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INTEREST GROUPS AND BANK REGULATION

FINANCIAL REGULATION AND THE GRABBING HAND

FLORIAN BUCK¹

Introduction

In economic theory there are two perspectives on the role of the government in the market place: the public interest world based on the premise that markets can fail so that intervention by a benevolent government is justified (“helping hand” view); and the private interest theory, portrayed by the “grabbing hand” by Shleifer and Vishny (1998), recognizing that both despotic and democratic governments are likely to pursue goals that are different from “social welfare”. Instead, economic policy is designed in such a way that it benefits those who currently have political power.

This article tells the story of the “grabbing hand” and its influence on shaping peculiar financial regulation. The notion of a fully grabbing hand government is very likely to prove a rarity. If it exists at all, however, it is particularly helpful to frame the complex motivations underlying regulatory policies in banking. First and foremost, financial regulation is politics. To explain policy choices, this article focuses on private interests since politicians might not be in the business of supporting public interests, but of getting re-elected or remaining in power (Acemoglu and Robinson 2001). Thereby the allocation of finance via state intervention is one of the most powerful and silent instruments with which to achieve this. In this sense, a grabbing hand government aims to extract a private rent by forming a coalition with special interest groups to push for an initiative that implements its rent-maximizing policy and frames the issue as being in the public interest.

The history of financial regulation repeatedly demonstrates the importance of coalitions with interest groups,

as well as transient events for determining long-run institutional history (Kindleberger 1996). My central argument is that successful political entrepreneurs have seized windows of opportunity to pass financial laws to fund activities to which they want to give preference, and have subsequently relied on political costs to avoid the law from being repealed. The remainder of this article shows that a number of tools have been used over the last century to prevent bank crises and limit their socially costly impact. The major rules reflect the changing political coalitions of a grabbing hand government and are collectively described as the safety net that most industrialized countries have introduced in the last century – consisting of bankruptcy laws, intervention procedures and deposit insurance systems. Ironically, co-evolving with the safety net, the banking sector has grown to a point where it now dominates the economy, and even the state may be unable to cope with a collapse.

The purpose of this article is twofold: in the first part, I take a grabbing hand view of the evolution of financial regulation to understand why the political power of banks has increased over time. In the second part, I give some idea of how financial conglomerates might be able to influence regulation today to remain the safety net and of when structural reforms can be expected to occur.

The nexus of politics and financial markets

The supply and demand of financial regulation play a major role in the grabbing hand theory. Supply concerns the incentives of the regulator and its power to constitute a separate interest group. Demand concerns the role of interest groups that pressure the regulator to pursue policies that promote private interests. Given the high stakes of regulation, especially when financial rules are developed, it is no surprise that tremendous efforts are undertaken every year to influence regulatory decisions. For the United States (US), the Center for Economic Responsive Politics estimates that total lobbying spending increased from USD 1.82 billion in 2002 to USD 3.31 billion in 2012. This lobbying is carried out by a myriad of organizations. The financial industry turns out to be the second largest sector in terms of lobbying expenditure, with a gradual upward trend. Gibson



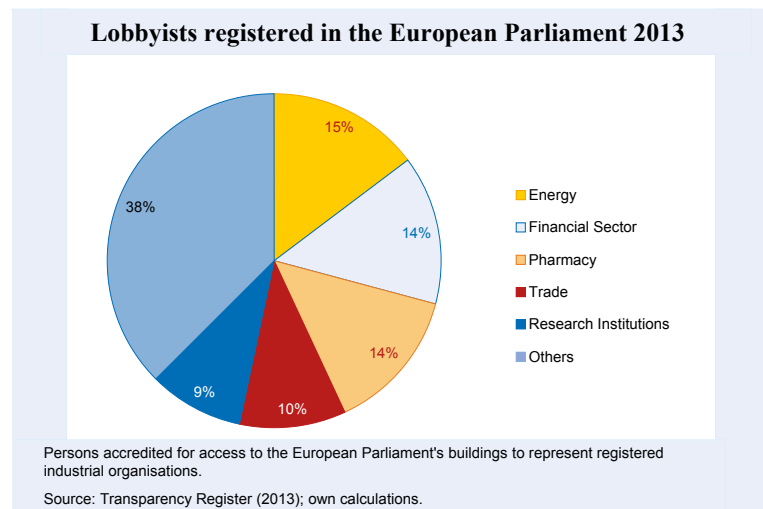
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and Padovani (2012) provide evidence that the announcement of the Dodd-Frank bill in 2010 was followed by significantly higher lobbying intensity by banks; and most importantly by banks that are larger, have more vulnerable balance sheets and more diversified business profiles. In contrast to the US, in the European Union (EU) there is only a voluntary public register of lobby groups. Therefore, only a small fraction of the 15,000 lobbyists working in the EU is registered. Figure 1 shows the main industries identified in active registrations by lobbyists in the European Parliament, and again, the financial industry seems to be one of the predominant interest groups.

Although lobbying can be an accepted element within society, providing the necessary input and feedback into the political system, it can incentivize the regulator to be “captured” at the same time when public policy is formulated. Pressure can be exerted either directly on politicians, through campaign contributions, or indirectly when the cooperative behavior of a politician may be rewarded with lucrative employment opportunities in the industry after leaving the government; a practice the Japanese euphemistically call “amakudari” or the “descent from heaven”. Anecdotal evidence supports the relevance of these procedures with respect to the financial industry, for example, Mario Draghi was Vice Chairman of Goldman Sachs before he became President of the European Central Bank in 2011, or, vice versa, Bernd Pfaffenbach who was Angela Merkel’s Sherpa responsible for financial regulation in G8 meetings during the most recent financial crisis moved to JP Morgan as a “senior advisor” in 2011.²

However, as we will see below, in contrast to other sectors that engage in lobbying, the connection between the financial sector and the state is a special one and can be characterized by a *symbiotic relationship*. The state needs banks because they finance public expenditure and crucially determine economic growth by funding the private sector, while the banking sector also needs

Figure 1



the state to establish confidence by reliable rules that enable financial intermediation. But one main argument developed in this article is that the influence of the banking sector continuously rose during the last century, meaning that the balance of power between the state and the banks successively shifted to the banking sector. This cozy relationship has deep historical roots.

Institutions made by politics

From the very beginning, the creation of banks was not driven by considerations of a benevolent social planner, but rather the sovereigns’ private welfare, specifically his personal survival and overall stability. Starting with the rise of banking in the 13th century monarchs realized that bank resources play a crucial role in financing their armies. During the feudal system, sovereigns were constrained in retaining power by the absence of standing armies and by the lack of revenues to pay for them (Ehrenberg 1928). Over time changes in military technology – firearms, mass infantry and new styles of fortification – led to greater fixed costs in war-fighting, which, in turn, increased the urgency of the demand for financing (Kennedy 1989).

As a result, sovereigns created a political coalition with financiers that were allowed to found a bank.³ The political deal was simple. States selectively chartered banks

² The list of prominent Goldman Sachs alumni in government is very long, and includes two former US Secretaries of the Treasury (http://www.forbes.com/2007/01/10/treasury-governor-global-business-cz_nw_0111goldman_slide.html).

³ The Bank of England was chartered in 1694 in return for a large loan, which helped the government wage war with France. Shortly afterwards, the Parliament considered founding a second bank. However, in return for a second loan, the Bank of England could keep her monopoly on joint stock banking in England and Wales, persisting for more than a century (Grossman 2010).

to use them as a source of funding. In fact, they restricted entry into the domestic banking business and rewarded early banks with a monopoly position as the regulatory rent. However, there was the risk of waging war in times of conflict. This turned out to be a heavy burden since kings regularly did not repay their debt. From the 14th to the 16th centuries, many of the world's premier private banking houses – the Bardi, Peruzzi, and Fuggers – were damaged by defaults on sovereign loans. As Kindleberger notes, “The Bardi and the Peruzzi of Florence helped finance the English side of Hundred Years’ War. They were bankrupted when Edward III defaulted to them in 1348” (Kindleberger 1996).

Thus, the risk of lending eventually ended up with the sovereign also stealing the banks’ resources because the Leviathan’s appetite rose. As a result, the king continuously gave away – with grabbing hands – an increasing number of bank licenses, gradually eroding the value of a domestic charter and cumulating in a form of “free banking”. Interestingly, this early episode of banking not only shows that the origin of financial institutions is politically motivated, namely as a partnership arrangement between financiers and the state. Furthermore, the liaison illustrates a basic pattern of the grabbing hand theory: states have an incentive to create a regulatory environment, here an entry barrier, to open a channel for possible rent extraction. The regulatory rent created is shared with the government, for example, by making loans to the state at attractive rates of interest. Thus, in many countries the regulation of entry, the earliest form of financial regulation, was driven by the desire of states to establish monetary control. In other countries like the US, “political entrepreneurs” created restrictions on branching serving the interests of wealthy farmers at the expense of poorer farmers and industrialists (Rajan and Ramcharan 2011)⁴, other countries like Scotland introduced unlimited liability for new banks as a barrier to entry to protect the rents of incumbent banks until the middle of the 19th century (Carr and Matthewson 1988).

As we will see in the following section, starting with the industrialization and the immense financing needs of merchants, political power slumbers within the newly created financial institutions which finds its concrete manifestation in the emergence of the so-called

financial safety net. This safety net has three key components: first, investor rights and bankruptcy codes, second, the lender of last resort and third, the existence of an explicit deposit insurance system. Historically all three components reflect the interplay of industry and political forces (i.e. political coalitions in the sense of the grabbing hand theory) as well the occurrence of exogenous shocks.

The emergence of the financial safety net

The driving force for the demand for the first wave of financial regulation was a period of fast innovation and upsurges in productivity during the industrialization. Both the state and the merchants needed financiers. The reason was that, in the light of the experience of the French Revolution, sovereigns in Europe were afraid of a shift or destabilization of the political order and thus of losing power. Therefore they had an incentive to increase the citizens’ expected loss in the case of a revolution by offering citizens the opportunity to accumulate wealth, for example, in the form of investment possibilities. At the same time, access to finance was also critical for merchants to facilitate transactions and to satisfy the growing needs of manufacturing. Thus, there was, even unknowingly, a political will among the state and merchants to create a financial market to invest the liquid wealth of citizens.

However, limited liability, whereby the shareholders are not liable for the debts of their company, might make them less likely to lend their money. This is because debt financing can trigger insolvencies by inducing excessive risk-taking. When the equity base is low, limited liability effectively truncates the probability distribution of income and thus creates an artificial risk-loving behavior (Jensen and Meckling 1976; Sinn 1982). In the absence of a system of government intervention into bank loss-sharing, the combination of the first-come first-served rule for depositors and the national insolvency regime for failed banks, determines the allocation of losses. The savings of citizens are at risk. They therefore discipline banks by withdrawing their savings when bankers jeopardize them. The citizens’ rights to withdraw their deposits and the transfer of control-rights over banks in liquidation have the function of inducing banks to behave efficiently in managing their risk (Calomiris and Kahn 1991; Calomiris and Haber 2013). In order to invest, citizens need some expectation that once money is lent, any policy action taken will be consistent with eventual repayment. Unclear proper-

⁴ The reason was that branching restrictions provided a commitment device that made banks more tolerant of declines in their loan customers’ net wealth since there was no outside option for other investments. Borrowers paid for this in the form of higher interest rates (Calomiris and Haber 2013).

ty rights limit the ability to commit contractually and thus to raise funds. In other words, investor protection and bankruptcy laws can fulfill this function and enhance confidence (representation hypothesis, North and Weingast 1989; Dewatripont and Tirole 1994). The inherent political problem is that efficiency may conflict with the government's goal to channel funds to politically attractive groups.

Investor protection and bankruptcy laws

Importantly, the degree of legal protection is a political choice and can be influenced by private interests. As suggested by Rajan and Zingales (2003), this regulatory choice emerges as a trade-off between the rents from restricting access to finance and the associated welfare loss for citizens. Intuitively, external finance is critical for less established merchants, so poor investor protection can hinder competition. Weakening access to finance via poor legal certainty is therefore an effective channel for blocking competition in the private sector, also because it is less explicit than formal barriers. Thus, there are reasons why the very first financial regulation might be captured by the current economic elite.

Empirical support for such a coalition with the industrial elite comes from Berglöf, Rosenthal and von Thadden (2001); they show that bankruptcy laws tend to be soft in countries where the economic elite strongly influences the political outcome. As an illustration, they make the point that the very soft 1841 US bankruptcy law was pushed by the Whigs, which represented the economic elite in 19th century America. When this law was repealed by Congress, the New England Whigs, the richest people in the US, still voted in favor of it (Berglöf et al. 2001). The US have a more debtor-friendly bankruptcy law than Britain as a result. To a large extent, US bankruptcy law took its current shape through a sequence of crises (the 1898 debt moratoria, the Great Depression) during which borrowers negotiated favorable legislation via the political process.

As far as investor protection is concerned, we interestingly observe two distinct regulatory clusters since this era reflecting the new political agreement that was reinforced by later legislation. Continental European countries and Japan have low investor (and high employment) protection. Anglo-Saxon countries have high investor and low employee protection (La Porta et al. 1998). Both patterns are consistent with the political-economy model of corporatism by Pagano and

Volpin (2005). In their setting, controlling stakeholders (“elite”) want low investor protection to extract larger private rents, and may obtain it with the political support of workers. To form such a coalition that captures regulation, they have to make some compensation to workers, which takes the form of limiting their discretion in firing decisions. The success of this corporatist coalition depends on the distribution of equity ownership in the economy. If workers own little equity, as is the case in continental Europe, the elite and workers will strike a political agreement whereby workers trade low shareholder protection for high job security. This coalition enables both interest groups to preserve their rents. Moreover, both creditors and workers tend to prefer a less risky environment, even when this reduces profits, so that they tend to be political allies against shareholders, and to support bank- over equity-dominance (Perotti and von Thadden 2006).⁵

The German Chancellor Otto von Bismarck was one of the most successful “political entrepreneurs” of this era. He shaped not only the banking system to finance both the newly created German nation state and industrial firms; interestingly, he also built a coalition with the elite to coordinate the creation of the powerful industrial cartels that characterized German manufacturing. The combination of (weak) investor protection and the introduction of the social security system then provided the ground for the bank-dominance in Germany (making equity financing unattractive), as well as for the stabilization of the status quo within society. Again, Bismarck did this because he understood that the socialists would otherwise come to power and completely overturn the political order he was establishing (Gerschenkron 1962; Webb 1982; Calomiris 1995; Fohlin 2007). Economically, the predominance of debt finance with high rents for the elites (and newly insured workers) and inefficiency in the form of equity rationing was the result. It is worth mentioning that this first element of the safety net, the privilege for debt finance, erodes the discipline of depositors to monitor banks. This is because the repayment for savers only breaks down if there is a significant prospect of default, therefore, unlike equity financing, debt provides the smallest incentives for collecting private information by citizens.

⁵ Complementing this view, Roe (2003) looks at European social democracy as affecting regulatory outcome. If product market competition is weak, capital owners and workers have rents to share. If owners do not keep their ownership interests concentrated, they will not capture those rents. They have no incentive to support regulation that would strengthen financial markets, because they keep a focused ownership interest in the firm so that when supra-competitive spoils are divided, they get a good share of the pie.

Box 1

Loan interest restrictions and the Marquette decision

The political deal between the state and industrial elites is also mirrored in other financial regulatory decisions such as price restrictions on credits. However, the history of usury laws in the US demonstrates that the judicial system can effectively constrain regulatory rents and can put an end to such a coalition.

Usury laws, restricting the interest rates a bank can charge, go back to the Colonial period in the US. According to the private interest theory the existence of these laws can be explained by protecting politically powerful borrowers. The mechanism is simple: by limiting the maximum interest rate, usury laws cause credit rationing that increases entry costs in the market and consequently impede competition. Consistent with this view, Benmelech and Moskowitz (2010) show that in the 19th century states with more powerful elites tended to have tighter usury restrictions and to respond less to external pressure for repeal. Only during financial crises, when elites become credit rationed themselves, were usury laws relaxed.

Interestingly, the relevance of state usury laws has been permanently reduced since the Supreme Court undermined the state's ability to enforce them in the *Marquette National Bank v. First Omaha Service* case in 1978. In her decision, the court ruled that a lender is allowed to charge up to the maximum amount permitted in its home state, regardless of the location of the borrower. "Because credit card lending was not geographically based, this decision created an incentive for states to raise their usury limits to compete for banks" (Kroszner and Strahan 2013). As a result, 18 states had removed interest rate ceilings by 1988, and the supply of credit card loans expanded over the subsequent 20 years. However, the Marquette decision also had its dark side: the increase in supply was concentrated mostly among high-risk borrowers and therefore personal bankruptcy rates started to increase steadily.

Bailouts and the lender of last resort (LoLR)

The next major shock to market discipline on the part of depositors occurred with the establishment of a bailout policy providing support to illiquid, but solvent banks at a penalty rate. The Bank of England was the first institution to develop into a consistent lender of last resort elaborated in the 19th century by Thornton (1802) and later Bagehot (1873). Again, historically this was the result of a political deal of a grabbing hand government that succeeded in shifting the burden of a bailout to the central bank.

As the prize for maintaining the special privileges of her monopoly position, the Bank of England got a political mandate to provide liquidity to other banks in times of crisis with the 1844 Peel Act. Clearly, as a by-product, this policy measure also subsidized pow-

erful risk-taking conglomerates. Moreover, when a central bank commits to lending money to the market, such a commitment can feed the risk appetite of bankers, who feel protected by their ability to sell paper to the central bank. A Parliamentary Report of July 1858 exposed the concern of moral hazard and acknowledged that the existing intervention procedure, itself a manifestation of a political coalition rather than an explicit law, may not be a prudent policy (Calomiris and Haber 2013). In fact, with the LoLR facility the allocation of loss in a bailout is no longer determined by the law, but by the discretion of a resolution authority closely operating with the state under circumstances that are not transparent to taxpayers. Despite this opaqueness that undermines the property rights and is highly sensible for lobbying, this ad hoc policy was successful in England in the sense that traditional banking panics were eliminated with the LoLR facility. White (2011) shows that the Banque de France used a similar two-tiered risk sharing technique in its coordination of assistance for the Paris Bourse in 1882.

Thus, similar policy instruments were quickly established in Europe by the end of the 19th century. There is, however, no denying the fact that the effect of any bailout operation is a redistribution of wealth away from taxpayers and towards the debtors, thus creating a subsidy for high-risk banks.

Deposit insurance

The third element that constitutes the safety net today was the introduction of the federal deposit insurance, first established in the US by the Banking Act of 1933 to prevent bank runs à la Diamond and Dybvig (1983). Bank runs generate externalities that threaten the stability of the political order, something which the government is concerned about. The stated purpose in the public interest was to protect small depositors, but

effectively it limited also the private cost of a bank's bankruptcy. According to Friedman and Schwartz (1963, 434), "federal insurance of bank deposits was the most important structural change in the banking system to result from the 1933 panic ... and ... the ... structural change most conducive to monetary stability...".

The underlying political deal is simply described. In theory, federal deposit insurance implies the cross-subsidization of risk across states. Accordingly, states with banks that suffered higher risks of failure would gain at the expense of other states' banks and possibly at the expense of the rest of the nation's taxpayers. In the US case, federal deposit insurance was preferred by unit bankers located in the more risky rural states since it offered high protection at lower cost. However, they would never have been able to successfully lobby for the introduction of deposit insurance against the pressure of the politically powerful urban branching banks if the Great Depression had not occurred and had not eroded public confidence in the political order and financial stability.

Henry Steagall and other politicians with populist constituencies focused the public's attention on the issue of banking reform and offered the supporters of deposit insurance the opportunity to wage a campaign convincing them that federal deposit insurance was the best way to combat the financial crisis. According to Calomiris and White (1994), "In the case of federal deposit insurance, entrepreneurial politicians defined an issue they thought would be beneficial to their constituents, structured the forum in which it would be debated to serve their purposes, and organized constituent support for their proposals – including political logrolling in Congress and other transient influences". Depositors of small, less stable rural banks were clear winners of this political deal, while depositors of relatively stable urban banks were the losers.⁶ Laeven (2004) finds support for this redistribution mechanism by providing evidence that deposit insurance coverage is higher in countries where poorly capitalized banks dominate the market. Risky banks simply lobby for extensive coverage and the grabbing hand government agrees.

Thus this episode shows that support of financial reforms will also depend on the banking structure of the

country and is likely to be greater in banking systems where weak banks hold a large share of the market.⁷

After the adoption of the insurance system in the US, a growing number of countries copied the US deposit insurance legislation, meaning that an insurance scheme for domestic banks is a common feature of banking sectors in industrialized countries today (Barth, Caprio and Levine 2006).

However, as in the case of an anticipated bailout, deposit insurance facilitates risk-taking to the extent that it encourages depositors to relax their monitoring efforts and that it reduces the risk premium in their cost of funding. Demirgüç-Kunt and Detragiache (1998) and Barth et al. (2006) show that explicit deposit insurance is strongly negatively associated with banking sector stability. It institutionalizes financial support to the small depositor and small bank, but at the potential expense of taxpayers. This is not only a way to hand out subsidies and eviscerate market discipline, it has also created perverse incentives for banks to grow and build empires, a discussion to which we now turn.

Consequences

Paradoxically, domestic bank safety nets, originally proposed as a means of stabilizing the economy and created by political deals and historic accidents in the past, have become an important destabilizing influence. Most importantly, they incentivize banks to invest in highly correlated, risky portfolios since the interbank network serves as an insurance mechanism for bank creditors. Intuitively, if a bank failure is associated with a positive bailout probability, connections to other banks increase the expected repayment of uninsured creditors. The pattern is striking. Banks can optimally exploit these transfers by getting systemic: they create high interbank exposure, and maximize the government subsidy per invested unit of capital. Leitner (2005) and Eisert and Eufinger (2013) show that interbank linkages can be optimal *ex ante* because they act as a commitment device to facilitate mutual private sector bailouts. In such a situation, politicians seem incapable of credibly committing not to intervene to support troubled banks. Thus today, virtually the entire financial system is protected by government insurance and other assistance.

⁶ Lobbying can also rationalize why deposit insurance is underpriced in most countries, i.e. the insurer charges less for its service than the expected opportunity cost. Below flat-rate deposit insurance premium rates will often be set in such a way that they are affordable for the smaller banks and acceptable for the larger banks. As a result, deposit premiums will be set below the actuarially "fair" value of deposit insurance (Laeven 2004).

⁷ The introduction of deposit insurance in Canada in 1967 was also a reaction to a loss in confidence in the sound practice of deposit-taking institutions, despite the protest of Canada's large banks that did not want to cross-subsidize their smaller rivals, which were perceived to be riskier.

Moreover, as Kane (1989) has argued, when the stakes are high enough banks cajole regulators to assist them in abusing the safety net at the taxpayers' expense. The established institutions not only persist over time because lock-in effects are at work; but there is also a form of path dependence in the political balance of power. Once established, the political status quo determines the future regulatory outcome. In other words, there are concentrated and well-funded interests that are willing to fight hard to maintain their access to the subsidized global safety net and block any reform. A basic principle of political economy is that powerful minorities (in our case, well-organized banks) generally will be successful in obtaining the implementation of policies, especially when regulation is technically complex and asymmetric information for outsiders is pervasive (Laffont and Tirole 1991). When we still stick to the view of a grabbing hand government, legislators have a systematic incentive to create a system of specialized, standing committees to formulate policy, which facilitate repeated interactions and long-term relationships between the financial lobby and the members of the committee (Kroszner and Stratmann 1998). This maximizes contributions by the banking lobby. Thereby much industry effort is aimed not at erecting new regulation, but at reducing regulatory requirements. For example, the *Institute of International Finance*, the key lobbying organization of banks, convinced part of the regulatory community that the planned Basel III reform would substantially raise interest rates on bank loans in the US and Europe and lower real growth; roughly 0.6 percentage points of GDP for

Box 2

The persisting erosion of banks' equity capital

Clearly, the creation of the safety net marked the starting point of the unbroken trend of shrinking banks' equity - and simultaneously the rationale for capital requirements to limit the banks' incentives for excessive risk. The reason is that, with increasing public confidence in the safety net, the expected private costs of failure decrease, so that banks prefer substantially lower levels of equity capital. For example, consider the US (Herring 2011): Before 1863, no federal banking regulation existed and banks did not enjoy access to any of the described elements of a safety net. The equity-to-asset ratios by banks (55 percent) declined markedly to 30 percent with the enactment of the National Banking Act of 1863, since depositors delegated monitoring to the state. Then the introduction of explicit deposit insurance in 1933 led to the next sharp reduction in equity with ratios falling to the five-ten percent range where they remained until the introduction of the Basel requirements in 1990.

With the so-called Basel approach, capital requirements became the central tool in international banking regulation to strengthen the financial architecture. However, when banks are forced to hold capital ratios exceeding their preferred level, they naturally view these requirements as a form of "regulatory taxation" and have successfully lobbied for deregulation. Intuitively, for banks with sizeable asset bases, a tiny percentage of reduction in capital requirements can represent a windfall of billions of euros.

In a recent case study, Lall (2012) shows that the implementation of the model-based approach in the Basel capital requirement framework, itself a lifting of equity constraints on large banks, was the regulatory outcome of lobbying by the Institute of International Finance (IIF), a powerful Washington-based lobby representing major US and European banks. Not just the IIF's contact with regulators per se has led to a regulatory capture, but more importantly its timing at an early stage in an opaque policy-making process; long before other groups like regional banks had a chance to intervene. Derived from its personal links with the Basel Committee, from the very beginning the IIF had superior information about the regulatory agenda in Basel and therefore gained a first-mover advantage in the regulatory process. The longest-serving Chairman of the Committee, the Bank of England's Peter Cooke (1977–88), was in fact one of the co-founders of the IIF. As a result, the IIF was able to use its position as the well-connected, peak association to interact with the Committee participants on a regular basis, working within the same "cultural bubble". Informational campaigns as well as closed meetings with private sector groups followed, so that the Basel Committee and its "model task force" (a subgroup working on the structure of risk modeling) used these discussions and data from the IIF as part of their overall research. Since policy decisions made at this early stage tend to be self-reinforcing, Lall (2012) concludes that the IIF exerts disproportionate influence over the content of the Basel II rules. As the Vice-President of a leading association of American community banks puts it, "We did not get involved until what turned out to be a late stage... and when we did, the modeling approach was already set in stone. The Basel Committee had been convinced by the large banks."

an increase of one percentage point. In this context there are also some topics on the reform agenda, e.g. a subsidy in the form of zero risk weights for government debt, where the interests of banks and the state coincides in a way that makes agreement easy (Buck and Maier 2014). The cozy state-bank nexus, described above, reinforces itself.

Some policymakers are aware of this problem. In the last decades many proposed remedies to minimize the social costs of the safety net were considered. Their proposals can be divided into two groups: those that intend to limit bank risk-taking by the implementation of minimum capital regulation etc., and those that would charge banks fees depending on the risks they undertake. However, given the influence of a few very large bank-industry groups, many of the recent policy instruments turned out to be Potemkin villages in the end (see Box 2 for the discussion of capital regulation); or in the words of Admati and Hellwig (2013), “requirements reflect the political impact that these banks have had on the policy debate and the flawed and misleading claims that are made in the discussion”. The rest of the article briefly describes how the banking lobby operates and has proven capable of capturing financial regulation in the recent years to maintain the subsidies of the safety net.

Modus operandi – on the instruments and targets of banks’ influence

Today the financial sector employs a much wider variety of mechanisms to shape the regulatory landscape. Traditional channels of influence rely upon campaign contributions, pressure on politicians and the “revolving door” by offering the politician lucrative employment opportunities in compensation for being cooperative. However, recently new mechanisms seem to be becoming increasingly relevant. It is conceivable that cultural capture, through the shaping of assumptions and vocabularies, and informational lobbying, by supplying politicians with one-sided technical information, can be used to influence the regulatory outcome.

Informational lobbying

Regulators depend upon the regulated industry because they need information to do their job properly. The financial sector is also the regulator’s only dialogue partner; because of the safety net, taxpayers have incentives to remain ignorant. Griffith-Jones and Persaud (2008)

point out that industry influence will occur, when the financial sector possesses better technical expertise and superior resources than regulators. Hence, the highly technical character of regulatory networks like the Basel Committee can make the regulatory community susceptible to capture. According to Hellwig (2010), “When the model-based approach to capital regulation was introduced regulators were so impressed with the sophistication of recently developed techniques of risk assessment of banks that they lost sight of the fact that the sophistication of risk modeling does not eliminate the governance problem”. A recent model by Hakenes and Schnabel (2013) formalizes this special case of informational lobbying and analyses when banks successfully persuade the regulator that banking regulation is not necessary. Due to a discrepancy in the degree of sophistication between banks and regulators, a more sophisticated bank can produce arguments that the regulator may not understand. If career concerns prevent him from admitting this, he rubber-stamps even bad banks, which leads to regulatory forbearance.

Contributions

A recent strand of the literature in the US finds evidence that contributions are a profitable investment for firms since they determine the voting behavior on banking regulation. Mian, Sufi and Trebbi (2010) show that the amount of campaign contributions from the financial sector is a strong predictor of voting on the Economic Emergency Stabilization Act of 2008 that provided the Treasury with up to USD 700 billion in bailout funds that could be used to support the financial industry. According to Blau et al. (2013), for every dollar spent on lobbying, firms received between USD 485 and USD 585 in the support of the Troubled Asset Relief Program (TARP). Firms that lobbied had a 42 percent higher chance of receiving TARP support than firms that did not lobby. Moreover, Nunez and Rosenthal (2004) provide evidence that interest group interventions are important in voting on bankruptcy legislation in the US Senate. Roughly 15 votes in the US House of Representatives appeared to have been changed directly through interest group pressures proxied by campaign contributions.

Revolving doors and network connections

Career incentives can play a role, since the regulators’ human capital is highly industry specific and the best

job for people holding that specific human capital are with the regulated industry. As argued above, people regulating the financial industry largely come from that industry or interact with that industry in their social life. Becker and Morgenson (2009) documented this in their 2009 article on Tim Geithner's social interactions during his time as head of the Federal Reserve Bank of New York. Interestingly, these personal ties seem to have a market value. Acemoglu et al. (2010) find that Geithner-connected financial firms gained abnormal positive stock market returns following the announcement of Geithner's nomination for Treasury Secretary. In a broader context, Igan and Mishra (2011) empirically examine the relationship between network connections of financial firms and voting patterns of legislators, using US data from 1999-2006, which include the bills targeted, lobbyists hired, lobbying expenditure and campaign contributions as a measure of network connections. They find strong evidence that network connections were positively linked to the probability of a legislator changing position in favor of financial deregulation. The evidence also suggests that hiring connected lobbyists who had worked for legislators in the past enhanced the effectiveness of lobbying activities. Vice versa, Goldman, Rocholl and So (2008), using data of 500 S&P companies in the US, show that stock prices increase abnormally following the announcement of the nomination of a politically connected individual to the board.

Cultural capture

Finally, the recent financial crisis has also provided an alternative explanation for why the financial sector has succeeded in cooperating with the regulatory community: not simply by appealing to material self-interest, but also by convincing them that financial deregulation was in the public interest. Lord Adair Turner (2010), chair of the UK Financial Services Authority, has referred to a "cognitive capture" to describe the tendency of financial regulators to engage in industry-friendly problem-solving together with the regulated institution itself. When the regulators share strong social ties to the industry and are more sympathetic to the industry's understandings about the world, she is able to shape the regulators' belief (Kwak 2013). As a result, she can induce them to identify with their interests, and the regulatory community can make "conflict-free" decisions because her conception of the public interest has been colonized by industry.

Conclusion

What insights can we now obtain by applying the grabbing hand approach to the arena of banking regulation? We have effectively seen that the history of banking regulation is full of rules directing banks to fund activities to which the political system wishes to give preference, most importantly the government itself. Over the last century virtually every country has erected a risk-inviting safety net to "protect" the financial system from the social costs of a banking crisis. Debtor-oriented laws allow bank owners to reduce the cost of taking risks, while bailouts and deposit insurance help them to raise funds and formalize the process of how losses are covered. The key question for economists is to what extent the grabbing hand works under the guise of seeking financial stability. One reason for concern is the fact that co-evolving, the financial sector was incentivized to grow and to interconnect itself to a point where it now dominates an economy and is able to capture the regulator to remain the banks' subsidy that is manifested in today's financial safety nets. However, the techniques of capturing have changed and now include subtle forms of informational lobbying where, as a result of the heightened complexity, regulators rely on industry expertise, or forms of cultural capture where regulators are influenced, even unknowingly, by the industry through a combination of social, cultural and intellectual currents (Kwak 2013).

From a policy standpoint, the grabbing hand behavior is, at least at the margin, preventable through persistent regulatory innovation. Transparency-rules (i.e. lobby-registers) or accountability laws can advance the public interest by mirroring the mechanisms that draw lobbyists into the policy-making environment. In recent years, the media has also been an effective weapon against lobbyism: Dyck, Moss and Zingales (2008) argue that "profit-maximizing media firms can play an important role in reducing power vested interests have on policy making. By informing voters, the media help to make elected representatives more sensitive to the interests of their constituencies and less prone to being captured by special interests." Moreover, it has been argued that consumer empowerment programs as a countervailing voice to banks' interests should be politically supported and scholars like Magill (2013) point out that the judicial system has a unique ability to prevent capture by constraining a regulatory action ex-post (see also the Marquette decision in Box 1). Therefore, it should be clear that lobbying by the financial sector is not a constant barrier to stability and regulatory effi-

ciency, but merely a symptom of a grabbing hand government that is controllable.

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INTEREST GROUPS AND THE GLASS-STEAGALL ACT

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Introduction³

Banks are regulated and supervised according to technical criteria, and banking contracts are enforced according to abstruse laws, but those criteria and laws are not created and enforced by robots programmed to maximize social welfare. They are the outcomes of a political process – a game, as it were – whose stakes are wealth and power. There is, in fact, no getting politics out of bank regulation, because public officials have inherent and unavoidable conflicts of interest when it comes to the banking system. First, governments simultaneously regulate banks and look to them as a source of finance. Second, governments enforce the credit contracts that discipline debtors on behalf of banks (and in the process assist in the seizing of debtor collateral), but they rely on those same debtors for political support. Third, governments allocate losses among creditors in the event of bank failures, but they may simultaneously look to the largest group of those creditors – bank depositors – for political support.

The implication is inescapable: the property-rights system that structures banking is not a passive response to some efficiency criterion but rather the product of political deals that determine which laws are passed and which groups of people have licenses to contract with whom, for what, and on what terms. These deals are guided by the logic of politics, not the logic of the market.

The Glass-Steagall Act of 1933 is not an exception to this general rule about bank regulation. Not only were

its specific provisions the product of a political deal, the structure of the banking system that it was designed to protect was also the product of a political deal. That prior deal had given rise to a system that was fragile by design. The purpose of Glass-Steagall was not to modernize or replace that inherently fragile system, it was designed to prop it up by discouraging competition. There were a number of mechanisms by which Glass-Steagall accomplished this goal, but one of these was an innovation that was later copied by scores of governments around the planet, government-run deposit insurance.

The US banking system prior to Glass-Steagall: fragile by design

In order to understand the origins and effects of the Glass-Steagall Act, one first has to understand the inherent fragility of the US banking system prior to its passage. The United States had a banking system like no other country in the world: In 1914 there were 27,349 banks in the United States, 95 percent of which had no branches! The banks that did have branches tended to be small, with fewer than five branches on average (Calomiris and White 1994, 145–88; Davis and Gallman 2001, 272). The reason for the preponderance of these so-called “unit banks” was that most states maintained laws that prevented branch banking, even by banks that had charters from the national government. States that did not explicitly forbid branch banking typically had no provision in their laws for branches, and this lack effectively limited the creation of branching banks.

This peculiar organization of the banking system imposed significant losses on the rest of society. The high cost of obtaining information meant that bankers needed to be able to obtain “soft knowledge” about potential borrowers (knowledge of the borrower’s “character,” business relationships, and personal history) and that could only be obtained locally. The inability to open a branch in a local market required a banker to establish an entirely new, stand-alone unit bank, but doing so entailed significant fixed costs: the accounting and administrative operations of the bank could not be spread across multiple branches; they all had to be located with-

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³ This article is adapted from Calomiris and Haber (forthcoming 2014).

in a single office. The combination of high information costs and high fixed costs constituted a barrier to entry.

As a result, the United States essentially had a system composed of unstable, segmented monopolies. Indeed, the United States had no less than 10 major banking crises *before the Great Depression*: 1814–16, 1825, 1837–39, 1857, 1861, 1873, 1893, 1896, 1907, and the mid-1920s. These periodic crises reflected three key weaknesses of unit banking: the lack of diversification of risk within banks (as was possible in branch-banking systems); the pyramiding of the banking system's reserves in New York City (which made the entire system vulnerable to the securities-market-related shocks that affected New York's banks); and the difficulty of coordinating banks' responses to liquidity crises.

These segmented monopolies were also inefficient allocators of credit. The barriers to entry implied by unit banking prevented productive competition among banks, especially in rural areas. In addition, unit banking inhibited financial integration across regions. Nationwide branching banks can easily move funds across regions to accommodate differences in demand and thereby equalize interest rates. In the absence of branching, large interest-rate differences across regions persisted well into the twentieth century. Finally, unit banking also promoted a growing mismatch between the size of banks and the needs of their prospective borrowers: small banks could not lend the sums needed by large industrial firms. The scale of industry grew substantially during the nineteenth century as steel and chemicals replaced textiles and shoes as the fastest-growing manufacturing sectors – but the scale of banks did not keep up. Thus, although banks had been important sources of funds for the industrial enterprises of the early nineteenth century, they played a much less important role in industrial finance by the end of the nineteenth century (Calomiris 1995; Giedeman 2005).

Unlikely partners: small bankers and agrarian populists

This peculiar competitive and geographic structure of the banking system was the product of sustained lobbying by an unlikely coalition of local bankers, who were opposed to the creation of large, branching banks that would put them out of business, and farmers who disliked and distrusted big corporations of any type. They benefited from unit banking as borrowers (despite its higher interest rates) because unit banking made

banks locally captive – they could not withdraw credit from funding local activities during lean times because they had no other lending opportunities. Beginning in the 1810s, this unit banker-agrarian populist coalition gradually undermined an earlier system based on a small number of very large banks, which had been the brainchild of Alexander Hamilton. President Andrew Jackson's successful veto of the re-chartering of the Second Bank of the United States in 1832 signaled the hegemony of this populist-unit banker coalition.

The coalition of unit bankers and agrarian populists was able to impose its preferences because of the strongly federal nature of the US political system. The 13 colonies went to war against Great Britain as allied but separate entities, and when they won, they initially constituted themselves as 13 sovereign states joined in what was little more than a customs union. Drawing them together into a single nation, with a national government and constitution, required that the states retain considerable autonomy. Any power not specifically enumerated in the US Constitution as the province of the national government was left to the states – and the Constitution was silent about the regulation of banking. This meant that agrarian populists and unit bankers did not have to win legislative fights at the national level until the twentieth century: they only had to win local contests, which was a far easier task.

State governments responded to the problem of bank instability with actions of their own. State legislatures basically had two options: stabilize existing unit banks by creating mandatory deposit insurance, or allow banks to consolidate by permitting them to open branches. These strategies are mutually exclusive. In a mixed system of unit banks and branch banks, the unit banks will find it difficult to survive unless there is deposit insurance, because depositors will move their funds to the inherently more stable banks with branch networks that can spread risk across regions and transfer funds from one branch to another to head off runs (Economides, Hubbard and Palia 1996). A deposit insurance system undermines these advantages of branch banks, because it subsidizes the unit banks by providing them with access to deposits at low cost in spite of their higher underlying risks. As a result, in a mixed system that includes both unit banks and branch banks, the unit banks tend to favor state-run deposit insurance, because it allows them to compete with the branching banks, while banks with branch networks tend to oppose state-run deposit insurance because it undermines their competitive advantage over unit banks.

Between 1908 and 1917, eight states created mandatory deposit-insurance systems, and these demonstrate why the government-run deposit-insurance option should have disappeared in favor of the branch-banking option. World War I was good for American agriculture, as worldwide food shortages pushed up prices. Those shortages, however, were short-lived. As world output grew, agricultural prices collapsed, and unit banks in rural areas of the United States began to fail in unprecedented numbers: in the years 1921–29, 5,712 banks failed. All eight of the state deposit-insurance systems failed as well, and the banking collapses in the systems with mandatory deposit insurance coverage of all state-chartered banks were the most extreme examples of loan loss in the United States.

As a result of these failures, popular support both for unit banking and deposit insurance began to crumble. By 1930, eight states, primarily in the West and South, permitted unrestricted, statewide branching. An additional 13 states permitted branching, but tightly restricted the geographic extent of branch networks in order to protect unit bankers in rural areas from competition.

The Glass-Steagall Act: a lifeline for unit bankers

The wave of bank failures in the 1920s became a torrent during the Great Depression and threatened to completely undermine political support for unit banking. Between 1930 and 1933 more than 9,100 banks (38 percent of all banks) suspended operations. Depositors came to view unit banks (correctly) as more prone to failure. Moreover, the collapse of so many unit banks left thousands of agricultural communities, and even some suburbs of major cities, without any banks at all. The widespread contraction of credit that was associated with so much bank distress magnified the severity of the Depression (Calomiris 1993). By 1933, to many observers, it seemed as if the days of unit banking were numbered. In response to the severe banking distress of the early 1930s, states further relaxed their branching laws. By the end of 1935, 13 of the 27 states that had prohibited branching entirely in 1930 had repealed the prohibition, and seven states passed legislation allowing state-wide branching (Abrams and Settle 1993, 687–88).

A depression of the magnitude that hit the United States from 1929 to 1932 required a policy response by the national government. Among those responses was the Glass-Steagall Act of 1933. One component of Glass-

Steagall was the separation of investment banking from commercial banking, because some contemporaries (most particularly, Senator Carter Glass, who chaired the Senate Banking Committee) believed that allowing deposit-taking banks to underwrite and trade in securities distracted banks from their proper business of funding commerce, and in doing so exposed the financial system to the speculative actions of Wall Street bankers. That view had no empirical basis, and has subsequently been disproven by the research of numerous financial economists in the 1980s and 1990s, who found that banks that combined underwriting and lending prior to 1933 were better diversified, and that the debts they underwrote performed as well as the debts underwritten by specialized investment banks (White 1986; Kroszner and Rajan 1994; Ramirez 1995, 1999, 2002; Neal and White 2012).⁴

Glass-Steagall went far beyond the divestment of investment banks; it became a mechanism to preserve unit banking by removing the economic advantages of branch banks. It did so by actively discouraging competition among banks. The key to this was the establishment of federal deposit insurance: depositors had no incentive to move their funds to inherently more secure, better run (and often larger) banks: their deposits were guaranteed by the government, regardless of which bank they chose. Although the civics textbooks used by just about every American high school portray deposit insurance as a necessary step to save the banking system, all of the evidence indicates otherwise: it was the product of lobbying by unit bankers who wanted to stifle the growth of branch banking, and it was instituted in spite of the widespread understanding of its adverse consequences. First, the banking crisis of 1932–33 ended months before the establishment of FDIC (Federal Deposit Insurance Corporation) insurance. Second, President Franklin Roosevelt, as well as his secretary of the treasury and his comptroller of the currency, *opposed* deposit insurance: they were all familiar with the disastrous experience of state-level experiments with deposit insurance during the early 1920s. As then-candidate Franklin Roosevelt wrote in a 1932 letter to the *New York Sun*, deposit insurance, “would lead to laxity in bank management and carelessness on the part of both banker and depositor. I believe that it would be an impossible drain on the Federal Treasury” (Prins 2009, 139). Third, Senator Carter Glass and the Senate

⁴ Benston (1989) criticizes the nature of the evidence presented in the hearings leading up to the passage of the 1933 prohibition on combining investment banking and commercial banking.

Banking Committee, who drafted the initial legislation, were also opposed to deposit insurance. They allowed it to be added to the Glass-Steagall Act only at the eleventh hour, in order to gain the support of Henry Steagall. In fact, that eleventh-hour deal limited coverage to small deposits; it was broadened to include larger deposits several years later, well after the banking crisis had ended. Fourth, even with this initial limitation of coverage, the American Banker's Association lobbied Roosevelt to veto the bill after it was log-rolled through Congress.

The inclusion of deposit insurance in the 1933 act ended the long history of failed attempts by unit bankers and their allies to push through deposit-insurance legislation in Congress. Unit-bank supporters had tried on 150 separate occasions between the 1880s and the 1930s to create a federal deposit-insurance system. They succeeded this time not because the facts were on their side but because they had an able advocate in the person of Steagall, an Alabama populist who, as chairman of the House Banking Committee, held enough blocking power to force the addition of his legislative priority to the agenda of reforms.

Competition was further limited by other provisions of the Glass-Steagall Act (under section 5144), which were designed to make it more difficult for "chains" or "groups" of unit banks to become organized within a holding company. Chains and groups were not fully integrated corporate entities and thus were imperfect substitutes for nationwide branch banking. They had evolved as a second-best means of bank consolidation. The Glass-Steagall reined them in by requiring Federal Reserve Board approval for any voting of share interests in a bank by a bank holding company and by attaching costly burdens to that approval.

The Glass-Steagall Act further discouraged competition by regulating deposit interest rates. Regulation Q prohibited banks from paying interest on demand deposits. It also limited the interest rates that could be paid on time deposits. Regulation Q, like the new limits on bank involvement in securities underwriting, also reflected Senator Glass's desire to break the links between the commercial banking system and the securities markets; prohibiting interest on interbank deposits would discourage the pyramiding of reserves in New York (which funded New York's call money market) and encourage banks to use Federal Reserve Banks, not commercial banks, as their main repositories of funds.

Once the federal government guaranteed deposits by creating the FDIC and regulated deposit interest rates through Regulation Q, state legislatures faced reduced pressure from voters to allow branch banking. What possible benefit could now accrue to a client from moving his or her money from one bank to another: all deposits were safe, because they were insured by the government; and all banks paid essentially the same interest rate. Only four states relaxed their branching laws between 1939 and 1979 (Calomiris 2000, 67). In fact, as late as the early 1970s, only 12 states allowed unrestricted intrastate branching, and no states allowed interstate branching.

It is also interesting to note what the Glass-Steagall Act did *not* do. Most of the banks that failed during the 1920s and 1930s were located in agricultural areas, and the evidence indicates that bank distress during the 1920s and 1930s was primarily due to declines in agricultural income and land values both in rural areas and in cities.⁵ Nevertheless, Carter Glass made sure that real estate lending continued to be allowed. Loans collateralized by land had proven to be risky, but Glass wanted to maintain the incentives of rural banks with state charters, whose main business was lending to local farmers, to stay in the Federal Reserve System. After all, he had been one of the architects of the Fed in 1913 (Neal and White 2012, 109). Understandably, he opposed policies that might undermine support for it. Thus, even though it made the US banking system less stable than it would have been otherwise, the Glass-Steagall Act did nothing to limit lending on real-estate.

All of these steps did, in fact, produce a stable banking system, and that stability endured for decades. But that stability came at a cost. Given this collection of regulatory barriers, America continued to be a country of "unit banks." It was illegal for banks to branch across state lines, and the vast majority of states (38 out of 50, to be exact), limited the ability of banks to open branches even within the state. As a result, banks did not compete very hard against one another in loan markets. Financial economists generally agree that this system raised the cost of credit to small and medium business enterprises and households, thereby limiting economic opportunity and social mobility (Jayaratne and Strahan 1996; Kroszner and Strahan 1999; Black and Strahan 2001, 2002; Correa 2008; Beck, Levine and Levkov 2010). As bankers in those "good old days" joked, banking was a 3-3-3 business: borrow at three percent, lend at three percent more, and be on the golf course by 3:00.

⁵ See the review in Calomiris and Mason (2003).

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DO INTEREST GROUPS UNDULY INFLUENCE BANK REGULATION?

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Introduction

It is well known that banks in countries around the world play a key role in allocating resources that are essential to economic growth and development. It is also well known that banks do not always allocate resources to the most productive projects based on both risk and return considerations. This was the case during the recent global financial crisis when some banks engaged in such excessively risky and less productive activities that they either failed or were bailed out. The severity of the crisis underscores the need for governments to put in place bank regulatory regimes that prevent such deplorable episodes.

What may be less well known is that even if governments know what works best to ensure safer and sounder banking systems, it does not follow that they will pass laws and implement regulations consistent with that knowledge. The reason is that governments may simply choose policies that cater to their own private interests, rather than those that promote the public interest. In short, there are two different views of the type of regulatory regime that may exist in countries. One view, the private-interest view, is that governments will shape bank regulations so as to enrich and protect their interests. The other view, the public-interest view, is that governments will provide regulators with sufficient power to effectively curtail excessive risk-taking by banks so that they behave in a socially beneficial manner.

The view that dominates in a country will determine whether government leaders and regulatory officials choose those bank regulations that work best, or those that contribute to a less efficient and stable banking industry.

Of course, special interest groups, such as financial firms and consumer organizations, play an important role in the process by trying to influence the policies that are chosen. Some groups may lobby and provide campaign contributions to policymakers seeking preferential treatment for their narrow special interests, which tilts the balance towards the private interest view. For example, some existing banks will have an incentive to lobby in favor of regulatory policies that limit competition, such as those restricting the entry of new banks. As another example, some troubled banks will have an incentive to seek regulatory policies that grant them forbearance even as they compete in ways that may adversely affect other healthy banks. By contrast, other groups may provide useful information to policymakers that can lead to regulations allowing the introduction of new and innovative financial instruments that promote social welfare, which is consistent with the public interest view. For example, when savings and loans were devastated by interest rate increases in the late 1970s and early 1980s they successfully lobbied for permission to offer variable-rate mortgages and use derivative instruments to hedge their interest rate risk. In short, given the critical role played by banks in determining who gains access to funding and who does not, organized interest groups will surely devote substantial effort to shape national banking policies.

The purpose of our article is to discuss the private- and public-interest views of regulation. We will also briefly discuss the types of regulations that work best to promote well-functioning banking systems and the type of factors that either lead or do not lead countries to implement such regulations. As will be seen, it is the existence of certain political and institutional characteristics in countries that are likely to lead to the adoption of the public-interest view, rather than the private-interest view of regulation. It is therefore the extent to which these political and institutional characteristics exist in countries that will determine the degree to which spe-



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cial interest groups will be able to exert undue influence on government leaders and regulatory officials to favor narrow special interests rather than the broader public interests.

Private- vs. public-interest views of bank regulation⁴

The private- and public-views lead to two diametrically opposed outcomes with respect to bank regulation. If the private-interest view dominates in a country, it will lead to less efficiency in the banking sector and increase the likelihood of banking system fragility. In contrast, if the public-interest view dominates, it will lead to more efficiency in the banking sector and decrease the likelihood of banking system fragility. These two views fit into an important body of literature that examines whether and how some interest groups in a country use the coercive power of the government to extract rents from others within society (for example, Stigler 1971; Peltzman 1976, 1989; Becker 1983). The public choice literature in particular holds that interest groups that significantly benefit from specific policies being chosen are better able to organize politically to support those policies than society at large is able to organize to defeat the same policies if they produce socially inefficient outcomes. Furthermore, Baron (1994) and Grossman and Helpman (2001) stress that when the general voting public has incomplete information about public policies and their outcomes, this increases the effectiveness of well-organized interest groups.

There is a growing body of evidence that finds that interest groups can exert sufficient influence so as to help explain both the enactment and elimination of bank regulations. For example, researchers document that the comparative political power of small banks relative to large banks – rather than broader public interest considerations – has shaped regulatory restrictions on branching in the United States. Other research notes that some regulations influence small firms differently from large firms and stresses that the comparative power of these different interest groups influences regulatory policies (for example, Kroszner and Strahan 1998, 1999, 2001). In addition, Laeven (2004) shows that deposit insurance policies around the world are more consistent with the private-interest view than the public-interest view. Moreover, Hardy (2006) argues that differences in the regulatory regime across jurisdictions may persist because each adapts its regulations to suit its dominant

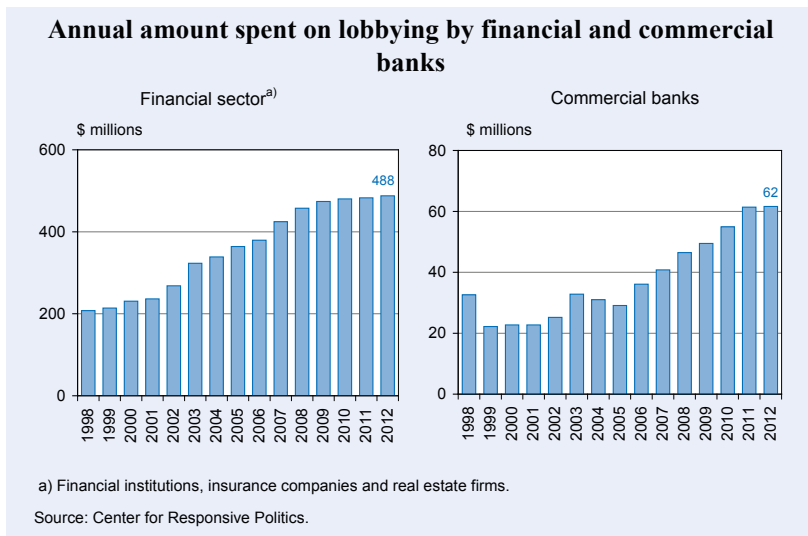
⁴ This section draws heavily upon Chapter 5 in Barth, Caprio and Levine (2006).

incumbent institutions. Furthermore Barth, Caprio and Levine (2006) empirically show that, despite evidence that private monitoring promotes better functioning banking systems, not all countries adopt such a regulatory policy.

More generally, there is a growing body of other research that focuses on how interest groups use lobbying to exert a disproportionate impact on public policies so as to benefit themselves. In the case of the United States, Figure 1 shows the annual amount spent on lobbying by the financial sector and the corresponding amount of spending by just commercial banks over the period 1998 to 2012. It is quite clear that the amounts spent in both cases increased considerably over the past decade. Specifically, the amount spent by financial institutions, insurance companies, and real estate firms increased to USD 488 million in 2012 from USD 214 million in 1999, or 128 percent, while for commercial banks the amount increased to USD 62 million from USD 22 million over the same period, or 178 percent. It is quite interesting that the biggest year-over-year increases in spending occurred shortly before and continued to increase during the financial crisis, the government's support of a large number of financial firms under the Troubled Asset Relief Program (TARP) in October 2008, and the passage and subsequent implementation of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the Dodd-Frank Act) in July 2010. With respect to the crisis, research indicates that the pressure exerted on the government by special interest groups played an important role in the rise and collapse of the mortgage market (for example, Mian, Sufi and Trebbi 2010a, 2010b; Igan, Mishra and Tressel 2012). In addition, Angkinand and Willett (2008) find strong support that certain characteristics of political institutions play an important role in affecting governments' abilities to reduce the costs of 45 banking crises in 27 countries by limiting undue influence of interest groups. Furthermore, Hardy (2006) argues that in the event of a large negative shock, the banks may succeed in obtaining forbearance and a loosening of regulations.

As regards TARP, Blau, Brough and Thomas (2013) find that the financial firms that lobbied or had other types of political connections were more likely to receive TARP funds. Indeed, they report that for every dollar spent on lobbying, financial firms received between USD 486 and USD 586 in TARP support. In addition, Gibson and Padovani (2011) find that banks are more likely to lobby when they are larger, have more vulnerable balance sheets, are less creditworthy, and have more diversified

Figure 1



business profiles. Lobbying has also been found to affect legislative outcomes. For example, Igan and Mishra (2011) report that lobbying expenditures by the financial industry were directly associated with how legislators voted on key bills before the crisis, and that bills proposing regulation that the industry considered unfavorable were far less likely to pass than bills proposing financial deregulation. However, they did indicate that it is hard to identify exactly what drove the financial industry’s lobbying efforts. If it was to promote rent-seeking activities they consider it socially undesirable, while if it was to offer information to policymakers and to promote innovation they consider it socially beneficial. Importantly, the fact that lobbying and campaign contributions exist in a country does not necessarily mean that that country is dominated by the private-interest view. It may be that they do, however, tilt the balance somewhat toward the private-interest view insofar as there is a spectrum of grey between the extreme private- and public-interest views.

There is also interesting information regarding the Federal Reserve’s role in implementing the Dodd-Frank Act. Specifically, McGrane and Hilsenrath (2012) discuss the far greater role that the Federal Reserve now plays in bank regulation as compared to earlier years. They specifically emphasize that the Fed is implementing regulations based on the Dodd-Frank Act almost completely without public meetings. McGrane and Hilsenrath point out that the Fed only held two public meetings after July 2010 as compared to as many as 31 public meetings a year in the 1980s and 1990s. They argue that: “...the Fed’s cloistered approach deprives

the public of insight into how rules are being written and makes it harder for Congress and others to hold them accountable for their decisions.” At the same time, however, many big banks, both domestic and foreign, are able to meet privately with the Fed. Table 1 shows the number of such meetings with selected big banks from 2010 to September 2013. These types of meetings certainly provide an opportunity for this particular group of banks to try to influence

the leniency or stringency of the regulations that are eventually implemented.

Interest groups, political institutions, and bank regulatory regimes

Acemoglu, Johnson and Robinson’s (2001) provide a useful analytical framework to help understand the emergence of political institutions and their relationship to the emergence of bank regulatory regimes. Using this framework Barth et al. (2006) argue that political institutions help understand cross-country differences in bank regulatory policies. In particular, they point out that the ability of interest groups to influence policies and promote their own interests depends on the political system. Some political systems discourage transparency, participation, and competition. Indeed, as they note, some political systems are controlled by entrenched elites and remain secretive about the exact nature of public policies. Thus, these types of political systems may be less successful in creating socially efficient banking regulations than open, competitive, democratic systems that encourage transparency and penalize corruption. As a result, even if one accepts that interest groups influence the choice and operation of bank regulations in an open democracy such as the United States, the degree to which private interests can easily manipulate public policies for their own gain may depend on the organization and operation of political institutions. Clearly, a narrow interest group consisting of elites has greater control over bank regulations in an autocracy than a democracy.

Table 1

Number of private meetings with the Federal Reserve by selected big banks					
Bank	2010	2011	2012	September 2013	Total
JP Morgan Chase	6	8	13	1	28
Bank of America	6	9	4	0	19
Goldman Sachs	3	7	7	2	19
Morgan Stanley	2	8	5	0	15
Barclays	1	8	1	4	14
Deutsche Bank	1	1	1	4	7
Wells Fargo	4	6	2	0	12

Source: McGrane and Hilsenrath (2012) and Federal Reserve (2013).

In a relatively recent book, Barth et al. (2006) examine the role that private monitoring, among other factors, plays in promoting prudent banking behavior. In particular, they argue that the public-interest view predicts a positive relationship between open, competitive, and democratic political systems and banking policies that foster private monitoring. Their empirical work indicates that this type of political and institutional structure does indeed positively and significantly increase private monitoring. This means that countries with more open, competitive, democratic political systems tend to adopt bank regulatory practices that focus more on information disclosure.

Using a similar approach to Barth et al. (2006), we also assess the relationship between private monitoring and selected political and institutional variables. They relied on the World Bank Banking Supervision Survey II (2003) to construct their measure of private monitoring. However, we rely on information from the World Bank Banking Supervision Survey IV (2011) to construct the same measure of private monitoring. This variable includes information on whether subordinated debt is allowable or required as part of capital, off-balance sheet items are disclosed to the public, risk management procedures are required to be disclosed to the public, and formal enforcement actions taken against banks are required to be made public. Moreover, since our purpose here is only meant to be illustrative, we use a slightly different set of political and institutional variables in assessing their impact on the private monitoring variable. If the impact of these and related variables is positive, we interpret this as meaning any undue influence of narrow interest groups is substantially reduced, if not eliminated. Otherwise, we would expect a negative impact for these types of variables.

Specifically, we use four indicators of the political and institutional structure in a country to assess whether differences in structure do indeed influence the choice of bank regulatory policies. These indicators provide information about whether each country's political system and institutional environment tends to favor the private-interest view (or narrowly focused interest groups) versus the public-interest view (or broadly focused interest groups). Two of the four indicators we use come from the Polity IV Project (Marshall, Jaggers and Gurr 2011), which provides a database on political regime characteristics for a broad cross-section of countries, and the other two come from the International Country Risk Guide (ICRG). These indicators capture the following characteristics in a country:

- Executive Constraints: the extent of formal constraints on the decision-making powers of chief executives.
- Democracy: the presence of institutions and procedures through which citizens can express effective preferences about alternative policies and leaders; the existence of institutionalized constraints on the exercise of power by the executive; and the guarantee of civil liberties to all citizens in their daily lives and in acts of political participation.
- Law and Order: the assessment of the strength and impartiality of the legal system, and the popular observance of the law.
- Bureaucracy Quality: where the bureaucracy has the strength and expertise to govern without drastic changes in policy or interruptions in government services.

We choose these indicators because they are likely to exist to a greater degree in countries in which the dominate

view is the public-interest view. A political and institutional structure in which there are formal constraints on the decision-making powers of chief executives, citizens can express effective preferences about alternative policies and leaders, the legal system is impartial and popularly obeyed, and a strong and expert bureaucracy is likely to be focused on protecting and promoting the well-being of the public. The resultant political and institutional system is also likely to put in place bank regulatory policies that do not strictly cater to special interest groups without regard to the interests of the public.

Table 2 presents our illustrative empirical results indicating the relationship between political and institutional characteristics in a country and private monitoring, which has been found to be significantly and positively related to good banking outcomes, by Barth et al. (2006). We find a significantly, albeit weak, positive relationship between greater constraints on the chief executive and a bank regulatory policy that fosters accurate information disclosure to the public. We also find a significantly, and again weak, positive relationship between the impartiality of the legal system and popular observance of the

law and private monitoring. It might be noted that Barth et al. (2009) find that objective court and better law enforcement tend to reduce bank-lending corruption. They indicate that this is to be expected since bank-lending corruption is generally related to other illegal activities and the expropriation of creditors' rights, so that a well-functioning legal environment helps reduce these practices. Moreover, in countries where the bureaucracy has the strength and expertise to govern without drastic changes in policy or interruptions in government services, we find a strong and positive relationship to private monitoring. Lastly, however, we do find a positive, but not robustly significant, relationship between democracy and private monitoring. More generally, consistent with the public-interest view of regulation, we find that countries that have the type of political and institutional characteristics considered here will tend to implement regulations that require banks to provide accurate information to the private sector. At the same time, this finding is consistent with an environment in which interest groups that promote only narrow self-interests, rather than broader public interests, would be limited in unduly influencing bank regulatory policies.

Table 2

Regression results								
Political variable								
	Executive Constraints		Democracy		Law and Order		Bureaucratic Quality	
Political variable	0.196**	0.157*	0.088**	0.053	0.237*	0.263*	0.419***	0.299**
	(0.075)	(0.083)	(0.038)	(0.040)	(0.126)	(0.137)	(0.106)	(0.141)
Legal origin - English		1.374***		1.327***		1.296***		1.139***
		(0.357)		(0.356)		(0.337)		(0.328)
Legal origin - French		-0.197		-0.236		-0.047		-0.121
		(0.368)		(0.376)		(0.347)		(0.356)
Legal origin - German		-0.320		-0.302		-0.486		-0.629
		(0.324)		(0.323)		0.362		(0.397)
Constant	6.798***	6.968***	7.290***	7.518***	7.120***	6.751***	7.027***	7.101***
	(0.452)	(0.619)	(0.304)	(0.452)	(0.561)	(0.668)	(0.307)	(0.465)
Observation	99	67	99	67	91	67	91	67
F-test (p-value)	0.0108	0.0001	0.0236	0.0001	0.063	0.0001	0.0002	0.0001
<p>The dependent variable is the private monitoring index from the World Bank Banking Supervision Survey IV (2011). The regressions are estimated using the Ordinary Least Squares with robust standard errors. Each of the four political and institutional variables is entered separately in each regression, with and without dummies for legal origin. The data for political variables are from 2007, prior to the onset of the financial crisis; therefore, the impact of these institutional variables is not driven by any change of political institutions as a result of the crisis.</p> <p>***, **, * indicate the significance levels of 1%, 5% and 10% respectively. The numbers in parentheses are standard errors.</p>								

Source: The authors and World Bank Banking Supervision Survey IV (2011).

The dependent variable is the private monitoring index from the World Bank Banking Supervision Survey IV (2011). The regressions are estimated using the Ordinary Least Squares with robust standard errors. Each of the four political and institutional variables is entered separately in each regression, with and without dummies for legal origin. The data for political variables are from 2007, prior to the onset of the financial crisis; therefore, the impact of these institutional variables is not driven by any change of political institutions as a result of the crisis.

These illustrative results and, more importantly, those of Barth et al. (2006) indicate that identifying sound policies is a necessary condition for formulating appropriate reform strategies, but successful reform recommendations would also need to consider the political and institutional forces at work in each country. Specifically, as they point out, making policy recommendations that actually induce socially efficient reforms will require an understanding of national political and institutional systems and almost certainly involve custom-designing bank regulatory reform based on these systems.

Conclusion

Our basic message is that the organization and operation of political and institutional systems shape bank regulations. Political and institutional systems are also important because they can limit the degree to which narrowly-focused interest groups can unduly influence policy choices. For instance, governments (or countries) with systems that grant disproportionate power to a narrow interest group are less likely to choose policies that distribute economic resources to the broader public based on merit and place more importance on promoting economic efficiency.

In terms of policy implications, our illustrative results and the more compelling results of Barth et al. (2006) emphasize that, in many countries, improving bank regulation requires more than identifying those bank regulatory policies that work best to improve the operation of banks and thus enhance social welfare. Clearly, a crucial component of implementing policies that maximize social welfare is to discover those policies that accomplish this goal. However, if policymakers do not choose to maximize social welfare, it follows that discovering the “best” policies will not lead to their adoption unless policymakers find it in their interest to do so. In other words, socially efficient regulatory reform that subverts

the narrow interests of special interest groups makes effective reform extremely challenging. Thus, the research finding that political and institutional systems substantively shape national bank regulatory policies implies that successfully implementing banking sector reform requires a full appreciation of the political and institutional differences between countries.

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SYNCRETISM: POLITICS AND INTEREST GROUPS IN JAPAN'S FINANCIAL REFORMS

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Introduction

Over the last two decades, cloaked in a cocoon of lackluster growth, Japan's economy has transformed from a closed system actively managed by the state to a more diversified and open rules-based system. The financial system, which lies at the core of the economy, was once dominated by banks under the heavy hand of the Ministry of Finance (MOF); today, the financial industry has a range of participants that are both foreign and domestic. What is most surprising about this reconfiguration of both the cast and their roles, however, is that the drivers of change were not the traditional interest groups that dominated Japan's postwar economy. Instead, reform came from political leaders seeking electoral support during a prolonged economic slump. As a result, the financial system today is best described as *syncretic* – a form of diversity in which new, old, and hybrid players coexist.³ While this syncretic form implies persistent inefficiencies, it insulated Japan's financial sector from most of the damage caused by the 2007–2008 global financial crisis, since its exposure to the US “shadow banking” system – non-deposit taking financial institutions at the heart of the crisis – was limited, and Japan did not develop its own such institutions.

Syncretism: the observed outcome in Japan's financial system

For a long time Japan's financial system was bifurcated into a “developmental” or “strategic” side entailing

commercial and policy bank systems and a “clientelistic” or “pork-barrel” side involving the massive postal banking system.

Commercial and policy bank systems were central to Japan's strategic, developmental politics. Households' and firms' deposits provided the funds for loans to industry, with MOF and the Bank of Japan deploying various formal and informal measures to shape the country's investment profile towards economically strategic sectors such as heavy industries.⁴

The postal banking system, containing the world's largest deposit-taking financial institution, was historically at the core of Japan's clientelistic postwar politics. Deposits from households throughout the country, gathered through post offices, were largely invested in infrastructure projects. The postal bank acted as the government's “second budget,” enabling politicians to allocate capital to electorally important sectors and public works projects in their local districts. The payoff was votes; the fact that the Liberal Democratic Party (LDP) enjoyed over fifty years in power was greatly facilitated by the postal banking system.

This post-war Japanese financial system was closed to new entrants and carefully segmented into subcategories such as banking, insurance and securities industries, each with strictly limited business models. Individual asset investment opportunities were essentially limited to domestic deposit-taking institutions and kept within the country. This segmentation also operated as the functional equivalent to the US 1933 Glass-Steagall Act that separated commercial banking from securities.

Since the 1980s, Japan's financial system has transformed extensively, becoming far more open and diverse. By the late 2000s, bond and equity markets had matured, and new entrants, both domestic and foreign, introduced various new business models. The banking system's role shrank, foreign insurers and securities

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³ For an extended version of the arguments about syncretism and institutional change in Japan, see Kushida and Shimizu (2013).

⁴ MOF used its licensing authority over bank branches to informally shape commercial banks' investment decisions. Policy banks, including the Developmental Bank of Japan and the Long-Term Credit Bank, were mobilized to lend to target industries. The Bank of Japan, particularly during periods of tight monetary policy, used “window guidance” to guide the lending of major city banks (Hoshi, Scharfstein and Singleton 1993).

firms became major players, and the postal savings system became corporatized, en route to full privatization and participation in market competition. Japan's financial system became vastly more complex, a trend also seen worldwide.

We contend that Japan's new financial system is best characterized as *syncretic*, due to the coexistence of new, old and hybrid forms of practices, norms and modes of organization. The old were not simply replaced by the new, nor entirely morphed into hybrid forms. While the breadth of the new has expanded, and significant hybridization is occurring, large portions of very traditional organizations, norms and practices remain. Syncretism, therefore, is a specific form of diversity. It is not simply hybridization, which is a melding of the old and the new, but instead represents the continued coexistence of old, new, and hybrid elements as distinct forms.⁵

The “new” elements are best represented by foreign investment banks, securities firms, insurers and some new Japanese entrants. They introduced new business models (for example, derivatives and annuities), practices (particularly regarding employment and inter-firm relations) and norms (for example, profit maximization and short-term shareholder returns).

The “hybrid” players, fusing traditional and new elements, are exemplified by the three major financial groups, Mizuho, Mitsubishi UFJ and Mitsui Sumitomo, centered on their respective mega-banks. The mega-banks were created by mergers between historical main banks organized into holding companies, and were allowed to expand into previously restricted areas such as securities, trust banking, and insurance. The financial groups embrace a combination of new and old business models (ranging from traditional deposits to foreign currency-denominated accounts and a variety of annuities and insurance products), multiple forms of employment practices (traditional seniority-based banks alongside performance-oriented securities subsidiaries, for example), as well as new and old inter-firm relations (acting as relational “main banks,” but also entering into joint ventures and tie-ups with foreign financial institutions).

The “old” are exemplified by regional banks, which overwhelmingly retain traditional strategies (continued heavy reliance on retail banking), organizational

⁵ Our concept of syncretism is simpler and captures the dynamics of change more easily than Aoki et al. (2007) who show Japanese firms clustering around the traditional J-firm model (with three subcategories), and multiple subtypes of two hybrid models (Aoki et al. 2007; Aoki 2010).

structures (main bank relationships, seniority-based hierarchies), and norms (regionally based with close ties to local governments and an emphasis on relationship banking as a key source of client information).

The postal banking system has also become a combination of the new, old, and hybrid. The corporate form is new, with the corporatized Japan Post Holding Company fully owning the bank, insurance, and postal services as subsidiaries. Private sector businessmen, appointed as top management, introduced new concerns about profitability. Employees – including postmasters – are no longer public servants. Postal companies can offer new products and services, such as mutual funds and credit cards, and tie-ups to foreign firms' insurance and annuity products. At the same time, Japan Post Bank is hybrid; the government still wholly owns the parent holding company, and plans to retain one-third of the shares.⁶ However, its core business remains traditional: the Japan Post Bank takes retail deposits through its nationwide network, and it is a significant buyer of Japanese government bonds – about one-third of the JPY 700 trillion Japanese Government Bond (JGB) market.

Syncretization: the pattern and process of change

How and why did this observed syncretism in Japan's financial sector occur?

The pattern of change entailed a period of gradual adjustment, with incremental regulatory reforms driving marginal changes in industry dynamics, followed by a burst of regulatory reforms that significantly reshaped the actors, business strategies, and patterns of interaction. In the case of Japan Post, partial longer-term retrenchment followed the burst of reforms.

The *driver of change* was political – a particular pattern of interest group politics we call *syncretization*. The prolonged gradual adjustment period was driven by traditional interest group politics; large, domestic financial institutions, mediated by the bureaucracy, dominated. At the junctures of rapid change, however, major political thrusts for reform were driven by the ruling party's acute electoral concerns. Traditional political bargains and historical industry-level policy processes were overridden by the political leadership's calls for structural reform – their platform for survival.

⁶ This hybrid ownership form has precipitated calls of unfair competition from private sector and foreign competitors.

Table 1

Japan's banking system – developmental and clientelistic sides, ranked by deposit size (trillion JPY)			
	City Banks	Regional Banks	Postal Savings
Deposits			
1995	209.0	217.7	-
2000	230.6	235.0	-
2005	255.7	245.9	200.0
2010	270.3	272.6	175.8
Assets			
1995	346.9	194.7	-
2000	373.0	200.5	-
2005	395.5	216.7	194.7
2010	419.4	240.1	264.9

Postal Savings adapted from Japan Post Bank Co. non-consolidated financial data.

Source: The authors, based on Bank of Japan, Financial Institutions Account, [http://www.stat-search.boj.or.jp/ssi/cgi-bin/famecgi2?cgi=\\$nme_a000_en&lstSelection=3](http://www.stat-search.boj.or.jp/ssi/cgi-bin/famecgi2?cgi=$nme_a000_en&lstSelection=3).

Critically, *the actors pushing for reform were not the incumbent, traditionally powerful interest groups most affected by reform*. The impetus for reform came, instead, from strong political leadership, particularly the prime minister's office, spearheading reform as a critical electoral strategy for the party's survival. Since the incumbent major financial firms were not spearheading reforms, only some rushed to embrace the new possibilities enabled by the reforms. Hence, the coexistence of old, new, and hybrid elements.

Despite the rise of new elements, the traditional and hybrid still remain as significant, distinct forms. Table 1 shows the roughly similar deposit amounts in the developmental/programmatic and clientelistic/pork-barrel sides. It is worth noting that the total amount of deposits in Japan's sixty-odd regional banks slightly exceeded that of city banks (including mega-banks and some others) by 2010. The Japan Post Bank, a single financial institution, still dwarfs the mega-banks (see Table 2).

Reform of the “developmental” private sector financial system

From the late 1970s, as finance liberalized globally, MOF carefully managed a gradual liberalization of the private sector financial system. The dominant pattern of interest group politics consisted of bureaucracy-mediated compromises pushed by intense lobbying from large Japanese financial institutions.

In the mid-1990s, however, a set of sweeping financial reforms known as the financial “Big Bang” reforms sub-

stantially reformed the sector. When implemented in the late 1990s and early 2000s, sectoral compartments were removed, enabling cross entry – most notably, banks could now enter securities, insurance, and other previously restricted businesses through holding companies. New entrants were welcomed, including foreign investors taking control of ailing Japanese banks, and financial institutions were allowed to offer new products such as derivatives. MOF itself was broken up, sharply curtailing its discretionary authority. The Financial Supervisory Agency was created to monitor financial institutions' activities on an *ex post* basis, rather than the previous *ex ante* coordination style of regulation under MOF.

The Big Bang reforms were spearheaded by Prime Minister Hashimoto's Cabinet, driven by electoral concerns, in an effort to appeal to voters hungry for change. The LDP faced unprecedented vulnerability; several years after the bursting of Japan's economic bubble in 1990, shared expectations of LDP's continuing electoral victories no longer held, an institutional change in the realm of norms (Toya 2006). As such, the Big Bang reforms departed from long-held patterns of bureaucracy-mediated compromises pushed by intense lobbying by large Japanese financial institutions. Nor did they result from political pressures by the reforms' greatest beneficiaries – foreign financial institutions. Instead, Japan's political leadership overrode intense opposition from the domestic financial industry. The reforms were broader and more drastic than previous reforms. MOF lost control of the reform agenda, and by opposing industry groups it only managed to slow down the pace of reform implementation.

Table 2

Comparison of Japan's financial groups and Japan Post Bank (trillion JPY)

2005	Deposits	Total Assets	2010	Deposits	Total Assets
Japan Post	200.0	247.7	Japan Post	175.8	194.7
Mitsui Sumitomo Financial Group	71.2	99.7	Mitsubishi UFJ Financial Group	123.9	204.1
Mitsubishi Tokyo Financial Group	70.4	110.0	Mitsui Sumitomo Financial Group	90.5	123.0
Resona Holdings	33.0	40.0	Resona Holdings	34.1	42.7

Source: Kaisha Shikiho (Summer 2005); Company Annual Reports (2010); Japan Post Co. Annual Reports (2005, 2010).

The politics driving Japan's Big Bang financial reforms starkly contrasted with that of the US and UK during the 1980s. In those countries, demand and support for reforms came from the most affected actors (domestic financial firms). In Japan, because the Big Bang reforms were not driven by the interest groups most affected (large incumbent Japanese financial institutions), the latter did not rush to embrace new business models and the organizational possibilities enabled by the reforms. Since the reforms themselves did not mandate a complete abandonment of previous practices, organizations, and business models, the industry developed following a pattern of syncretism.

Market outcomes of the financial "Big Bang": syncretism

The Big Bang reforms transformed the logic of competition in Japan's financial industry to a syncretic form, with old practices coexisting with new practices and strategic adjustments being made by incumbent players against the backdrop of new rules. Foreign firms and new entrants took advantage of new opportunities to offer services and products, becoming highly profitable. Incumbent Japanese firms were disadvantaged, since their organizations and strategies were optimized for outdated regulatory conditions. While free to enter new business areas, their existing workforces lacked the necessary expertise and radical workforce reductions were legally difficult and normatively prohibitive. After years of adjustment, many incumbents adopted hybrid structures, with holding companies, multiple employment tracks and diverse market strategies. For example, mega-banks formed securities subsidiaries, staffing them with bank employees with long-term employment arrangements, as well as new recruits and mid-career hires with Wall Street-style, short-term financial incentives in exchange for low job security. Regional banks,

with neither the resources nor the will to transform thoroughly, overwhelmingly adhered to traditional structures and strategies (Shimizu 2009).

Reform of "clientelistic" postal savings finance

Reform of the clientelistic side of Japan's financial system focused on postal privatization. The postal system fueled clientelistic politics in two significant ways: by providing funds to sectors and geographic areas deemed most effective in influencing votes; and by offering a nationwide network of post offices and postmasters to organize votes and influence policymaking.

Japan's postal savings system is considered the world's largest holder of personal savings; at its peak in 1999 it held JPY 224 trillion (USD 2.1 trillion in 1999 exchange rates) of household assets in savings accounts (*yū-cho*) and an additional JPY 126 trillion (USD 1.2 trillion) in life insurance services (*kampo*). Together, its assets accounted for nearly one-third of Japan's household assets. These funds fed the Fiscal Investment and Loan Program (FILP), which provided the key source of government investment in industrial development, small and medium enterprise support, public works, and other government-funded projects, enabling politicians to influence votes with public funds (Amyx, Takenaka, and Toyoda 2005; Iwamoto 2002). Given the sheer magnitude of household savings under government control through this postal system, Japan's reformers saw postal privatization as necessary for overall financial reform and liberalization.⁷

⁷ In 1997, deposits in private banks and the postal savings system totaled JPY 474,629 billion and JPY 237,782 billion, respectively. By the start of the privatization process in 2007, the amounts were JPY 545,043 billion and JPY 180,843 billion, respectively (Yoshino 2008).

Politically driven reform

Postal privatization was also a politically driven reform effort. It was most closely associated with one individual – Prime Minister Koizumi – who successfully passed postal privatization bills in October 2005. Koizumi had advocated postal privatization since the issue was first raised in the 1980s. His convictions were rooted in his origins in the Mori faction of the LDP and in the party's financial tribe or *zoku*, who were closely affiliated with MOF and the commercial banks. As prime minister, Koizumi regarded postal privatization as representing broader liberalization and structural reform. He had some bureaucratic support, but he had particularly strong backing from private banks and other firms who regarded the government's postal savings and insurance as unfair competition.

Not surprisingly, opposition to postal privatization was fierce. Rooted in 130 years of history (postal savings dating from 1875 and postal insurance from 1916), the powerful postal lobby, headed by the postmasters, was both the target of this reform and its most vociferous opponent. The postal lobby was supported by both LDP and opposition party politicians who had benefitted from the lobby's activities. It also found some public support among those who associate the old postal system with Japan's bygone era of economic prosperity co-existing with social harmony.

Yet in the end, Koizumi's determination and political acumen prevailed. Despite resistance that included many from within his own party, Koizumi successfully passed postal privatization by utilizing the institutions directly under his control – in particular, the Council on Economic and Fiscal Policy (CEFP), a policy group within the Cabinet Office largely independent of traditional interest group politics. Koizumi also took an electoral gamble, linking the credibility of his opponents to passage of the postal privatization bills. By framing postal privatization as symbolic of overall reform, his message resonated with voters eager for economic revitalization. Koizumi won a landslide victory in September 2005, receiving a mandate to pass the postal privatization bills the following month.

Over the longer run, however, Koizumi's strategy to weaken his opposition by refusing to endorse LDP politicians who were against postal privatization had important implications for the bills' implementation and the opposition's ability to limit their actual effects. Koizumi failed to concurrently strengthen the proponents of post-

al privatization by extolling its benefits and winning greater popular support. As a result, opponents worked diligently to undermine implementation after Koizumi's departure. This suggests a more general point that changing the rules despite heavy resistance from those most affected by them can be vulnerable to circumvention or even reversal in the implementation phase.

The current status of postal privatization is a combination of old, new, and hybrid. Japan Post Bank's basic business model of taking retail deposits through its nationwide network remains intact. The state has yet to sell shares in the postal savings and postal insurance companies. Although the postal savings bank is no longer required to invest its funds in FILP, the practice continues, with Japan Post holding about one-third of the JPY 700 trillion government bond market. And even although the political influence of the postal lobby and postmasters has declined, they have largely held onto their jobs. An irony of the privatization bill is that postmasters, no longer public servants, are now free to actively participate in political activities. Yet, their electoral influence has undoubtedly declined, although they evidently retained enough clout to gain DPJ support during the latter's brief reign.⁸

Conclusion

We expect Japan's financial system to exhibit syncretism for at least the short to medium-term. Therefore, although some areas of the system are rapidly converging with the US and the UK, in their style norms, organizations and strategies, like securities and investment banking for example, others retain their traditional structures and strategies, particularly regional banks. The growth of hybrid practices also means that convergence is unlikely any time soon. Although inefficiencies remain, the current state of affairs also insulates Japan's financial system from international shocks. The 2007–08 financial crisis, for instance, damaged Japan's export sector, but left most of its financial system unscathed, since the traditional and hybrid portions of the financial system had very limited exposure to the US "shadow banking" system, also precluding Japan from developing its own such system.

The potential integration of Japan's postal savings and insurance systems into the mainstream financial system represents the entry of massive new market players.

⁸ A leader of the postmasters group was quoted as saying that his group could guarantee at least 500,000 votes (Asahi Shinbun Globe 2009).

Yet, given the shifting political trajectory, with vested interests advocating a slowdown in reforms returning to political prominence, integration has been substantially decelerated. Japan Post Bank and Japan Post Insurance are still wholly held by Japan Post, itself 100 percent held by the Japanese government. In short, the reversals in the privatization process have created government-owned firms that directly compete with private firms, both domestic and international. This is another aspect of Japan's financial system that remains distinct from that of the US or the UK. However, although Japan may be blazing its own trail, these firms have the potential to create new headaches for the government as it attempts to steer Japan towards greater participation in both bilateral and regional trade agreements. In the recent negotiations for the Trans Pacific Partnership, for example, Japan met with US opposition to plan for state-owned Japan Post Insurance to enter the cancer insurance market. Syncretism may be the distinct outcome of politically led reforms, but a lack of conformity may also lead to isolation and accusations of unfair play.

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THE ROLE OF IMPERFECT FINANCIAL MARKETS FOR SOCIAL REDISTRIBUTION

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Introduction

The capacity to tax is one of the main pillars of government in modern developed societies. In the Western world, the institutions necessary for tax collection and compliance enforcement can nowadays largely be taken for granted. Consequently, the theory of optimal taxation is not a theory of institutional design. Instead, the choice of how much to tax and how to best spend the revenue is thought to be mainly constrained by asymmetric information and incentive effects.² In this article, I showcase to the contrary that the government's ability to redistribute through income taxation may very well depend on the specific characteristics of institutions that are, even in the developed world, still subject to new regulation; they depend namely on financial markets and their functioning.

Because optimal taxation of income is constrained by private information concerns, the government needs to be able to credibly promise not to misuse this information once it is revealed. Even a purely benevolent government needs a commitment device to be able to efficiently redistribute. I show that the existence of a financial market that allows people to take out loans and enter into longer-term consumption commitments may explain why a government is able to commit to keeping its promises. Interestingly, only financial markets in which individual agents have to bear a cost when defaulting on their loans have this favorable effect. In that sense, a real world friction – market incompleteness – can alleviate the credibility constraint of the government.

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² This argument does obviously not hold for most developing countries. The literature on taxation and development thus does not take these institutions for granted and instead focuses on how they emerge. For an overview see Besley and Persson (2013).

Income taxation – a theory of information constraints

Ever since the seminal contribution of Mirrlees (1971), it is widely recognized that the problem of income taxation is one of eliciting private information. Underlying this point of view is the assumption that people differ in their ability to generate income. Studies in the theory of income taxation make different assumptions as to whether this ability level is entirely innate or at least partly a personal choice (for example, through the choice of education and training), or whether it is fixed for life or subject to random shocks such as sickness – but they have in common that the heterogeneity in ability is the main motivation for a benevolent government to redistribute.

Each person's ability type, however, is assumed to be private information, that is it is unobservable to the government and cannot be used as a direct determinant of the personal income tax schedule. In other words, because the government cannot observe how productive each individual potentially could be, people cannot be forced to work a specific amount of hours or to produce a specific level of output for a compensation that the government decides based on its goal to redistribute alone. Instead, the optimal tax system needs to provide incentives for agents to work and save according to their true ability, while contributing to whatever level of social redistribution society deems appropriate.

The main complication in designing such an income tax schedule optimally is to prevent high ability types from adversely selecting into the tax and transfer brackets meant for lower types. With overly generous redistribution schemes, high ability types might find it individually optimal to pretend that they are also lower types, to work less and claim transfers to substitute their income. Since the government has no a priori way of telling people apart, this problem limits how much redistribution can be provided without destroying incentives to work. The classic Mirrlees insight is that the government needs to achieve a trade-off between efficiency (i.e., making the best use of the population's productivity) and equity (the degree of redistribution).³

³ For other early contributions see also Dasgupta, Hammond and Maskin (1979), Harris and Townsend (1981), and Holmström and Myerson (1983).

The government's commitment problem

When incorporating the Mirrleesian model into dynamic settings, it turns out that these incentives are best spread over time. Golosov, Tsyvinsky and Werning (2006) provide an extensive overview of the New Dynamic Public Finance literature that has established this and many related results. An individual who produces more and pays higher taxes today should not only be rewarded today. The government can also promise such individuals that they will be better off tomorrow, regardless of their future contributions, and in return grant less of an advantage today. Compared to a scenario where incentives are paid only in the present period, spreading the incentive payments into the future reduces inequality at any given point in time and thus better serves the redistributive goal of the government. However, in order to achieve such a compromise in the inherent efficiency-equity trade-off, the government needs to be able to *commit* not to renege on promised incentive payments in the future.

A lack of such commitment is generally expected to lead to extremely inefficient outcomes. When people cannot trust the government to stick to its promises, it becomes much harder to convince them to work according to their true ability type and only to claim the transfers they are truly entitled to. The reason for this is that, as time passes, the choices made by each agent (i.e., how much to work and to produce, and which transfers to claim) reveal his/her ability type to the government. After this information has been revealed, however, a benevolent government is tempted to use it to implement extreme levels of redistribution. It could now directly force those who are highly productive to work a lot, and to pay more taxes in order to maintain a much larger welfare state. Since agents anticipate such ex-post policy changes, they will not find it optimal to reveal their type truthfully in the first place, unless they are compensated right away. Consequently, a government without commitment cannot generally achieve the same level of redistribution and efficiency in the economy as one with a commitment device.

A growing body of literature characterizes optimal Mirrleesian taxes in setups without commitment to establish how severe the consequences of commitment problems are. Brett and Weymark (2011) consider a two-period setup with savings and show that the government without commitment will always find it optimal to distort savings. Berliant and Ledyard (2005) consider optimal dynamic income taxes in a setup where income *cannot* be transferred between periods (i.e., no financial

market exists), in which they demonstrate an equivalence of dynamic and static optimal taxes. Both papers find that some, but a rather limited separation of types (and thus limited provision of incentives), is possible under some circumstances, even when the government has no commitment. Yet, there are also circumstances under which it would be entirely impossible for a government without commitment to implement any redistribution at all. This kind of ratchet effect in income redistribution was firstly demonstrated by Roberts (1984) and more recently extended to a fully dynamic setting by Golosov, Tsyvinsky and Werning (2006). Examples in Bisin and Rampini (2006) and Simon (2012) show that higher inequality in terms of ability makes the commitment problem more severe – necessary incentive payments can quickly become so large that the government without commitment chooses not to provide any social redistribution. A lack of commitment on the government's part to honor promises in the future thus generally leads to extremely inefficient outcomes.

It is important to note that this problem occurs despite the government being fully benevolent. It is not due to the self-interest of politicians, nor to an unexpected change in the Pareto weights that the government associates with different parts of the population. Any government that cares about social redistribution might, in principle, come up against this problem. Yet, in reality, governments in developed countries are very able to redistribute through income taxation. There is, however, little reason to believe that these governments possess some exogenous commitment device. Instead, commitment must stem from the economic and political environment that the government operates in. The question is therefore: which characteristics of the economy, the evolution of agents' skills, or the nature of interaction between agents and the government enable such effective commitment? This article takes a look at one possible explanation and argues that the institutional design of the market economy may play a crucial role in commitment.

Individual involvement in financial markets

In Simon (2012), I demonstrate that agents' involvement in financial markets can alleviate the government's commitment problem and so facilitate social redistribution. For this mechanism to work, some specific characteristics of the financial market are important. Markets need to be functional and, in principle, accessible to everyone. Individual contracts need to be enforceable.

Those are institutional details that are well established in developed market economies. Today's regulatory efforts are aimed at eliminating market frictions, trying to get closer to the theoretical ideal of perfect, complete markets. I show, however, that financial markets have a favorable effect in terms of the described commitment problem of the government only when they are imperfect. This is a case where the details of the institutional design of markets may matter greatly to the government's ability to redistribute.

The argument is simple: in market economies, individuals do not typically constrain their consumption to equal net-of-tax income every period. Instead, they use financial markets to allocate their resources over time. For instance, a mortgage contract enables agents to live in a house that reflects their life-time income rather than in a rental unit that reflects their present disposable income every period. The financial markets that people use in reality, however, are typically imperfect in the sense that adjustments to individual contracts are costly. If at any point in time an agent cannot afford his mortgage payments any longer, he needs to refinance, sell or even default – none of which are costless options. Consequently, by using markets, agents enter *individual commitments*.

Optimal redistributive policy takes agents' involvement in such markets into account. At any point in time, when the benevolent government considers changing the promised tax schedule, it also considers people's contractual positions. If an agent ends up with less net-income than promised, he will have to adjust his consumption plan downward and possibly adjust his financial contracts. The costs of such adjustment (or "default") can deter the government from renegeing on past promises. This is not assuming that banks can force the government to bail out all individuals who cannot or do not want to afford their mortgage payments any longer. On the contrary, I show that even although these consumption commitments are enforceable only at the individual level, the imminent default costs for each individual agent add up to an effective commitment device for the government.

A favorable market imperfection

The ability for agents to enter into such contracts starkly distinguishes a developed market economy from a developing economy. Without the existence of a functioning financial market or a reliable enforcement system, people are forced to consume what they earn in the pres-

ent. They cannot make long-term consumption plans. In the worst case, when no markets exist, people can at most rely on very inefficient savings methods or personal risk sharing arrangements if they want to be anything but hand-to-mouth consumers. In the developed world, on the other hand, nearly all individuals use contracts in private markets to plan their consumption over long periods of time. Mortgage financing of housing is ubiquitous. However, energy supply contracts, insurances or fixed-term savings vehicles also count in this category. One important characteristic that these arrangements share is that they cannot be changed at any given point in time without costs arising. Instead, people pre-commit significant amounts of their income in private contracts: Chetty and Szeidl (2007) report that nearly 65 percent of the average US household's budget is allocated to such consumption commitments.

Theoretically, this description of market imperfection maps into the concept of market incompleteness in the classical sense: there are no complete resale markets for financial claims at every point in time. It is not easily conceivable what perfectly complete markets would look like in reality. In terms of the mortgage example, a complete market would have to allow for selling the usage rights to a house by the minute and the square foot. Someone who cannot afford his mortgage at some point in time could then seamlessly adjust his ownership, without incurring any extra costs of refinancing, selling or moving.

Although such perfectly complete markets are inconceivable, the degree of incompleteness still varies, and depends very much on how market institutions are regulated. Indeed, defaulting on a private loan has very different consequences in different countries. These consequences range from simply handing over the collateral and walking away in the US to personal bankruptcy regulation that gives creditors a claim to future earnings in Germany. Such differences can be summarized simply as differences in the costs faced by an individual when defaulting on a private contract.

From the point of view of redistributive income taxation, these individual default costs, and so the degree of market incompleteness, are linked to the level of incentive payments the government can effectively commit to. When agents have pledged their promised net-income in financial contracts that cannot costlessly be changed, then renegeing on promised incentive payments leads to costs for the benevolent government as well. Extreme levels of redistribution may not be desirable any longer;

the ex-post gain from redistribution must be weighed against the loss incurred from default. Theoretically, the optimal income tax schedule will be such that the marginal benefit from additional redistribution toward the low end of the type distribution is exactly offset by the marginal cost due to additional default. In such cases agents correctly anticipate that the government will not find it profitable to renege on its promise ex-post.

Limited commitment and the optimal tax schedule

As long as the default costs are strictly positive, the government gains a new degree of freedom in designing its tax policy. Naturally, the larger the default costs, the better for the government's commitment problem. When pushed to the limit, if default costs were so high that agents stood to lose all of their net-income even if they had to adjust their contract only a little bit, the government would effectively gain full commitment. Even although theoretically possible, this mechanism arguably may not be strong enough in reality to provide full commitment. The main result of Simon (2012) shows, however, that even a small market imperfection leads to a limited degree of effective commitment and so weakly improves welfare compared to an economy where people do not have access to financial markets.

Moreover, the larger initial inequality in the population (in terms of ability types), the more helpful the commitment stemming from people's involvement in an imperfect financial market. In particular, whenever ex-ante inequality is so high that a government without commitment power would not find it possible to implement any social redistribution (the worst case scenario of the ratchet effect), then even a small default cost and a small degree of effective commitment as a result have a big impact on the optimal tax schedule: as the government gains the ability to implement at least some redistribution. It will optimally collect only a limited amount of information, so that the ex-post temptation to misuse this information is kept in check by the default costs. That means the optimal tax schedule partially pools some agents of the type distribution. Depending on the specific characteristics of the underlying type distribution and the structure of default costs, the schedule could be designed in income brackets, or in the form of a cap beyond which income need not be precisely reported. Indeed, many real world tax codes have features of such pooling. For example both Germany and the US have an income cap beyond which no additional social security contributions are paid.

The specifics of market design matter

The effect of agents being able to use financial markets to allocate their resources on optimal taxation has received considerable attention before. Many authors have considered environments in which agents cannot only contract with a principal, but also in *anonymous* outside markets that make it harder to extract information from the agents truthfully. See, for example, Hammond (1987) for a general treatment or Golosov and Tsyvinsky (2007) for a more recent example from the dynamic public finance literature. The general conclusion is that when the government has an *exogenous* commitment device, letting agents use markets to allocate resources decreases the set of policy instruments available to the government. Some of the incentive structures the government would like to implement can simply be undone by agents trading in markets. The literature therefore concludes that the presence of markets hinders redistribution. The main argument presented here is that this conclusion does not necessarily hold when the government has *no* commitment. In that case, letting agents use financial markets can be beneficial, if these markets are imperfect. While it remains true that agents can undo some of the government's provision by using the market, it is their involvement in the market that enables the government to provide incentives in the first place, so that the net benefit of having markets is positive.

Yet, even in the no-commitment environment, the way in which the presence of markets influences optimal taxation depends on institutional details. Bisin and Rampini (2006) study a no-commitment setup similar to the one considered here, but again focus on the allocative role of *anonymous* markets. They find that allowing agents access to financial markets that act as "tax havens" is also beneficial in a world where the government has no commitment. It allows agents to allocate their resources over time without revealing any information, thereby increasing efficiency. However, the government's commitment problem is unchanged; no social redistribution can be implemented. In order for the commitment problem to be alleviated (as in Simon 2012), contracts need to be observable. The government must be able to use agents' contractual positions as determinants of the tax schedule. In reality, this can be achieved through a variety of regulations. For example, a government could mandate that banks make all information about personal loans available. In Sweden, for example, the tax authority is automatically informed about new mortgages directly through the lending bank. Another possibility is to directly ask about personal debt at the tax filing

stage. In many tax systems individuals must report their personal loans on their tax return and can deduct at least part of the payments connected to these loans from their taxable income.

There are potentially many more ways in which the presence and functioning of markets influences the government's ability to implement redistributive policy. Scheuer (2010), for example, explores the impact of incomplete credit markets on optimal entrepreneurial taxation. He finds that a market friction that gives rise to cross-subsidization between different types of potential entrepreneurs may induce inefficient entry at both ends of the skill distribution, which, in turn, promotes an additional corrective role for type-differential, redistributive taxation, even when the government originally has no redistributive objective.

Commitment through other institutions

Beside the presence and degree of imperfection of financial markets, there are other mechanisms that might potentially provide the government with effective commitment. Acemoglu, Golosov and Tsyvinsky (2008, 2010) consider self-interested politicians who cannot commit not to misuse information *and* can appropriate resources for their own benefit. They show that, in an infinite horizon setup, such governments can effectively commit on the equilibrium path, essentially because they want to maintain their rents agreed upon in the social contract. Such equilibrium can only exist when it is supported by the threat of agents reverting to the worst outcome after a government deviates from promised policy (either by not producing anything, or by replacing the government). In that sense, their findings are parallel to reputation mechanisms – a channel completely abstracted from in this article.

Many constitutions also explicitly provide commitment mechanisms preventing the extreme levels of redistribution that go along with expropriation. When such a constitution is meaningfully enforced by an institution outside the government's reach, it probably helps to boost the government's credibility in making promises for the future. Yet, such constitutions only provide against extreme cases of lack of commitment. Governments in developed countries do have considerable scope for tax reform. Tax schedules are subject to frequent changes, often leaving some people worse off than they anticipated. This is evidence of the fact that commitment does not stem from one mechanism alone. Exactly how these

different mechanisms – political reputation, laws, and the market environment – influence each other remains a subject for future research.

Conclusion

The economic environment a government operates in plays a critical role in how much redistribution can be achieved. When agents are privately informed about their ability to generate income, the government's capacity to implement social redistribution depends crucially on its power to commit to future policy. Such commitment does not exist exogenously for any government. Instead it results from political, constitutional and market institutions that influence the policy space for the government.

This article argues that one such commitment providing institution is an imperfect financial market. Access to markets that allow agents to pledge their life-time income in contracts that cannot costlessly be adjusted changes the government's ex-post temptation to deviate from past promises, and thus enhances its credibility. In that sense, income taxation and redistributive capacity are also a function of the institutional design of the market economy. This is not to say that financial markets need not be regulated. Importantly, this mechanism relies on the fact that banks do not over-lend. How to implement the necessary safeguard mechanisms against excessive risk-taking in the financial market, as well as the potential advantages of more complete markets have not been a part of the discussion offered here. In that sense, this article paints only one side of the financial market regulation picture and should not necessarily be understood as arguing for more imperfection. Instead, it highlights the role that existing frictions in financial markets play for redistributive policy in a social market economy and sheds light on a type of interrelation between markets and government policy that has previously been unexplored.

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LOCAL DEREGULATION OF THE WHOLESALE BROADBAND ACCESS MARKET

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Introduction

Geographically differentiated regulation schemes are currently discussed in European telecommunication markets. The debate focuses on the so called wholesale broadband access (WBA) market, where broadband providers with little of their own infrastructure gain access to end-users via the incumbent's network. Under geographically differentiated regulation, the incumbent infrastructure provider is no longer regulated on a *national* basis in the WBA market, but is released from regulation in those *subnational* areas where sufficient infrastructure-based competition has developed. In such cases regulation only concentrates on areas in which competition does not arise under free market conditions.

Even though the topic has been discussed in many European countries, only the UK and Portugal have adopted the geographically differentiated regulation to date. The WBA is currently under review with the UK and German authorities, in accordance with European Commission guidelines, which require regular revisions and updates of the status quo.

From a theoretical perspective, a question mark still hangs over how the deregulation of areas with high levels of competition affects future competitive development. On the upside, entrants benefit from the WBA regulation since they are able to test local markets "risk-free" via the incumbent's network, and regulation thus

creates competition. On the downside, the guaranteed access may, in fact, lower competitors' incentives to invest in their own networks, which hampers infrastructure-based competition.

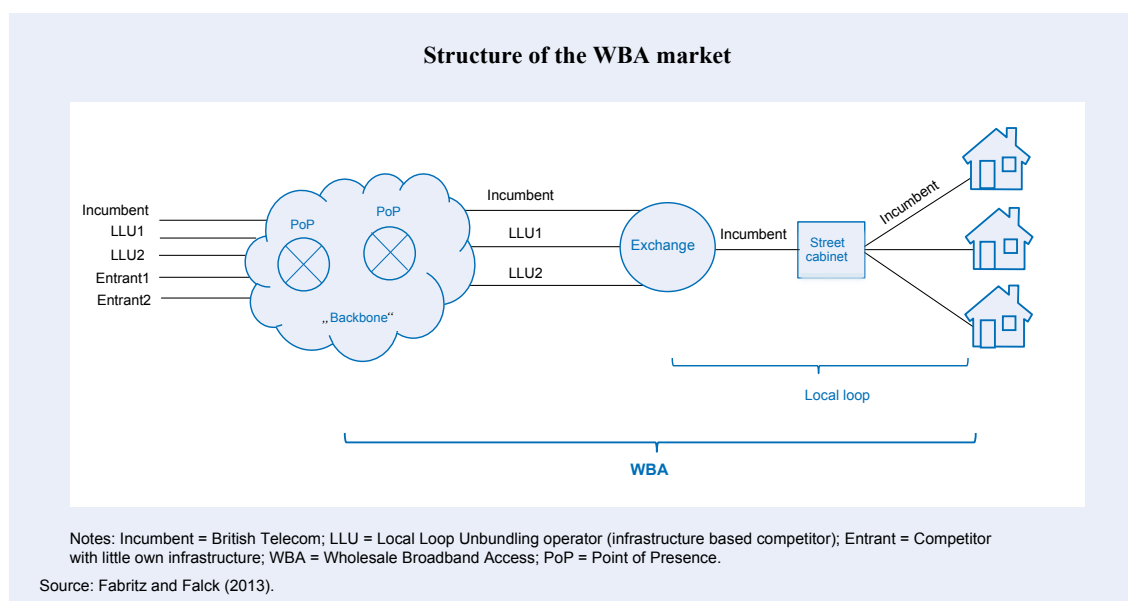
But in any case, a competitor with little of its own infrastructure faces higher degrees of uncertainty in deregulated markets: future access to the incumbent's network is no longer guaranteed and future wholesale prices might increase. Competitors with little of their own infrastructure are therefore likely to expand their networks in markets with high demand for their services. A higher number of competitors that operate in the broadband market based on their own infrastructure are likely to influence the incumbent's investment behaviour. One way for the incumbent to escape such strong competitors would be to upgrade its own infrastructure and to offer a higher quality (i.e. bandwidth) to the end-user. However, the ultimate effects of a deregulation are unknown and there has been no rigorous empirical analysis of the subject to date. We therefore want to contribute to the discussion by empirically analysing the local deregulation of the WBA in the UK, which was the first European country to introduce a geographically differentiated regulation scheme in 2008. Our aim is to identify the effect of deregulation on infrastructure investment, and therefore on the competitive environment, in the deregulated areas. Infrastructure investments are of direct relevance to regulators. Regulators, which tended to focus on fostering competition in already existing networks in the past, now need to take a more dynamic perspective. According to the European Commission, substantial investments in telecommunication infrastructure are necessary in order to ensure European competitiveness and growth (European Commission 2012a).

Wholesale broadband access

Wholesale broadband access refers to the market in which an internet service provider with a limited amount of its own infrastructure buys transmission services from an infrastructure-based telecommunication carrier in order to provide internet services to end-users under its own name. The European Commission

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Figure 1



(2007a) defines the WBA market in its 'Relevant Markets Recommendation' from 2007 as Market 5: "This market comprises non-physical or virtual network access including 'bit-stream' access at a fixed location...". Figure 1 displays the structure of this market. A broadband provider with little of its own infrastructure transports the data stream over its own network up to an interface (the point of presence), where the data stream is handed over to the incumbent (or an alternative provider) who then delivers it via its own network to the end-user.

Traditionally, the incumbent used to be the sole provider of WBA and was regulated on a national basis. The regulation typically comprised of cost- and access regulation, as well as a number of other remedies. During the last decade, the regulation of the WBA market was necessary and facilitated entry during an earlier phase of market development. Entrants were able to test local markets "risk-free" via the incumbent's network without the commitment of building their own infrastructure. In recent years, however, competitors have begun to invest in their own networks in areas in which they have a sufficiently large customer base. The incumbent's networks are thus gradually

being replicated, and in some cases, competitors even offer WBA services themselves.

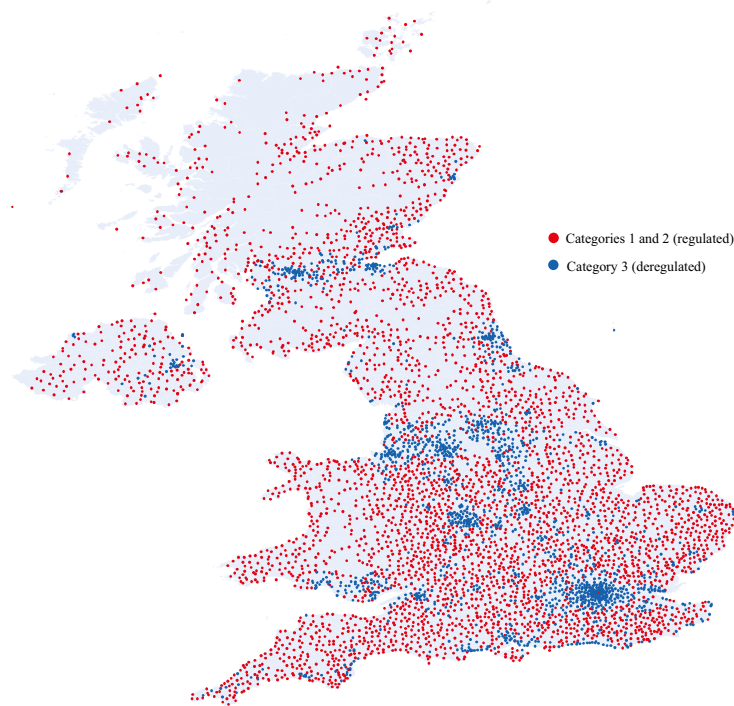
Competitors typically replicate the incumbent's network from their respective points of presence up until the local exchanges, where main switches and hardware are located that connect the end-users to the backbone network. Broadband providers whose network reaches the exchange are called Local Loop Unbundlers. These infrastructure-based competitors only depend on the part of the incumbent's network that connects the local exchange with the respective end-user, or the "last mile" which is also known as the "local loop". Access to the local loop (Market 4 in the European Commission's Relevant Markets Recommendation) is a separate market from WBA, and deregulation of the local loop is not under discussion, meaning that access to end-users is always guaranteed to Local Loop Unbundlers.

Table 1

Ofcom's criteria for deregulation in 2008/2010			
	2008/2010	2008	2010
	no. of principal operators	market size	BT market share
regulated	≤ 3	-	-
deregulated	≥ 4 or 3 & 1 forecast if	- > 10,000 premises	- ≤ 50%

Source: Ofcom (2008; 2010).

Figure 2
Distribution of deregulated areas in the UK



Notes: The figure represents the status quo as of 2010.
 Source: Own representation based on data provided by Samknows (2012).

The process of local deregulation in the UK

In the UK, the WBA market used to be regulated on a national basis, but in 2008 geographically differentiated regulation of the WBA market came into effect. The European Commission supported Ofcom's – the national regulator's – decision as *ex ante* regulation should be relaxed when infrastructure-based competition becomes sufficiently developed (European Commission 2007b).

Figure 2 shows the geographical distribution of deregulated areas in the UK as of 2010, mapping areas that were deregulated in 2008 and 2010. The decision of whether or not an area is deregulated is primarily based on the number of large, infrastructure-based competitors that provide broadband services in the respective exchange area. Besides British Telecom and Virgin Media (the cable operator), six Local Loop Unbundlers with a national coverage of more than 45 percent of UK premises were considered relevant for the deregulation. Ofcom grouped all areas into three categories based on their competitive situation. Categories 1 and 2 remain regulated, but the incumbent British Telecom was released from regulation in Category 3 areas. Category 1 is comprised of areas where British Telecom is the

only operator. Category 2 contains areas in which some competition has developed. These are areas where two or three principal operators are actually present, or are forecast to be so. In Category 2 there are also areas with three principal operators actually present and one forecast principal operator if the areas number less than 10,000 premises. Category 3 consists of areas with four or more principal operators, and areas with three and at least one more forecast operators that number more than 10,000 premises. In its 2010 revision of WBA market regulation, Ofcom considered the 10,000 premises rule as redundant and introduced a new criterion for deregulation. In addition to the number of principal operators, British Telecom's market share had to be lower than 50 percent, the standard threshold at which significant market power can be assumed according to Commission guidelines (Ofcom, 2010). Table 1 summarises the criteria underlying the market definitions in 2008 and 2010 respectively.

Local deregulation of WBA in an international comparison

Many countries experienced increasingly infrastructure-based competition that led to the reconsideration of the national regulatory approach. It has been suggested that areas with well-developed infrastructure-based competition may now actually stand to benefit from deregulation. As a result, starting with the UK in 2008, a number of European countries have introduced – or at least debated – a subnational geographically differentiated regulation of the WBA market.

A geographically differentiated regulation has only been introduced in the UK and in Portugal to date.² The Portuguese national regulatory authority Anacom chose to adopt an approach similar to Ofcom's (European Commission 2008a). Areas were categorised in 2008 based on the number of infrastructure-based competitors (Local Loop Unbundlers) and the presence of cable operators. Competitive areas were eventually deregulated. However, in contrast to the UK, where the incumbent faces direct competition in the WBA market, the Portuguese incumbent Portugal Telecom was the sole provider of WBA services. Anacom still argued that competition from cable operators and Local Loop Unbundlers in the retail market put indirect pressure on prices in the WBA market.

² We describe the *National Regulatory Authorities' requests for geographic differentiation of the WBA market* in more detail in the CESifo DICE Report 2/2013 (Summer) Database Article, available at <http://www.cesifo-group.de/w/42U7Ss3gu>.

In general, the European Commission is in favour of the geographical differentiation, provided it is in accordance with EU law: “*For the Commission, Ofcom’s proposal represents a reasonable move towards better targeted regulation, concentrating on those geographic areas where structural competition problems persist*” (European Commission 2008b). However, in other countries the European Commission expressed “serious doubts” as to the implementation of the geographically differentiated regulation (for example, Spain, Finland, Poland, Czech Republic (European Commission 2008c;d, 2012b;c)) and the scheme has not been adopted. In some cases, national authorities have already declined the proposition (Germany, Austria). The German regulator argued in 2009 that future developments in the broadband wholesale markets were too unforeseeable. With the roll-out of fibre-based infrastructure, many exchanges would become redundant in the future. Local Loop Unbundlers would thus depend on WBA to provide broadband services in the areas concerned (despite the fact that their network reached the exchange). In such cases, WBA becomes necessary for competition in the retail market and should therefore remain regulated. In addition, the German regulator had defined a national WBA market that should also be regulated on a national basis (Bundesnetzagentur 2010). In Austria the Administrative Court objected to the national regulator’s decision to deregulate in 2008, since it had defined the national scope of the WBA market (European Commission 2008e).

Infrastructure investment by the incumbent and its competitors

The data for our analysis stem from *Samknows*, a not-for-profit website that was originally founded in order to inform the general public about local broadband speeds. In addition, the website offers detailed information on the competitive situation in the various areas.

We are interested in how the local deregulation of the Wholesale Broadband Access market has influenced the investment behaviour of the incumbent British Telecom and its competitors. To this end, we measure the incumbent’s infrastructure investment by the availability of British Telecom’s fibre-based access networks (Next Generation Access) in an area. This technology allows for super-fast broadband connections due to higher bandwidth. Competitors’ infrastructure investments are measured by the number of infrastructure-based competitors (Local Loop Unbundlers) in an area. In

order to become Local Loop Unbundlers, broadband providers had to make large infrastructure investments. Information about fibre-based access networks and the number of infrastructure-based competitors are available for the year 2007, immediately prior to the introduction of the local deregulation and for the year 2012, two years after the last change in the regulatory scheme.

The challenge with this analysis lies in separating the true effect that deregulation may have on infrastructure investment from the effect that investment behaviour has on deregulation: Regulated and deregulated areas already differed in their characteristics before the first regulatory change in 2008. Prior to 2008, deregulated areas had developed higher levels of competition, which also directly influenced the regulatory decision (since a subset of competitors count as relevant for deregulation). Moreover, these areas have more premises on average, exhibit a higher population density and usually enjoy a higher income. Mere differences in the number of infrastructure-based competitors and fibre availability between regulated and deregulated areas in 2012 would thus largely reflect initial differences in the levels of competition and local characteristics, instead of the deregulation effect. In what follows, we therefore do not compare *levels*, but rather the differences in the *development over time* between the two groups (regulated and deregulated areas). Differences between areas that already existed before 2008 are accounted for with this method. In addition, we consider the fact that areas that start from different levels might develop differently by including the starting levels from 2007 in our analysis.

Deregulation and investment incentives

Table 2 shows the results from comparing the changes in investment between the incumbent and its competitors. Columns (1) and (2) present the basic results, from a comparison of all areas. In this sample, by 2012, deregulated areas count on average one Local Loop Unbundler more and are 26 percentage points more likely to have fibre-based technology installed, even just a few years after deregulation was introduced.

This method already accounts for many differences between the areas. In order to further improve comparability between regulated and deregulated areas, we next present results from a subsample in columns (3) and (4) that only considers areas with 3 or 4 principal operators in 2007. They started out with very similar competitive conditions in 2007, but some of these areas were deregulated

Table 2

The effect of local deregulation on infrastructure investment							
	All exchange areas				3 and 4 principal operators in 2007 & premises < 10,000		
	(1) ΔLLU	(2) ΔNGA	(3) ΔLLU	(4) ΔNGA	(5) ΔLLU	(6) ΔNGA	(7) ΔLLU
Deregulated (in 2008 or 2010)	1.06*** (0.07)	0.26*** (0.03)	0.61*** (0.19)	0.17** (0.08)	0.42** (0.20)	0.16* (0.08)	
Deregulated 2008							0.22 (0.25)
Deregulated 2010							0.46** (0.19)
# LLU (in 2007)	-0.48*** (-0.02)	0.04*** (0.01)	-0.46*** (-0.09)	0.06** (0.03)	-0.39*** (-0.09)	0.08** (0.04)	-0.32*** (-0.11)
Broadband via cable (in 2007)	-0.17*** (-0.05)	-0.12*** (-0.02)	-0.18 (-0.17)	-0.16** (-0.06)	-0.12 (-0.18)	-0.12* (-0.07)	-0.05 (-0.19)
Premises (in 1,000s)	0.08*** (0.01)	0.02*** (0.00)	0.13*** (0.02)	0.03*** (0.01)	0.27*** (0.05)	0.03 (0.02)	0.27*** (0.05)
Δ Regional characteristics	yes	yes	yes	yes	yes	yes	yes
Regional characteristics in 2007	yes	yes	yes	yes	yes	yes	yes
Country dummies	yes	yes	yes	yes	yes	yes	yes
# of exchanges	2,276	2,276	451	451	340	340	340
R-squared	0.33	0.39	0.25	0.22	0.26	0.20	0.21

Notes: LLU = Local Loop Unbundler; NGA = Next Generation Access (fibre-based broadband). The table shows results from multivariate regressions. We estimated a difference-in-differences model for the time period 2007–2012. Included are controls for initial values as well as changes over time of socio-economic characteristics of the exchange areas. Moreover the number of infrastructure-based competitors in 2007, the availability of broadband internet via cable, market size and country-fixed effects (England, Wales, Scotland, Northern Ireland) are considered.

Source: Dexia (2007 and 2012).

lated and some were not. The positive investment effects still hold in this sample, even though they decline in size. In this even more homogenous sample, deregulated areas count on average 0.61 Local Loop Unbundlers more by 2012 and fibre-based access technology is 17 percentage points more likely to be installed in deregulated areas.

In columns (5) and (6) we additionally restrict the size of the local market to a maximum of 10,000 premises. These areas are similarly attractive to potential entrants in terms of levels of competition and market size (very large, profitable local markets are excluded here). Again, deregulation has a positive effect with 0.42 additional Local Loop Unbundlers and a 16 percentage point greater likelihood of having fibre-based access installed.

In a next step, we address the problem of a “self-fulfilling prophecy” that arises when we measure the competitor’s investment decisions: a subset of Local Loop Unbundlers is relevant for deregulation. If one of these Local Loop Unbundlers is forecast to become active in the exchange

between 2008 and 2010, the exchange will be deregulated (when 3 others are active and the market serves at least 10,000 premises). This attributes an increase in the number of Local Loop Unbundlers to deregulation, which it did not cause. In fact, the inverse is true: namely it is the forecast investment that causes deregulation! In order to avoid this, we reconsider those areas that had three or four principal operators in 2007 and that, in addition, number less than 10,000 premises. In the sample of these 340 exchanges, the change in the deregulation rules between 2008 and 2010 allows us to separate the effect of deregulation from a self-fulfilling prophecy. In 2008 120 of these areas were already deregulated, since they counted at least four currently active principal operators. In 2010 the regulatory criteria changed and those areas with three relevant operators present could also be deregulated (if one more was forecast and BT’s market share was below 50 percent). As a result, 179 additional areas were deregulated, since at least one principal operator would soon be active in these areas. In this sample, the 2008 ef-

fect reflects the pure deregulation effect, while the 2010 effect reflects the deregulation together with the forecast effect. Column (7) shows the results of this procedure. The pure deregulation effect is at 0.22 additional Local Loop Unbundlers. Even although our finding points in a positive direction, the estimated coefficient is only imprecisely estimated because of the small sample size. The confidence interval around this coefficient is [-0.28; 0.71]. This indicates, that with a 95 percent probability, we can rule out the large negative effects of deregulation (maximum -0.28). However, economically important positive effects (of up to 0.71 Local Loop Unbundlers) may occur.

Conclusion and outlook

This study first provides empirical evidence of the relationship between local deregulation and subsequent competitive development in the WBA market. Although theoretical predictions about competition-related developments in deregulated local markets have been unclear to date, our findings shed some light on this “black box”. We find that local deregulation has consistently positive effects on infrastructure investments by the incumbent, measured by the availability of fibre-based access. Furthermore, we find no indication that local deregulation of the UK WBA market has a negative effect on infrastructure investment by competitors, measured by the number of Local Loop Unbundlers. On the contrary, all estimates point in the positive direction.

We do not know with any certainty how deregulated markets would have developed in the absence of deregulation, since this cannot be observed. However, our statistical approach accounts for time-invariant area characteristics and we control for local conditions in 2007. In addition, we can identify the effect of a self-fulfilling prophecy created by the deregulation rule, and separate it from the actual deregulation effect. We are thus confident that our results accurately reflect the investment incentives of deregulation.

The debate over the pros and cons of the local deregulation of the WBA market is a recent development. We chose to study the effects of local deregulation of the British WBA market because the UK was the first country to take this step. This allowed us to study the medium-term effects on the investment behaviour of British Telecom and its competitors. We have no direct measure of consumer welfare, such as retail price levels or broadband penetration rates. Our findings still have important policy implications since promoting investments in tele-

communication infrastructure is the explicit goal of the European Commission in order to ensure and sustain long term growth and competitiveness.

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SUBNATIONAL GOVERNMENT SYSTEM IN THE EU AND ITS RECENT REFORMS

The relationship between central and local (and regional) governments has been changing all the time. The idea of decentralisation of political decision-making has become increasingly popular worldwide, which is also accompanied by fiscal decentralisation in most cases. In the last twenty years the acknowledgement of subsidiarity as the basic principle for the European Union, the introduction of the West German federal system in the eastern part of the country, and the revival of regionalism in Western European countries like Portugal were distinct examples of the decentralisation process in Europe. In addition, this kind of political decentralisation has also been pronounced in most transition countries in the EU (John 2000).

According to Dexia (2012), the total number of subnational governments in the EU27 (i.e. except Croatia) amounted to 90,380 in 2011, including 89,149 municipalities, 981 'intermediary entities' (departments, provinces, etc.) and 250 'regions'¹, which can be classified into the 2nd or 3rd level (Table 1). In the same year 11 EU countries had just one-level of subnational authorities, which included Bulgaria, Cyprus, Estonia, Finland, Ireland, Latvia, Lithuania, Malta, Portugal and Slovenia. In comparison, nine other countries such as Austria, Czech Republic, Denmark, Greece, Hungary, the Netherlands, Romania, Slovakia and Sweden were endowed with the two-subnational government system.² The rest – seven relatively large countries like Belgium, France, Germany, Italy, Portugal, Spain and the UK – had three subnational levels.

The following significant reforms and changes were carried out between 2006 and 2011.

Until 2008 Latvia used to belong to those EU countries with two levels of subnational government. However, this country (with ca. 2.1 million inhabitants in the area of 64,589 km² in 2012) is presently endowed with one

level of subnational government (Table 2). In the context of administrative territorial reform of 2009³ Latvia reduced the number of municipalities from 527 to 119 and, at the same time, abolished the 26 districts on the second level of subnational government.

In the EU major territorial reorganisations were targeted on the municipal level in the investigated years. There has been a recent trend towards mergers between municipalities in some German *Länder*: in 2011 the number of municipalities was reduced from 840 to 219 in Saxony-Anhalt.⁴ In addition, the total number of German municipalities declined from 12,312 to 11,533 within five years between 2006 and 2011. In Finland, the implementation of the PARAS programme for restructuring municipal services⁵ led to the decline of the country's number of municipalities from 416 to 336 between 2006 and 2011 (Table 2).

The on-going European economic crises have further triggered the recent territorial reorganisation in some EU nations. In Greece, for example, in the context of so-called *Kallikratis* reform of local administrations (implemented in 2010), the number of municipalities decreased from 1,034 to 325 in January 2011 (Akrivopoulou, Dimitropoulos and Koutnatzis 2012). To be sure, efforts to rationalise and pool financial resources have been necessary to reduce the government's debts, but such a political action has been accompanied by a major reduction in local autonomy and in the fiscal capacities of municipalities (see also below for Spain).

In the context of the administrative-territorial reforms, municipalities have been gradually becoming larger in the EU countries (Table 2). This action can generally be justified due to the following specific reasons:

- Large municipalities can better realise economies of scale as well as economies of scope in providing public goods and local services (Bailey 1999; Nam and Parsche 2001; Dollery and Crase 2004; Dollery and Fleming 2006).
- Large municipalities tend to have greater opportunities to promote economic development *via*, for example, large-scale investment projects and more

¹ Those federated and quasi-federated entities in some EU countries also belong to such regions which include the sixteen German *Länder*, the nine Austrian provinces, the six regions and communities in Belgium and the seventeen Autonomous Communities in Spain.

² Croatia's accession to the EU took place on 1 July 2013. With 556 municipalities (first level subnational government) and 21 counties including the capital city of Zagreb this country currently belongs to the group of EU countries with two-subnational government levels.

³ See <http://likumi.lv/doc.php?id=185993>.

⁴ See <http://www.sachsen-anhalt.de/index.php?id=45896>.

⁵ The PARAS project launched in 2005 mainly focused on the possibilities of municipalities to provide better social and health services. According to this project, such enhancements could be achieved via (a) intact and functioning municipal structures, (b) the arrangement of services for a broader population base, and (c) collaboration between municipalities on service arrangement and provision (see http://www.stm.fi/en/strategies_and_programmes/paras).

generous subsidy schemes (Aalbu, Böhme and Uhlin 2008; Reiljan and Ülper 2010).

- In large municipalities the political process can also be more democratic, better enabling the participation of a larger number of voters and interest groups as well as better involving diverse local political and social structures (Newton 1982; Aalbu et al. 2008; Bosch and Sole 2012).

Some additional territorial reorganisations and reforms of subnational government systems are expected in the EU. For example, since 2012 the Spanish government has been designing a municipal reform that aims to merge or encourage those municipalities with less than 5,000 inhabitants (i.e. 84 percent of total number of municipalities at present) to cooperate within inter-municipal groups. The basic law on local government (par-

Table 1

Subnational government system and organisation of territories in the EU (2011)			
	First level	Second level	Third level
Countries with one subnational government level			
Bulgaria	264 municipalities		
Cyprus	379 municipalities		
Estonia	226 municipalities		
Finland	336 municipalities	2 regions (Kainuu & Åland)	
Ireland	114 local councils		
Latvia	119 municipalities		
Lithuania	60 municipalities		
Luxemburg	106 municipalities		
Malta	68 local councils		
Portugal	308 municipalities	2 autonomous regions (Madeira & Azores)	
Slovenia	210 municipalities		
Countries with two subnational government levels			
Austria	2,357 municipalities	9 federate states	
Czech Republic	6,249 municipalities	14 regions	
Denmark	98 municipalities	5 regions	
Greece	325 municipalities	13 regions	
Hungary	3,177 municipalities	19 counties	
Netherlands	418 municipalities	12 provinces	
Romania	3,181 local authorities	41 departments	
Slovakia	2,930 municipalities	8 regions	
Sweden	290 municipalities	20 counties of which 4 regions	
Countries with three subnational government levels			
Belgium	589 municipalities	10 provinces	6 communities and regions
France	36,697 municipalities	102 departments	27 regions
Germany	11,553 municipalities and district free cities	301 rural districts	16 federated states
Italy	8,094 municipalities	110 provinces	20 regions of which 5 with special status
Poland	2,479 municipalities	379 counties	16 regions
Spain	8,116 municipalities	52 provinces	17 autonomous communities of which 2 with focal regime
UK	406 local authorities	28 counties	3 devolved nations (Scotland, Wales & Northern Ireland)
Total EU28	89,149 municipalities and local authorities	1,126 regional or intermediary authorities	105 regions

Source: Dexia (2012).

ticularly related to the competencies of municipalities) is also subject to revision: some competencies of municipalities with less than 20,000 inhabitants would be transferred to provinces (Bosch and Sole 2012; Dexia 2012).

In France the on-going reform of local administration system was initiated by the Territorial Authorities Reform Act of 16 December 2010 and tackles a wide range of amendments such as the redistribution of competencies, the creation of territorial councillors, the intensification of inter-municipal cooperation, the reform of local taxation and intergovernmental transfer system and the improvement of co-financing framework, etc. The reform process has been slower than expected: a visible result of this reform is that regions and departments in France are losing their tax autonomy to a certain extent.⁶

In Portugal the 2011 green paper on local administration reform sets a number of challenges that need to be met in the near future.⁷ Apart from the improvement of the governance of two metropolitan areas, Lisbon and Porto, the competencies and financial resources for the so-called ‘inter-municipal communities’⁸ would be particularly expanded and strengthened in the context of this reform (Oliveira and Breda-Vázquez 2012).

The subnational territorial landscape in Europe has recently changed significantly. In particular, there has been an upturn in municipal mergers in many EU countries in the context of crisis management and the implementation of austerity plans. Furthermore, inter-municipal cooperation (between a large city and its surrounding municipalities) aimed at better realising economies of scale, has been encouraged in the last years, of which form ranges from simple delegation agreements to shared local services and/or establishments of common governance system. In Europe more of such territorial reforms are expected in near future.

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⁶ See also <https://wcd.coe.int/ViewDoc.jsp?id=1976725&Site=COE>.

⁷ See <http://www.theguardian.com/local-government-network/2012/aug/30/local-government-reform-in-portugal>.

⁸ An inter-municipal community can be defined as a voluntary association of communities not attached to geographic size, but grouped to take advantage of economies of scale (Oliveira and Breda-Vázquez 2012). The well-known Portuguese inter-municipal communities include, for example, Pinhal comprising seven municipalities (Oliveira do Hospital, Sertã, Arganil, Figueiró dos Vinhos, Pampilhosa da Serra, Pedrógão Grande and Castanheira de Pêra), and Vale do Minho with five municipalities (Monção, Valença, Melgaço, Paredes de Coura and Vila Nova de Cerveira).

Table 2

Major recent territorial reforms on the municipal level in the EU (2006–2011)

	2006			2011			Changes between 2006 and 2011	
	Number of municipalities	Average area per municipality (sq. km)	Average population per municipality (1000 inhabitants)	Number of municipalities	Average area per municipality (sq. km)	Average population per municipality (1000 inhabitants)	Average area per municipality (%)	Average population per municipality (%)
Finland	416	812,849	12,668	336	1006,384	15,952	23,81	25,92
Latvia	527	122,560	4,345	119	542,765	18,824	342,86	333,19
Luxemburg	116	22,293	4,052	106	24,396	4,811	9,43	18,75
Greece	1034	127,618	10,754	325	406,022	34,800	218,15	223,59
Netherlands	443	93,743	36,885	418	99,349	39,737	5,98	7,73
Germany	12312	28,998	6,690	11553	30,903	7,077	6,57	5,78
UK	434	561,797	139,470	406	600,542	152,685	6,90	9,47

Source: Dexia (2007 and 2012).

RISK OF POVERTY AND SOCIAL EXCLUSION IN THE EUROPEAN UNION

The European Union established a strategy, Europe 2020, in order to foster sustainable economic development in the EU member countries. A major goal of this strategy is to improve living conditions and to reduce poverty.

To monitor the progress towards Europe 2020 Eurostat, the statistical office at the EU, provides a set of economic and social indicators. One of those is the “at risk of poverty or social exclusion rate” (AROPE). AROPE aggregates three sub-indicators for the EU countries to measure the share of the population living under poor economic and social conditions. Representative household survey data is used to assess those living conditions. According to Eurostat (2013), for persons at risk of poverty or social exclusion one or more of the following three conditions apply:

1. Disposable income of a person is below the at-risk-of-poverty threshold in the income distribution within a country. This threshold is set at 60 percent of the equalised national median net income (after social transfers). Income is aggregated on the household level and divided by the number of household members weighted according to their age using the so-called modified OECD equivalence scale.¹ Moreover, it is expressed in purchasing power parities to account for differences in the costs of living across the EU member states. Median income, of course, depends on a country’s income distribution. This is why the threshold can differ substantially across countries and also over time. Thus, the share of the population under the at-risk-of-poverty threshold is characterised by a relatively low income position below the median for a certain country and year.
2. A person suffers severe material deprivation. This measure accounts for a severe lack of resources. It includes persons who cannot afford at least four out of nine items that are considered to be crucial for maintaining a basic standard of living. Among them are payments on loans and mortgages, a car, a TV, a washing machine and heating to keep home adequately warm.

¹ For detailed information see <http://www.oecd.org/eco/growth/OECD-Note-EquivalenceScales.pdf>.

3. A person lives in a household with very low work intensity. In households with low work intensity the working-age, non-student members work less than 20 percent of their total work potential over a year.

Table 1 shows that in 2012 25 percent or 124.4 million people (estimate) of the EU population were living at risk of poverty or social exclusion according to the above criteria. However, this share varies a lot between the member countries. It is lowest in the Netherlands (15.0 percent), the Czech Republic (15.4 percent) and Sweden (18.2 percent) and at slightly higher levels in France (19.1 percent), Germany (19.6 percent) and the UK (22.7 percent (2011)), for example. The share of people at risk of poverty and social exclusion is highest for some eastern and southern European Union member states. It is at 49.3 percent in Bulgaria and 41.7 percent in Romania. The AROPE for Spain is 28.2 percent, for Italy 30.4 percent and for Greece 34.6 percent in 2012. These numbers indicate a large variation in the living conditions of the poorer population in different EU member countries.

When the Europe 2020 initiative was launched in 2010 the aim was to lift 20 million people out of the risk of poverty or social exclusion until 2020. However, the average AROPE for the EU-27 countries even increased by 0.8 percentage points in 2012 compared to the previous year. Table 1 shows further that not only the levels of the AROPE vary between the member countries, but also the development over the last years. In many EU countries, in particular in the north-west of Europe, the rates from 2008 to 2012 are stable or have even decreased slightly. Strikingly, the situation has deteriorated often in the countries with already high shares of the population living at risk of poverty or social exclusion. In Greece the AROPE increased from 28.1 percent in 2008 to 34.6 percent in 2012 and in Hungary from 28.2 percent to 32.4 percent over the same time period. However, for some Eastern European countries the AROPE has decreased: in Poland, for example, from 30.5 percent (2008) to 26.7 percent (2012).

One explanation for the increasing risk of poverty is the economic downturn in some European countries in recent years, and particularly in Southern Europe (OECD 2013a). It has to be considered that the AROPE already adjusts with falling GDP to some extent: the monetary at-risk-of-poverty rate (as described under 1.) measures relative poverty to the median of the total population. A rise in the AROPE, thus, indicates that particularly people at the lower end of the income distribution suf-

Table 1

At risk of poverty and social exclusion rate for selected European countries

	2008	2009	2010	2011	2012
Austria	18.6	17	16.6	16.9	
Bulgaria	44.8	46.2	49.2	49.1	49.3
Cyprus	23.3	23.5	24.6	24.6	27.1
Finland	17.4	16.9	16.9	17.9	17.2
France	18.6	18.5	19.2	19.3	19.1
Germany	20.1	20.0	19.7	19.9	19.6
Greece	28.1	27.6	27.7	31.0	34.6
Hungary	28.2	29.6	29.9	31.0	32.4
Iceland	11.8	11.6	13.7	13.7	12.7
Ireland	23.7	25.7	27.3	29.4	
Italy	25.3	24.7	24.5	28.2	30.4
Latvia	33.8	37.4	38.1	40.4	36.6
Netherlands	14.9	15.1	15.1	15.7	15.0
Norway	15.0	15.2	14.9	14.5	13.8
Poland	30.5	27.8	27.8	27.2	26.7
Romania	44.2	43.1	41.4	40.3	41.7
Sweden	14.9	15.9	15	16.1	18.2
Switzerland	18.6	17.2	17.2	17.2	
Spain	24.5	24.5	26.7	27.7	28.2
United Kingdom	23.2	22.0	23.2	22.7	
European Union (27 countries)	23.6	23.1	23.5	24.2	25.0
*For more detailed data please go to the DICE Database / Social Policy / Basic Protection / Poverty, Income Distribution. Empty cells: data not available.					

Source: Eurostat, Statistics Database, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_peps01&lang=en, accessed 06 November 2013.

fer from the recent economic crisis. Their employment depends more heavily on business cycle fluctuations, as Berthoud and Sosa (2011) show. In addition, many governments face tightened budget constraints due to the European debt crisis. This is why recent austerity plans in some countries like Greece also led to a cut in social benefits (OECD 2013b).

Thus, achieving the goal formulated in Europe 2020 will be a major challenge, particularly, if some EU member states suffer from ongoing weak economic performance, high levels of unemployment and governments that are not able to take actions against poverty in their societies.

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WORLDWIDE BIKE SHARING PROGRAMMES

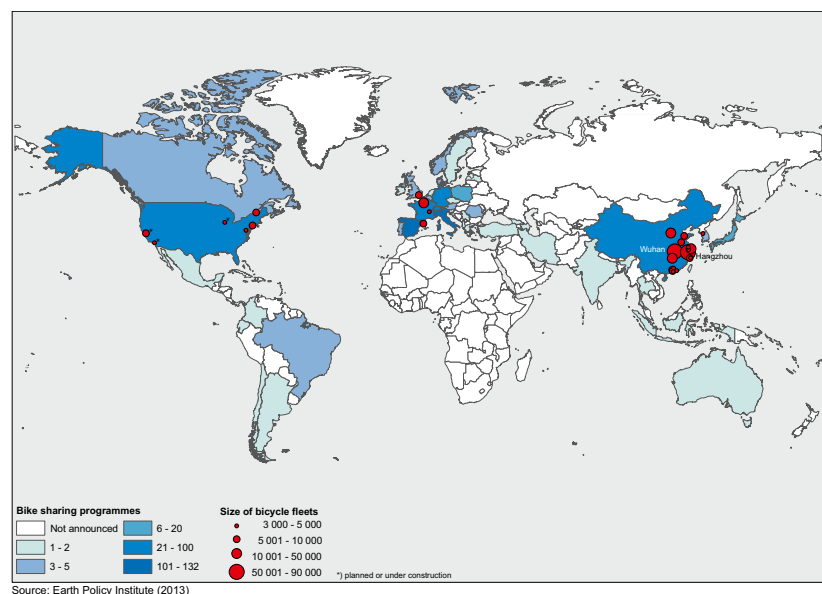
Climate protection includes emissions trading initiatives, energy efficiency measures and transport concepts, as well as public awareness of avoiding CO₂ emissions. The term covers ways of saving energy, waste prevention, changes in purchasing behaviour and an increase in the non-motorised movement of people. Bike rentals are now a familiar image in many cities across Europe and a growing number of cities worldwide present themselves as cyclist-friendly and innovative. The idea of offering bicycles to tourists and people who want to travel quickly from one place to another is relatively old. The first attempt to provide bicycles for free use was made in Amsterdam as early as the 1960s. At the time the bicycles were made freely available, but they were subsequently either stolen or damaged (Earth Policy Institute 2013). Later in Denmark and France, systems were developed that required either some payment and/or user identification. France in 1998 was thus the first country in which a third generation programme with obligatory user identification (City of Rennes) was installed. Other successful programmes were introduced in Lyon and Paris in 2005 and 2007. The Paris programme (Vélib') with 10,000 bikes at 750 stations, represented the world's largest programme of its day (2007). Its number of bicycles has now increased to nearly 24,000, putting it in third place worldwide. Translated into figures this means one borrowed bike to nearly 100 people, and saved CO₂ emissions amounting to around 137,000 tons since the beginning of the programme (Bikocity 2013). Further bike sharing programmes have also been installed in other European countries. For example, the number of bicycles in Barcelona has almost quadrupled since the programme began in 2007 and now stands at 6,000 (Earth Policy Institute 2013). Spain currently leads the list of the number of bike sharing programmes worldwide with 132 systems.

In recent years the success of these systems has also spread to the car-dominated USA and Canada. New York, Washington DC and Montreal are among those cities with 3,000 to 5,000 borrowed bikes (Figure 1). In many other cities like Chicago, Los Angeles and San Francisco, such programmes are scheduled to start this year. After the successful launch of the Citibike programme in New York, which has already attracted 60,000 customers in May 2013 the fleet is set to be increased to 10,000 bikes (Citi Bike NYC 2013). In other cities (such as Denver, Boston, Minneapolis) similar programmes are already established and are due to be further expanded.

The world's largest bike sharing system is located in the City of Wuhan, China, and comprises approximately 90,000 bicycles, followed by Hangzhou with nearly 70,000 bikes (Figure 1). In Wuhan the system was set up as a result of an intolerable traffic situation featuring over one million cars. The success of the system in Wuhan can be explained by the fact, that the bicycles are free of charge for the first two hours of use. In China, formerly the land of the bike, the use of bikes has plummeted in recent years, falling to 20 percent of total traffic due to ever-increasing motorisation driven by the country's strong economic growth. Bike sharing can be used to counteract this trend in many cities.

In Germany, meanwhile, there are about forty different bike rental systems. One of the most famous programmes launched in 2002 is the "Call a bike" programme run by the Deutsche Bahn, which mainly

Figure 1: Worldwide bike sharing programmes and cities with largest programmes



operates in cities without fixed rental stations. Other successful programmes can be found regionally and locally in Germany, such as “metropolradruhr” whereby bicycles are available in cities across the entire Ruhr area, the “Chemnitz city bike,” the “Konrad” programme in Kassel and “NiederrheinRad” in North Rhine-Westphalia (BMVBS 2012; Let’s share 2013). As of 2004 the company Nextbike has also offered the rental of bicycles for both tourists and individuals, and especially for businesses, hotels and major events. The offer has been successfully implemented in nine countries (including New Zealand and the United Arab Emirates) in addition to 80 German cities and now comprises of a fleet of about 15,000 bikes (Nextbike 2012). The pure mobility bikes also serve as advertising space.

The benefits of bike sharing are varied and include: the promotion of mobility, the reduction of traffic congestion, of air pollution and of traffic related CO₂ emissions. Furthermore, cycling contributes to health and promotes the local economy (Earth Policy Institute 2013). Starting with the Netherlands the promotion of operational mobility using bicycles has grown continuously in recent years. On factory sites and as a way of linking urban company locations, it primarily enables users to complete frequently made journeys rapidly and in an environmentally friendly manner. Disadvantages currently include the increasing space requirement for rental stations, the under- or oversupply of bicycles and the lack of bike paths in many cities (Raumkom 2011)

Cycling as a share of total passenger traffic is approximately seven percent EU-wide. Bicycle plans, designed especially for the general promotion of cycling in different European countries, have been launched (Table 1). The National Cycling Plan 2002–2012 was adopted in Germany, which included several initiatives to promote cycling (BMVBS 2012). Late last year, it was further developed for the years 2013–2020 and several guidelines on transport policy and electric mobility were set.

It is striking that in France, which boasts Europe’s most successful bike sharing programme in its big cities, bicycles account for only three percent of total traffic (Table 1). In 2012, a first concrete national plan was adopted to increase the share to ten percent by 2020 (ECF 2012). The Dutch, on the other hand, are global leaders with an average 27 percent share of passenger traffic and the same number or an even higher figure of bikes per capita.

Despite all of the advantages it offers, there is little information available as to whether bike sharing offers have actually replaced the daily car drive or car traffic significantly. Concrete data, however, is available from France. Since the launch of the programme, there has been seven percent less car traffic in Lyon and 20 percent of the users in Paris have abstained from using their car (EV World 2013). A Spanish study, however, showed that reductions in car traffic and air pollution due to bike sharing remain limited (Eltis 2012). The success of worldwide bike sharing programmes will emerge over the next few years, especially in North America, when such programmes are expanded and globally long-term data are available. The current numbers of users, however, already offer positive indications of future developments.

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Table 1

Cycling statistics for European countries			
Countries	Bicycles per 1,000 Inhabitants	Bicycle share in total traffic	Policy measures
Belgium	691	8%	Note de politique générale de la mobilité 2010
Germany	854	10%	Nationaler Radverkehrsplan 2002
Finland	604	13%	Cycling and Walking Policy Programme 2001
France	400	3%	Plan national vélo 2012
Great Britain	380	2%	National Cycling Strategy 1996
Italy	580	5%	n.a.
Netherlands	~1,000	27%	Bicycle Master Plan 1990
Austria	669	9%	Masterplan Radfahren 2006
Sweden	670	9%	Nationell strategi för ökad och säker cykeltrafik 2000
Spain	60%	5%	n.a.
Czech Republic	n.a.	5%	Czech cycling development strategy 2004

Source: European Commission (2011); European Cyclists' Federation (2012; 2013); Vélo pratique (2010).

IMMIGRANT ARRIVAL AGE AND ITS INFLUENCE ON READING PERFORMANCE

In most OECD countries, immigrant students lag behind native students in school performance. However, results from the latest PISA¹ 2009 survey show that 15-year old immigrant students, who arrive after the age of 12, have poorer reading performance compared to students who arrive between the age of six and 11 or before the age of five (OECD 2013). This “late-arrival penalty” in reading performance is even more severe for children who emigrated from less-developed countries and who’s mother language differs from their new language of instruction.

Between 2000 and 2009 the number of 15-year old students with an immigrant background² in the OECD countries has risen by two percent on average. Immigrant students now comprise on average five per-

¹ Programme for International Student Assessment, PISA.
² Students with immigrant backgrounds are defined as students who themselves immigrated or who have at least one parent who immigrated.

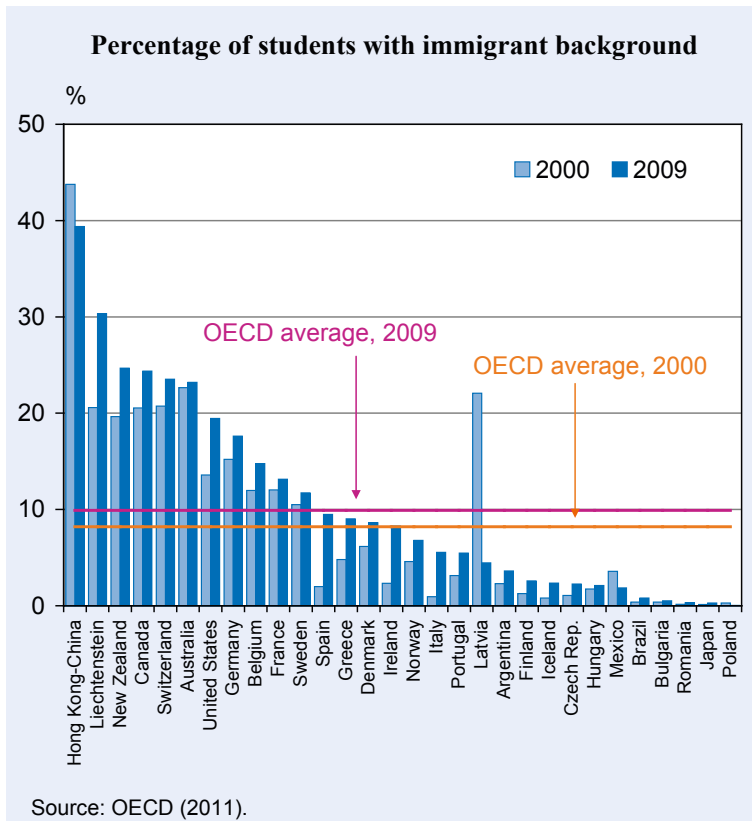
cent of the 15-year old student population. In Ireland, New Zealand, Spain, and the United States, the share of student immigrants increased by at least five percent between 2000 and 2009. In these countries the share of students with an immigrant background ranges between eight and 30 percent, as can be seen in Figure 1.

Figure 2 shows the difference in reading performance by immigrant age (selected OECD countries). The performance of students who arrived at or before the age of five is normalised at the zero level on the vertical axis. The performance of students who arrived between the age of six and 11 as compared to younger than five are represented by the red bars. The performance of students who arrived after 12 as compared to younger than five are represented by the blue bars. The countries with the largest ‘late-arrival penalty’ in reading performance are Slovenia, Germany, and Sweden. The OECD average late-arrival penalty is -20 points, which is estimated to be a half-year of schooling (OECD 2011, 70).

One large factor affecting the late-arrival penalty is the language associated with the country of origin and the country of destination. Australia, for example, has a large immigrant population from other English speaking countries. As there is no language barrier, this decreases the ‘penalty’ to a value of -24.1. On the other hand, most of Germany’s immigrants come from the former USSR and Turkey, where German is not spoken, and thus Germany has a much larger penalty of -65.8 (OECD 2012, 179). Language acquisition is much more difficult after the age of 12, which expone-tiates the penalty in reading performance for late arrivers (OECD 2013).

However, there is even a late-arrival penalty between countries that share the same language (OECD 2012, 75). This indicates another important influencing factor, which is the difference in educational standards in the country of origin and in the country of destination. If someone from a low-achieving school system immigrates to a country with a higher-achieving school system, the

Figure 1



student will naturally be at a disadvantage. The same is true for the other way around, for example, immigrants from higher achieving Germany, which has a PISA 2009 score of 497, experience a late-arrival premium when moving to lower-achieving Austria, which has a PISA 2009 score of 470 (OECD 2011, 75).

One major issue of the late-arrival penalty for children migrating after the age of 12 is that the ‘penalty’ does not cease at the end of schooling, but also puts the affected children at a disadvantage as far as subsequent opportunities are concerned. For example, in many countries where high schools are divided by performance, such as in Germany, these students might be separated into a lower achieving group. This can then limit the type of further training that they have access to, and even their subsequent job opportunities (OECD 2011, 77).

Bearing in mind the increasing number of immigrants, the school system is a powerful lever for integration and social cohesion and it should consequently be improved to overcome language barriers and subsequent difficulties. As for mitigating the effects of the late-arrival penalty in reading performance, additional language courses could be offered to help the affected students.

More flexible arrangements could be created to allow a late-arrived student to delay subsequent schooling decisions. Hence it would be interesting to compare the differences between countries in flexible arrangements for late-arrivers and their impact.

It is important to note that although students who immigrate after the age of 12 are likely to experience a late-arrival penalty, students who immigrated between the ages of six and 11, as well as five or younger, also performed worse compared to non-immigrant students (OECD 2012, 70). However, some countries like Australia, Belgium, Canada, Germany, New Zealand and Switzerland have managed to decrease the gap between students with an immigrant background and native students in the last decade (OECD 2013).

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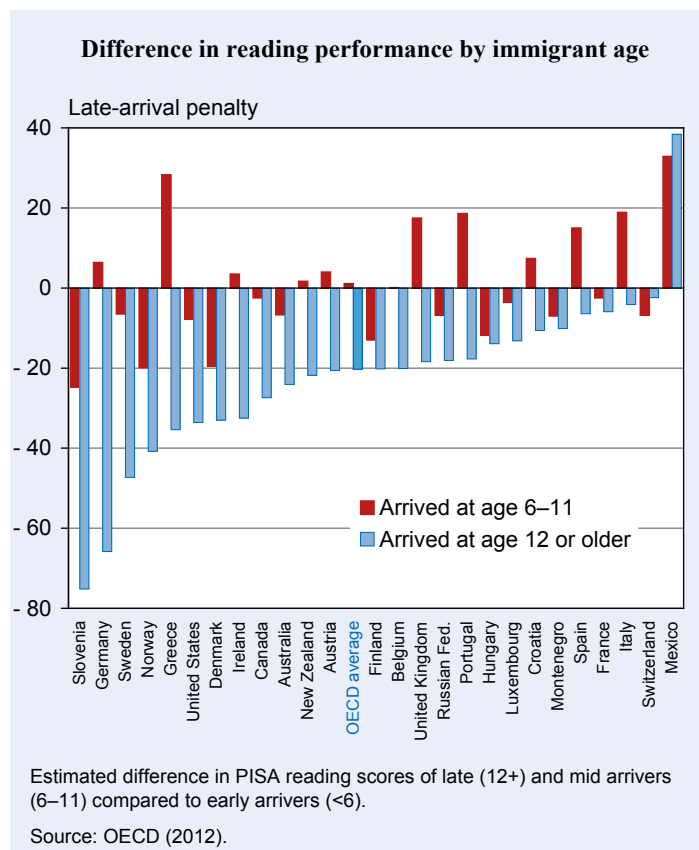
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OECD (2012), *Untapped Skills: Realising the Potential of Immigrant Students*, PISA, OECD Publishing.

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Figure 2



NEW AT DICE DATABASE

Recent entries to the DICE Database

In the last quarter of 2013, the DICE Database received a number of new entries, consisting partly of updates and partly of new topics. Some topics are mentioned below.

- Credit Market Regulations
- Freedom to Trade Internationally
- Global Gender Gap Index
- Taxation
- Legal Structure and Security of Property Rights
- Regulatory Trade Barriers
- Status of Basel II / 2.5 / III Adoption
- Expenditure on Health
- Judicial Independence
- Minimum Wage

The interactive graphics application **Visual Storytelling** has been further expanded.

FORTHCOMING CONFERENCES

State Export Credit Guarantees in a Globalized World 14–15 February 2014, Munich

The Ifo Institute and the German Federal Ministry of Economics and Technology will hold a joint conference in Munich on the topic of State Export Credit Guarantees in a Globalized World. This conference will offer academic researchers and policymakers a platform to share their expertise in this area.

Scientific organiser:
Erdal Yalcin

CESifo Area Conference on Macro, Money and International Finance 2014

21–22 February 2014, Munich

The purpose of this event is to bring together CESifo network members who are working in the areas of macroeconomics and money to present and discuss their ongoing research, and to stimulate interaction and co-operation between them. All CESifo research network members are invited to submit their papers, which may deal with any topic in Macro, Money, and International Finance.

Scientific organiser:
Paul De Grauwe

CESifo Area Conference on Applied Microeconomics 2014

28 February – 1 March 2014, Munich

The Applied Microeconomics Area of the CESifo network will hold a conference in Munich for all members of the CESifo Research Network with an interest in the area of Applied Microeconomics. The purpose of the conference is to bring together CESifo members to present and discuss their ongoing research, and to stimulate interaction and co-operation between them. All CESifo research network members are invited to submit their papers, which may deal with any topic within the broad domain of Applied Microeconomics (industrial organisation, experimental and behavioural economics, market regulation, banking and finance, auctions).

Scientific organiser:
Christian Gollier

CESifo Conference on Social Economics 2014

21–22 March 2014, Munich

The purpose of the conference is to bring together international scholars working in this field and to stimulate research on this theme. The conference welcomes contributions to new developments in social economics, a growing area of study that breaches economics with social science. Specifically, the key questions that we will touch upon include the role culture, identity, altruism, altruism esteem and status as competing with traditional tangible and monetary motivation for behaviour.

Scientific organiser:
Joan Costa-i-Font and Mario Macis

NEW BOOK ON INSTITUTIONS

Fragile by Design: The Political Origins of Banking Crises and Scarce Credit

Charles W. Calomiris and Stephen H. Haber
Princeton University Press February 2014

Unsettled Account: The Evolution of Banking in the Industrialized World since 1800

Richard S. Grossman
Princeton University Press 2013

Comparative Institutional Analysis

Theory, Corporations and East Asia
Masahiko Aoki
Edward Elgar Publishing

CESifo DICE

THE DATABASE FOR INSTITUTIONAL COMPARISONS IN EUROPE

The Database for Institutional Comparisons in Europe – DICE – was created to stimulate the political and academic discussion of institutional and economic policy reforms. DICE is a unique database offering comparative information on national institutions, regulations and economic policy. Although DICE is not a statistical database, it also contains data on the outputs (economic effects) of institutions and regulations where relevant.

DICE covers a broad range of institutional themes: Business and Financial Markets, Education and Innovation, Energy and Natural Environment, Infrastructure, Labour Market and Migration, Public Sector, Social Policy, Values and Other Topics.

The information is presented in tables (text or data), graphics (interactive application Visual Storytelling), and reports. In most cases, all EU countries are covered as well as some other major OECD countries. Users can choose between current comparisons and time series that show developments over time.

DICE combines systematic information from a wide range of sources, presenting a convenient one-stop service for your data needs.

DICE is a free-access database.

Feedback is always welcome.

Please address your suggestions / comments to:

DICE@ifp.de