Discussion Papers of the Max Planck Institute for Research on Collective Goods Bonn 2018/7

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for Research on Collective Goods

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July 2018

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Abstract

Reforms of financial regulation after the crisis of 2007-2009 raise the question of what is the relation between financial regulators and competition authorities. Should competition authorities play a role in financial regulation? Should they co-operate with financial regulators? Or should they keep at a distance? The paper gives an overview over some of the issues that are involved in the discussion. Drawing on the experience of the network industries, the first part of the paper discusses the relation between competition authorities and sector-specific regulators more generally. Whereas competition policy involves the application of legal norms involving prohibitions that are formulated in abstract terms, sector-specific regulation involves authorities actually prescribing desired modes of behavior. The ongoing nature of relations makes regulators more prone to capture than competition authorities. In the financial sector, the potential for capture is particularly great because everyone is tempted by the idea that banks should fund their pet projects. Following an overview over the evolution of regulation and competition in the financial industry, the paper discusses various issues that are relevant for competition policy: Technological and regulatory barriers to entry, distortions of competition by explicit or implicit government guarantees, distortions of competition by bailouts making for artificial barriers to exit. Guarantees and bailouts in particular pose special challenges for merger control and for state aid control.

Key Words: Financial Regulation, Competition Policy, Government Guarantees, Bank Bailouts, State Aid Control

JEL Classification: G28, K21, K23, L40, L50

* An earlier version of this paper was written as a contribution to a panel discussion at the 64th meeting of OECD Working Party No. 2 on Competition and Regulation, Paris, December 4, 2017. It is a pleasure to acknowledge comments from Christoph Engel, Alberto Heimler, Alexander Morell, Chris Pike, and Daniel Zimmer, for which I am very grateful.

1. Introduction

The decade since 2008 has been a period of intense discussion about the regulation and supervision of financial institutions. The financial crisis of 2007-2009 had led many to conclude that previous rules had been too weak. The rules that had been in place before the crisis were therefore tightened. In addition many new rules were put in place, sometimes through regulatory fiat, sometimes through changes in legal norms.

As in other industries that are subject to sector-specific regulation, the question arises what such regulation implies for competition policy. Is competition policy displaced by sector-specific regulation of banking and finance, or is it still relevant? Are competition policy and sector-specific regulation complementary, or are they in conflict? Should competition authorities and sector-specific regulatory and supervisory authorities coordinate their activities, or should each authority act independently, doing its own thing without regard to the other?

Whereas the financial industry has been subject to sector-specific regulation at least since the Great Depression, in the past most of these questions were moot. Before the 1980s, in fact, much of this regulation was designed to impede competition, in particular price competition, and to enable banks and other depository institutions to earn sizeable profits. In many countries, the banking sector was also exempt from competition law, in particular antitrust law to the extent that there was an antitrust law at all.[1]

Between the mid-1970s and the late 1990s, much of this traditional regulation was dismantled. Some of it had become dysfunctional because innovations in the financial industry and the revolution in information and communication technologies had changed the nature of competition the industry. Rules that had been introduced to protect banks from competition had ended up preventing banks and other depository institutions from holding their own in competition with others. Deregulation was also promoted by national policy makers dreaming of having "their" champions become leaders in global finance. As a stance of financial-sector regulation, protection from competition was replaced by a facilitation of competition, subject to rules limiting banks' borrowing for taking risks. The tightening of regulation since 2008 has not changed this stance of financial-sector regulation.

In the context of the European Union, the question of what is the relation between competition policy and sector-specific regulation of the financial industry is particularly interesting because the creation of the Internal Market in the 1990s has brought the financial industry squarely into the domain of European law. Moreover, there is no *lex specialis* preemption of

1 In 1989, I chose the topic "Industrial policy and competition policy" for a session at the 1989 Annual Congress of the European Economic Association instead of just "Competition policy" because at that time most European countries did not have antitrust laws and competition policies of their own; see the Papers and Proceedings in the May issue of the *European Economic Review* 34 (1990). In most Member States of the European Communities/European Union, national antitrust and merger control legislation and the creation of national competition authorities were triggered by the EC/EU Merger Control Regulation of 1989.

competition law by sector-specific regulation for the financial sector.[2] In fact, the European Commission in its role as a competition authority has had a major impact on financial-sector developments in Europe.

In the European Union, unlike most other jurisdictions, a key area of competition policy concerns the control of state aid. In the financial sector, issues of state aid arise when governments provide guarantees for liabilities of financial institutions. Issues of state aid also arise when governments provide funding to failing institutions and bail out the institutions' creditors.

In the context of the financial crisis and its aftermath, the European Commission's state aid control has therefore been very active. A recent case involved the Italian banks Banco Popolare di Vicenza and Veneto Banca, where the Commission's handling of the Italian government's proposal for a government-funded recapitalization effectively led to the closure of the banks.[3] Another recent case involved the bank HSH Nordbank, owned by the German Länder of Hamburg and Schleswig-Holstein, where a condition for the Commission's approval of an additional guarantee by the Länder owning the bank was that the bank should be privatized by February 2018 or wound down.[4] In both cases, the proposed government support had been justified as a pre-emption against threats to financial stability, so the Commission's assessments involved financial-stability, as well as competition concerns.

The problem of how sector-specific regulation and competition policy relate to each other is not unique to the financial sector. This problem is also endemic to network industries, such as telecommunications, the postal system, the electricity and gas sectors, and railways. Like the financial sector, these industries also had an anti-competitive tradition in the past, with statutory monopolies of vertically integrated firms, mostly in the hands of governments. Liberalization in the 1980s and 1990s dismantled the privileges of incumbent monopolists. Sector-specific regulation was given the task of forcing the owners of network infrastructures to provide access to potential competitors in downstream markets. Since even the objectives of this regulation were – and continue to be – very similar to those of competition policy, the question of how the sector-specific regulation relates to competition policy cannot be avoided.

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2 For overviews of issues that pertain to both domains and of the relevant legal norms and institutional arrangements, see, E. Carletti and X. Vives, Regulation and Competition Policy in the Banking Sector, in: X. Vives (ed.), *Competition Policy in the EU: Fifty Years on from the Treaty*, Oxford University Press 2009, 260 – 283and E. Carletti and A. Smolenska, 10 Years on from the Financial Crisis: Co-operation between Competitions Agencies and Regulators in the Financial Sector, Note prepared for discussion at the 64th meeting of OECD Working Party No. 2 on Competition and Regulation on December 4, 2017.

3 The Commission did however approve Italian government support for winding the banks down in a special regime, outside of the domain of Italian insolvency law. See http://europa.eu/rapid/press-release_IP-17-1791_en.htm for the Commission's Press Release of June 25, 2017.

4 See the Commission's Press Release of May 2, 2016, http://europa.eu/rapid/press-release_IP-16-1643_en.htm .

The experience of the network industries contains some lessons about sector-specific regulation and competition policy more generally.[5] Before I turn to a consideration of the financial sector, I will explain these lessons, beginning with some examples in Section 2. Thereafter, in Section 3, I will discuss the difference of competition policy and sector-specific regulation in more abstract terms. Section 4 will give an overview over the history of banking regulation and supervision, Section 5 an account of competition policy issue that are typical for the industry.

2. Competition Policy and Sector-Specific Regulation: Examples

In a decision of February 2005, the German Federal Cartel Office ruled that Deutsche Post AG, the incumbent monopolist in the postal sector, was infringing European antitrust law.[6] Specifically, Deutsche Post's refusal to allow the provision of consolidation services (collection and pre-sorting of mail) by competing companies was judged to be an anticompetitive abuse under Article 82 of the Treaty (now Art. 102 TFEU).[7] Unlike the Federal Cartel Office, the Regulatory Authority for Telecommunications and the Postal Sector[8] had previously refused to accept the complaints of aspiring providers of consolidation services.

The different decisions of the two authorities were based on different legal norms. The Regulatory Authority based its decision on the German Postal Services Law, according to which consolidation services remained in the reserved domain of the incumbent monopolist. The Federal Cartel Office based its decision on the Treaty's prohibition of anticompetitive practices in combination with the Postal Services Directive, which had mandated an immediate opening of markets for mail consolidation services.[9] The legal norms were in conflict because the German legislator had chosen to violate the Directive. When the European Commission ruled that the law and administrative practice were incompatible with Articles 86 and 82 of the Treaty (now Articles 106 and 102 TFEU), the German government refused to abide by the ruling and dared the Commission to initiate a Treaty infringement suit in the European Court of Justice. The calculation was that, even though the Commission was likely to win, the court proceedings would take a few years, during which Deutsche Post would continue to enjoy protection from competition in consolidation services. The Federal Cartel Office's decision upset that calculation.

5 For a systematic treatment, see M.F. Hellwig, Competition Policy and Sector-Specific Regulation for Network Industries, in: X. Vives (ed.), *Competition Policy in the EU: Fifty Years on from the Treaty*, Oxford University Press 2009, 203 – 235.

6 For a detailed account of the case, see Monopolkommission, *Wettbewerbsentwicklung bei der Post 2005: Beharren auf alten Privilegien, Sondergutachten 44*, Nomos-Verlag, Baden-Baden 2006, 12 – 20.

7 Bundeskartellamt, Decision B9-55/03 of February 11, 2005 in the case Konsolidierer/Deutsche Post.

8 Now part of the Federal Network Agency (Bundesnetzagentur).

9 Directive 97/67/EC of the European Parliament and the Council of 15 Dec. 1997 concerning Common Rules for the Development of the Internal Market of Community Postal Services and the Improvement of Quality of Service, OJ 115, 14 – 25, 21/01/1996.

The direct applicability and the precedence of EU competition law over national sector-specific law also played an important role in the Deutsche Telekom[10] and Telefonica[11] cases, in which the European Commission held that Deutsche Telekom and Telefonica engaged in anticompetitive abuses because the prices that they charged to competitors for network access and to customers for services implied margin squeezes that made it impossible for other firms to compete in service provision without losing money. The prices in question had actually been approved by the national telecommunications regulators, so one might have thought that the Commission should have brought proceedings against Germany and Spain for Treaty infringements by their regulators. However, the Commission held that, even though the prices in question had been approved by regulatory authorities, under a regime of price cap regulation, the telecommunications companies had leeway to fix the specific prices they proposed to the regulator, subject to constraints on the basket of prices in the price cap regime. In the view of the Commission therefore, the companies were directly responsible for the margin squeezes. The European Court of Justice upheld the Commission's assessment in both cases.

The examples illustrate some of the conflicts that can arise when an industry is subject to both sector-specific regulation and competition law. In the case concerning the opening of markets for consolidation services in the German postal system, the conflict arose from differences in the relevant legal norms. In the cases concerning market squeezes in telecommunications, the conflict arose from differences in attitudes of the different authorities.

There are several reasons why sector-specific regulators and competition authorities may take different views of the same issue. First, whereas the sector-specific regulator is concerned with one industry and with the legal norms governing that particular industry,[12] competition authorities are concerned with abstract rules that apply to all industries. Where one institution thinks about coherence in terms of policies for "its" industry, the other institution is concerned with coherence in the application of "its" rules across all industries.

Second, the different approaches taken by the different institutions often reflect differences in political embeddedness. Sector-specific regulation tends to be more prone to regulatory capture than competition policy. In an industry that is subject to sector-specific regulation, industry participants are constantly dealing with their regulator. They have strong incentives to invest in their relations with the institution and with political players that may put pressure on the regulator. By contrast, industry participants are not constantly dealing with the competition authorities and have much weaker incentives to invest in good relations there. On occa-

10 Deutsche Telekom v. Commission of the European Communities: Commission Decision 2003/707/EC of 21 May 2003, Case COMP/C-37.451, OJ L 263, 9 – 41; Court of First Instance Decision of 10 April 2008, Case T-271/03, OJ C 128, 29, 24/05/2008; Court of Justice Decision of 14 October 2010, Case C-280/08 P, ECLI:EU:C:2010:103.

11 Wanadoo España v. Telefonica, Commission Decision of 4 July 2007, Case COMP/C-38.784, OJ C 83, 6-9, 02/04/2008; Court of First Instance Decision of 29March 2012, Case T-336/07, ECLI:EU:T:2012:172; Court of Justice Decision of 10 July 2014, Case C-295/12 P, ECLI:EU:C:2014:2063.

12 Even when different industries are regulated by the same institution, as in the case of the Federal Network Agency in Germany, the institution is likely to be divided into different departments, one for each industry, with a separate legal norm for each.

sion, e.g. in the context of a merger case, they may try to mobilize allies in the political system, but these efforts are much less pervasive and on the whole less effective than the efforts of participants in regulated industries.

When sector-specific regulators and competition authorities take different views of what is basically the same set of issues, the resolution of the conflict depends on legal intricacies. In a unified legal system, the question is whether the issues are so much "the same" that competition rules are superseded by sector-specific law under the *lex specialis* principle. In the hybrid legal system of the European Union, the question is how the rule of sector-specific national law under European Directives relates to European competition law, which is contained in the Treaty and the Merger Control Regulation and is directly applicable. In the cases discussed above, the ultimate outcomes were very much driven by legal and administrative details, such as the assessment that a behavior of a dominant firm that has been approved by the sector-specific regulator can still be prosecuted under competition law if the firm had some discretion in the application it submitted the regulatory authority.

It is not a coincidence that, among the different regulated industries, conflicts between sector-specific regulators and competition authorities have been most pronounced in the network industries. In these industries, sector-specific regulation is directly concerned with competition issues, such as prices and non-price features of access to the essential facilities that participants rely on to compete in "downstream" markets. Therefore there is a great deal of overlap with the competition authorities' concerns in these industries. In other regulated industries, the overlap in terms of competition concerns is smaller, so *prima facie* there is less potential for conflict.

3. Competition Policy and Sector-Specific Regulation: General Observations

The very term *competition policy* must be used with caution. Economists trained in the tradition of Pigouvian welfare economics tend to think of "policy" as a line of intervention intended to correct certain distortions in order to promote efficiency. This way of thinking neglects the institutional and procedural aspects of policy design and implementation. This way of thinking also neglects the pitfalls of a *dirigiste* approach to the attainment of desired market outcomes.

At the level of implementation, competition policy is not actually a policy in the usual sense of the word, but an application of competition *law*, subject to being reviewed by the courts. Most competition law is formulated in abstract terms, without reference to any particular industry. Moreover, competition law is formulated in terms of prohibitions: Market participants must not form cartels. Firms must not engage in mergers that would create or reinforce dominant positions. Dominant firms must not engage in exploitative, discriminatory or anticompet-

itive forms of behavior. These rules tell market participants that there are certain things they must not do; none of them tells market participants what they should do.

When a competition authority decides on a case, it must show that the case is appropriately subsumed under the existing law. The question is not how the incriminated behavior relates to whatever may be the ultimate or even intermediate policy objectives of the authority, but whether the behavior falls under the law's prohibitions. To the extent that the authority has its own views about policy objectives, it may be tempted to act in accordance with these views, but then it must be afraid that its decisions will be overturned in court. Complaints by the incriminated parties are always in the cards, in cases of anticompetitive abuses and mergers also complaints by the parties' competitors.

How serious the concerns about subsequent court proceedings are depends on the attitude of the courts. In some jurisdictions, the courts require the competition authorities to provide material proof of the fact that their decision was "right"; this is the case, e.g. in Germany, to some extent also in the United States.[13] In proceedings before the European Court of Justice, the Commission must only show that its decision was not taken arbitrarily and was based on coherent substantive reasoning.[14] The Commission thus has more discretion to engage in "policy", but even there, the reversals it has suffered in court show that its discretion is limited.

Economists have long been critical of the extent to which the implementation of competition policy has been dominated by legal tradition. If one thinks about competition policy as a set of interventions aiming to improve the "efficiency" of market outcomes by removing distortions from the exercise of market power, one tends to assess the authorities' decisions solely in terms of how they impact "efficiency". In this vein, injunctions against "anti-competitive abuses" are often criticized as harming efficiency because they merely protect competitors from the effects of the dominant firm's superior performance.[15]

The economists' focus on "efficiency" as an objective of competition policy is, however, problematic because it neglects distribution effects.[16] In the tradition of welfare economics,

13 The authority's burden is sometimes lightened by presumptions of facts named in the law, e.g., in the German Law against Restraints of Competition the presumption that a market share of 33 % is sufficient for a dominant position. A firm with a market share above the threshold might still try to "disprove" the fact that it is dominant, but this attempt is likely to be just as futile as the competition authority's attempt to "prove" that a firm with a market share below the threshold is nevertheless dominant. Such procedural effects explain why merger control is so much concerned with market shares.

14 To some extent these differences explain why the Boeing-McDonnell merger was treated differently by European and American authorities. See W.E. Kovacic, Transatlantic Turbulence: The Boeing-McDonell Douglas Merger and International Competition Policy, *Antitrust Law Journal* 68, 805 ff.

15 For extensive discussions, see J. Vickers, Abuse of Market Power, *Economic Journal* 115 (2005), F244 – F262, J. Gual et al., An Economic Approach to Article 82, *Competition Policy International* 2, 111 – 154.

16 At the level of substantive reasoning though, the economists' criticism must be taken seriously. All too often, certain forms of behavior have been outlawed without much understanding of the effects of the behaviors in question – and without much concern for the possibility that such behaviors might simply be a legitimate way of competing. Nor should the discussion about the need to consider effects be confused with the procedural argument that *per se* prohibitions and *per se* admissions of specified forms of behavior provide the addressees with legal certainty. The procedural argument in favor per se, as opposed to

this neglect is based on the presumption that the measures that improve efficiency can be accompanied by side payments neutralizing the distribution effects so that everyone is made better off. In practice, however, such side payments do not take place.[17] More importantly, form a competition policy perspective, such side payments are undesirable if profits from cartelization or monopolization are considered illegitimate. Remember that, in the United States, the Sherman Act was motivated by populist revulsion against price-fixing and the power of the trusts.

In the European Union, the assessment of agreements between undertakings in Article 101 TFEU allows for efficiency considerations, but such considerations are not allowed to overturn the *per se* prohibition of hard-core cartels; moreover, the efficiency gains must not be achieved at the expense of consumers.[18] The German ordoliberal school, which contributed importantly to the German and European legislation and subsequent jurisdiction, also emphasized the illegitimacy of hard-core cartelization and of certain forms of monopolization and argued for the protection of competition as an essential element of economic freedom.[19]

A unique focus on "efficiency" misses an important element of competition law and competition policy, whose normative basis has always assessments about the legitimacy of profits and other gains from collusion and market power. The distributive implications of the measures that are motivated by these assessments are at the core of the conflicts considered in litigation. The legalisms of competition policy about which economists tend to complain should not be seen as a disagreeable side show but as an essential part of the endeavor to implement a policy under a rule of law when this policy has intended effects on the affected parties' profits.

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rule-of-reason assessments cannot pre-empt the need to base the *per se* classification of a certain form of behavior as being pro- or anti-competitive on valid economic arguments rather than an antipathy against unfamiliar devices such as non-linear reward or rebate schemes. In addition to Gual et al., *l.c.* (n.16), see E.J. Mestmäcker, *Der verwaltete Wettbewerb*, Walter-Eucken-Institut, Wirtschaftswissenschaftliche und wirtschaftsrechtliche Abhandlungen 19. Verlag J.C.B. Mohr (Paul Siebeck), Tübingen 1984, and M.F. Hellwig, *Wirtschaftspolitik als Rechtsanwendung: Zum Verhältnis von Jurisprudenz und Ökonomie in der Wettbewerbspolitik*, Walter-Adolf-Jöhr-Vorlesung 2007, Universität St. Gallen, Volkswirtschaftliche Beiträge Nr. 6, Oktober 2007.

17 I have never understood how one can move from the proposition that a change which makes everyone better off must be considered desirable to the proposition that a change which might make everyone better off is compensation were paid should also be considered desirable even if no compensation is paid.

18 Most authors relate the antitrust chapter of the Treaty of Rome to the influence of the German ordoliberal tradition with its emphasis on the freedom to compete, rather than efficiency; see, e.g., D. Gerber, *Law and Competition in Twentieth Century Europe: Protecting Prometheus*, Oxford University Press, Oxford 2001. In contrast, P. Akman, Searching for the Long-Lost Soul of Article 82EC, *Oxford Journal of Legal Studies* 29 (2009), 267 – 303, points to the fact that efficiency concerns figure prominently in the *travaux préparatoires* for the Treaty. Her analysis begs the question of what is the status of the *travaux préparatoires* in a juridical tradition that from the beginning based itself on the Treaty without considering its genesis. It also begs the question of what to make of distribution effects.

19 For an emphatic assertion of this principle, see E.J. Mestmäcker, Die Interdependenz von Recht und Ökonomie in der Wettbewerbspolitik, in: Monopolkommission (ed.), *Zukunftsperspektiven der Wettbewerbspolitik*, Nomos-Verlag, Baden-Baden 2005, 19 – 35. M.F. Hellwig, Effizienz oder Wettbewerbsfreiheit? Zur normativen Grundlegung der Wettbewerbspolitik, in: C. Engel, W. Möschel (eds), *Recht und spontane Ordnung, Festschrift für Ernst Mestmäcker zum achtzigsten Geburtstag*, Nomos-Verlag, Baden-Baden 2006, 231 – 268, proposes a synthesis in which the effects of a behavior on the well being of clients are taken as an indicator of whether the behavior in question is to be assessed as pro-competitive or anti-competitive. See also J. Gual et al., *l.c.* (n. 16).

In *sector-specific regulation*, as in competition policy, an administrative authority monitors and to some extent controls the business practices of certain enterprises, and the affected enterprises receive no compensation for the profits they lose because of the authority's interference. A certain antagonism between the authority and the affected enterprises is thus built into the system from the beginning, and both are disciplined by the rule of law. A certain potential for litigation is always present.

However, whereas competition law relies on prohibitions that are formulated in abstract terms, sector-specific regulation *prescribes* certain modes of behavior. For example, the owners of network infrastructures are mandated to grant access to potential competitors at regulated prices. Or banks are mandated to maintain their funding by equity and/or certain forms of long-term – "bail-in-able" – debt above minimum levels that are specified in terms of proportions relative to their assets. Thus in 2016, the supervisors told the Italian bank Monte dei Paschi di Siena to increase its equity by at least € 8.8 billion, a very specific mandate.

For legal procedure, the difference between the abstract prohibitions of competition law and specific mandates of sector-specific regulation is very important. To be sure, any mandate can be reworded as a prohibition: "It is an abuse to choose a behavior different from….". But then the desired behavior would have to be specified in very concrete and detailed terms, without much flexibility to condition mandates on the facts of the situation, quite unlike the abstract approach of competition law.

The difference between abstract prohibitions and specific mandates was very much in evidence when, in the late 1990s, the German legislator inserted a mandate that owners of essential facilities should provide potential competitors with access into the Law against Restraints of Competition. The formulation "it is an abuse of dominance to deny access to an essential facility at an appropriate price" (Art. 19, Section 4, Nr. 4 of the Law against Restraint of Competition), which is cast in abstract terms, has been singularly ineffective.[20] In the first case under this clause, in December 1999, the Federal Cartel Office ruled that Scandlines, a shipping line that is jointly owned by Deutsche Bahn and the Kingdom of Denmark, must provide potential competitors on the Germany-Denmark with access to the harbor of Puttgarden. When Scandlines contested this ruling, the lower court ruled that the Cartel Office's ruling was not specific enough: The ruling should have indicated how Scandlines was to change the layout of the harbor and what prices could be charged. The higher court overturned this judgment, saying that, at least in a first go, a mandate to negotiate made sense but conceding that, ultimately the authority would have to determine and justify the access mode and access price. The higher court's judgment, however, merely triggered more rounds of litigation, and the Scandlines monopoly on the Puttgarden – Rodby route is still in place.[21]

20 For extensive systematic discussions, see Monopolkommission *Netzwettbewerb durch Regulierung, XIV. Hauptgutachten 2000/2001*, Nomos-Verlag, Baden-Baden 2003, and Hellwig (2009), *l.c.* (n. 6).

21 Meanwhile, the discussion has quieted down because a projected tunnel threatens to make any shipping line unprofitable. Needless to say, the tunnel is also contested in the courts.

Any mandate to grant access to an essential facility begs the question of how the access should be granted and what price is appropriate. Given the importance of fixed costs in infrastructure and the fact that there is no single "right" way of attributing fixed costs, the task of proving in court that the mode of access demanded and the price imposed are appropriate is insurmountable, unless the law itself is sufficiently concrete.

In contrast, the legal position of a sector-specific regulator is much stronger. By its very nature, sector-specific regulation involves important elements of discretion and judgment. A network regulator's assessment of a proposed access price requires some judgment about the appropriate allocation of the fixed costs of the infrastructure over the different activities for which the infrastructure serves. A bank supervisor's assessment of the quantitative model that a bank uses to assess risks in its trading book requires some judgment of what the risks actually are and whether the model is able to quantify them properly. The more an authority has to do with the ongoing activities of the firms in its charge, the more discretion and judgment it needs in its dealings with these firms. The relevant legal norms allow for this need and empower the regulator to take such decisions. The affected parties may still go to court, but the authority's position is much stronger than under competition law.

However, the very closeness of regulatory authorities to the institutions in their domains is also a source of weakness. Closeness breeds familiarity, and familiarity provides a basis for capture. Specifying and enforcing a desired behavior requires expertise and information, which the regulator can only obtain through constant interaction with the people he supervises. This interaction creates social ties and potential biases as the people involved on the side of the authority come to understand the firms' point of view all too well.[22] Given the importance of the authority for their performance, one must also expect the firms in question to work hard on their relations with the authority.

The firms in question and their stakeholders will also work hard on their relations with the political system, so as to influence the legislation or to have the political system influence the regulatory authority. For example, in the case of the network industry, trade unions in fear of losing perks for their workers were a strong force of resistance against the facilitation of competition in downstream markets. Politicians with dreams of "their" national champions conquering world markets may see monopoly profits in home markets as a wonderful base for funding the conquering activities.[23]

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22 The mechanism may be reinforced by a revolving-door effect, which causes supervisors to be soft because they look forward to working in the industry themselves. Even when revolving-door effects are not present, frequent interaction is likely to induce "cultural capture". For extensive analyses, see S. Johnson and J. Kwak, *13 Bankers: The Wall Street Takeover and the Next Financial Meltdown*, Pantheon, New York 2010, and J. Barth, G. Caprio, and R. Levine, *Guardians of Finance: Making Regulators Work for US*, MIT Press, Cambridge, MA.

23 For example, the German government under Chancellor Schröder thought of Deutsche Post and Deutsche Bahn as future "champions" in global logistics markets and of the large gas and electricity providers as "champions" in European energy markets. For an extensive discussion of this strategy, including Chancellor Schröder's 2004 call for the financial sector to create a national champion of its own, see

In the case of financial institutions, politicians may also be more interested in having banks fund the things they like to have funded than in protecting consumers or avoiding risks to financial stability and potential costs to taxpayers.[24] The interest in having banks fund the things one likes is shared by a large part of the public, from private households concerned about housing finance to small and medium enterprises interested in borrowing form banks at low interest rates. "Cultural capture" works in relations with the public as well as in face-to-face dealings with supervisors.

In contrast to competition authorities and, to a lesser extent, network regulators, financial supervisors are not hit by many legal complaints. I do not see this observation as indicating that legal concerns are less relevant for them because their legal positions are that much stronger. Indeed, in personal discussions, I have received the impression that legal concerns play at least as much a role with financial supervisors as with competition authorities. I rather suspect that the parties involved all shy away from open conflicts. The financial institutions themselves may be afraid of reputation effects, the supervisors of political backlash. The strong interest that politicians and the public take in the availability of funding from banks and other financial institutions makes it hazardous for a bank supervisor to impose restrictions that can be constructed as constraining bank lending.

In some cases, the regulatory authority itself may not have much of a choice because it is directly subordinated to the government. For example, BaFin, the German financial supervisor, only became independent through the introduction of the European Single Supervisory Mechanism in 2014. Previously, BaFin was subordinated to the German Ministry of Finance. In 2006, a high official of the Ministry declared publicly that structured investments and the use of special-purpose vehicles to hold structured investments off the banks' balance sheets were an important new development in global finance and that the Ministry was very much interested in ensuring the competitiveness of German banks in this area.[25] Information that the German government provided recently to the German parliament shows that, in the run-up to the financial crisis, BaFin in fact did not raise any concerns about German banks' investments in asset-backed securities and collateralized debt obligations through special-purpose vehicles to which they gave liquidity guarantees, investments that ended up costing German taxpayers billions of euros for recapitalizations of banks.[26]

Monopolkommission, *Wettbewerbspolitik in Schatten 'Nationaler Champions': XV. Hauptgutachten 2002/2003*, Nomos-Verlag, Baden-Baden 2005.

24 For an extensive discussion of the politics of banking, see A. Admati and M. Hellwig, *The Bankers' New Clothes: What's Wrong with Banking and What to Do about It*, Princeton University Press, Princeton, N.J. 2013, Ch. 12. M.F. Hellwig, Germany and the Financial Crises 2007 – 2017, Paper presented at the Annual Macroprudential Conference of the Swedish Riksbank, June 2018, https://www.riksbank.se/globalassets/media/konferenser/2018/germany-and-financial-crises-2007-2017.pdf, gives a detailed account of the German experience and its cost to German taxpayers.

25 J. Asmussen, Verbriefungen aus Sicht des Bundesfinanzministeriums, *Kredit und Kapital* 19 (2006), 10 – 12.

26 *Ergänzende Antwort der Bundesregierung auf die Kleine Anfrage der Angeordneten Dr. Schick et al.*, Drucksache 19/842 (zu 17/4617), Deutscher Bundestag, Berlin 2018. The information in this text had not been publicly given when the questions had first been posed by the Parliamentary Party of the Greens in

The treatment of structured investments and special-purpose vehicles in the years before the crisis differed from country to country, in the United States even from supervisor to supervisor.[27] A cross-section study has shown that the differences in administrative practice were due to differences in politics rather than differences in legal norms.[28]

4. Banking Regulation and Supervision: An Overview

In contrast to the network industries, in the financial sector, the promotion of competition is usually not mentioned as an objective of sector-specific regulation. Typical objectives of sector-specific are the safety and soundness of banks, financial stability, protection from systemic risks, and sometimes consumer protection. Banking regulation actually has a strong anti-competitive tradition. For a long time, it was dominated by the view that competition in banking tends to be ruinous and must therefore be restrained.[29]

To some extent this view reflected experiences in the Great Depression when banks fearing runs tried to attract deposits by raising the interest rates they offered. Thereby they depressed profits and made depositors even more concerned about bank solvency. In the United States, this experience was one reason for introducing Regulation Q, which prohibited depository institutions from paying deposit rates above specified levels.

Between 1935 and 1975, between the Great Depression and the inflation of the 1970s, banking regulation and supervision in most OECD countries involved the following elements: Explicit or implicit government guarantees of deposits, restrictions on deposit rates, alternatively a toleration of interest rate cartels, restrictions on entry, market segmentation, asset allocation rules with minimum reserve requirements, quantitative limits on lending to the non-financial sector, mandates to invest in home mortgages or in government debt, and prohibitions on cross-border investments.[30] Ostensibly, these measures were intended to reduce risks in bank-

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the fall of 2010. It was only given because the Greens complained to the German Constitutional Court, which ruled in November 2017 that the government had to make its answer public. M.F. Hellwig, Finanzstabilität, Transparenz und Verantwortlichkeit, *Credit and Capital Markets/Kredit und Kapital* 50 (2017), 422 – 454, provides a critical assessment of the German government's arguments in the case. M.F. Hellwig (2018), *l.c.* (n.25), discusses the contribution of this development to the overall damage that Germany suffered from the crisis.

27 V.V. Acharya, P. Schnabl, and G. Suarez, Securitization without Risk Transfer, *Journal of Financial Economics* 107 (2013), 515 – 536, show that special-purpose vehicles were mainly used by investment banks, in the domain of the Securities and Exchange Commission, rather than banks in the domain of the Federal Reserve and the Federal Deposit Insurance Corporation.

28 See M. Thiemann, Out of the Shadows? Accounting for Special Purpose Vehicles in European Banking Systems, *Competition and Change* 16 (2012), 37 – 55.

29 For a critical assessment of this view, see E. Carletti and P. Hartmann, Competition and Stability: What is Special about Banking?, in P. Mizen (ed.), *Monetary History, Exchanges Rates and Financial Markets: Essays in Honour of Charles Goodhart*, vol. 2, Cheltenham: Edward Elgar, 2003, 202–229, working paper available at SSRN: https://ssrn.com/abstract=357880. Carletti and Vives (2009), *l.c.* (n.3) provide an overview over institutional arrangements in the Member States of the European Union.

30 P. Englund, Financial Deregulation in Sweden, *European Economic Review* 34 (1990), 385 – 394, J. Mélitz, Financial Deregulation in France, *European Economic Review* 34 (1990), 395 – 402, and X. Vives,

ing and to prevent a repetition of the depression-era banking crises. In fact, they served to promote government borrowing, home ownership and other activities that the political system considered desirable.[31] Restraint of competition for funds played a key role because it provided the basis for cheap lending by the banks.

Between the 1970s and the 1990s, most of these earlier regulations were dismantled.[32] The deregulation was motivated by perceptions of risks attached to the old rules and of new opportunities. The changes in perceptions were induced by two developments. First, the macroeconomic environment had changed: By 1975, trade imbalances, oil price increases, fiscal deficits, and inflation had caused the Bretton Woods system of fixed exchange rates to be abandoned, had caused a need for petro-dollar "recycling", and had caused a dramatic increase in market rates of interest that undermined the viability of institutions subjected to deposit rate regulation. Second, institutional and technological innovations, in particular the development of money market funds, dramatic improvements in information and communication technologies, and the development of techniques for managing derivatives, eroded past systems of market segmentation and at the same time opened new fields of business.

Competition was an important part of the story. In the United States, Regulation Q was abolished when it threatened the viability of depository institutions in competition with money market funds in the early 1980s, at a time when market rates of interest were at an all-time high. In the European Union, financial deregulation was driven by the need to make financial institutions ready for cross-border competition as changes in communications technologies were eliminating the effects of distance and of national borders, e.g. in securities trading and, moreover, the existing legal barriers to entry by institutions from other Member States were about to be abolished under the auspices of the Internal Market program.

Political discourse about deregulation was driven by perceptions of opportunities as well as threats. The abolition of capital controls after 1973 made room for vast amounts of international lending (petrodollar recycling); the opening of derivatives markets provided US commercial banks with an opportunity to erode the limits to their activities that had been set by Glass-Steagall; and the Big Bang of 1986 reflected the aspirations of the London Stock Exchange to become the premier trading institution for the stocks of large corporations from Europe, if not the world. Policy makers harboring industrial-policy aspirations shared the sense that "their" financial institutions must be allowed to avail themselves of these new opportunities of opportunities without however abandoning the view that these institutions should be available to fund whatever the policy makers liked and to do so cheaply. The implications of

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Deregulation and Competition in Spanish Banking, *European Economic Review* 34 (1990), 403 – 411, discuss this system of regulation – and its dismantling – for Sweden, France, and Spain.

31 In some countries, financial repression through regulation contributed substantially to government finance. See the papers by F. Bruni (for Italy), R. Caminal, J. Gual, X. Vives (for Spain), and A. Borges (for Portugal) in: J. Dermine (ed.), *European Banking in the 1990s*, Blackwell, Oxford 1990.

32 For details about the deregulation in different countries, see E. Baltensperger and J. Dermine, Banking Deregulation in Europe, *Economic Policy* 4 (1987), 63 – 109, and OECD, *Banks under Stress*, Paris 1992.

the intensification of competition for the viability of financial institutions had hardly been taken in.[33]

By the early 2000s, the system of financial regulation had been completely changed. Regulation now focused on rules for capital adequacy, i.e. minimum requirements for the equity that banks must use to fund their activities. Under the auspices of the Basel Committee for Banking Supervision, these rules were agreed on internationally. For banks from countries adhering to Basel rules, cross-border activities were governed by the home country principle. Equity requirements were calibrated towards the risks inherent in the banks' assets and derivatives, with banks' own quantitative models and internal credit ratings serving as a basis for assessing these risks. In line with earlier thinking about politically desirable asset allocations, lending to sovereigns and real-estate lending were given reduced risk weights. Moreover, despite the experience of American depository institutions in the 1980s, the risks from using short-term liabilities to fund loans and mortgages in the bank book were largely ignored.[34]

All these developments contributed to the very large growth of the financial industry relative to the rest of the economy.[35] Relative to GDP, bank lending and bank assets in OECD countries grew dramatically in the years before the financial crisis. For example, between 1996 and 2007, in Europe bank assets relative to GDP grew from less than 200 percent to about 350 percent. Most of this growth is accounted for by the very large banks. Moreover, much of it was funded by borrowing. Whereas "risk-weighted" regulatory equity ratios remained roughly constant between 1996 and 2007 (as one would have expected), unweighted equity ratios, i.e. equity relative to total assets declined steadily, from about 6 percent in 1996 to about 3 percent in 2007. (Since then, the unweighted ratios have gone up again but on average they are still no higher than they were in the mid-1990s.)

Some of the expansion was directly connected to regulatory measures motivated by industrial policy objectives such as the promotion of national champions. For example, the German Pfandbriefgesetz (Covered-Bond Law) of 2005 liberalized entry into the segment of banks that invested in real-estate and public-sector lending and funded themselves by issuing covered bonds as well as unsecured debt (for the excess of the collateral over the nominal value of the covered bonds). The law was intended to provide the Landesbanken with additional business. Consequently, capacity in the covered-bond segment of the system expanded greatly, competition became even more intense than it had been previously. In order to survive in the market, participants had to offer conditions to borrowers that allowed them to earn mar-

33 M. Hellwig, Systemic Aspects of Risk Management in Banking and Finance, *Swiss Journal of Economics and Statistics* 131 (1995), 723 – 737, and M. Hellwig, Banken zwischen Politik und Markt: Worin besteht die volkswirtschaftliche Verantwortung der Banken?, *Perspektiven der Wirtschaftspolitik* 1 (2000), 337 – 365, discuss this evolution of competition and regulation in the financial sector and its implications for the viability of risk bearing by the different industry participants.

34 For an overview over these regulatory developments, see Admati and Hellwig (2013), *l.c.* (n. 25), Chs. 4, 6, and 11.

35 or a documentation of developments since the mid-1990s, see Advisory Scientific Committee, Is Europe Overbanked?, Report 04/2014 of the Advisory Scientific Committee of the European Systemic Risk Board, Frankfurt 2014.

gins above funding costs only if they engaged in extreme maturity transformation. For banks that did not have strong funding by deposits, such as Dexia or Hypo Real Estate, that meant funding the excess coverage by borrowing in the money market, a strategy that proved fatal in September 2008, when money markets froze.[36] Similar industrial policy and lobbying motivations may be attached to supervisory authorizations to hold assets in special purpose vehicles outside of the banks' balance sheets in order to circumvent equity requirements and to exemptions of repo loans from bankruptcy rules.[37]

the financial crisis indicated that some of the deregulation had gone too far. The subsequent reforms, in particular "Basel III", the reform agreed by the Basel Committee on Banking Supervision in 2010, raised the required ratio for equity relative to risk-weighted assets and introduced a leverage ratio requirement, with a lower bound on equity equal to 3 percent of total assets. Basel III also introduced a liquidity coverage ratio and a net stable funding ratio, thus limiting the extent of liquidity transformation and maturity transformation that banks could engage in. However, the basic structure of the regulatory architecture was not changed: The major focus is still on equity requirements calibrated to risks, as assessed by the banks' own quantitative models and internal ratings. Regulation of internationally active banks is still governed by the home country principle, though some countries, notably the United States, have begun to engage in some ring-fencing, i.e. requiring foreign banks to organize their activities in legal forms that make them subject to local regulation as well as regulation and supervision in their home countries.

There has, however, been an important change in the way supervisors go about their business, at least in Europe. Driven by a sense that damage from "the crisis", more precisely, the sequence of crises ranging from the fallout of the subprime crisis in the United States to the various real-estate, sovereign-debt and banking crises in Europe has not really been fully cleaned up, supervisors have become more active, imposing add-ons to the basic "Pillar 1" capital requirements, asking for information, questioning asset valuations and business models and so on. Whereas before the crisis, "Pillar 2" of the regulatory framework, a set of rules relating to the quality and professionalism of banks' activities, was used sparingly, with a focus on what seemed to be rogue banks, over the past few years, supervisors have turned to invoking these rules on a regular basis for all banks, for multiple purposes, including a tightening of equity requirements.

36 For accounts of the fallout from this development, see Hellwig (2018), *l.c.* (n.25) and Expertenrat, „Strategien für den Ausstieg des Bundes aus krisenbedingten Beteiligungen an Banken: Gutachten des von der Bundesregierung eingesetzten Expertenrats", 24. Januar 2011, http://www.bundesfinanzministerium.de/Content/DE/Standardartikel/Themen/Internationales_Finanzmarkt/Finanzmarktpolitik/2011-02-15-gutachten-bankenbeteiligung-anlage.pdf;jsessionid=35E06CB0ECE36D5AB3DD7120BF512D9E?__blob=publicationFile&v=3.

37 On the politics and the effects of the regulatory treatment of special purpose vehicles and their sponsors, see Thiemann, *l.c.* (n. 29), as well as Acharya et al. (2013), *l.c.* (n. 28), and Hellwig (2017), *l.c.* (n. 27). On repo lending, see Admati and Hellwig, *l.c.* (n. 18), Ch. 10.

5. Industrial Organization and Competition Policy Issues in the Financial Sector

5.1 Barriers to Entry

Market structures and modes of competition differ between different parts of the financial sector, in some cases also between countries. The differences reflect differences in technology and in history, which may perpetuate themselves because of inertia.

Barriers to entry have traditionally played an important role. Technical change and innovation have eroded some of them, but not all, and in some cases created new ones. The underlying causes come from technology, customer inertia and brand attachments, regulation, network effects and market foreclosure by incumbents.

Technology: At the retail level, entry into banking involves significant fixed costs and significant learning-by-doing effects. Getting close to customers, depositors as well as borrowers, by having a large network of branches covering space is expensive. As depositors transition to electronic communications, a presence in space becomes less important on the funding side, but much of the relevant information about borrowers, in particular small firms, is local. Moreover, much of this information only becomes available through learning by doing.

Inertia: For many retail customers, changing banks is expensive, so they may be unwilling to move. In some countries, certain banks have also been able to create significant brand loyalty. For example in Germany, the Sparkassen (savings banks) have established the image of being the banks for ordinary people, as opposed to the large banks, which are seen as the banks for rich people. The resulting brand loyalty translates into significantly higher fees, which is why the Sparkassen (and similarly the cooperative banks at the retail level) are the most reliably profitable segment of the German financial sector.

Regulation: Whereas outright entry regulation no longer plays a central role, more recent developments in regulation and supervision have added to the fixed costs attached to certain activities in the financial sector and have thereby contributed to raising barriers to entry. The Basel system of allowing equity requirements to be computed on the basis of internal models and ratings provides a competitive advantage to banks that are large enough to invest in the development of such models and, correspondingly, a disadvantage to banks that are too small for such investments to be worthwhile.[38] Some organizations of smaller banks, e.g. associations of savings banks or of cooperative bank, have tried to overcome the disadvantage by investing in model development as a common venture, also by introducing risk sharing in order to take advantage of the risk-dependence of capital requirements. However, these devices

38 H. Hakenes and I. Schnabel, Bank Size and Risk-Taking under Basel II, *Journal of Banking and Finance* 35 (2011), 1436-1449, elucidate the mechanism and argue that the resulting competitive pressures on small banks may induce additional risk taking so that, even if the stabilizing effects of Basel II rules ar etaken into account, the net effect on financial stability can be negative.

have costs of their own. I also suspect that the recent "Pillar 2" activism of supervisors that I mentioned above is more burdensome for small than for large banks.

Network effects and market foreclosure: Participation of banks in payment systems have always been a source of network effects. Banks that did not participate could not offer their customers the same services at the same prices. For standard payments, these effects have largely evened out because by now, in most OECD countries, practically all banks are part of the common national and international payment systems. For risk management purposes, however, the effects have become more important. A bank's ability to offer an internationally active nonfinancial company appropriate management of its exchange rate risks depends on the bank's participation in derivative markets. Given the importance of hedge strategies in these markets, this participation in turn depends on the bank's belonging to the "club" of institutions with appropriate collateral, presumably managed by JPMorganChase.

Network effects in payment system may again come to play an important role as new payment systems based on blockchain technology gain in prominence. In this context an important question will be whether the promoters of the new technology will actually be able to enter the system on a permanent basis, or whether the power of incumbents to exploit network economies will enable them to get control of the new technology without admitting a significant number of new participants into the system.

Summary: The preceding observations can explain why we tend to see fairly concentrated market structures and oligopolistic pricing at retail levels and in some derivatives markets, but more fragmented market structures and highly competitive pricing in wholesale markets and in the markets for services related to asset management and securities investments.

5.2 Government Protection, Implicit Subsidies, and Merger Control

In the above overview, I mentioned government guarantees as an element of the system of financial regulation that prevailed between the 1930s and the 1970s. Deposit insurance as an *explicit* system of guarantees from institutions that had the backing of the national Treasury was actually special to the United States. Other countries had guarantees for some institutions, e.g. Germany for public banks, but most countries did not institute anything like the Federal Deposit Insurance Corporation. (In parentheses: Instituting such a scheme might have led to calls for more intense regulation and supervision.) But in all countries, there was a memory of the Great Depression, with banking crises that had badly damaged the overall economy and created needs for government interventions if only to keep normal life going. There also was an understanding that, if a system wide crisis put the well-being of the overall population at risk, no government would be able to withstand the demand for public support. When such an understanding is present, participants act as if there was an implicit guarantee from the government.

A paradigmatic example is provided by the "government-sponsored entities", Fannie Mae and Freddie Mac, in the United States. These had originally been created as public institutions to support the funding of home ownership. When they were privatized in the late 1960s, they still were "government-sponsored" in that they had access to the US Treasury for liquidity support. Among investors at large, there also was a sense that their debt was guaranteed by the US government. In fact, there was no legal norm to this effect. Both institutions were private, subject to standard bankruptcy law. In the crisis of 2008, however, they ended up being bailed out by the government after all. Politically, if not legally, they were too big to fail.

In the United States, the two decades before the financial crisis saw many bank mergers and a significant increase in concentration in banking. To some extent, this development reflected the dismantlement of rules, such as the prohibition of interstate banking, that had artificially kept banks small and the banking sector fragmented. To some extent, the development reflected the thinking of Chairman Greenspan, that market power was a source of profits and profits a basis for financial stability. The ability of US banks to earn (monopoply) profits at the retail level was thus much increased.

In addition, however, the prospect of becoming too big to fail provided important incentives for bank mergers. According to one study, in the years 1990 – 2004, the gains attached to such a prospect accounted about one half of the gains for shareholders of target banks in takeovers that put total assets of the merged institution above $ 100 billion.[39]

From a competition policy perspective, the important issue is not so much whether the bank will actually be bailed out in a crisis. The important issue is to what extent an anticipation of a bailout will make investors to provide funding more cheaply, and what are the competitive effects of such expectations.[40] The estimates obtained in different papers on this subject differ, but they all agree that the numbers are large.[41] For the years of the crisis itself, the estimated numbers are astronomical because in the crisis, private lending to banks was hardly forthcoming at all.

These considerations raise questions for merger control. One question is easy to answer: The US model of taking merger control for banks away from the competition authorities and assigning it to a sector-specific regulator (the Federal Reserve) has materially contributed to harmful developments in the twenty years before the crisis and must be deemed to have failed. Contrary to Chairman Greenspan's view that bank mergers enhance financial stability,

39 E. Brewer and J. Jagtiani, How Much Did Banks Pay to Become Too-Big-To-Fail and to Become Systemically Important? Working Paper 09-34, Federal Reserve Bank of Philadelphia, Philadelphia.

40 Another important issue, relating to financial stability rather than competition, is whether an expectation of being bailed out induces the bank to take greater risks. For the latent crisis of 1990 in the United States, whose outbreak was prevented by the turnaround in US monetary policy, J. Boyd and M. Gertler, The Role of Large Banks in the Recent US Banking Crisis, *Federal Reserve Bank of Minneapolis Quarterly Review* 18 (1994), 2 – 21, shows that such behavior indeed played an important role.

41 For an overview, see Admati and Hellwig, *l.c.* (n.25), Ch. 9. P. Gandhi and H. Lustig, Size Anomalies in US Bank Stock Returns; *Journal of Finance* 70 (2015), 733 – 768, discuss the impact of implicit guarantees on the returns of large versus small banks and estimate that the value of the implicit guarantees to the largest commercial banks in the US has been between $ 4 billion and $ 5 billion per year.

bank mergers in the United States have contributed to a perception that the institutions in question would be too big to fail. This perception has allowed these institutions to expand their leverage dramatically without having to pay the higher interest rates that increased risk from increased leverage would normally entail. A competition authority that is less prone to catering to the special concerns of the industry would probably have been less tolerant of this development.

The question has been raised whether merger control for the banking industry should not be tougher than for the rest of the economy. Shouldn't the authorities be more critical about a bank merger that increases the prospects for government support in a crisis and thus generates (i) a fiscal cost (in expected-value terms) and (ii) a distortion of competition from the implicit subsidy to the merged bank's funding than about a merger that does not have such effects.[42]

There are two ways to think about this suggestion. One approach would call for a sector-specific form of merger control, an analogue of the US regime, but with a view to being stricter rather than laxer on bank mergers. Such an approach would abandon the advantages of a unified competition policy regime that applies the same rules to all industries. It might also end up being more prone to regulatory capture – even though the motivation for its introduction is the very opposite.

An alternative approach would try to subsume the concerns that have been raised under the existing legal norms. The distortion from the implicit subsidy to the merged bank's funding might be treated as a "significant impediment to effective competition", to use the relevant term of the EU's merger control regime. Traditional interpretations of the term refer to the coordination of behavior of the merging units after the merger, but tradition should not prevent us from thinking about "impediments to effective competition" in more general terms. Subsidies that create uneven playing fields do create impediments for those market participants that are disadvantaged.

State aid control is not well suited to address the problem. The anti-competitive distortion arises long before any state aid is granted, merely from the anticipation by investors that, in a crisis, the government will support the institution in question – and its creditors. If such anticipations are based on explicit guarantees, state aid control can help by banning such guarantees, as the European Commission did for public banks in Germany and elsewhere with effect for any debt issued from 2005 on. In the absence of explicit guarantees, there are no grounds for state aid control to intervene – until the crisis actually occurs and the government steps in, as happened in many countries in 2007/2009. At that point, the case for government support as a means of averting large damage to the overall economy is so strong that the competition authority can hardly prevent the provision of state aid. Therefore the idea of at least attenuating the problems by taking it into account in merger control makes a lot of sense.

42 See D. Zimmer, *Finanzmarktregulierung: Welche Regelungen empfehlen sich für den deutschen und europäischen Finanzsektor? Gutachten C zum 68. Deutschen Juristentag*, Verlag C.H. Beck, München 2010.

The preceding considerations concern mergers that take place *before* the system enters a crisis. We also must think about bank mergers *in* a crisis. Having a – hopefully – healthy bank take over a failing bank is a time-honored recipe for crisis management. In 2008, in the United States, this recipe was applied with a vengeance: JPMorganChase/Bear Stearns/Washington Mutual, Bank of America/Merill Lynch, Wells Fargo/Wachovia – the 2008/09 mergers made the largest US institutions become even larger, making the too-big-to-fail problem even greater. Most recently, the acquisition of the failing Banco Popular Español enhanced the prominent position of Banco Santander in the Spanish financial system.

In a situation where a takeover by a larger and healthier bank solves the problems posed by a bank's impending failure, a competition authority is hardly in a position to object. The underlying problem here is that we do not have resolution regimes that we would confidently resort to without fear of a system meltdown.[43] It has therefore been suggested that competition policy for banks should perhaps have scope for mandatory divestitures and breakups as well as mergers.[44] Given the very mixed experience of the United States with such a regime, I have some doubts about its workability. I also see a danger that the existence of such a regime might make healthy banks unwilling to acquire failing competitors: With such a regime in place, they would consider that they will bear the downside risk that the acquisition might end up as a failure and yet cannot count on keeping the full benefits on the upside if the acquisition became a success.

5.3 Government Support as an Exit Barrier

Whereas the European Commission's assessment of guarantees for public banks as state aid had long been contested by the German government, this dispute came to an end in 2001, when the German government agreed not to contest the Commission's prohibition of the guarantees and the Commission agreed that the prohibition would only take effect in 2005. The Landesbanken used the four years to issue new debt with state guarantees on the order € 100 – 200 billion. A large part of the funds was poorly invested, in mortgage-backed securities and the like, which explains why the greater part of the costs of the crisis for German taxpayers came from the public banks rather than the private banks or the cooperative banks.[45]

43 Even worse, we do not have a resolution regime that permits a slow liquidation without undue losses from fire sales of assets. The legal norms contain no arrangements for funding in resolution. This is why in the case of Banca Popolare di Vicenza and Veneto Banca, the Italian government created a special regime with a "bad bank" for the two banks' problem loans, funded by Intesa Sanpaolo, with a government guarantee against losses. This is also why in the case of Banco Popolar Español, the sale to Banco Santander may have been the least costly alternative. See M.F. Hellwig, Valuation Reports in the Context of Banking Resolution: What Are the Challenges?, Preprint 06/2018, Max Planck Institute for Research on Collective Goods, Bonn.

44 Zimmer, *l.c.* (n. 43), discusses this possibility as well.

45 In Hellwig (2017), *l.c.* (n. 21) and Hellwig (2018), *l.c.* (n. 25), I list taxpayer costs of € 51.4 billion from the Landesbanken, € 9.6 billion from Industriekreditbank, in which the government-owned Kreditanstalt für Wiederaufbau held some 38 percent of the stock, and € 17 – 20 billion from the private banks Hypo Real Estate and Commerzbank. Uncertainty about the bailout costs for the private banks is due to lack of information about the prices at which Commerzbank shares were acquired at different points in time.

Given the poor record of the Landesbanken over decades, I suspect that without the guarantees they would not have survived for so long.[46] They entered the financial system around 1970 when the giro centers that handled the payment systems of the savings banks were turned into actual banks, using the funds deposited by the savings banks for lending of their own, rather than placing these funds in the money market. At that time, however, there was hardly any need for additional banking capacity, except that the heads of the Länder, the regional governments in Germany, liked the idea of having banks to which they could turn for parafiscal spending. Since their creation, there hardly has been a decade without a major scandal involving large losses from bad loans and investments. And there was no period when these institutions were able to earn substantial profits – despite the advantage of being able to obtain funding at interest rates reflecting the AAA ratings of their guarantors.[47] Without that funding advantage, they would have made massive losses.

Their continued existence in the market, however, put pressure on other institutions, reducing their ability to earn sufficient margins at reasonable risks. Above, I mentioned that the expansion of the Landesbanken in the covered-bond segment of the financial system following the liberalization of 2005 forced other participants to engage in extreme maturity transformation in funding the excess coverage, thus exposing themselves to significant liquidity risk.[48]

The example illustrates a general problem: If there is excess capacity in a market, some exit may be called for. Lack of exit creates distortions. To be sure, no one really knows what capacity is appropriate, but if there are artificial barriers to exit, such as those caused by government support of unprofitable or even failing banks, and if the existence of weak institutions in the market forces others to take unconscionable risks, that constellation suggests that excess capacity is distorting market outcomes.

A simplistic view of competition and competition policy might suggest that the continued maintenance of excess capacity is all to the good as it forces market participants to provide customers with advantageous conditions, e.g. relatively low interest rates for loans and relatively high interest rates for deposits. This view, however, is flawed. The objective of competition policy is *not* simply to promote advantageous conditions for customers but to promote *appropriate* conditions, which means that proper account must be taken of costs and risks. If competition is distorted by explicit or implicit government subsidies, market outcomes will reflect these subsidies and can therefore be quite inefficient.

Most of the bailouts that happened in the financial crisis prevented exit. To the extent that preceding developments had been driven by distortions from excess capacity, this underlying

46 By contrast, the success of the Sparkassen, the local public banks, is due to the brand effect mentioned above rather than the public guarantees.

47 Expertenrat, *l.c.* (n. 37), contains an account of their performance.

48 For theoretical and empirical work on the destabilizing effects of government guarantees on the beneficiaries‘ competitors and thereby on the overall system, see H. Hakenes and I. Schnabel, Banks without Parachutes – Competitive Effects of Government Bail-out Policies, *Journal of Financial Stability* 6 (2010), 156-168, R. Gropp, H. Hakenes and I. Schnabel, Competition, Risk-Shifting, and Public Bail-out Policies, *Review of Financial Studies* 24 (2011), 2084-2120.

cause of the developments remained in place. The continuing low profitability of banks in Europe is not just due to the compression of interest rates through the ECB's monetary policy but also reflects the lack of a cleanup and sufficient contraction of capacity since the crisis.

Lack of exit often involves the maintenance of "zombies", banks that would be acknowledged as being insolvent if prospective losses on their loans were assessed realistically. The valuation of loans involves a certain element of arbitrariness. After all, the borrower's difficulties might be only temporary, and he might soon recover. Such forbearance may well be justified but it tends to become problematic if it is driven by concerns about the bank's own solvency or the reactions of the bank's supervisors, rather than merely the business prospects of the borrower.[49] If the problem concerns many banks, the supervisor may be willing to go along with such forbearance; otherwise he might have to deal with a system crisis in which a large part of the industry must be wound down or restructured, with substantial effects on bank lending and the real economy. And he might face the question of what he had been doing while the risks were building up.

Past experience suggests that, in such a situation, it is usually better to go for a cleanup right away rather than let the problems linger and hope they will go away on their own. Sweden, which did intervene promptly in 1992, had a sharp recession, but that was followed by a quick recovery, to which the restored health of the banking system contributed. The United States, which did not intervene with their savings institutions in 1981, paid a large cost when in the late eighties the crisis came back with a vengeance.[50] Japan chose forbearance in 1992 and also paid dearly because the weakness of the banking system and the maintenance of weak nonfinancial companies by weak banks contributed to the very low productivity growth in the following decade.[51] I suspect that some of the low growth that we have seen in the European Union since 2008 reflects similar mechanisms. The situation of Italy, with more than € 300 billion in non-performing loans, is particularly worrisome.

In this context again, explicit or implicit government guarantees and subsidies play an important role. The ability of US savings institutions to survive for another decade in the 1980s was facilitated by the existence of statutory, government guaranteed deposit insurance. Because of this system, depositors had no incentive to look into the solvency of "their" savings banks. Indeed, by advertising with high rates "federally insured" savings institutions were able to expand greatly, which ended up raising the costs to taxpayers when the reckoning came.

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49 Advisory Scientific Committee, Forbearance, Resolution, and Deposit Insurance, Report 01/2012 of the Advisory Scientific Committee of the European Systemic Risk Board, Frankfurt 2012.

50 See Admati and Hellwig (2013), *l.c.* (n. 25), Ch. 4 and the references given there. T. Curry and L. Shibut, The Cost of the Saving and Loan Crisis: Truth and Consequences, *FDIC Banking Review* 13 (2000), 26 – 35, estmate the costs at € 153 billion, of which € 124 billion was paid for by taxpayers and € 29 billion by the industry levy.

51 In addition to Advisory Scientific Committee, *l.c.* (n.49), see T. Hoshi and A. Kashyap, Japan's Financial Crisis and Economic Stagnation, *Journal of Economic Perspectives* 18 (2004), 3 – 26.

In the case of the Italian banks, we have had a number of instances, where institutional investors in subordinated debt or preferred stock had withdrawn a few years ago and had been replaced by retail investors to whom subordinated and hybrid forms of debt were sold without much of a warning about the risks involved. In the case of Monte dei Paschi di Siena, the supervisors' toleration of such practices was seen as inducing a co-responsibility of the government, with the consequence that one half of the losses imposed on subordinate debt was compensated by the government (in addition to the government's contribution to the recapitalization).[52] The nexus between government guarantees, continued funding, including non-deposit funding, and the delay of cleanup and exit played a big role there.

In recent years, the European Commission has taken a more restrictive view of such interventions by governments in support of "their" banks. In particular, the approval of government injections of equity is conditioned on there being some private-sector participation, be it in the form of additional equity or in the form of bailing in debt, as in the case of Monte dei Paschi. In combination with the tougher stance taken by the Single Supervisory Mechanism to asset valuation, this development contributes to getting the cleanup going, possibly also the exits that are needed.

However it is not clear that the state aid framework is well suited for the purpose. I see two problems. First, procedures take long. Cases of state aid control in the financial sector have tended to involve lengthy negotiations, extending over many months, in some cases even years. The very length of these negotiations may contribute to exacerbating the problems as additional investors are given the time to withdraw their funding from the banks forcing the banks to liquidate assets, which reduces payouts to creditors in a liquidation. If the bank goes into resolution after all, its position may therefore be much weakened; in liquidation, payouts to remaining creditors are reduced. The detrimental effects are reinforced by the fact that liquidation is likely to be concentrated among those assets where sales prices are not much below book prices, in particular cash and cash-like claims.[53]

Second, the Commission's state aid control focuses on the distortionary effects of the support given to the particular institution under discussion. In the cases of Banca Popolare di Vicenza and Veneto Banca, the government's bailing out senior unsecured creditors was seen less critically. Because the parts of these banks that had not been sold to Intesa Sanpaolo were due to be liquidated, i.e. the banks were due to exit from the market, the bailout was deemed not to have much of a distortionary effect on competition in the Internal Market. This argument neglects the signaling about the government that is involved. The bailout as such may not have had much of a distortionary effect but the information that here again the Italian government was willing to put taxpayer money at risk in order to protect the holders of senior unsecured debt does have a distortionary effect on competition. The measure provides another signal

52 For an overview, see M. Hellwig, Precautionary Recapitalizations: Time for a Review, Preprint 14/2017, Max Planck Institute for Research on Collective Goods, Bonn

53 On biases in the selection of assets to be liquidated, see A. Admati, P. DeMarzo, M. Hellwig, and P. Pfleiderer, The Leverage Ratchet Effect, *Journal of Finance* 2018, Section 4.

that, despite the various proclamations of principle concerning the need to bail in creditors and despite the legal codification of these principles in the Bank Recovery and Resolution Directive and in the Single Resolution Mechanism Regulation, debt holders can still expect to be supported by a bank's government. These considerations suggest that the Commission's state aid control should be concerned with distortions to competition in the Internal Market from signaling future government bailouts as well as the particular bailout under review.

6. Concluding Remarks

The findings of the preceding discussion can be summarized as follows.

First, competition policy and sector-specific regulation are two very different activities. Competition policy involves the application of abstract legal norms, most of them prohibitions, subject to judicial review, without much leeway to take account of the special features of an industry. From the perspective of any one firm, interaction with competition authorities tends to be rare. Financial regulation and supervision, like other sector-specific regulation involves continuous oversight, some of it involving explicit directions on what participants should do.

Second, relations between the two sets of authorities are naturally antagonistic. Where competition authorities are used to simply saying "NO", sector-specific regulators care about maintaining a workable ongoing relation with their firms. Capture is common, whether at the level of the regulator as such or by invoking the political system.

Such antagonism is likely to be useful because "untoward" interventions of competition authorities can contribute to keeping the sector-specific regulators honest. By contrast, any imposition of cooperation might force the competition authorities to submit to pressures. If the two activities were actually merged, the competition authorities themselves might end up being captured.[54]

The tradition of financial regulation has little to do with the promotion of competition. Even financial stability concerns have often been given lip service only. Usually the main concern of the political system, including voters, is to get financial institutions to fund things they like and to get that funding cheaply (not counting the cost of bailouts).

Third, important distortions of competition are due to explicit and implicit government guarantees and the way these guarantees affect behavior. In particular, too-big-to-fail policies create artificial incentives for bank mergers, which competition policy should seek to take into

54 This concern was the reason why in 2002, the German Monopolkommission proposed to keep competition policy and the regulation of network industries separate, see Monopolkommission (2003), *l.c.* (n.21). The proposal marked a sharp departure from earlier recommendations whereby eventually all regulatory activity should be transferred to the Federal Cartel Office with its strong pro-competition tradition. At the time, the Federal Cartel Office had a few hundred employees, the Regulation Authority for Telecommunications and the Postal Sector a few thousand. Given these orders of magnitude, a merger of institutions would have posed a risk for the tradition of the Federal Cartel Office.

account and counteract. Once institutions are seen as being protected by governments, they have significant funding advantages. These advantages distort competition and can cause important misallocations of resources (and costs for taxpayers).

Implicit government guarantees stand also behind the common practice of delaying cleanups at problem banks and preventing exit. In this area, state aid control is called upon to work in a more timely manner and to take a more systemic view of cases, so that investors no longer have reason to take government bailouts for granted.

Fourth, whereas in most other areas of competition policy, the authorities' major problem is to ensure that there is enough competition, i.e., that competition should not be restrained by cartel agreements, market foreclosures, or mergers, in banking and finance, they must also deal with the problem that there may be too much competition in the sense that government subsidies enable excess capacities to be maintained, and de facto insolvent institutions to remain in the market. Such constellations bear serious risks as the incentives of "zombie" institutions are greatly distorted and the competition from these institutions may force healthy institutions to engage in unconscionable risks.