Economic regulation in today's Belgium

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Preface

In our capitalist societies, the State and the Market are never very far apart and well-functioning markets often go hand in hand with well-designed institutions and regulations. At a time when these are significantly redrawn by developments taking place both at the European level and at the national level, we cannot avoid a discussion about their adequacy and performance.

This e-book, which is based on a Re-Bel event that took place in December 2013, analyses the quality and performance of Belgium's regulatory set-up using the lenses of several key sectors. Jan Bouckaert and Axel Gautier's piece primarily focuses on telecommunications and energy, while Paul De Grauwe and Yuemei Ji's piece focuses on the banking sector. The choice of specific sectors serves to ground the diagnostic, but the emerging picture is not entirely dissimilar, and raises the issue (among others) of the insufficient independence of regulators in Belgium, both vis-à-vis the regulated sector as well as vis-à-vis the political power. Both contributions identify channels through which wrong incentives for the regulated firms are created. In his comments, Patrick Van Cayseele cautions however against a too hasty call for reform. Economic regulation is complex and involves many trade-offs. We do not live in what economists call a "second best world" but rather a third or fourth best world. Together, the two lead pieces and Van Cayseele's comments provide a useful first step towards a grounded and objective assessment of the performance of economic regulation in Belgium and I would like to thank all the authors for their contribution to this needed debate.

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Lead Pieces

Current Challenges in the Regulation of Utilities in Belgium[1]

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Abstract

This contribution to the Re-thinking of Belgium attempts to share our position on the current and future regulation of utilities in our country. We deliberately opt not to offer an exhaustive list of regulatory challenges based on thorough economic analysis. Our main goal is to participate in a welcomed open reform debate. The main messages are that we need (i) *more* stable and thought-through policy visions resulting from sound economics, clearer roles for all actors involved, more coordination between regulators and (ii) less dependent regulators, less regulatory creep and fewer unnecessary low-powered incentive schemes.

1. Introduction

On October 13 2014, the Nobel Prize in economics was awarded to the French economist Jean Tirole for his outstanding contributions to the development of *regulation and competition policy*. In the utility sectors that we will discuss in this paper, markets are still organized around a limited number of powerful firms and the need to regulate these sectors has not vanished even after years of privatization and liberalization. Notwithstanding that, the objectives of regulators and the tools used to regulate firms have dramatically changed in the past decades. Professor Tirole actively contributed to these changes by developing a new theoretical foundation to analyze market regulation. Incentives and asymmetric information are the cornerstones of Tirole's theories. Tirole, together

[1] The authors are thankful to Alexandre de Streel for his help with the talk that accompanied this contribution, to Patrick Van Cayseele and the participants at the Re-Bel meeting on 'Corruption and Regulation in Today's Belgium' for their useful comments and remarks. We also would like to express our sincere gratitude to Estelle Cantillon for her encouragements to participate to this great Re-Bel initiative (#justdoit). We are grateful to Alexandra Pagano for excellent editorial assistance. Finally, we thank Philippe Van Parys and Paul De Grauwe for setting up Re-Bel and offering us this opportunity.

with Prof. Jean-Jacques Laffont—and many others after him—have developed powerful economic instruments to implement more effective and more efficient regulation of markets and regulators have started to use them.[2] For these reasons, the Nobel Committee recognized that Tirole is '*one of the most influential economists of our time*.'

In Europe, the regulatory landscape has changed considerably during the past decade. Regulators use more and more sophisticated economic tools to curb down market power and to develop competition in the utility sector. The implementation of the new regulatory paradigm, which we discuss in the first section, is an extremely complex task, and governments and regulators continuously face new challenges.

In Belgium, too, regulation does not always go smoothly. The national press frequently echoes discussions and tensions between the governments, the regulators, the industry and the courts related to the organization of the markets, such as electricity and telecommunications. These hiccups in the regulatory process are the starting points of our analysis. Based on that, we want to offer a non-technical perspective on certain important regulation issues in today's Belgium with respect to, although not exclusively, utilities like electricity and telecommunications. Our discussion offers a list of six issues that we consider important. Therefore, this paper has a modest aim. Our objective is not to present detailed recommendations for regulators and policy makers but rather to present general principles that should be kept in mind to further improve the regulatory process.[3]

Our contribution is organized as follows. Section 2 offers a perspective on what role regulation plays in the organization of utility industries. Section 3 zooms in on six challenges for Belgium to further improve the regulation of its main utility industries. For each challenge, we offer our impressions based on casual, though, in our opinion, robust descriptions of current successes and shortcomings. Section 4 offers a short conclusion.

2. The new paradigm for organizing network industries

In this section, we briefly present the main regulatory framework currently applied in network industries.

2.1 Liberalization of network industries

[2] Their work on optimal regulation has been collected in a textbook that appeared as Laffont and Tirole (1993).

[3] Our work complements those of Huveneers and de Streel (2009) and de Streel et al. (2011) who also discuss the regulatory challenges in Belgium.

It is often stated that in most industries, forceful rivalry between suppliers results in an outcome that more or less approaches what economists call "productive" and "allocative" efficiency. Interventions in the form of industry regulation in order to correct for too little productive and/or allocative efficiencies are then regarded as unnecessary. Still, there are some industries in which rivalry is difficult or even absent for technical or natural reasons and in which regulation is regarded as central to an efficient organization of the industry. This is typically the case for the utility sectors—like e.g. rail, telecommunication, energy—where the presence of a large-scale infrastructure *de facto* limits or even prevents the development of competition. Because they require large (fixed) investment, networks are only viable if they concentrate a large fraction of the demand/traffic. For this reason, the market can only bear a few players; at the extreme, infrastructure duplication may not be economically viable at all. For this reason, most countries had during decades *one* monopolistic (private or government-owned) supplier of energy, rail services or telecommunication before liberalization was introduced at the turn of this century,

Liberalization has changed completely the picture. The new mantra has been "*competition where possible, regulation if needed*". The gradual introduction of competition in the network industries can be summarized by four principles:[4]

> *Vertical separation*. The supply-chain should be organized in several *autonomous* units. The separation of the different units should be at least functional but it can be pushed further to a legal or a patrimonial separation. This is what has been done in the electricity sector where all components of the value chain (i.e. power generation, transmission (high-voltage network), distribution (low-voltage network) and retailing) are now mostly provided by different companies with different owners. Vertical separation aims at identifying more precisely the cost of each production stage.
>
> *Open access*. "Third-parties" can access the designated infrastructures if they need to, provided that they pay an access fee to the infrastructure owner. The mandatory access obligation prevents owners of essential infrastructures to foreclose the market by excluding rivals. The access fee should be cost-based –vertical separation proves to be useful in identifying the costs- transparent and non-discriminatory.
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> *Competition*. Markets are open to competition and competition between rival suppliers is supposed to promote allocative and productive efficiency ultimately to benefit consumers. To provide services, competing firms can either develop their own infrastructure (infrastructure-based competition) or lease access from the existing ones (service-based

[4] See de Streel et al. (2011).

competition). Thus, even if there remains a monopoly bottleneck in the supply chain, there need not be a barrier to create competition.

Residual regulation. There is still a role for the regulators in liberalized markets. For the segments that remain monopolistic, regulation should prevent the supplier from setting too high prices or to offer too low quality. For this reason, network tariffs are scrutinized by sectorial regulators. For the competitive segments, regulation should promote competition by removing entry barriers and reducing switching costs.

These general principles constitute the blueprint of market liberalization but, of course, the implementation of this blueprint varies across sectors, countries or even regions. When we look at differences across sectors, it is clear that monopoly bottlenecks remain important in the energy sector, while they tend to disappear in telecommunications with the development of alternative networks (cable, fiber). Table 1 classifies monopolistic and (potentially) competitive segments for these two industries and mentions the main regulatory tasks for both segments.

	Competitive segments	**Monopolistic segments**
Telecommunication	Voice telephony, Internet, TV services	Local loop
Energy	Generation, Retail services	Transmission (high-voltage grid), Distribution (low-medium voltage grid)
Need for regulatory intervention	Promote competition by eliminating barriers to entry and switching costs Prevent abuse of dominance and cartels	Network tariff regulation Universal service obligations

Table 1: Competitive and monopolistic segments

2.2 Multi-level governance

Table 1 presents a blueprint of the role of regulation but its practical implementation is complex. Regulation has multiple players involved and they may interfere with each other. To be short, we can distinguish four categories of actors: the political power, the sector-specific regulator, the judicial

system and the industry, and three levels of regulation: the European level, the Federal level and the Federal entities. At the European level, general principles for organizing the markets are laid down but their implementation remains in the hands of the Member States[5] (and in Belgium this means that both the Federal level and the Regions are involved). At all levels, different actors are involved in the regulatory process. The following table aims at presenting — in an extremely schematic way — the main role for each actor in the regulatory process.

Actor	Political power	Sector regulator	Judicial system	Industry
Main regulatory role	-Developing a long-term policy vision -Organization of the regulatory process	-Ex-ante control: technical regulation, tariff regulation, universal service obligations -Ex-post control: compliance with the regulatory rules	-Competition authority: ex-post control of abuse of market power and cartel behavior -Courts: verify the legality of the regulatory process	-Self regulation

Table 2: The actors of the regulatory process

3. Regulatory problems in today's Belgium

In practice, things are much more complex than pictured in the above table. Aubin and Verhoest (2014) conducted an extremely well-documented project on the organization and performance of telecommunications regulation across a number of European countries (The 'REGUNET' project), pointing at the organizational complexity of the regulatory process and the multiplicity of — possibly conflicting — relations between the different actors. Their book offers a *holistic perspective of multi-level regulation in network industries*, with a special focus on the Belgian situation. Our goal is much more modest than the REGUNET project. We identify six interrelated issues that we consider to be important in Belgium. We cover different topics including the necessity of a coherent policy vision (section 3.1), the institutional design (sections 3.2, 3.3 and 3.4), and the use of adequate regulatory tools (sections 3.5 and 3.6).

3.1 Lack of long-term vision

[5] Therefore, the implementation of the common European framework varies across Member States.

Governments should have a long-term policy vision and coherent framework for the organization of network industries. Issues such as the evolution of the energy mix, the development of broadband infrastructures in areas with a low population density, or the future of rail transport are typical examples of policy questions on which policy-makers should take position. The regulator and the industry are then asked to operate within this framework. A long-term vision is necessary to avoid regulatory uncertainty and/or policy incoherence. This is particularly important in industries where large-scale investments are necessary. Indeed, firms operating in a regulated environment will be reluctant to invest if they are uncertain about the current and future rules of the game. If the rules are changing too often, firms will fear expropriation of their investments and they will not invest in the first place. A stable regulatory framework is then a necessary though insufficient condition to promote investments and dynamic efficiency and, for that, policy-makers should know where they are headed.

In our view[6], the electricity market illustrates this lack of an integrated policy vision. The separation of energy-related competencies between the Federal Government and the Regional Governments cannot alone explain the lack of a global vision. It resulted, along with other factors, in the plummeting of investments in non-renewable resources and Belgium's inability to satisfy its energy needs. In 2014, 21.9% of the electricity consumption in Belgium was imported from abroad, a historically high level.[7] As such, this should not be considered as a fundamental weakness. The European ambition to have a European-wide energy market and an increase in cross-border energy trade could be a sign that markets are more and more integrated. However, there may be more than meets the eye. The increase in the imported energy is motivated by economic efficiency and the possibility of buying cheaper electricity abroad. As a consequence, power producers mothball domestic generation capacity due to high maintenance costs.[8] However, one important and neglected aspect of an efficient electric system is its capacity to meet demand *in all circumstances*. In Belgium this capacity has weakened and the threat of a blackout during this winter or the next cannot be excluded.

For a long time, there has been no integrated view of the future of the energy market. There have been specific policies for each energy source (nuclear, on-shore wind, off-shore wind, solar…). However, for the energy system as a whole, it is important to focus on the energy *mix*. The following examples illustrate some important shortcomings of current policies:

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[6] See also de Streel et al. (2011).

[7] Synegrid (2015).

[8] Underused gas-fired plants, however, may serve a strategic role from a firm's perspective. It limits the price for outsourcing generation (Bouckaert and Van Moer, 2014). Few hours of operation, may therefore be necessary though not a sufficient condition to mothball.

a) Nuclear phase-out.

The Federal Government decided in 1999 on a progressive nuclear phase-out by 2025 but the law had an article (art. 9) that offered the possibility to deviate from the planned phase-out. This created a lot of uncertainty between 2003 and 2012. It is only in 2012 that this art.9 has been deleted and the phase-out calendar has been determined.[9]

b) Renewable energy subsidies.

The development of renewable energy has largely been developed separately between the Regions and the Federal State. Subsidy schemes have been organized without much coordination and green certificates are either within regions or at the federal level only. The lack of an integrated vision for the development of renewable energies created additional costs as we explain hereafter.

c) Strategic reserves.

The subsidies offered to renewable energy have created viability problems for the peak gas plants. Currently, subsidies for renewables make subsidies necessary for gas plants in order to guarantee sufficient adequate capacity. Non-profitable gas plants will be integrated in a capacity reserve and maintained by the grid operator Elia (the so-called 'strategic reserve') to face possible capacity shortage. The design of the provision of a strategic reserve, unfortunately, lacks many efficiency characteristics as described by Cantillon (2014). In particular, the current reserve capacity design (i) focuses on generation and therefore does not meet a neutral approach with regard to potential efficient contributors at the supply and demand side; (ii) relies on gas plants and therefore is not technology neutral; (iii) passes on all costs to consumers based on their consumption profiles and therefore lacks accountability from e.g. intermittent suppliers exerting a serious negative externality on the system.

3.2 Confusion of roles

In a multi-level regulation, many organizations participate in the regulatory process. The role of the different parties should, however, be clearly identified. Hereafter we present three examples of confused roles that undermine the regulatory process.

a) The nuclear rent.

[9] The current government subscribes to the agreed upon nuclear phase-out by 2025. There may, however, be a credibility problem given the continuing changes.

In 2011, the federal regulator (the CREG) and Electrabel were in conflict over the 'nuclear rent'. The conflict was arbitrated by the National Bank of Belgium (NBB). Conflicting views between a regulator and a regulated firm are not surprising. After all, both parties have diverging interests and we do not expect them to agree on all the issues. It is quite strange, however, that the NBB, in a dispute between the regulator and the main Belgian electricity producer, is regarded as the appropriate institution to arbitrate. If they disagree they should go to Court.

b) Temporary price freezes can be imposed by the Belgian Competition Authority.

The former Ministry for Economic Affairs (Federale OverheidsDienst Economie/Service Publique Fédérale Economie) has introduced the so-called "Price Observatory". In the event the Price Observatory detects abnormal pricing behavior, whatever this may mean, it can hand over the file to the Belgian Competition Authority (BCA). The BCA then has the option to intervene, for example, by freezing price levels for a 6 months period. This possibility to intervene provides the competition authority with the power to act as a regulator to determine price levels. Of course, all affected parties can appeal by going to Court. However, this intervention power creates considerable uncertainty for firms as it puts aside the legal framework to be taken care of by competition authorities on the basis of competition law. Price regulation belongs to the role of the regulator.

c) Horizontal Merger between Concentra and Corelio (Het Mediahuis) and vertical merger between Liberty Global and De Vijver Media.

In 2013, the two largest media groups in Flanders, Concentra and Corelio, merged to form 'Het Mediahuis.' The Flemish Media Regulator (VRM) declared on the proposed merger:

"Taken together, we must come to the conclusion that a concentration wave has taken place during the last years. The concentration wave has occurred in a horizontal, vertical, as well as in a cross-media sense. These events call for increased vigilance from the side of policy makers with respect to diversity of news."[10] (VRM, 2013)

A similar remark has been made with respect to the vertical merger between Liberty Global and De Vijver Media (Vlaams Parlement, 2014). In both cases, there is a clear confusion with respect to the roles of parliament and the regulator: monitoring media diversity is not a mission of politicians. Neither is it a mission of the Competition Authority whose focus is on anticompetitive behavior and abuse of market power. It *should* be the role of the media regulator, i.e. VRM itself.

3.3 Regulatory independence

[10] Our translation from Dutch.

The role of the regulator is to implement sector-specific policies designed and proposed by the government and the legislator. One of the conditions for successful market regulation is *regulatory independence*. Regulatory *independence* is defined as the ability to act independently of private and public interests. Regulators will have this *ability to act independently* if, firstly, they have clearly specified missions and objectives (see 3.1 above). Second, if regulatory bodies have the human, financial and legal resources to effectively accomplish their tasks. And lastly, if the government and the regulated industry do not interfere in the day-to-day regulatory process i.e. they should be protected from undue influence from the market operators and the government.

The liberalization process initiated at the European level calls for a mix of competition and regulation. To achieve an effective regulation, the principle of regulatory independence is clearly stated in the European rules that organizing the liberalized markets and regulatory independence is, in principle, guaranteed by the law. However, *legal independence* is not sufficient to guarantee *real independence*. Independence comes under pressure when there is *proximity* between the regulator and the regulated. In Belgium, this proximity is a concern because public ownership remains important in regulated industries. Public authorities are still major actors in the telecommunication, postal, energy, water, rail and public transport sectors. This creates potentially a **conflict of interest** between the State as the owner of the regulated firm and the State as the industry regulator. The only way to prevent this conflict is to give a large formal (legal) and real (operational) independence to the regulator. Note that we do not claim that regulatory independence calls for the privatization of publicly-owned firms. Rather, we believe that an appropriate organizational environment should be guaranteed to successfully prevent potential conflicts of interests. We have several reasons to believe that this necessity of regulatory independence is not always well-understood by public authorities in Belgium. To illustrate this, we present three examples.

a) Regulation in the rail sector.

In the recently formed Michel Government (September, 2014), Minister J. Galant is in charge of the transport and mobility policies and holds the responsibility to oversee the public rail companies (SNCB/NMBS and Infrabel). The problem—raised by the European Commission—is that the ministry of transport (SPF mobilité et transport/ FOD Mobiliteit en Vervoer) also supervises the rail and the air regulators. Supervising both the main market player and the regulator potentially creates a conflict of interests. On the one hand, the regulator is in charge of promoting and monitoring competition. In this framework, one of its tasks is to deliver licenses and authorizations to new entrants. On the other hand, the historical operator may suffer from increased competition and it may prefer a restrictive licensing policy. There is a *risk* that the Minister in charge of supervising the regulation could be unduly influenced by the concerns of the main operator he/she supervises and fail to promote market competition by restricting the actions of the regulator. In these circumstances, regulation can hardly be totally independent. In response to the Commission's concerns, the

government recently decided to re-allocate the competence of supervising rail (and air) regulators to another Minister, W. Borsu in November 2014.

b) Conflict of interest in the regulation of the telecommunications sector.

On October 14, 2014, the European Commission (EC) decided to refer Belgium to the European Court of Justice (ECJ). According to the EC, Belgian law does not offer sufficient guarantees of independence for the Belgian telecoms regulator, the Belgian Institute for Postal Services and Telecommunications (BIPT). According to EU telecoms rules, i.e. Article 3(3a) of the Framework Directive 2002/21/EC, telecoms regulatory authorities in Member States must act independently and not take nor seek instructions when applying those rules. However, according to Belgian law, the Belgian Council of Ministers can under certain circumstances withhold decisions made by BIPT. Importantly, BIPT must also obtain approval of its strategy from the government. The Belgian Government has not, as of now, complied with the formal request by the Commission in April 2014 that Belgium guarantees the independence of its telecoms regulator.

c) Regulation of electricity distribution.

Recently, the organization of the electricity sector changed drastically. First, the regulation of electricity distribution companies moved to the hands of the Regions in July 2014. Previously, this responsibility was in the hands of the federal regulator CREG. As a result of the 6th State Reform, the regional regulators, VREG (Flanders), CWAPE (Wallonia) and BRUGEL (Brussels), are now in charge of setting the distribution tariff which accounts for 35-40% of the household electricity bill. Second, the sector is on the way to consolidation with the recent mergers between distribution system operators (DSOs).[11] Last, there is a debate about the opportunity to move from mixed ownership of DSOs to full public ownership.[12]

Policy-makers will then be on both sides of the regulator. On one side, they are involved in the management of the public DSOs and, on the other side, they decide on the policy choices made. This would be a fundamental problem if there is only one public DSO. There is a real risk, indeed, that policy makers bypass the regulator undermining its commitment capacity. If policy-makers bypass the regulator, regulation is no longer independent but possibly captured by short-term political considerations. This would undermine the commitment capacity of the regulator and will be detrimental to long-term efficiency and investment. Recognizing this, the Managing director of the VREG, André Pictoel, explicitly asked for more independence for the regulator: «*Being under the*

[11] The number of DSOs has decreased from 24 to 10; currently, there are 7 DSOs in Wallonia, 2 in Flanders and 1 in Brussels.

[12] Electrabel owns stakes in Ores in Wallonia and Eandis in Flanders and currently negotiates with the municipalities to sell its ownership share.

responsibility of a Minister creates trouble », he said to De Tijd on December 6, 2013. «*The Minister is dancing on a tightrope between regulation and policy. This leads to frustration on both the regulatory and the government's side*».[13]

All this does not mean that public authorities can no longer intervene in the economy. Rather, the privileged instrument of public policy in a liberalized market should be sector regulation rather than public ownership.

In our view, these three examples illustrate the confusion between two instruments for implementing an industrial policy in the utilities sector: regulation and public ownership. Traditionally, governments (and not only in Belgium) used public enterprises as their privileged instrument to conduct a sector policy. Public ownership is a way to intervene directly—as an actor—in the market and to promote the public interest.[14] Market liberalization requires the creation of a level playing field where firms—public or private—can compete on equal footing. This implies an effective regulation of monopolistic segments and the promotion of fair competition in competitive segments. When there are public firms competing in the market, governments may be tempted to implement a regulation that is more favorable to public firms.[15]

Independence is not only a way to prevent conflicts of interest, it is also necessary to give regulators strong **commitment ability**. In addition to tariffs, the regulated firm should also be provided with the correct incentives to make appropriate investments and produce efficiently. In this context, to favor long-term investments, regulatory uncertainty should be limited. The credibility of the regulator is important when offering the regulated firm the right incentives to invest appropriately in productive efficiency. So, the commitment capacity of the regulator is necessary to induce the regulated firm to do what the regulator wants it to do.

When the regulator lacks the ability to commit with respect to its regulatory intervention—e.g. because it changes its regulation too often, or does not reward the firm for efficiency improvements as foreseen in the regulatory contract, or does not punish the firm appropriately if it fails to become efficient—no firm will ever want to invest in the efficient production technology. Again, we insist on the necessity of a long-term vision.

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[13] Our translation from Dutch.

[14] Governments usually have multiple objectives, sometimes even contradictory. Coping with these objectives is often put forward as a main weakness of public organizations (Dixit, 2002).

[15] Bortolotti, Cambini, Rondi, and Spiegel (2011) document that regulated firms have a higher value when they have a state ownership, a phenomenon that is explained by the reluctance of governments to implement strong regulation when they own one of the regulated firms.

But regulators also have weak commitment power when politicians *overrule them* from time to time for electoral reasons. It is indeed very tempting for politicians to change the regulatory contract — for instance by decreasing tariffs — when the regulated firm reaches the efficiency level easier or earlier than expected. However, the regulated firm will only be willing to invest efficiently if it can reap the efficiency benefits. The power of politicians to intervene when it suits them and/or the lack of long-run commitment by the regulatory authority therefore undermines the whole idea behind optimal regulation.

In our view, preventing conflicts of interest and providing a strong commitment power to regulators are essential for the long-term efficiency of the utility sectors and, given their importance in the economy, to long-term growth. This means that regulatory independence should be reinforced. In order to achieve this, regulators should have clear missions and objectives, real power to accomplish their task and they should be protected from private and public interests.

In Belgium, this is, in our view, not sufficiently the case. This is partly because of the governments' lack of a long-term vision — which hampers the role of regulators — and partly because governments have favored their role of shareholder at the expense of their regulatory role. This regulatory role is insufficiently developed in Belgium, as our few examples have illustrated, and it can certainly be further improved. To this end, governments should further reinforce the independence of the regulators formally in the law and effectively by providing clear objectives and the necessary resources.

Our discussion so far has focused on the independence of regulators *vis-à-vis* the politicians and the "*public interest*." We should stress, however, that regulators should also be independent from *private interests*. Indeed, there could be also conflicts of interests between regulators and the regulated industry, particularly if there are *revolving doors* between the regulator and the regulate, i.e. people moving from jobs in the industry or a political body to positions with the regulator or from the regulator to the industry or a political body.[16] To limit the risk of capture of regulators by private interest groups, we recommend the introduction of a 'cool-off' period to restrict job mobility of this kind, similar to what exists in certain parts of the financial sector.

3.4 Cooperation and coordination

Liberalization of the network industries has been initiated at the European level with the ambition to create a competitive European-wide market. Still, the implementation of these reforms is left to Member States. Regulation, for instance, is organized at the national level and not at the EU level —

[16] There are pluses and minuses here. It has been argued in the literature that regulators may be too myopic with their proposed regulatory policies and this may lead to suboptimal long-term investments. Revolving doors, then, could offer a remedy for this bias. Of course, this could be at the cost of increased collusion (Che, 1995).

even if recently, regulators have organized platforms to coordinate their action at the EU level in the energy and the telecom sectors, for example. Furthermore, in Belgium, Regions are also responsible for industry-specific policies, including some of the regulatory tasks. The organization of regulation is then complex since it takes place at different levels, with multiple parties, and different objectives (see Aubin and Verhoest, 2014).

Delegation of regulatory tasks to the Regions is certainly not *per se* a bad thing. It could prove useful to bundle policy objectives and financial responsibilities in the same hand to have a more coherent policy. For instance, before July 2014, Regions were fixing the universal service obligations imposed to electricity distributors, but the competence to set the tariff was still in the hand of the Federal regulator. Regions could then extract political benefits from having generous universal service, without bearing the responsibility of the tariff increase. The latest State reform corrected for this anomaly by moving the tariff responsibility to the regional regulator. This change in the responsibilities of the different public bodies improves the coherence of political action.

In a market that is more integrated at the European level and where regulation takes place at the EU, the federal and the regional level, policy coordination is essential. This collaboration should take place both at the policy and the regulatory levels. In our view, having dedicated forums to organize the coordination at the Belgian level is essential. Hereafter, we present two examples of a coordinated and a non-coordinated policy at the Belgian level. The first refers to the opening of cable networks to the competitors that was successfully implemented in Belgium. Even though the authors of this paper believe that this policy may be counterproductive (see point 6 hereafter), it is a nice example of successful collaboration between the different regulators. The second example is the subsidy mechanism for renewable energy—the green certificates—that is totally non-coordinated between the regions. This mechanism has been criticized for its excessive cost. In this paper, we present the view that lack of coordination between the different levels may create additional transaction costs.

a) Opening of the cable TV networks.

The regulation of the telecommunication sector is the responsibility of both the federal regulator, BIPT (Belgian Institute for Post and Telecommunications) and the media regulator (VRM/CSA/Medienrat/BIPT). The BIPT is responsible for regulating the electronic communication markets with the objective of promoting competition, contributing to the development of the markets and protecting users. The BIPT is, for instance, responsible for monitoring and implementing the mandatory third-party access to essential network components (like the local-loop) of the legacy network. This policy, initiated by the EU, has been introduced to foster entry and the development of competition in the telecommunication sector. Media regulators are in charge of regulating the obligations of the media content providers and the service providers in their respective territory. In this context, imposing access obligations to cable-TV operators, i.e. allowing third parties to use their network to supply services, required the cooperation of both regulators; cooperation that was

successfully organized at the CRC (Conference of Communication Regulators), a platform that gathers all the regulators.

b) Promoting the use of renewable energy.

In contrast, the market for electric power is organized partly separately across the different regions and partly jointly at the federal level. The promotion of renewable energy is (and was from the beginning) the responsibility of the regions. All regions chose the *tradable* green certificate mechanism to promote renewable energy (an alternative like a guaranteed price was opted for in Germany, for instance). Green certificates are used to guarantee that energy supplied is coming from renewable sources. Producers of renewable energy receive green certificates and these certificates can be traded on the market. On the supply side, renewable energy producers offer their certificates for sale. On the demand side, electric power providers have the legal obligation to offer a certain percentage of (certified) renewable energy or otherwise pay a fine. On the certificate market, the price fluctuates between a guaranteed floor price and a ceiling price (corresponding to the fine), depending on supply and demand. The certificate price corresponds to the subsidy paid to renewable energy generation. The system aims at encouraging efficient investment in renewable energy. If, given the certificate price, a renewable power unit is 'in the money', installing this unit is profitable. Conversely, if a unit is 'out of the money', the investment is not financially viable and the power unit should not be installed. At equilibrium, the market should encourage the production of renewable energy at the lowest possible cost. Of course, organizing the system on a larger scale increases the possibility of trade and therefore decreases the cost of greening the energy supply.

From the beginning there was no possibility of 'cross-border' trade between regions, and the norms and standards are different in the two regions. On top of that, there is a third (federal) mechanism that supports off-shore wind mills, as the North Sea "belongs" to the Federal State (from a constitutional perspective). This is a typical example of non-coordination between regulators. The absence of coordination is detrimental. While CO_2 reduction targets are set at the EU level and at the Belgian level, the mechanisms in place are set on a smaller scale, which reduces the effectiveness of the system.

3.5 Low-powered regulation

An important part of the economics of regulation studies the optimal design of regulation. Laffont and Tirole (1993) have devoted an entire research program to this field, published their results in academic journals, and collected their main findings in their classic textbook. A complete overview of the optimal design of utilities regulation is clearly outside the scope of this article. However, to sketch the central theme, the main question is how the regulator, in a world with asymmetric information, can find out the regulated firm's real costs.

Suppose the regulator proposes to the regulated firm a single contract such that the firm receives a fair return on top of its reported costs. If the regulator cannot observe the firm's costs, the firm has an

incentive to report higher costs. By doing so, the firm can enjoy a higher return by fooling the regulator. Laffont and Tirole's proposed solution to circumvent this problem was to let the regulator offer the regulated firm a choice between contract options. The proposed contracts are designed in such a way that the regulated firm has an incentive to reveal its true cost structure. That is, if the regulated firm has an inefficient cost structure, it would prefer to choose the contract that stresses a compensation for costs (C-contract). In sharp contrast, if the firm is very efficient, it would prefer the contract that stresses the price at which it can sell (P-contract). The main difference between the two contracts is as follows. The C-contract does not invite the firm to lower its costs and inefficient production persists. That is, the C-contract is characterized by "low-powered" incentives. A nice example is a "cost-plus" contract whereby the regulated firm is paid a fair return rate on top of its costs. The P-contract, however, is a "high-powered" incentive scheme; it provides incentives to the firm to reduce its costs because lower costs increase the firm's profit margin if the price is fixed. A classic example is a "price-cap" contract.

Countries like the United Kingdom or The Netherlands have introduced variants of "high-powered" incentive regulation in many regulated industries, including the electricity and water distribution industry. Examples are policies in which regulated firms get penalized if and only if they underperform with respect to comparable regulated firms; i.e. yardstick or benchmarking-based contract schemes. In sharp contrast, most utility sectors in Belgium are still regulated on the basis of their costs, and can therefore be regarded as characterized by low-powered incentives. A recent example is the regulation of tariffs for Distribution System Operators (DSOs) in Flanders. Tariffs for 2015-2016 will be based on historic costs:

"The historic evolution contains an unbiased and transparent basis for the evolution of costs during the next governing period."[17] *VREG (2014), p. 32.*

It is unfortunate, in our view, that the recent State Reform did not take advantage of the opportunity to introduce more high-powered incentive schemes. Sophisticated benchmarking techniques across the different DSOs[18] within or even across the different regions and methods to make use of high-powered incentive schemes, enhance efficiency and further serve consumers' interests would have been a nice opportunity.

3.6 Regulatory creep

Belgium is one of the few countries in the world with close to full coverage of two fixed broadband infrastructures for residential households and businesses. The first infrastructure is a DSL-network

[17] Our translation from Dutch.

[18] Policy makers in Flanders have even suggested to merge all DSOs to one monopoly, making benchmarking or yardstick competition impossible.

and originates from the cupper network owned by the incumbent telephone operator. The other network was used by TV-distributors and is usually referred to as the cable network.

Typically, we refer to *inter-platform* competition when the incumbent DSL operator and operators with other infrastructure, most notably cable (but possibly also fiber-to-the-home and wireless) compete to attract customers on their networks. *Intra-platform* competition refers to competition between different DSL-operators making use of one single (the incumbent's) network. Under *facilities-based intra-platform* competition (so-called unbundled local loop, or ULL), entrants lease bare unbundled local loop elements from the incumbent network, but have to invest in their own equipment and other facilities to get access to their customers. Under *service-based intra-platform competition* (such as bitstream access), entrants merely compete with each other by reselling the incumbent's services and therefore incur little-to-no own investments.

While consumers in Belgium can choose between these two distinct networks to buy broadband services, there is detailed access regulation for operators with significant market power. Detailed access regulation has been introduced at the time of the liberalization of this network industry in 1998. While cable did not have to open up its network for access to third parties until recently, access to the DSL-network was always regulated heavily. The details of the access regulation shape the degree of competition between the networks and on each network.

In a study on OECD countries, Bouckaert, van Dijk, and Verboven (2010) concluded that—in addition to important external factors like income/capita, PC penetration, and differences in population density—the existence of inter-platform competition has a significant, positive effect on the penetration of broadband use in the population (i.e. the fraction of the population using broadband). Broadband penetration tends to be 10% higher in a country where DSL and cable have equal market shares, compared to a country without a cable operator. Facilities-based intra-platform competition was found to have an insignificant effect on broadband penetration. In contrast, service-based intra-platform competition has a significant, negative effect on broadband penetration. But the magnitude of this effect is less important than that of inter-platform competition.

The main conclusion of Bouckaert, van Dijk and Verboven (2010) is that *differences in regulatory policies* play a crucial role in explaining differences in broadband access and penetration. Countries that promoted competition between different platforms (e.g. by investing in cable infrastructure) have done significantly better. In contrast, countries that mainly promoted service-based intra-platform competition on the incumbent's network have, on average, done worse. These findings are consistent with the view that service-based competition does not provide sufficient investment incentives to new entrants and, importantly, discourages investment of the incumbent operator. In particular, discouragement of investment stems from the incumbent, who is not willing to bear all the risks while receiving only a regulated part of the investment rents.

Table 3 – Regional differences within Belgium

Variable	Belgium	Flanders	Brussels	Wallonia
Dependent variable				
Broadband penetration (fraction of households)	59%	63%	60%	52%
Competition variables*				
Market share cable	39%	55%	33%	28%
Market share DSL incumbent	46%	36%	49%	53%
Market share other licensed operators (OLOs)	13%	7%	9%	17%
- of which unbundled local loop	2%	2%	6%	3%
- of which bitstream access	11%	6%	3%	14%
Market share others	2%	1%	10%	1%
Control variables				
Net taxable income/capita (€, fiscal year 2006)	13,655	14,483	11,550	12,807
PC-penetration (2007)	67%	72%	64%	61%
Population density (population/km^2, 2007)	345	448	6,601	202

*: Belgian market shares are taken from 13th EU Implementation Report (2007). (http://ec.europa.eu/information_society/policy/ecomm/library/communications_reports/annualreports/13th/index_en.htm); regional market shares are estimates based on 2008 market survey by Belgacom; split of OLOs between unbundled local loop and bitstream access is based on estimates by Belgacom. Source: Bouckaert, van Dijk, and Verboven (2010).

In the only case study on Belgium to our knowledge, the authors also revealed interesting additional insights. Belgium as a whole used to be a frontrunner in the early years. Recently, however, it slowed down and now belongs to the intermediate group of OECD countries with a household penetration level of 59% in 2007 (see Table 1). Behind this national number there are *large regional differences*: in Flanders, penetration reached 63%, compared with 60% in Brussels and only 52% in Wallonia. An important part of these differences may be explained by external conditions. Indeed, Table 1 shows that Flanders had a higher income/capita, a higher PC-penetration and a higher population density, which are all conducive to broadband penetration as mentioned earlier.

However, the differences in broadband performance are also in part due to the *differences in regional policies*. Investment in cable broadband was actively promoted in Flanders from the start, which resulted in a strong degree of inter-platform competition. In Brussels and especially in Wallonia, the promotion of inter-platform competition did not take place. Instead, there was more emphasis on service-based intra-platform competition (bitstream access). Table 1 indeed confirms that in 2007 cable broadband had reached a market share of 55% in Flanders, compared to only 33% in Brussels

and 28% in Wallonia. Conversely, bitstream operators had reached a 14% market share in Wallonia versus only 6% and 3% in Flanders and Brussels.

From an international perspective, the authors conclude that Flanders has benefited from promoting inter-platform competition. In contrast, Wallonia focused on service-based intra-platform competition, entailing adverse investment incentives. They complement their findings with three policy recommendations for Belgium to improve broadband penetration:

1. Policy-makers should develop a long-term vision and promote inter-platform competition: The "ladder of investment" theory argues that it is good to promote intra-platform competition as a stepping stone for new entrants to induce them to invest. The case study for Belgium shows there is no support for this theory, and that, to the contrary, intra-platform competition may even give adverse investment incentives. To improve broadband penetration, the promotion of inter-platform competition should become a priority.
2. Policy-makers should gradually phase out bitstream access regulation: Our econometric results suggest that service-based intra-platform competition is worse than facilities-based intra-platform competition, which is neutral in this respect (it neither encourages nor discourages penetration). We therefore recommend as a first priority to phase out bitstream access regulation, for example, by gradually increasing regulated bitstream access prices relative to ULL prices, or by not imposing mandatory bitstream access on new optical fiber networks, where substantial investments still need to be made.
3. Policy-makers should not follow a "one size fits all approach" and pay attention to regional differences that affect broadband penetration: Our case study for Belgium shows that external conditions may explain large regional differences, but regional policy is also partly responsible. In regions that are lagging behind, policy makers should assess whether the right regulatory and investment policies are followed and focus sufficiently on inter-platform competition to preserve the right investment incentives.

4. Conclusions

Our contribution stressed six challenges towards further improvement of regulating utilities industries in Belgium. A first challenge stresses that the Federal and Regional Governments have an important role in safeguarding a policy vision which is stable and long-term based. Distribution of roles between government, regulators, competition authority and appeal courts should be made clearer and constitute a second challenge. Third, independence of federal and regional/community regulators should be guaranteed, as has been recently challenged by the European Commission for the telecommunications sector. Fourth, coordination between the different regulators within each regulated sector should be further encouraged. As a fifth challenge, we would like to see less regulatory creep. Last but not least, we are strong proponents of a greater use of regulatory instruments that provide high powered incentives, such as benchmarking or yardstick competition.

We realize *and* subscribe to the idea that rethinking Belgium should not be motivated by economic reasoning only. However, it should be of no surprise that it is our conviction that Belgian policy-makers could make use of *more* economics to build their policies on, not less.

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Why Have Banks Remained Fragile?

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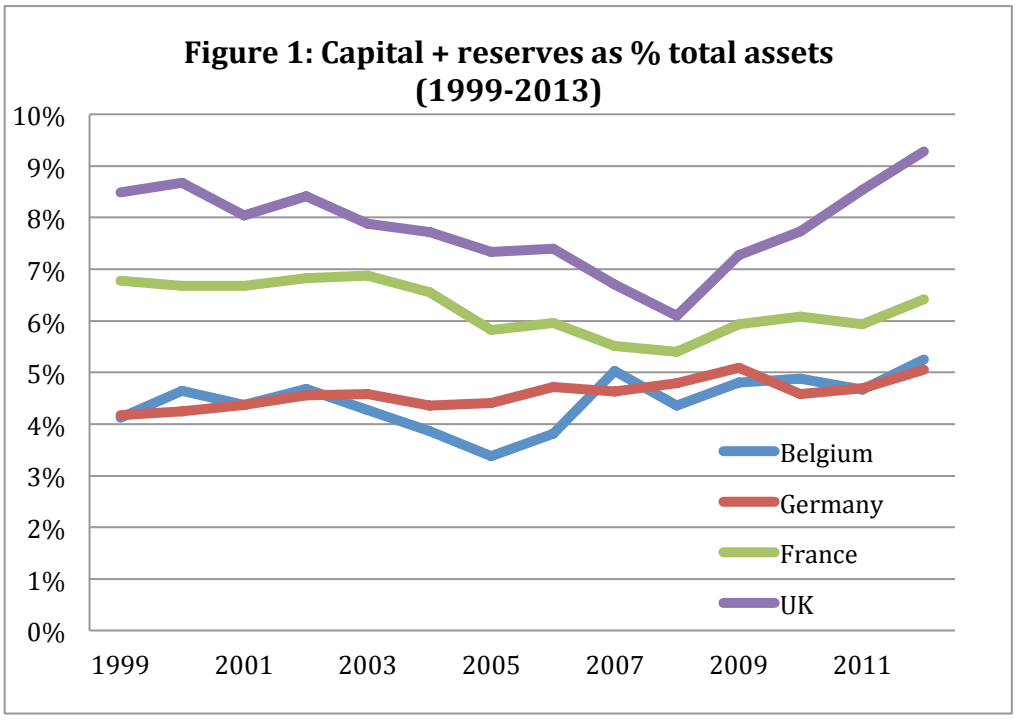
1. Introduction: Plus ça change plus cela reste la même chose

There has been a significant tightening of regulation of banks since the banking crisis of 2008. Basel III has raised minimum capital ratios and redefined riskiness of assets. In most countries banks have been subjected to significantly more regulations. Yet when we look at ratio of capital+reserves to total assets of banks, little seems to have changed. We show this in Figure 1.

In Belgium, France and Germany there is no significant increase in the ratio of capital+reserves to total banks' assets. In the UK, where that ratio had declined a lot before the crisis, it increased significantly since 2008, and now has reached a level much higher than in three continental European countries where these ratios continue to be very small (only 5% in Belgium and Germany).



Source: European Central Bank, Consolidated Banking Data

http://www.ecb.europa.eu/stats/money/consolidated/html/index.en.html

Thus it appears that the fragility of banks in Belgium, France and Germany is as high as before the crisis. If the value of the banks' assets in Belgium, France and Germany declines by a few percentage points capital will be wiped out and will push these banks over the precipice again. The surprising thing is the inertia in the movements of capital ratios, and thus in the fragility of banks, despite the considerable change in the regulatory environment.

Several questions arise:

- Why do banks in many continental European countries continue to hold too little capital?
- Why do we observe differences between countries?
- Why does the political system not seem to have succeeded in making banks less fragile in many continental European countries?

2. Why do banks continue to hold too little capital?

In 2013 capital and reserves of banks in the EU amounted to only 7.6% of total balance sheets. Well-run businesses outside the banking sector typically hold equity shares of 20%, 30% or more of their balances sheets. For good reasons; these well-run firms know that shocks can occur in the future that can wipe out large parts of their balance sheets. Good business strategy then leads these firms to hold sufficiently large buffers to avoid bankruptcy.

These principles of good behavior do not seem to apply to banks. Admati and Hellwig(2013) have identified the main cause of the low equity shares in banks' balance sheets. This is the "too big to fail" syndrome. Large banks profit from an implicit guarantee from their governments that will not allow these institutions to fail. As a result of this guarantee, banks can issue debt at very favourable terms. This in turn gives them an incentive to issue cheap debt and to avoid issuing equity that does not profit from government guarantees. Thus the fundamental reason why large banks issue too much debt and too little equity is that they profit from the subsidy implicit in government guarantees.

3. Why do we observe differences between countries?

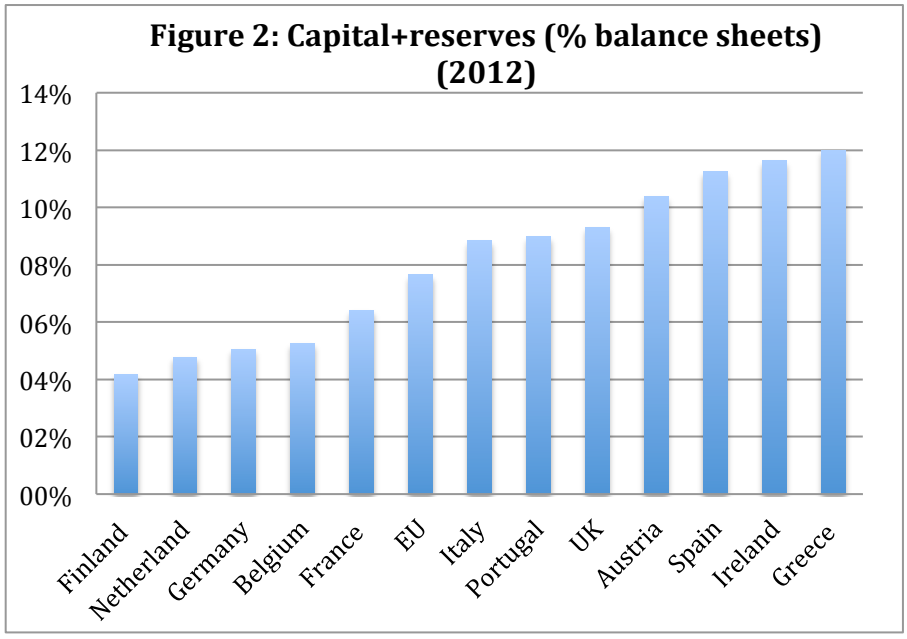
The value of the implicit subsidy from government guarantees clearly depends on the financial strength of the government. A guarantee given by the Greek government to Greek banks is worth less than a guarantee given by the German government to German banks. As a result, the implicit subsidy enjoyed by Greek banks is likely to be much lower than the implicit subsidy enjoyed by German banks. One should expect, therefore, that Greek banks issue less debt and more equity than the German banks.

This theoretical prediction can be tested using data of equity shares of banks in the EU. We present these in Figure 2. The figure shows capital plus reserves as a percent of the total balance sheets of

banks in the major Eurozone countries (+ the UK) at the end of 2012. It is striking to find that the Northern European countries' banks have very low equity shares, typically 5% or less. In contrast the banks in the countries of the periphery (Spain, Ireland, Greece) have equity shares exceeding 10%. The banks in the former countries are backed up by financially strong governments; the banks in the latter countries have to rely on the guarantees form financially weak governments. Thus, it appears that indeed banks located in countries with financially solid governments use the strong guarantees provided by their governments to issue a lot of debt at the expense of equity. The opposite occurs in countries with financially weak governments.

In order to test this hypothesis further we used the level of the 10-year government bond yields as a measure of the financial strength of governments. The lower is the government bond yield, the stronger the financial position of the government, and vice versa.

We now plot the shares of capital + reserves on the vertical axis and the 10-year bond yield (our measure of financial strength of the government) on the horizontal axis in figure 3. We find a significant positive relation. Banks in countries with low government bond yields (high financial strength) have low levels of equity; banks in countries with high bond yields (low financial strength) have high levels of equity. We explain about 50% of the total variation of the equity ratios by the government bond yields[19].



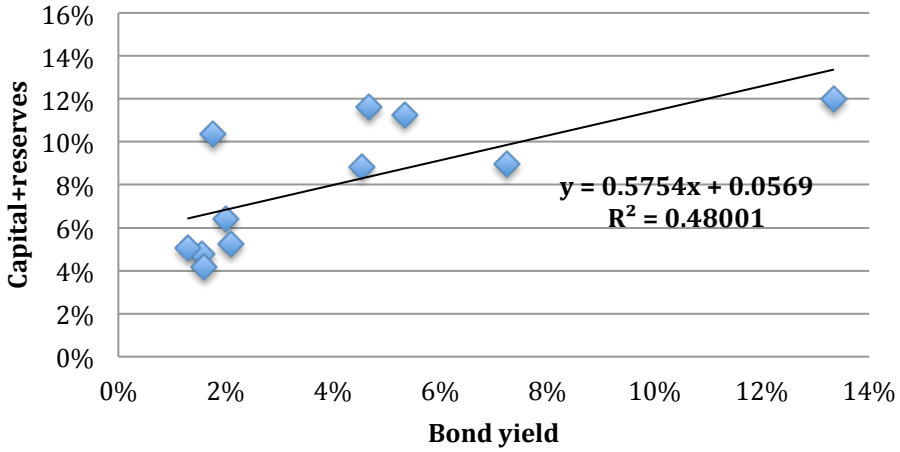
[19] In De Grauwe and Ji (2013) we provide more econometric evidence confirming the positive relationship between capital and the government bond yield and we discuss possible endogeneity problems.

Source: European Central Bank, Statistical Data Warehouse

http://sdw.ecb.europa.eu/browse.do?node=2018811

Note: The data presented here relate to the Monetary Financial Institutions (MFIs) as defined by the ECB. The vast majority of euro area MFIs are credit institutions (i.e. commercial banks, savings banks, post office banks, credit unions, etc.), which accounted for 82.4% of such institutions (6,210 units) on 1 January 2012, while money market funds represented 16.9% (1,275 units). Capital + reserves corresponds to core capital.

Figure 3: Capital +reserves (% balance sheet) and 10-year Government Bond yield, 2012



Source: European Central Bank, Statistical Data Warehouse

http://sdw.ecb.europa.eu/browse.do?node=2018811

It should be noted that in countries were the government bond rates are high banks typically will have to pay high interest rates on the debt they issue. These high interest rates then reflect the risk premium investors want to have given that the low value of the government guarantee creates a credit risk. These high interest rates in turn give banks incentives to issue less debt and more equity.

The previous analysis allows us to uncover a paradox. Northern European banks today profit from the financial solidity of their governments and follow business strategies aimed at issuing too much subsidized debt. In doing so, they weaken their balance sheets and become more fragile, less able to withstand future shocks. The paradox then is that financially strong governments breed fragile banks. The opposite occurs in countries with financially weak governments. In these countries banks are

forced to strengthen themselves, unable to rely on their governments. The result is that they have significantly more capital and reserves (more than twice as much as in some Northern countries) and have become less fragile. Financial fragility of governments breeds financially stronger banks.

This is not to deny that banks in Southern Eurozone countries do not have problems of their own (see Ayadi, et al. (2012), Gros (2013), European Central Bank (2013)). In general the size of non-performing loans is high in these banks and higher than in Northern countries' banks. This may also be a reason why these banks have been forced to hold higher capital ratios.

The paradox that financially strong governments breed fragile banks is not easy to solve. In Northern European countries the large but financially fragile banks hold their governments hostage. As a result, despite their strong financial resources, the governments in these countries are politically weak, unable to resist the pressure of the banks to keep equity low.

Yet this is what should change. More than in the South, the governments of the Northern European countries should stand up and force the banks to issue more equity. This should go much further than what is foreseen in the Basel III accord. If the experience of the Southern European countries is any guide, banks in the North of Europe should at least double the capital and the reserves as a percent of their balance sheets. Failure to do so risks destroying the financial solidity of the Northern European governments when, in the future, negative shocks force these governments to come to the rescue of their undercapitalized banks.

The new responsibilities entrusted to the European Central Banks as the single supervisor in the Eurozone creates a window of opportunities for that institution to change the regulatory and supervisory culture in the Eurozone that has allowed the large banks to continue to live dangerously with insufficient capital.

4. Why has he political system not succeeded in making banks less fragile in many EU-countries

We see two reasons. The first one has to do with regulatory capture; the second one with the use of a wrong regulatory model.

Regulatory capture

The "too big to fail syndrome" analysed earlier provides an implicit subsidy to banks. This subsidy granted by financially strong governments provides the basis and the means for the lobbying effort of banks to maintain subsidy. And this effort is the strongest in the fiscally strong countries, like Germany. It leads to the maintenance of low capital ratios.

Wrong regulatory model

The regulatory model of Basle III is based on philosophy that assets of the banks can be divided in different risk classes. Some assets are risky; others are not or much less so. Banks have to set a lot of capital against the former, but none or much less against the latter. The result of this regulatory

philosophy is that banks develop various ingenious methods to minimize the issue of capital. They do this by camouflaging the risky assets or by different forms of securitization of risky loans, thereby shifting the risk off their balance sheets.

One example of this “regulatory arbitrage” has been the emergence of “Capital Relief Trades” (CRTs) whereby banks transfer part of the risk of their loan portfolio to a third party, most often a hedge fund. The latter allows the same banks to show embellished capital ratios, i.e. capital ratios that increase when banks shift the risk off their balance sheets.

In a way it can be said that this regulatory model has fallen victim of a “fallacy of composition”. The regulation that is applied to the individual bank risk seems to have led to lower perceived risk and higher risk adjusted capital ratios. For the system as a whole, however, nothing has changed. The risk has just been shifted elsewhere. One can even argue that systemic risk has increased because the system has become more interconnected.

The permanent shifting around of the “hot-potatoes” of risk makes it more likely that relatively small shocks are more easily propagated throughout the entire system. When a systemic crisis breaks out, all the assets of the banks at risk, including those assets that are risk-free under normal conditions. In the current regulatory philosophy no capital has to be posted against these “risk-free” assets.

A better regulatory approach consists in recognising these systemic risks and in forcing the banks to set capital against all the assets they hold on their balance sheets. In this way, banks will no longer have the tendency to do " regulatory arbitrage "; a tendency that has produced a situation in which banks hold approximately the same low amount of capital as a percent of their total balance sheet as they used to have prior to the crisis. The result is that banks today are no less fragile than they used to be before the crisis.

Basle regulators have recognized this problem when they have proposed the introduction of maximal leverage ratios. But these maxima have been set too high to make much difference.

The approach proposed here must of course be complemented by more direct control of risk taking by banks. In my view this implies separating investment from commercial banking activities. Unfortunately, the political momentum to go in this direction has come to a complete standstill.

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Commentary

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1. Introduction

In my comments, I first highlight the similarities and differences in the problems identified by Bouckaert and Gautier, and De Grauwe and Ji. This is to see whether some general conclusions can be drawn regarding the improvement of the regulatory framework that is in place, or whether the matter is so complex that only tailor-made solutions can be put forward.

In the third and fourth section I then scrutinize some of the arguments given by respectively Bouckaert and Gautier, and De Grauwe and Ji. A fifth section offers some personal conclusions and a recommendation.

2. Similarities and differences between the contributions

Both papers deal with the regulation and supervision of industry/financial services. Bouckaert and Gautier deal rather exhaustively with public utilities in Belgium, while De Grauwe and Ji investigate banks for a number of European countries. As such, these contributions focus on prominent examples of regulated industries, leaving aside a number of other sectors where regulation interferes with the competitive process (such as pharmaceutical, pharmacies, insurance, etc.).

In their focus, both papers document the importance of regulatory independence. In Bouckaert and Gautier, the focus is mainly on the (lack of) independence of the regulator from general government (politics), while De Grauwe and Ji focus on the captivity of government by the regulated industry, in casu the banking sector. While Bouckaert and Gautier investigate a number of specific mechanisms that lead to interference between politics and regulation, De Grauwe and Ji document an implicit contract that is prone to moral hazard: banks are too big to fail and hence bank creditors rely on the implicit guarantee that the government will bail them out when things go wrong.

Finally, both papers point to a lack of effectiveness of regulation. In Bouckaert and Gautier, the focus is on conflicting goals and the resulting overregulation when a host of agencies interfere with the

competitive process, while De Grauwe and Ji argue that regulation is insufficient to ensure financial stability.

Bouckaert and Gautier focus rather explicitly on the relationship between horizontal (competition policy) and vertical (sector) regulation whereas in De Grauwe and Ji, this aspect remains uncovered although it is present, because strong central government guarantees may constitute hidden state aid which should be reviewed/ cleared by the European Competition authority.

3. Remarks on the arguments by Bouckaert and Gautier

3.1. Multiple regulators and fuzzy regulatory outcomes: la condition humaine

Bouckaert and Gautier refer to the REGUNET project (regarding the organization and performance of regulation of telecom companies) to document a host of interrelated issues that affect the performance of the telecommunication industry. In the same spirit, they identify six problematic areas and also document the issues involved in other industries, including energy, rail and the media.

While each and every identified problem area (whether it is the lack of long-term vision, the confusion of roles, or the lack of coordination) is a valid consideration; in my view many of the problems originate in a more fundamental issue, namely the choice that needs to be made when a multilevel regulatory process is designed. Since the work of Sah and Stiglitz (1986), it is well known that the fundamental choice is between a polyarchy and a hierarchy. The strengths and weaknesses of these two systems have become known. In a polyarchy, each regulatory agency can make a decision that binds the other. This implies, for example, that when a merger involves media companies, the media regulator can clear the merger when it considers that the merger proposal offers significant guarantees for the diversity of news, regardless of considerations regarding the competitiveness of the market (which is under the supervision of the competition authority).

Needless to say, this organisation of supervision leads to a "regulatory supermarket", where the firm can "shop around" to find a regulator in favour of the project (since one regulator's decision binds the other). This creates the impression that "everything goes" and that government is weak vis-à-vis "those who know the appropriate channel."

The opposite of "polyarchy" is "hierarchy." The term is somewhat misleading in that it creates the impression that one regulator or agency can overrule the other. The idea, however, is that each agency in a hierarchy has to clear the project before it passes. In this system, each agency has a "veto" power. This implies that a project only stands a chance of approval if it meets the concerns of each and every regulator. In reality, projects will often satisfy one regulatory goal (say more financial stability when a larger banking group is created) but not another (the larger banking group may be detrimental to competition).

As a result, a large number of projects are "killed" and the impression is that regulatory activity is too strict, leading to a situation characterised by "sclerosis", in which nothing ever changes because there is always some party (regulatory agency) that opposes the project.

3.2. "Seamless integration", confusion of roles or blurred competencies

Bouckaert and Gautier argue correctly, on the basis of a number of cases in Belgium, that roles in the regulatory process are not clearly identified. The "seamless integration" between the horizontal (competition policy) and vertical (sector) regulation is not a solution to the problems documented in section 3.1. above. In their table 2, Bouckaert and Gautier present in a schematic way the main roles of each actor in the regulatory process.

I tend to agree with most of what is in table 2, except for the time horizon attributed to political power, which is a normative view on politics rather than a positivist one. To correct for short-termism in politics, I think that the long term policy vision should also be a consideration of sector regulators, who ex-ante should think of a blueprint for the structure, conduct and performance of the industries that they regulate. This is because it is hard for political actors who are elected on the basis of changing preferences and attitudes of voters to commit for the long term.

Beyond the distinctions between sector regulation and the judicial system (of which the competition authority is a part), which Bouckaert and Gautier do mention, I think there is a number of further differences that explain why the "seamless integration" of horizontal and vertical regulators has hardly ever been a success. Specifically, I think that the scope and nature of information used in the decision making process are very different. As said, regulation should deal ex-ante with the entire industry configuration. Competition policy deals ex-post with some firms. Also, the information used in the regulatory process is public in nature, while competition policy on the other hand uses private information.

It is well-known that regulators face asymmetric information, for instance when they try to set optimal tariffs for public monopolies who know their costs (while the regulator doesn't). But this is a different issue: the information used in the regulatory process, as it concerns multiple firms and the public, should be fully available. Competition policy on the other hand will often deal with business secrets that cannot be disclosed in the decision process. This may create the impression that certain aspects of the problem remain hidden. Especially when the ex-post control of abuse of market power, which is a difficult and lengthy process, takes a lot of time, the call for a regulator to "step in" would be great. However, the (fortunately) few cases where this was the case (Bouckaert and Gautier discuss some examples) show that the outcome hardly can be qualified as a success.

4. Remarks on the arguments by De Grauwe and Ji

Some 25 years ago, when a serious leap forward in European Monetary Integration was taken with the Second Banking Coordination Directive, I wrote together with D. Heremans:

"In general, it is known that a country's reputation can "spill over" to the company level, and that countries which have a "good" reputation, for example, regarding quality, provide a competitive edge for their companies. In particular, the "domino"-effect implies that the bankruptcy risk of an individual bank is directly related to the risk of financial system breakdown. (Van Cayseele and Heremans (1991), p. 93, second alinea).

I'm therefore sympathetic to the argumentation by De Grauwe and Ji who argue that banks located in countries with financially solid governments appear to use the strong guarantees provided by their governments to issue a lot of debt at the expense of equity. The point simply is that the government's reputation is a substitute for the individual banks' reputations. Or to put it yet another way, since equity is costly, banks located in strong countries free ride on the reputation of their governments at the expense of banks located in countries with governments that can only give weak guarantees. However, the empirical evidence does not convince me entirely, because a few nagging questions remain, while a competing explanation for the observed facts exists.

4.1. Nagging questions

Belgium, notwithstanding a substantial government debt to GDP ratio (which normally should constrain the Belgian government to provide massive guarantees), belongs to the group of countries in which bank capital plus reserves as a percentage of the balance sheet is low (and below the EU average) (figure 2 in their text). So are Belgian banks even more risk-loving than other banks in that they even issue more debt without the backing of government, and why does the public "buy" this?

In general the argument according to which the Northern European banks succeed in convincing their regulators that they need to keep less capital and reserves because they are backed by guarantees of strong governments is puzzling, as this would imply that these regulators are fully captured by the banks that they are supposed to regulate and no longer watch over the general interest (the fact that their governments don't need to come up with bailouts because capital and reserves are a sufficient buffer). Usually, we think of regulators in countries such as Finland, the Netherlands and Germany as very competent and independent. But not in banking then?

Finally, why does Europe buy this? If it is true that Northern European banks cash on the guarantees (implicitly or explicitly) provided by their governments, they should have a lower cost to income ratio,

which provides them, especially in a pan-European and global banking market, with a competitive advantage. In that case, DG COMP would need to investigate whether this is an admissible form of State Aid.

4.2. An alternative explanation and the need for further investigating moral hazard and too big to fail arguments.

An alternative explanation could be that the Northern European banks have been more innovative in certain areas of banking, which can lead to a lower need for capital and reserves banks. For example, when the process of securitization, that allows to move risks off balance, went further. This is not necessarily better, for it can move risks from a controlled environment into shadow banking where risks remain more hidden. But if done properly in a financial market (rather than a predominantly financial institutional) environment, it could have improved risk allocation, leading to a reduced need for buffers.

Is this to say that the concerns expressed by De Grauwe and Ji are unjustified? Not at all, moral hazard is a well-documented phenomenon. Cheng and Van Cayseele (2011) show that during the Asian financial crisis, Chinese banks that were covered by guarantees or were sure to be bailed out, indeed continued growing in terms of balance sheet. Yet, using the same methodology, Reynders and Verbist found that this effect was not present for Belgian banks during the 2008-2009 financial crisis. Regarding moral hazard, economists know that it potentially exists, but further empirical work is needed to document when and where it is likely to emerge. In order to conclude that it generates the patterns seen in the Northern European banks balance sheets, one needs to exclude other explanations and show why usually tougher (at least perceived as such) regulators are captured. Certainly given the fact that it is hard to change the established practices in this area, see Calomiris (2013).

5. Conclusion

Two contributions written "without fear or favor" have been presented at this re-thinking Belgium event. Only by pointing in a candid way the current regulatory deficiencies, can an agenda for improvement be set up.

Bouckaert and Gautier document many problems with the regulation of utilities. My main message here is that it is necessary to explain that multi-level regulation will always face the fundamental trade-off between too weak and too strict regulation. De Grauwe and Ji point to the continued fragility of

banks and my main message there was that before triggering changes, we need to exclude other explanations (the change from the relational to the transactional banking paradigm) touching on the fundamental trade-off between static and dynamic efficiency (innovation).

Overall then, I'm more on the conservative side (at least in comparison to these contributions). But I think that in rethinking Belgium, it is also important that we do not conclude too quickly that everything is bad, and that before implementing change, we should identify the good aspects of the regulatory framework of this country, and try to keep those alive.

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