-financial-institutions-rein-e.

types of depositary institutions, and introducing a concentration limit on any consolidation of financial companies of 10% of financial industry liabilities).[41]

Size and scope restrictions are blunt instruments to deal with the TBTF issue. Controls on size are problematic because interconnectedness and line of business specialization are more important than size for systemic risk. With regard to the scope of the banking firm, conflict of interest is what leads to potential market failure and is the justification for possible scope limitations. Higher capital and insurance charges for systemically important institutions together with effective resolution procedures may be a better way of dealing with the problem. This should be coupled with a serious consideration of conflicts of interest in financial conglomerates. Given the limitations of behavioral regulation, structural restrictions appear warranted. The upshot is that the competition authority, in its role of protecting competition, may have a say on the TBTF issue and therefore its actions should be coordinated with the regulator. The potential for competition policy to provide a commitment device to partially address TBTF issues should not be dismissed.

The Obama administration move is reminiscent of the XIXth century antitrust tradition of looking with suspicion at large firms because of the excessive power concentration they can exercise. Later on antitrust evolved with market power in a particular market not size being an offense. The influence that investment banks have had on the deregulation of financial intermediaries and the ensuing enormous increase in leverage leading to the crisis is backfiring. We are in the territory of political economy and the question is how to better control excessive concentrations of power in a democratic society.

V.2. Merger policy

The crisis has forced mergers of institutions backed by government subsidies or guarantees. In the US, Bear Sterns merged in March 2008 with JP Morgan backed by the

[41] A banking organization could exceed the deposit cap with internal growth, but it would not be allowed to engage in any more mergers or acquisitions. Note, however, that a national cap on market share for deposits should not be relevant from an antitrust perspective since the relevant markets for retail and SME are local.

Federal Reserve, JP Morgan later in the year acquired banking assets of Washington Mutual from the FDIC, and Merrill Lynch merged with Bank of America (exceeding, together with Wells Fargo acquiring Wachovia in 2008, the 10% national market share deposit threshold). In the UK, the merger of HBOs and Lloyds TBS was approved against the OFT's advice (with partial nationalization) despite a 30% market share of the merged entity in current accounts/mortgages and competition problems in SME banking services in Scotland. It is worth noting that Lloyds was not allowed to take over Abbey in 2001. Lloyds also negotiated with Brussels some divestments because it received state aid in the merger process. The Commission also imposed restrictions on Commerzbank before allowing it to complete its merger with Dresdner Bank (planned before the crisis struck). It seems as if governments were using a broad interpretation of the "failing firm defence" doctrine, i.e. that the merger with a failed entity cannot create competition problems because the assets of the firm would exit the market in case of failure, to allow anticompetitive mergers to stabilize the financial system. In Spain, a fund (Fund for Orderly Banking Restructuring (FROB)) has been created to recapitalize financial institutions in trouble and help them reduce excess capacity with mergers.[42] The result so far is that the number of savings banks has gone down from 45 to 17 groups (of which eight have received FROB help). The average asset size of savings banks has more than doubled, and drastic reductions in the number of branches and employees are foreseen.

The upshot is that some surviving incumbents have increased market power and have a lower cost of capital because they are TBTF (and/or because of the public help). Here it must be recalled that merger policy affects the degree of competition and dynamic incentives. The takeover of a failed bank may reward an incumbent with temporary monopoly rents, induces monopoly inefficiency but prudent behavior. This is optimal only if subsequent entry is facilitated.[43] The danger now is that incumbents increase their market power and are protected from entry. A merger policy must have a long horizon,

[42] Furthermore, in July 2010 the legal status of savings banks changed to help them raise capital and improve efficiency. Now it is possible for them to operate with a commercial bank (controlled by the savings bank/s) or even become a foundation (as in Italy) that only has a participation in the bank.

[43] Perotti and Suarez (2002).

and even in a crisis situation, must consider the optimal degree of concentration in the industry, dynamic incentives for prudence of incumbents and the ease of entry. The consolidation brought about by the crisis should not be problematic if the increased market power of the merged institutions is a temporary reward for past prudential behaviour which will fade away with new entry. But if the market power is consolidated by barriers to entry into banking then consumers and investors will suffer the consequences. An active competition policy will then be needed.

In the EU there is a further potential contradiction between merger control and financial stability. The EC can request all relevant information from the national supervisory authorities in mergers in the banking sector of community dimension, but according to the European Merger Regulation (Article 21(3)) member states may block a merger to protect financial stability (considered a ”legitimate interest”) in the domestic market. Some member states have allowed large discretion to national supervisors in merger processes and have used the merger regulation to fend off foreign entry.[44] This puts into question whether individual member states should be allowed to implement this exception which permits countries to protect their national champions.

VI. CONCLUDING REMARKS.

Banking is no longer an exception in the enforcement of competition policy. This is how it should be to ensure competitive financial inputs into the economy. Competition is not responsible for fragility in banking, but competition policy should recognize explicitly the uniqueness of banks, and not just in a crisis. The specific features of the banking sector should be recognized in competition policy but the exceptions should be limited. This protects competition policy in banking while avoiding the extension of unconditional bailouts to other sectors.

[44] This has been the case, for example, in Portugal (case Banco Santander/Champalimaud group in 1999), and Italy (cases BNL/BBVA in 2005; ABN AMRO/Antonveneta in 2005; Unicredito/HVB in 2006). This contrasts with the attitude of the UK in the merger Santander/Abbey or of the Netherlands with the three-way acquisition and split of ABN AMRO.

The analysis and the evidence point to the existence of a trade-off between competition and stability along some dimensions. Regulation (including both micro and macro-prudential measures) can alleviate but, most likely not eliminate, the trade-off and regulatory design has to take into account the intensity of competition. For example, capital charges should account for the degree of friction and rivalry in the environment of the banks, with tighter requirements in more competitive situations. Given that fine-tuning of regulation has proved very difficult in practice, the trade-off between competition and stability is bound to persist and the coordination of regulation and competition policy in banking is necessary. In the present situation, due to the poor regulatory infrastructure uncovered by the crisis, there is room to improve both stability and competition with a better regulatory design.

Merger policy in banking should be intertemporally consistent promoting an optimal degree of concentration and dynamic incentives (rewarding prudence at the same time that entry is eased). Open issues are whether an extra allowance for market power or concentration should be allowed in banking and how to deal with TBTF institutions. With respect to the latter, in the US TBTF is not an antitrust issue while in the EU the competition authority controls distortions of competition which arise out of state aid. The credibility of the competition authority to impose conditions once an institution has been helped may provide a commitment device which has been lacking in bank bailouts. Controls on size are problematic because interconnectedness and line of business specialization are more important than size for systemic risk. With regard to the scope of the banking firm, conflict of interest is conducive to potential market failure and is the justification foir possible limitations on scope. Ring-fencing retail banking with specific capital requirements within a bank holding company may be a compromise to alleviate the TBTF problem while allowing some scope economies within banking activities.

All this calls for close collaboration of the regulator (in charge of stability and prudential control) and the competition authority (in charge of the health of competition). First of all, regulatory requirements and competition policy intensity have to be coordinated. Capital charges should reflect the intensity of competition in the different market

segments. Second, a protocol of collaboration of the regulator and the competition authority should also be put forward. This will be particularly important in crisis situations. The competition authority has the potential to provide commitments to address TBTF problems that derive from competition distortions; the regulator should address the TBTF issue and moral hazard problems with systemic capital charges, effective resolution procedures, and scope restrictions which target conflicts of interest. Finally, crisis procedures should be established to separate liquidity assistance from recapitalization and to create the conditions for restructuring while avoiding competitive distortions. Entities which are close to insolvency should be tightly regulated (and their activities restricted) in a prompt corrective action framework.

The role of competition policy in a crisis situation is to keep markets open, check the distortions introduced by rescue packages, weed out inefficient institutions, and remove artificial barriers to entry. In the banking sector particular attention should be devoted to fostering entry in a post-crisis scenario. Competition policy in the financial sector may also have to play an increased advocacy role in the wake of a potential long phase of tighter regulation and public control. This may be important for ensuring that the financial sector contributes to financial deepening, innovation and growth. An open issue relating to the political economy of antitrust is whether to let firms, banks in particular, become so large as to have a decisive influence on regulation.

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