

Credibility and Independence in Belgian Competition and Regulatory Agencies

Abstract: *In this paper we attempt to analyze the independence and credibility of five Belgian regulatory agencies. In the theoretical part we cover the existing literature and find that although independence and credibility are different phenomena independence is usually used as a proxy for credibility. In the empirical part we therefore concentrate on the independence of Belgian regulatory agencies using the framework constructed by Johannsen (2004). In this framework four aspects of independence are identified and quantified leading to an overall independence index. Using legal analysis this framework is applied to the Belgian situation. We find that the independence of the Belgian financial regulator is very high, while the railway regulator is lacking most features of independence. The other regulators (the competition authority, the energy and telecommunications regulators) score somewhere in between. The overall picture is one of inconsistency.*

1. Introduction

Belgium introduced a competition law as recently as 1993. In the same period more or less independent regulatory agencies were installed for telecommunications, postal services and energy. At present the job of regulating infrastructure in the recently opened up sectors of railway transport and airport infrastructure has been given to ministerial departments. It follows that a very different kind of independence is practised according to the sector in question.

The purpose of this paper is to analyze the credibility of the competition authority and these regulators. Investments, especially in network industries, have to be made in a situation where investors commit to the market and revenues only will arrive after a period of several years. This means that, to attract investment, competition and regulatory regimes have to be credible and predictable.

The question then is how successful these bodies concerned have been in building up credibility towards the regulated industries and other stakeholders, such as government and consumers?

There is literature on competition and regulatory bodies in which the degree of independence of the authority plays a crucial role as a determinant of credibility (Gilardi, 2002). In addition there is more specific literature on the issue of efficiency of central banks, in which credibility is determined mainly by the degree of independence that a central bank has in formulating and executing monetary policy (Kydland & Prescott, 1977).

In this paper we will analyze how credible Belgian competition authorities and regulatory agencies are by focusing on the factors that explain this credibility. The scope of the paper will be on the Belgian Competition Council, on the Committee for the Regulation of Electricity and Gas (CREG), on the Banking, Financial and Insurance Commission (CBFA), on the Belgian Institute for Postal Services and Telecommunications (BIPT), and on the Regulatory Service that regulates railway infrastructure and airport infrastructure.

The approach is twofold.

At first the literature on regulatory bodies in general and central banking in particular should supply the determinant factors that account for credibility and the role of independence and other determinants of credibility therein. Secondly, there will be a legal analysis of how the factors that came out of the literature study have been (or not) implemented in the cases of Belgian competition legislation, energy legislation, financial services legislation, the legislation on telecommunications services and the legislation on railway infrastructure.

This two step approach should result in an evaluation of the appropriateness of the arrangements made by the Belgian legislator in terms of the credibility and independence of the examined bodies. This evaluation can at last be transformed into some practical considerations that can be taken at heart by other countries, including developing countries.

The purpose of the present study is to show how Belgium is battling the problem of creating sufficiently credible competition and regulatory authorities. In that way the study can act as an example for other countries, especially developing countries that are in the process of designing their **own** institutions.

The research questions of this paper are:

- What are the factors that determine the credibility of competition and regulatory agencies?
- How do these factors, such as independence, affect the credibility of competition and regulatory agencies?
- What are the various characteristics of independence and how can they be ensured?

These research questions have a potential relevance to policymakers in the sense that efficient markets are a main driver of competitiveness and constitute therefore a prerequisite for creating growth and welfare. The efficiency of markets cannot be left alone to market actors but requires a prominent role of government, mainly through its competition and regulatory policies. In order to set up efficient policies policy makers should be aware of the factors that promote credibility of the authorities that will enact those policies. This paper will try to offer some insights into this difficult problem by focusing on the Belgian example.

2. Review of the literature

Introducing competition in (regulated) sectors plays a key role in ensuring productive, efficient, innovative and responsive markets, necessary for realizing low prices (OECD, 2005a). The correction of market failure is the traditional economic justification for regulation. Governments have a whole set of policies at their disposition, of which delegation of authority to an independent agency is one. This paper does not focus on market failure, but investigates why governments want to delegate authority to an independent agency. This, as we will argue, has to do with limiting government failure (Johannsen, 2003).

In recent years, a new role for the state has emerged. On the one hand, governments retreat from sectors where it used to be interventionist; on the other hand, it increasingly regulates these –now liberalized- markets. This

implies a shift from traditional tasks of the state (stabilization, redistribution and allocation) to regulation (Gilardi, 2002).

Network industries such as electricity and telecommunications play a significant role in the economy. Policy makers view them as extremely important for realizing their objectives of stable economic growth and employment growth. To optimally introduce competition in an industry, some regulatory action has to be taken (Coen and Doyle, 1999). Effective institutional structures are very important. We will take a closer look at the theoretical and empirical argumentation behind these institutional structures. In the beginning of the 1990s, Wu (2004) records only a dozen (independent) regulatory telecom agencies, whereas in 2004 there are more than 100. This reflects the widely held notion that independent agencies are a good solution for the problem. The question remains what criteria are required to identify the independence of the regulator.

We start with a study of the available and relevant literature: from the literature on regulatory bodies in general and on central banking in particular the determinant factors will be drawn that account for credibility.

2.1. Credibility in policy making

The interest taken by academics in the credibility of economic policy originated in the eighties. Especially the numerous exchange rate alignments in the European Monetary system created a fertile breeding ground for this attention. The credibility of central banks and the role therein of independence from politics was central in this discussion. The credibility issue was however not confined to exchange rate policy but was quickly applied to the general macroeconomic policy.

By the end of the 20th century the interest in credibility spread to microeconomic policy areas, leading to insights in how best to address the regulation of economic sectors such as network industries. Credibility emerged as an important concept.

We will first try to define this concept. Next we shall analyze the conditions needed to create credibility and the ways for less developed countries to handle this concept.

Our special attention thereby is directed towards independence as a condition for credibility.

2.1.1. Why is there a need for credibility in policy making?

The essential insight about credibility is that economic agents' likely assessment of a proposed policy has to be taken into account when designing and implementing policy. Similar policies can produce different outcomes, depending on the extent to which economic agents believe that the given policy will be sustained. The way economic policy is perceived by market actors is thereby crucial to policy-making.

The need for credibility goes back a long time in history and is originally linked to the societal problem of theft and robbery (cf. Hobbes and Locke). This problem confronted by primitive societies could be solved by installing a monopoly on force. The owner of this monopoly, the ruler, thus provided protection against theft and robbery, thereby giving a significant impetus to

development. The fruits of economic actions such as producing, investing, labouring, trading were no longer in danger of being stolen by fellow men. The problem remained however that the ruler himself could not always be trusted. The threat that he could be tempted to use his monopoly on force to capture the fruits of the economic endeavours of his people was still very real. This had a negative effect on the economy and on development leaving also the ruler worse off. It was then in the interest of the ruler to convince his subjects that he could be trusted, in other words that he would be credible.

2.1.2. Which factors determine credibility?

How could this be done? In the course of time delegation of some powers by the ruler seemed to be a good solution, on the condition that such a delegation was accompanied by a credible guarantee by the ruler of non-intervention. Delegation of powers came in various forms: the institution of the rule of law, private property laws, division of powers,...

Political institutions are thus an important factor in producing, implementing and reviewing policies. The nature of institutions is crucial for economic actors' assessments of policy credibility. A very visible and elementary aspect of this institutional structure is clearly the separation of powers among the executive, legislative, and judicial branch. The checks and balances that are involved here can ensure that the policy-making process is subject to review and constraints from multiple centres of government power. An equally visible and elementary aspect is the presence of regular elections. They provide for a review of government actions and a possible temporal constraint on new policies.

On a deeper, less elementary and visible level the position of regulators comes into the picture. Power is further distributed into their hands, allocating to a certain degree the decision making powers to different parts of the executive. The obvious example here is the position of the central bank. If the decision making of the central bank is steered by the government, it becomes easier to secure monetary financing of a fiscal deficit. This makes the policy of price stability less credible. Guaranteeing the independence of the central bank can then be seen by economic actors as an institutional expression of a commitment to price stability. Similarly, a policy to promote competition in telecommunications is less credible if its implementation is entrusted to the ministry that runs the existing telecommunications monopoly or that manages the remaining government participation in the incumbent operator.

Although the focus in this paper is on independence, other factors beside independence play a role in determining policy credibility.

We consider the following explanatory factors:

- Compatibility of targets
- Availability of information
- Reputation
- Openness to world markets

Economic policy must pursue compatible targets in order to be credible. Infeasible policies cannot be implemented. If an economic agent deems a policy to be infeasible, he knows that this policy will not be carried out and acts accordingly. This changes the policy outcome and policy aims may not be realised.

Often, the problem is how to spot such incompatibilities. The determination of a feasible set of policy targets is often a contentious issue and incompatible policies may be apparent only in hindsight. Because policy reversals often present profit opportunities, there may be an incentive for capital market participants to uncover incompatible policies.

Public uncertainty about government policy and hence its credibility is negatively affected by an absence of information. Economic actors use information to monitor and verify economic policy. If such information is absent or incomplete, they may believe that policy changes have occurred in cases where they actually have not. Lack of an informed public can also increase the incentive for government to change policy, since it may presume that such a policy deviation will not be detected. The net result is that economic policy becomes less credible.

Governments, through policy making, build up reputations that affect judgments about their likely behaviour. Policies, however, can change in response to new insights, new experiences, and new goals. Nevertheless, a reputation for pursuing one type of economic policy can be a significant obstacle to establishing the credibility of a new type of policy. The public may suspect a new policy initiative to be reversed when a government has a long-established reputation for changing his mind. These public beliefs may have significant adverse economic consequences.

Openness to world markets helps ensure that good policies will be recognized and will be pursued, because it gives economic actors an exit option. If both policy makers and economic actors know that adverse policy shifts can lead to an outflow of economic resources and activity, policy makers will have a strong incentive to avoid such policies. Moreover, economic actors have an additional reason to believe that such adverse shifts will not occur. Thus openness to world markets enhances the credibility of sound economic policies.

Openness to world markets also provides an external standard for evaluation, making it easier to detect deviations from credible policies. The international standards that come with openness make policy more credible by making it harder for the government to misrepresent the effects of policies.

2.2. What is independence?

Now we focus on the independence aspect of institutional design put forward in the previous part. More precisely the independence of regulators is addressed.

In the literature, two approaches exist. The first approach (e.g. followed by Gilardi (2002)) only looks at independence from government. The second and broader approach also considers independence from stakeholders and consumers. It is the second approach we will follow in this paper.

For expositional clarity, we will start with the first approach. The decision to delegate authority is made by governments, so that will be our starting point. There is a time-inconsistency problem concerned with credible policy making. A policy maker today may want to limit the discretionary freedom of future policy makers. Suppose a policy maker announces a certain long-term policy plan. Due to the mere passage of time or due to lobby groups, the preferences of the policy maker may change. As a consequence, he will change his policy plan after some time. Therefore, sometimes short-sighted decision making takes place. Politicians want to be re-elected, so their

decisions may be focused on short term policy aims. An example is a politician who lowers taxes in the build-up to the elections, creating a deficit. After the elections, taxes will have to be raised to pay for the deficit. In fact this is caused by a bad description of property rights in politics (Gilardi, 2002).

To solve this problem, governments may choose to abandon some of their regulatory authority to independent regulatory authorities (IRA's) that are not fully democratically accountable and are insulated from political influence (Gilardi, 2002). In this way, governments prohibit themselves and future policy makers from taking these short sighted decisions. They 'tie their hands', so it will be politically more costly to overrule a decision made by an agency. Thus policy makers cannot use discretionary policy as a mechanism to favour a particular interest group. So they will have more time to focus on other policy issues.

Independence of regulatory authorities however should not be understood as autonomy for developing actions and programming policies ignoring the government, but rather as the probability of implementing policies without the interference of political or private agents (Baudrier 2001) (cited in Oliveira et al. 2005).

The approach taken above is a rather narrow one. A regulatory agency may be very independent from political influence, but at the same time very influenced by company interests. We should take into account a broader view on independence. The definition we use in this paper is taken from Johannsen (2003). She follows Smith (1997) who states that independence consists of three elements:

- an arm's length relationship with regulated firms, consumers and other interests
- an arm's length relationship with political authorities
- attributes of organizational autonomy

This definition contains the definition used by Gilardi (2002).

2.3. Why independence?

The reasons behind the delegation of authority may be diverse, some authors argue that it has to do with credibility; others take into account political uncertainty. In this paper, we focus on the credibility hypothesis.

Credibility is the capacity for inspiring belief. A credible policy is a policy worthy of being accepted as true or reasonable. A regulator is credible when agents believe he will fulfill his promises. Credibility and independence are by no means synonyms. Optimally, one would measure credibility directly, and link it to regulatory independence to test whether a more independent regulator is effectively more credible.

A difference has to be made between motivational credibility and imperative credibility. A policy is motivationally credible when it is compatible with preferences of the actors, a policy is imperatively credible when there are no alternatives (Gilardi, 2003).

If regulatory power is delegated, the number of alternatives is reduced, causing a higher credibility. This is the link between independence and credibility. In the literature independence is used as a proxy for credibility because it is assumed that a more independent regulator is also more credible.

The 'credibility hypothesis' is stated extensively in the literature (Gilardi, 2002; Gilardi 2006, Genoud, 2003, Larsen et al. 2005). Credibility is a valuable asset for governments, because rational individuals base their expectations on all economically available information at the moment of decision. Rational actors' beliefs are influenced by beliefs about future actions of policy makers.

The starting point is the literature on central bank independence. In a seminal paper, Kydland and Prescott (1977) stress the importance of an independent central bank because there is a potential conflict between policy makers' discretion and policy optimality (time inconsistency of policy). Often coercion is not a viable option for policy makers; rather they need to credibly bind themselves to a fixed and pre-announced course of action. Otherwise the danger exists that policy is altered because of preferences changes of policy makers (Gilardi 2006).

In a more general sense a time consistent policy is a policy that will be sustained as circumstances change over time. Adhering to a policy rule may require pursuing a policy at a particular point in time that is not optimal at that time. In contrast, policy that is time inconsistent will be reversed in the future due to predictable developments over time.

From an economic perspective, the issue of time consistency emphasizes the problem of predictably changing incentives over time. One approach to achieving time consistency in government policy is to limit policy to rules that the government will have an incentive to pursue in all normal future circumstances. Another approach is to develop capacity for commitment to a policy path. A commitment mechanism is a means for removing the risk of opportunistic policy in particular contingencies. Independence for regulators can act as such a commitment mechanism.

In regulatory policy credibility is important, especially in the aftermath of utilities privatization and liberalization (Gilardi 2002 and 2006). There are clear links between the literature on central bank independence and this literature. Policy makers have incentives to promise a favorable regulatory environment to attract investors, necessary for fostering competition. Once relatively irreversible investments are made, policy makers may be tempted to go back on their commitment. Rational investors will not invest in the first place, creating a suboptimal situation. In the literature this is called the 'hold up' problem (Kirkpatrick, Parker & Zheng 2006).

The more independent an agency is, the more credible the policy is for stakeholders, potential investors, consumers... Policymakers delegate to increase the credibility of their policy commitments. Gilardi (2002) uses independence as the dependent variable and links it to international interdependence, complexity of the economic regulation and the structure of the political decision making process. He tries to explain variations in delegation by changes in these three variables. His results however are not really convincing, so he offers some different explanations why governments delegate power.

Another explanation for delegation has to do with political uncertainty (Gilardi, 2003). Several authors state that, because of political uncertainty, a government may delegate authority to an agency because it wants to increase its own political influence for longer periods in time (Johannsen, 2001; Gilardi, 2006). A government has a political property right today, but is uncertain about still having such a property right tomorrow. Future policy makers will be less able to change the policy of current decision makers when authority is delegated. We will not focus on this issue further.

Which one of the two is the best explanation for independence? The evidence available is not abundant, but suggests that both factors matter; politicians seem to care about both credibility and political (un)certainty.

2.4. Pros and cons

In a number of contributions, key arguments in the debate on regulatory independence have been put forward. Delegation is supposed to enhance the credibility and the efficiency of the regulatory intervention and at the same time it relieves politicians from being blamed when unpopular policy measures have to be taken. Policy makers decide whether it is optimal to delegate powers to an independent body. This evaluation depends on the nature of the sector. We will indicate some advantages and disadvantages of delegating authority.

2.4.1. Arguments pro delegation

The arguments pro can be split up in a number of categories (Gilardi, 2003; Johannsen, 2003). We will look at each of these briefly.

A first category has to do with expertise. The independent agency will be closer to the regulated sector than bureaucratic agencies. They will have a better view on sector-specific problems. The more flexible organizational structure may increase and facilitate cooperation with experts and market parties.

A second argument in favour of delegation is flexibility. An independent agent may adapt more easily to changes in the sector and anticipate proactively.

An independent agency is working in a longer time horizon than politicians. Because of this, a more stable and predictable regulatory environment is created. This can be seen as commitment to credibility.

The independent agency implements agreed policy rules, so the decision process is more predictable than political decision making, leading to more stability and continuity

The scope for ideological discussions between political parties is reduced. This implies that less political time is lost, decision making is more efficient.

Politicians can blame the independent agency for taking politically unpopular measures. Agencies thus function as scapegoats. Thatcher (2001) remarks that institutions may also have been created because countries have to deal with international organizations and structures such as the EC.

2.4.2. Arguments against delegation

These arguments have to do with the fact that the agency becomes too powerful, there is no accountability and they have no democratic legitimacy (Larsen et al. 2005).

One argument against independent regulators is that they are vulnerable to agency capture and the establishment of rigid structures (Johannsen, 2003; Larsen et al 2005). This implies that the staff of the agency gets too focused on one regulated party and overlooks the 'public interest'. This is caused by the fact that there is not enough feedback to supply pressure. This problem is amplified by the fact that the agency has more information than the

government, creating a situation of asymmetric information. This could be remedied by balanced consultations, provided that interest groups are organized and are willing and able to participate in the discussion. Another solution, offered in OECD (2005), suggests the creation of multi-sector regulatory agencies to diminish the danger of agency capture. A other advantage for this type of agencies is that they ensure a consistent approach to the regulation.

The danger however is that the agency becomes too autonomous and is not held accountable by a democratically elected body (Thatcher, 1998, see also Amfttenbrink (1999) for the case of central banks). Other authors (Majone, 1996; Larsen et al. 2005) argue that the regulators have to cooperate with numerous actors, so their autonomy should not be overstated. Legal mechanisms should be built in to create accountability, to limit the discretion of the authority.

Another aspect has been covered by the literature on principal-agency relations. Delegation exactly creates the tensions familiar from these relationships: divergence between the preferences of the principal and of the agent, asymmetric information, danger of corruption, governance problems, steering problems...

If all policy decisions are delegated to an independent agency, a technocratic system emerges. This means that politicians do not have any decisive power whatsoever. They cannot change anything in society anymore, the essence of political power. One may question whether such a system is democratically legitimate.

2.4.3. Graphical representation

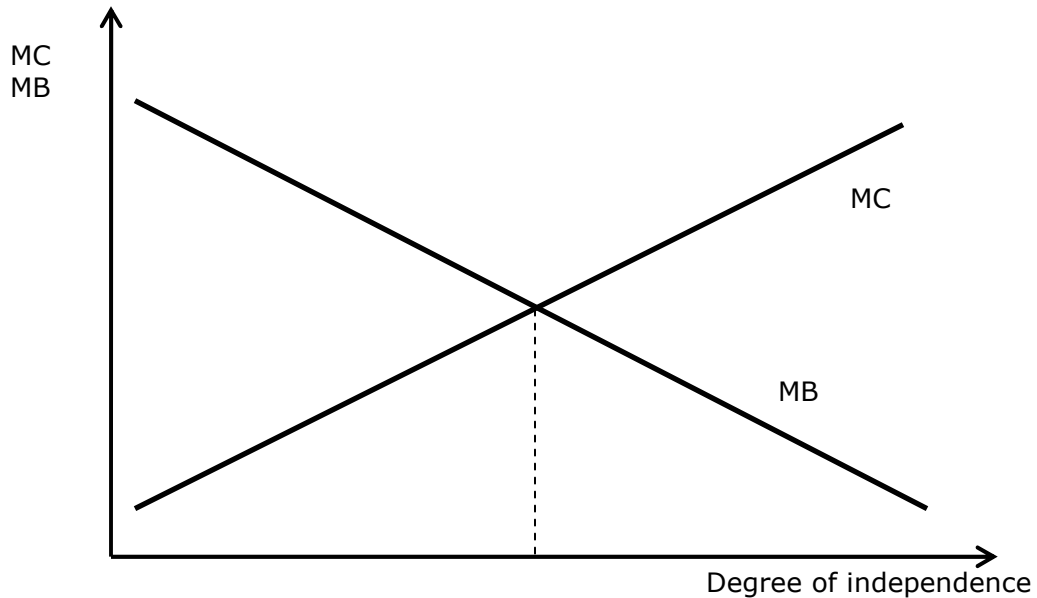
Authors do not always agree whether regulatory independence is beneficial or problematic and why regulatory independence has become fashionable (Johannsen, 2003; Gilardi, 2003). It may be optimal to limit the independence of the agency somewhat.

These issues can be put together in a simple graph. On the horizontal axis the degree of independence is set out. The MB-curve (marginal benefit) is decreasing in the degree of independence. The benefits include all benefits from delegation. It is assumed that, as independence increases, the increment in benefit decreases. If there is no independence, there are large marginal benefits attainable from delegating power authority. The MC-curve (marginal cost) is increasing in the degree of independence. The larger the degree of independence, the larger the associated political costs are of giving up discretionary power, risk of agency capture... The intersection of both curves is the 'optimal' degree of independence. Governments have to weigh the advantages and disadvantages of delegation.

This optimal degree depends on the marginal costs and benefits, depending on the characteristics of the sector. In a politically very sensitive sector, the marginal costs of delegation may be higher, moving the MC-curve to the left.

As a consequence, a lower degree of independence will be optimal. If the gains of independence increase, for example because a lot of investment can be attracted by delegating powers, the MB-curve moves to the right, a higher optimal level of independence results.

Graph 1: Marginal costs and benefits of independence



2.5. Need for independence

Politicians have to do this exercise to determine the preferred degree of independence for a specific sector. Gilardi (2002) considers three determining factors that influence this decision:

- International interdependence

In national sectors, governments may use coercion to get what they want. In internationally interdependent sectors, this is not possible. In this case, delegation of authority may be a solution because there is a higher need for credibility. Majone (1997) argues 'there is a definite correlation between the increased openness of national economies and the credibility issue'.

- Complexity

Public policy issues get more and more complex, that's why traditional command and control instruments are not a viable option. People's expectations and behavior have to be adapted. Policy makers have to rely more heavily on persuasion and information. This implies a larger extent of delegation of authority.

- Decision making process

The danger for policy change is not constant; it depends on the composition of the government and on the political system. The more unstable a political system is, the higher the danger for policy changes. Gilardi argues that policy stability is increased if there are multiple veto players, the incongruence of the players and their internal cohesion.

2.6. Categories of independence

Obtaining information on independence is not a trivial task. First, it is important to state what exactly we want to measure. Independence may have different meanings, depending on the issues taken into account. Gilardi (2002) and most other researchers are only interested in independence from government. Based on our definition of independence, we take a broader view on independence.

Pedersen and Sørensen (2004) and Johannsen et al. (2004) and others divide independence into four dimensions:

- Independence from government
- Independence from stakeholders
- Independence in taking decisions
- Autonomy of the organisation

It is important to remark that, even when these formal dimensions of independence could be measured very accurately, this does not say anything per se about the actual political independence of the agency. The results of the measurement of independence should be confronted with actual policy decisions.

The literature suggests that several factors should be checked. We will structure these according to the four dimensions stated above. The relevant factors are taken from Gilardi (2002), Johannsen (2003), Oliveira et al. (2005), Wu (2004) and Keefer & Stasavage (1998)

2.6.1. Independence from government

Here the formal independence of regulators from the government and the parliament is involved. Concrete indications for this kind of independence are the length of the term of appointment, the quality of the appointing body, the provisions for dismissal, the possibility to combine the appointment with other public mandates, the possible renewal of the appointment and independence as a formal condition for the appointment.

With regard to the term of appointment the hypothesis is that the longer the term the more independent the appointee will be vis-à-vis the appointing body. The longer the appointment term the better the appointee can put his stamp on the activities of the regulatory body.

The quality of the appointing body can also play a role. It is generally accepted that the higher the status of the body that appoints the regulator the more independent the appointees will be. Independence seems to be least guaranteed when the appointment is made by a minister. It would be better if the cabinet and the parliament were involved in the appointing procedure.

The harder it is to dismiss regulators the more independent they are. Who is in a position to fire and in which circumstances do you acquire relevant information to get an idea of how firmly regulators are in the saddle.

Another factor is how possible is it to get permission to combine the appointment with other public mandates. An absolute interdiction of such a combination is supposed to enforce the independence of regulators, the idea being that a potential conflict of interest coming out of such a combination is not good for the independence of the regulators.

An important question is the possibility for a renewal of the terms of appointment. The existence of this chance can put regulators in a weak

position vis-à-vis the appointing body, if they consider pursuing such a renewal. There is a risk that the regulators adapt policy to the wishes of the appointing body, affecting the regulators' independence. The impossibility of a renewal, well communicated beforehand, fences off the regulators from the possible misuse of the renewal for exerting influence.

Sometimes the condition of independence is formally stated in the regulatory statutes. It should be clear that the presence of such a clause can effectively enhance independence.

2.6.2. Independence from stakeholders

The basic idea underlying this form of independence is the fear for the so called 'capture' of the regulators by the regulated industries, as was first put forward in the 'theory of regulation' of George Stigler in the seventies. A too close involvement of regulators and the stakeholders creates the danger that the regulators' policy serves the interests of those stakeholders rather than the general interest. The stakeholders can be a diverse group. The immediate thought goes to the regulated companies themselves, but the category is not limited to them. Industrial organisations and trade unions act as stakeholders and the involvement of regulators with these organisations can influence the regulators' decision making. To a lesser degree this also applies to links with consumer organisations, the media, European and other international organisations.

Henceforth we restrict ourselves to the regulated industries.

The links between regulated industries and regulators can take different forms.

A newly appointed regulator leaving a job in a regulated company or a regulator leaving for a regulated company are the best well known examples here. In general such moves are not regarded as being beneficial to the regulator's independence. Limits to these kinds of transfers are often imposed. The rigour of these limits should then correlate positively with independence.

Another aspect is the confidentiality that regulators keep in mind in discussions of pending cases with stakeholders. As far as such discussion is not allowed, the independence of regulators is safeguarded.

Still another kind are personal or financial ties with supervised companies. Here again the same assumption applies: the absence of such ties, guaranteed by statutory or legal rule, benefits independence.

2.6.3. Independence in decision making

The basic idea here is that the regulator must be in a position to take policy decisions independent from politics. The delegation of powers from politics to the regulator can be narrowly or broadly defined. The broader the definition the more independent the regulator is supposed to be.

Other aspects are the way in which the regulator has to account for its decision making towards government and the ways open to the government to eventually contest the decisions of the regulator.

2.6.4. Organisational autonomy

Besides formal and policy independence a regulator should also have some degree of material independence. In the absence of material independence the former two types of independence are endangered.

Material independence materializes in matters such as the sources of budgetary means, the control over the budget, autonomy in using financial means, the autonomy to decide on internal organisation, human resources management and other management aspects such as IT and real estate.

2.7. Credibility, independence and development

The insights on the relationship between independence and credibility have been developed within the framework of western highly developed countries. An important question is whether these insights can be transposed without problems to the context of developing countries. As Kirkpatrick, Parker & Zhang (2006) state, 'many developing countries lack the necessary trained personnel to sustain regulatory commitment and credibility. Regulatory offices in developing countries tend to be small, under-manned for the job they face, and possibly more expensive to run in relation to GDP than in developed countries.' Minogue (2005) is even more pessimistic when he points at the difficulties in policy transfer to developing countries. In his view independence of regulators is a concept that even in developed countries is not easy to define, let alone that it can be used effectively in less developed countries. Nevertheless he leaves the door open to the kind of analysis we are pretending to make in this paper by stating 'that research should focus on identifying and describing local variations in the dominant model of 'independent' regulation'.

According to CUTS (2006) 'while there are lessons to be learned from the reform experience of industrial countries, it is important to recognise that these lessons cannot be applied mechanically to developing countries.' CUTS (2006) also argues that 'it is therefore important that regulatory regimes in developing countries are designed in a manner to integrate such factors rather than designed on the basis of international best practices.'

3. Credibility and independence in Belgium: legal analysis per regulator

Belgium is a country belonging to the group of industrial countries. Taking at heart the considerations put forward in the previous paragraph, the value of the experience of such a country for developing countries is not a priori clear and should be approached in a careful way.

However, it should be kept in mind that although the standard of living in Belgium has been high for several decades, the introduction of regulation in network industries (with the exception of financial regulation) and the installment of a competition policy are fairly recent. As a consequence experience in Belgium is still very limited but nevertheless the analysis intended in the next paragraphs can be useful.

3.1. Introduction

Before we go into the legislation of the chosen sectors, we will first provide a brief sketch of the Belgian political and economic system.

Belgium is a representative democracy. Powers are divided between the executive, the legislative and the judicial power. For our purposes it has to be pointed out that within the executive branch some so-called administrative courts have been installed over the years. Examples of such courts are the Competition Council and the Supreme Administrative Court of Belgium, which deals with administrative problems caused by certain decisions made by regulators.

Belgium is a federal state and a member state of the European Union. These two facts taken together explain the devolution of many powers, either to the regional level or to the European level. For the purpose of the present paper competition policy has remained at the federal level, at least if intra-community trade is not involved. In that case the European Union is competent. Banking supervision remained at the federal government level, as well as the supervision of railway infrastructure. Energy regulation is split between the federal and the regional level with a strong impact of Europe's drive to liberalize the sector. In telecommunications regulation is federal, while broadcasting is a regional power. This poses problems because of the technological evolution that brings together cable and telephone networks into one sector. Again there is the large shadow of Europe wanting to create a single market in this area.

From an economic point of view, Belgium can be categorized as a free market economy, embedded into the European Union single market, the European Economic Area and the global WTO trade system. Its standard of living reached a GNI per capita of US \$ 37500 in 2005, compared to US \$ 43740 for the US. Belgium is a small open economy with an export ratio of 71 % of GDP in 2005. A generous social security system cushions the hard edges of the market. Total government spending amounted to 50 % of GDP in 2005.

3.2. Competition authorities

In what way have the factors cited above been implemented in the case of Belgian competition legislation, the legislation on telecommunications and postal services, energy, financial sector, railways and airport infrastructure? Using legal analysis supplemented with insight in the internal organization of the regulator, we get an insight in these issues. We construct an indicator for each regulator based on the four categories of independence.

Most of the relevant issues can be found using legal analysis. All answers get a value between 0 and 1. The closer the situation is to the presumed positive effect on independence, the closer the value is to 1. Per category of independence an index is constructed between 0 and 1. The four categories then are put together in one independence index between 0 and 1 (see appendix).

3.2.1. General background

Belgian competition policy is of a fairly recent date. The law 'protecting economic competition' was passed by parliament in 1991 and came into force in 1993. It copied to a large extent the EU competition rules. The content of articles 81 (about undertakings that negatively affect competition) and 82 (about the abuse of dominant position) were more or less taken over and supplemented with a system of rules to avoid mergers that were supposed to threaten competition.

On the institutional side a two-leg ('dualistic') system was introduced. On the one hand a Competition Service was created which was charged with investigating the cases brought before it. The Service is integrated into the Federal Public Service Economy, SME, Self-employed and Energy. Later on (1999) a Body of Examiners was installed. The Examiners take the lead of the staff of the Competition Service in the investigations. On the other hand the Competition Council was installed, an administrative jurisdictional college that makes decisions over the cases based on the reports of the service. The Council is independent from the Ministry.

From the beginning the Belgian competition policy had serious problems establishing itself. Although the regulatory framework of the law was adequate enough, the lack of means endowed on the institutions made the system a lame duck. Rumours went that this was the result of a silent consensus within successive governments. An efficiently performing competition policy would possibly be harmful to the interests of some big companies who employed large numbers of workers and accompanying trade union power. Since some trade unions seem to have some influence on some government parties it was thought better to pay only lip service to the competition policy.

Moreover, as Belgium can be qualified as a small open economy with important trade ties it was judged that import competition took over the role of the guardian of competition.

3.2.2. The dimensions of independence

Now what about the independence of the competition authority? We start with formal independence from government. The members of the Council are appointed for six years. They can be reappointed, but as of today this has not happened yet.

The second category of independence, the independence from stakeholders, is less relevant because the competition authority acts economy-wide. So the risk for capture is smaller. However, this problem should not be minimized. There are no real formal barriers for potential personnel moving between the council and the corporate sector. In individual cases, members of the Council may be objected to. The part-time members of the Council are allowed to have positions in the corporate sector.

Concerning independence in taking decisions we have to take account of the dualistic nature of the Belgian competition policy. Besides the Council, there is a Competition Service and a Body of Examiners. The Council takes decisions; the Body of Examiners and the Service lead and carry out the investigations respectively. The Council is in principle the last chain in a process initiated by an economic fact such as an intended concentration, a notification of an arrangement or a complaint. Although by law the Council can instigate a procedure (art. 19, §2 Act on the Protection of Economic Competition,

coordinated version of 1 July 1999), decisions about prioritized cases are not taken by the Council, but are taken by the Body of Examiners.

However, from the moment a case is presented to the Council, it decides autonomously. There is a stipulation in the legislation that the Council of Ministers can ultimately allow a denied concentration. As of today, this stipulation has never been used. It cannot be excluded however that its mere existence has a disciplining effect on the Council.

The organisational and financial independence of the Council is very small. The Council does not have a budget of itself, its budget depends on the Federal Public Service Economy, SME, Self-employed and Energy. In the matter of organisation, the Council does not have many competences. The government appoints the members of the Council and the personnel are a part of the Federal Public Service.

The Service and the Body are completely integrated in the Federal Public Service, so on that account there is not a large degree of independence. In reference to the Body of Examiners, the legislation stipulates that they have an administrative and pecuniary statute which, guarantees their independence (art 14, §2). Experience has learned that the Body of Examiners scores rather well on the issue of functional autonomy.

The Competition Service is part of the Service for Competition and Prices of the Federal Public Service, coming under the General Directorate Regulation and Organisation of the Market and is as such no discernible entity in the Federal Public Service. There is no separate management for the Competition Service.

3.2.3. The independence index

Based on legal analysis and the issues put forward in the preceding paragraph, the aspects of independence are now translated into Johannsen's framework. This yields the following table.

Table 1: Independence of the Competition Authority

Variable A	0,44
Variable B	0,33
Variable C	0,83
Variable D	0,13
Independence index	0,39

The Belgian Competition Authority has a rather low independence index. This index is the average of rather diverging scores on the four categories of independence. The Competition Authority scores well on independence in taking decisions (variable C) but has a very low score on variable D, organisational and financial independence.

3.3. Energy regulator

3.3.1. General background

The European decision to create a European Single market lies at the grassroots of the present situation in the regulation of energy markets. For most markets this objective was reached already by the 1st January 1993. For

a number of network industries, including energy, more time was reserved and liberalisation was gradually introduced in the first decennium of the 21st century, in combination with a new kind of regulation.

Before the liberalisation a fundamental characteristic of these markets was the omnipresence of government uttering itself in the existence of a government monopoly or in a strongly regulated private monopoly.

Focusing on the Belgian situation before the liberalisation the following observations can be made for the electricity market and the gas market, the two markets concerned.

The electricity sector was strongly dominated by one player, i.e. Electrabel active in the various stages of the electricity chain, namely generation, transmission through the high voltage grid, distribution through the low voltage grid and supply to the final customer. At that time Electrabel was a strongly integrated company that had to tolerate other important players only in the stages of distribution and supply. In some parts of the country Electrabel collaborated with the municipalities through so called 'mixed intercommunal companies'. In other parts of the country the municipalities themselves took care of distribution and supply through 'pure intercommunal companies'. Tariffs were decided upon by the Control Committee for Electricity and Gas, a body in which also Electrabel was represented (a nice example of 'capture').

In the gas market too there was one big player, Distrigas, a government company that imported and distributed gas. Supply to the customers was done in the same manner as for electricity by the same intercommunal companies.

As a consequence of a number of European directives these markets were turned upside down from the beginning of the 21st century onwards.

For electricity the first (96/92/EC) and the second electricity directive (2003/54/EC) were important. In a nutshell the prime objectives of these directives were:

- Removal of legal monopolies
- Regulated third party access to transmission and distribution networks
- Full market opening by 1 July 2007
- The appointment of a national regulator independent from the electricity industry
- Unbundling (legal, accounting and management) between network activities (transmission and distribution) and all other activities.

The situation in the gas market evolved along similar lines. Five directives (90/377/EEC, 91/296/EEC, 94/22/EC, 98/30/EC, 2003/55/EC) were supposed to draw the new lines. The prime objectives here were:

- Full market opening
- Installation of national sector regulators
- Regulated third party access
- Regulated or negotiated access to storage
- Unbundling of integrated companies.

The transposition of these directives into Belgian legislation was complicated by the institutional structure of the country. Belgium chose to put the control of the electricity and gas markets in the hand of one institution, but also wanted to create regulators on the regional level. In this paper we will concentrate on the federal regulator CREG.

It has to be said that liberalisation is proceeding at different speeds, according to the market (faster in the electricity market than in the gas market), according to the type of customer (faster for big companies than for small companies and private households) and according to the region (faster in Flanders than in Wallonia and Brussels). The unbundling of Electrabel and of Distrigas took off. A series of new suppliers joined the electricity market, although Electrabel Customer Solutions, a subsidiary of Electrabel, strongly dominates this market and Electrabel itself takes in a dominant position in the generation of electricity. Following stronger competition on the end market a certain downward pressure on prices can be diagnosed, but this is mostly compensated by a number of government levies and the rise in oil prices.

3.3.2. The dimensions of independence

The statutes of the CREG are laid down in the Electricity Act of 29 April 1999 and in the Gas Act of the same date. Furthermore there is a Royal Decree of 3/5/1999 on incompatibilities and conflicts of interests as far as the Executive Board is concerned.

Two bodies govern the CREG, the General Council and the Executive Board. The General Council has to control the Executive Board and is composed of representatives of the federal government, of employers' organisations, of trade unions, of the middle classes organisations, of environmental organisations, of the transmission system grid operator, of the distribution system grid operators, of middle men, of suppliers and of consumers. The actual policy is conducted by the Executive Board of the CREG consisting of a president and five members.

As concerns formal independence from the government and the parliament the statutes provides for an appointment of the president and the members of the Executive Board by the Cabinet (the Council of Ministers) for a renewable term of six years. There are no specific provisions for their dismissal. They cannot occupy other public mandates. Independence is a formal condition for appointment.

The independence from stakeholders is provided for by the Royal Decree of 3/5/1999 mentioned above. Members of the Executive Board are prohibited from taking up a job in the energy sector during their tenure and for a year after. A job preceding the appointment poses no problem.

Members of the Executive Board may have no shares or equivalent securities emitted by electricity or gas companies, nor any financial instruments allowing the acquisition or transferral of such shares or securities, or entailing payments in cash that depend on the value of such shares of securities.

When a member of the Executive Board, directly or indirectly, has an interest in a decision, opinion or any other act by the CREG, he/she cannot participate in the deliberations of the Board, nor in the vote by the Board. He/she has to inform beforehand the other members of the Board and the Board has to mention this in the minutes of the meeting.

The policy independence of the CREG is quite high. It is fully competent for setting tariffs and for the access to the networks and the dispute settlement between companies and between companies and customers. There is a shared competence for the granting of licences and for the laying down of rules regarding terms of delivery. An informative annual report has to be laid down to the government and to the parliament. No other non-judiciary institution, except for the State Council, can overturn a decision by the CREG.

Functional and organisational independence has to be guaranteed by a budget financed by the regulated companies. This budget is controlled by the government. The government and the CREG share competences in the field of internal organisation and human resources management.

3.3.3. The independence index

With an index of 0,64 the independence of the federal energy regulator scores more or less at the average of the regulators that were analysed. The index is especially enhanced by the good marks for independence from stakeholders and for policy autonomy.

The methodology used in this paper is the same as the one used by Johannsen (2004) for their analysis of the independence of European energy regulators. In their paper it is reported that from the 15 EU member states only the Belgian respondent failed to return the questionnaire (Johannsen 2004, p. 45). The present paper gives us data that are perfectly comparable to the results of Johannsen.

Table 2: The independence of the federal energy regulator

	CREG	Average other EU energy regulators
Variable A	0,44	0,61
Variable B	0,71	0,55
Variable C	0,90	0,79
Variable D	0,50	0,80
Independence index	0,64	0,68

Source EU averages: Johannsen (2004)

The Belgian energy regulator scores close to the European average on the global independence index, but this average hides strongly deviating averages for the underlying variables. The formal independence of the CREG is lower than in the other EU member states, while the independence from stakeholders is substantially higher. The policy autonomy of the CREG is better than in the rest of the EU, while financial and organisational autonomy is much lower.

3.4. Financial sector regulator

3.4.1. General background

The roots of the banking regulator are to be found in the thirties of the previous century and have to do with the consequences of the worldwide economic crisis of that period. This crisis revealed itself in the Belgian financial sector through the bankruptcy in March 1934 of the 'Belgische Bank van de Arbeid'. This bank was of the 'so called' mixed type, meaning that the bank used the funds that it collected not only to grant credit but also to participate in company shares. When companies get into trouble because of the economic

crisis, the participating bank also gets problems, sometimes leading to bankruptcy.

To avoid such problems the Belgian banking legislation was adapted. Mixed banks had to be split up in pure deposit banks and holding companies. In this context the installation of an independent Banking Commission took place, inspired by the American Securities and Exchange Commission. This Banking Commission had, among other tasks, to control access to the market of the deposit banks and their solvability and liquidity positions.

Over the years new tasks were regularly added, so that at present the Banking Commission not only controls the banking sector, but also the larger financial sector and the insurance sector. Its name had to be changed into the Banking, Finance and Insurance Commission (CBFA). The CBFA acts as the watchdog for a large variety of companies and markets: banks, insurance companies and their intermediaries, pension funds, collective investment funds, securities markets, IPO's, settlement and clearing systems,

The statutes of the CBFA are laid down in the Act on the supervision of the financial sector and financial services (2 August 2002). The CBFA is composed of a supervisory board, an executive board, a president and a secretary general. The executive board is clearly the more important body since it is charged with the daily management of the CBFA. It determines the CBFA policy and takes decisions in all matters that have not been explicitly reserved to another organ. Thus we will concentrate on the executive board.

3.4.2. The dimensions of independence

The Act of 2 August 2002 pays careful and extensive attention to the workings of the CBFA. Broken down through our questionnaire we revealed the following:

Regarding the independence from politics we observe that the members of the executive board are appointed by the Cabinet for a renewable term of six years. There are no specific provisions for their dismissal and independence is no formal condition for the appointment. The membership of the executive board cannot be combined with a position in a legislative organ on the regional, federal or European level, nor with a position in the executives at regional or federal level. Members of the executive board can, when approved by the responsible minister, take up positions in international institutions where Belgium is involved or in Belgian public advisory committees.

Independence from stakeholders is guaranteed through a prohibition to take up positions in a supervised company until two years after the end of the term at the CBFA. There are no provisions for the period prior to the term of appointment. The members of the executive board may not participate in deliberations on matters in which they have personal interests of a patrimonial nature or when relatives are involved in such a way that their judgment could be affected.

The policy autonomy of the CBFA is high. The CBFA has an extensive list of functions laid down by law for which it is entirely competent. The tasks comprise mainly controlling the observation of rules. Part of these rules concern prudential control, part concern market supervision. According to the IMF 'the CBFA has generally adequate powers of supervision and inspection for the financial entities under its regulatory authority' (IMF, 2006)

The CBFA only has to answer to the parliament by way of an informative annual report.

Finally we take a look at the financial and organisational autonomy. The budget of the CBFA is financed mainly by contributions from the supervised companies. The CBFA controls the budget itself and furthermore has a large degree of autonomy in handling its own organisation and human resources.

3.4.3. The independence index

With an independence index of 0,82 the CBFA is the most independent of the regulators that have been studied. This average hides a relatively low score on formal independence where the mark for the CBFA is only 0,44. On the other variables the CBFA obtains high scores.

Table 3: The independence of the financial regulator

Variable A	0,44
Variable B	0,83
Variable C	1
Variable D	1
Independence index	0,82

We have no knowledge of international studies analysing the independence of financial regulators in a quantitative manner. Quintyn & Taylor (2003) apply a qualitative analysis in which they use four dimensions of independence: regulatory, supervisory, institutional and budgetary independence. Those four dimensions do not cover exactly the dimensions used by Johanssen (2004). Especially the independence from stakeholders is a conspicuous absent in Quintyn & Taylor (2003).

It would be interesting for future research to complete the Quintyn & Taylor dimensions and to operationalize them through quantification along the lines of Johanssen (2004).

3.5. Postal services and telecommunications regulator

3.5.1. General background

Although the Belgian Institute for Postal and Telecommunications Services has competences in the field of telecommunications as well as in postal services, we will limit ourselves to the telecommunications markets because of its larger size and its bigger impact on daily life.

Similar to the energy sector the developments in the telecommunications sector should be viewed in a European perspective. As in the energy sector the principle of a European single market was introduced later than 1 January 1993, namely since the end of the 90s of the previous century.

The starting position displays analogous features: a strongly regulated market with a government monopoly that after privatisation and liberalisation was suspected to keep a dominant position in a sector that displays at certain points in the production chain characteristics of a natural monopoly. (cf. the local loop).

As the energy sector the telecommunications sector experienced several European regulatory waves. A first wave was finished in 1998 with a series of directives. A second wave arrived in March 2002 with the approval of four directives profoundly changing the approach to regulation (Directives 2002/19/EC, 2002/20/EC, 2002/21/EC and 2002/22/EC, later supplemented by the Directives 2002/58/EC and 2002/77/EC).

These measures introduced a system of free access. There is no need anymore for a preliminary authorisation to be active on the telecom markets. A crucial set of rules determines whether a company occupies a dominant position in a given market. If that is the case this market may be regulated.

This regulating has to be done by a national regulator who is supposed to perform all the tasks that are given to the member states by the directives mentioned. 'Member States shall guarantee the independence of national regulatory authorities by ensuring that they are legally distinct from and functionally independent of all organisations providing electronic communications networks, equipment or services. Member States that retain ownership or control of undertakings providing electronic communications networks and/or services shall ensure effective structural separation of the regulatory function from activities associated with ownership or control. Member States shall ensure that national regulatory authorities exercise their powers impartially and transparently.' (Art. 3, section 2 & 3 Directive 2002/21/EC).

The Belgian telecommunications market is a market where the incumbent Belgacom still has a dominant position. Belgacom and its affiliated company Proximus have large market shares in i.a. fixed and mobile phone markets and also control supply of some essential facilities to the other actors in the market. As long as this situation lasts there is a need for intervention by the sector regulator. Furthermore as long as there are elements of a natural monopoly in the network of fixed telephone services (the so called local loop), permanent attention by a sectoral regulator is called for.

This regulator, the Belgian Institute for Postal Services and Telecommunications (BIPT) was established in 1991 as the regulatory body of the postal and telecommunications sector and started its activities in 1993. The Act of 17 January 2003 the competences of the BIPT were adjusted to the European telecom exigencies. The BIPT has competences in access and in economic and technical regulation.

3.5.2. The dimensions of independence

The statutes of the BIPT were laid down in the Act of 21 January 2003 concerning the statutes of the regulator of the Belgian postal and telecommunication sector (Official Gazette 24 January 2003).

The most important organ of the BIPT is the Council: 'The Council has the power to perform all deeds necessary to exercise the competences of the Institute. It represents the Institute before the courts and before third parties and it may conclude agreements in name of the Institute.' (art. 17).

Regarding the formal independence from politics we observe that the four members of the Council are appointed by the King, after consultation in the Cabinet, for a renewable term of six years.

The King can also, after consultation in the Cabinet and on the proposal of the minister competent for telecommunication, remove the members from their position. There are no specific dispositions for the combination with other

public mandates. The statutes explicitly state that members of the Council are appointed on the basis of their competences, integrity and independence. Concerning the independence from stakeholders there are no dispositions preventing the appointment as a Council member someone coming from the telecommunication sector. During and up to two years after their appointment member cannot have any interest in companies active on the markets of telecommunication and postal services. They may not, directly or indirectly, remunerated or for free, exercise any function or supply any service to such companies.

The Council members are held to professional secrecy. They may not communicate any confidential information that they have collected in carrying out their function to third parties, except in the exceptions laid down by a legal act. (art. 23).

Policy independence is substantiated by the full power to determine termination tariffs in fixed and mobile telephony. Under the BIPT Act, the Council may impose an administrative fine for a violation of the laws or any regulatory decision implementing the framework which can range between 0.5% and 5% of the last annual turnover in the relevant market, up to a maximum of € 12.5m (Commission of the European Communities 2004).

The Council is obliged to make up a yearly report for the competent minister and twice a year it has to deliver an activities report to the Chamber of Representatives.

According to art 15, §1 the Council of Ministers may, on the proposal of the competent Minister, suspend a decision on matters determined by a Royal Decree and when they consider such a decision to be illegal or contrary to the public interest. To date such a Royal Decree has not been adopted.

Regarding financial and organisational independence the BIPT has an autonomous financial management which means that all operational costs are financed by the revenues of the Institute. These revenues mainly comprise fees for frequency licences, numbering plans, licences and declaration of networks and telecommunications services, as well as declarations of operation regarding other services. The annual report also comprises a financial statement.

Decisions on the number and organisation of the staff are made by royal decree. The Institute has a right to advise the responsible minister on these matters.

3.5.3. The independence index

The BIPT positions itself in the middle group together with the CREG as regards global independence. The BIPT scores high on the variables B (independence from stakeholders) and C (policy independence), and low on the variables A (formal independence from politics) and D (financial and organisational independence)

Table 4: The independence of the telecom regulator

Variable A	0,39
Variable B	0,83
Variable C	0,83
Variable D	0,38
Independence index	0,61

International points of reference can be found in the periodical studies of the European Competitive Telecommunications Association (ECTA a.o. 2006). ECTA uses 99 quantified variables. The spectrum overviewed by ECTA is larger than the one in this paper. ECTA intends to measure the effectiveness and efficiency of telecommunication markets in a very detailed way for a very detailed number of aspects. Of course part of the 99 variables concern various aspects of the independence of regulators. More specifically there are three variables falling under the header 'Powers & sanctions', four variables under the heading 'Scale of resources' and six under 'Independence'. The first group falling under our chapter of policy autonomy carries a weight of 15 on a total of 518. The second one, under financial autonomy, carries 8 and the third one, belonging to our category of formal independence from politics, carries 36. The Belgian regulator scores 10, 6 and 11 respectively. Expressed in perunage these scores are 0,66, 0,75 and 0,31. The weighted average of the three groups taken together is 0,46. For all 99 variables the BIPT scores 281 on 518, or 0,54.

3.6. Railways

3.6.1. General background

The European railway sector was traditionally governed by integrated public companies and could not meet the competition from other transport means in a growing mobility market. As in other network industries the EU objective was framed in the idea of the single market and was meant to introduce more open markets and to break up government monopolies. A first (Directives 2001/12/EC, 2001/13/EC and 2001/14/EC) and a second railway package have already been introduced, a third package is under the way.

The first package intended a.o. to separate infrastructure from transport service provision, to put down rules for the use of infrastructure and to harmonise the various railway systems. Important in our context is the obligation for the member states to install a railway regulator.

The second package wanted to secure open access for international freight transport and the opening of the market for national freight transport (cabotage).

The third package will i.e. introduce a further opening up of the market for international passenger transport.

In the Belgian railway sector a restructuring recently took place, in execution of the first railway package. More specifically the operation and the infrastructure have been disintegrated. The two divisions were organised as affiliates of a holding company. The national railway company NMBS takes care of the exploitation, another company called Infrabel manages the infrastructure.

The exploitation part of the sector has opened up for competition already but is presently almost entirely in the hands of the incumbent NMBS. Infrastructure is a natural monopoly. An independent supervisory organism is needed, on the one hand to guide the market process in the operation part and on the other hand to control the manager of the infrastructure. Thus the Belgian government provided for the setting up of a supervisory body, called

the Regulatory Service for Railways Transport and for the Exploitation of the Brussels National Airport.

3.6.2. The dimensions of independence

The statutes of the Regulatory Service are laid down in the Royal Decree of 12 March 2003, supplemented by the Royal Decree of 25 October 2004 that has been changed by Royal Decree of 1 February 2006.

More specifically, regarding formal independence from politics the appointment of the members of the Regulatory Service, the number of which is not put down in the Royal Decree, is done by the Minister of mobility. The director and the deputy director are appointed for a term of six years as employees on a contractual base. It is not explicitly stated whether the appointment is renewable, but the contrary is also not explicitly stated. In that case normal appointment rules apply and the contract can be renewed. The other members hold an employee contract for an unlimited term.

There are no specific provisions for the dismissal of the members of the Regulatory Service. Nor are there specific provisions regarding the combinations with other public mandates. Independence is not a formal condition for appointment.

Regarding the independence from stakeholders there are no provisions prohibiting taking a job in the regulated sectors before or after the appointment. During the appointment such a prohibition exists. The members of the Regulatory Service are bound by professional secrecy regarding the knowledge of facts, deeds and information acquired during the execution of their functions. They may have no direct or indirect interests in a supervised company.

The policy autonomy of the Regulatory Service should be regarded as non-existent since the Service operates directly under the supervision of the transport minister.

The same applies for financial and organisational autonomy. It is non-existent given that the Regulatory Service is totally imbedded in the administration.

3.6.3. The independence index

The railway regulator clearly is the weak element of the regulators studied. Independence is almost entirely absent. There is a minimal distance from stakeholders. The distance from politics is also very minimal. Policy autonomy and autonomy for financial matters and HRM are totally absent.

Table 5: The independence of the railway regulator

Variable A	0,22
Variable B	0,58
Variable C	0
Variable D	0
Independence index	0,20

4. Summary and further analysis of the results

It is useful to look at the results not only per regulator but also per sub domain.

In table 6 the results for formal independence from politics are summarized. These results lie relatively close in a range below 50 % with an even worse score for the railway regulator (appr. half the score of the other regulators).

Table 6: Formal independence from government

	Variable 5	Variable 6	Variable 7	Variable 8	Variable 9	Variable 10	Variable A
Competition Council	2/3	1/3	1	2/3	0	0	0,44
CREG	2/3	1/3	1/2	1/3	0	1	0,44
BIPT	2/3	1/3	0	1/3	0	1	0,39
CBFA	2/3	1/3	1/2	1	0	0	0,44
Railway regulator	2/3	0	1/2	1/3	0	0	0,22

Table 7: Independence from stakeholders

	Variable 12	Variable 13	Variable 14	Variable 15	Variable B
Competition Council	1/3	0	1/2	1/2	0,33
CREG	1/3	1/2	1	1	0,71
BIPT	1/3	1	1	1	0,83
CBFA	1/3	1	1	1	0,83
Railway regulator	1/3	0	1	1	0,58

The danger of capture by regulated industries is reflected in variable B (see table 7). The CREG, the BIPT and the CBFA score high on this variable, the railway regulator has a low figure.

Table 8: Independence in decision making

	Variable 17	Variable 19	Variable 20	Variable 21	Variable C
Competition Council	1	1	1	1/3	0,83
CREG	0,6	1	1	1	0,90
BIPT	1	1	1	1/3	0,83
CBFA	1	1	1	1	1
Railway regulator	0	0	0	0	0

The score of the competition authority is low but probably less relevant. It reflects the answers to the Johannsen (2004) questions, but given the playing field of the competition authority that covers the whole of the economy the score itself is less relevant.

For the variable on policy autonomy the railway regulator again falls out of line (see table 8), since there is no policy autonomy at all. The other regulators score well on this variable.

In table 9 we can see the results for variable D organisational and financial autonomy. Here the variation between the scores is highest. They vary from 0 for the railway regulator to 1 for the financial regulator.

Table 9: Organisational autonomy

	Variable 23	Variable 24	Variable 25	Variable 26	Variable D
Competition Council	0	0	1/2	0	0,13
CREG	1	0	1/2	1/2	0,5
BIPT	1/2	0	1/2	1/2	0,38
CBFA	1	1	1	1	1
Railway regulator	0	0	0	0	0

The CBFA really is an outlier on the high side. The other regulators do not dispose of much autonomy in this field either.

Table 10: Independence index

	Variable A	Variable B	Variable C	Variable D	Index
Competition Council	0,44	0,33	0,67	0,13	0,43

CREG	0,44	0,71	0,90	0,5	0,64
BIPT	0,39	0,83	0,67	0,38	0,61
CBFA	0,44	0,83	1	1	0,82
Railway regulator	0,22	0,58	0	0	0,20

Table 10 gives the independence index which is an average of the four variables. The CBFA scores highest, the railway regulator lowest. The CREG and the BIPT are close to each other at 0,64 and 0,61 respectively, while the Competition Council is under 0,50.

5. The inter-agency dynamics

The focus should not only be on the independence factor of the regulator in each industry. Attention should also go to the way in which the regulators interact with each other. This point is especially important for the interface between competition authorities and sectoral regulators (Naert 2006a).

In Belgium this relationship is still in the build up stage. The regulation is being developed in a somewhat haphazardly fashion. Fragmentary kick offs are made, as well from the side of competition legislation as from the side of sector regulations. This fragmentary approach, sometimes justified by the urge to transpose European directives into national legislation in time, makes for a lack of policy consistency, although future lines are becoming clearer.

For the time being this situation is not very problematic since few cases are presented for which a good institutional design of the relationship between competition authorities and sector regulators is relevant. In the railway sector there are no cases yet. In the energy sector there have been some important mergers in which the cooperation between the CREG and the Competition Service has proved to be quite useful. In the telecommunication sector the Competition Council is avoided by the market players, probably because of its limited credibility.

It can be expected that in the future, in the wake of the continuing liberalisation, the need will become stronger for a well suited relationship.

When scanning the present legislation in the various sectors one mainly detects two kinds of relationship, the first being based on hierarchy and the second based on cooperation in a network context.

The first kind is based on the possibility of appeal before the Competition Council against decisions made by sector regulators (energy, railways). Independent from the question of which body of appeal is designated the underlying thought seems to be that the appeal can be seen as a partial compensation for the independency of the sector regulator vis-à-vis the political authorities.

The second kind is based on cooperation between the general competition authority and the sector regulator (telecom).

These two types mutually exclude each other to a certain degree. Ex ante cooperation, f.i. in the form of a preliminary opinion by the competition authority addressed to the sector regulator or the exchange of information from one body to the other, cannot be easily reconciled with an ex post appeal before the general competition authority. The competition authority is 'affected' and is thereby deemed unable to judge in all objectivity in a case where it has been already involved.

However the bipolar structure of the Belgian competition authority, with the Council as the decision making part on the one hand and the Body of Examiners and the Competition Service as the investigating parts on the other hand, offers possibilities to deal with this issue. The two pillars are independent from each other. If an investigation is done by the one pillar, an appeal before the other pillar remains possible without problems. If the Council, in order to prepare its decision, uses information coming from the investigation pillar, it must be deemed objective and independent enough to deal with this information.

This construction installing some hierarchical link in the relationship between the competition authority and the sector regulators offers advantages. The hierarchical link avoids that powers have to be divided a priori between the competition authority and the sector regulators. A conflict of competences can only arise after the sector regulator has taken a position. A deadlock of decision making can thus be avoided.

Furthermore the competition authority will always know beforehand the viewpoint of the regulator before it has to speak out itself. This allows the competition authority to judge in a better informed way which leaves the last word to this authority (of course under the proviso that there is no appeal against the decision by the competition authority).

6. Conclusions

In this paper we tried to investigate the independence and credibility of five Belgian regulatory authorities. From the literature we learned that we can expect a close correlation between independence and credibility in the sense that the more independent a regulator is, the higher will be its credibility.

In the theoretical part of the paper we focused on the marginal costs and benefits of independence. By combining these costs and benefits we can show that there exists a theoretically optimal degree of independence. The optimum may differ across sectors because of different underlying costs and benefits.

Available research focuses on regulators in one sector in a multi country setting (see f.i. Johannsen, 2004 for energy regulators; Quintyn & Taylor, 2003 for financial regulators and ECTA (2006) for telecommunications regulators). Such an approach has the advantage of allowing for comparisons between the independence of regulators acting in similar markets, but loses the perspective of how individual countries try to tackle regulatory concerns across the whole of the economy.

In the empirical part of the paper we learnt that Belgian governments cannot be accused of having taken a very consistent approach to the design of regulatory authorities, neither through time nor across the various aspects of independence.

We observe that the regulatory authority which has the longest standing, namely the financial regulator CBFA which dates back from the thirties, is also the most independent regulator, while the youngest regulator, the railway regulator that was set up very recently, is the least independent one. The other regulatory agencies were created in the nineties and have more or less comparable levels of independence, situated somewhere between the indexes for the financial and the railway regulator.

It seems that Belgian governments want less independent regulators nowadays than they are used to. In the case of the railway regulator a

minimal approach was taken, only applying the minimum European requirements in the field of independence from stakeholders.

Could this mean that independence has reached its limits, or that the perceived optimum level of independence has retreated, maybe because the costs of independence in terms of accountability have grown too high for politicians, or simply that the observed sectors differ so much from each other that their respective marginal cost and benefit curves (see graph 1) are very much apart? This is a matter that requires further research.

Looking at the regulators' scene across the different aspects of independence some consistency is only to be found regarding the formal independence from government. We find the same kind of rules across sectors: renewable appointments for six years, informative annual reports, the council of ministers or the minister as appointing organism.

For the three other variables the variety in scores is very high, sometimes ranging from 0 to 1.

Which lessons can be learned from our analysis of Belgian regulators that can prove their usefulness for less developed countries?

In the first place it has to be stated that in the domain of regulators Belgium can be considered to be a developing country. Only the financial regulator can take pride in a long experience, while the other regulators are not much older than 15 years at the maximum. The railway infrastructure and airport regulator has even just begun starting up its operation. This means that only little experience with regulators is available and that there does not exist a calibrated model that has proven its value in practice. Belgium, like so many other countries, developed and developing alike, is looking for workable models.

This paper demonstrates that the methodology developed by Johannsen (2004) to quantify the independence of energy regulators can easily be extended to other types of regulators. It seems to be obvious that the methodology can also be used by developing countries. Quantifying the broad independence concept used by Johannsen could then contribute to a more objective discussion.

A shortcoming of Johannsen's method could be that the (in)sufficiency of the means available to regulators is not taken into account. Attention is directed to the sources of income and the degree of autonomy that regulators have in using their means, but nowhere is the question is asked whether those means, wherever they come from, allow the regulator to do what needs to be done. In our view the availability of sufficient means is a determining aspect of the regulators independence to do his job. We will thereby try to take this factor into account in the following, more specifically in relation to credibility.

For the Belgian competition authorities a preponderant aspect of independence has been the lack of financial autonomy. During the most part of its short existence the authorities have struggled with a lack of means (Naert 2006b). Taken together with restrictive rules on notifying concentrations the authorities were forced to spend most of the scarce means to handle innocuous mergers and acquisitions. Restrictive business practices harmful to competition have only recently, after a change in the law, obtained the attention that they merited. A competition authority without teeth can hardly be called a credible authority. A lack of functional and more precisely financial autonomy is to be considered as the determining factor.

This is a story that should be familiar to developing countries. It is true however that in a country such as Belgium a lack of means is not caused by a low standard of living but by a lack of prioritizing by government.

We diagnose that the financial regulator is the institution that gained the most credibility in the Belgian regulatory landscape. The impression is that factors such as the long period of activity and the high independence are very important here. Credibility can only be built (or not) after a sufficient long period of existence and action. The CBFA has through the years gained respect from the financial world as well as from the political world. Besides the CBFA has always had enough financial means to fulfil its tasks properly, while in general independence has also been very high.

The telecommunications and energy regulators are finding themselves somewhere in the middle position. Their independence is not bad, but also not spectacular.

The telecom regulator has been heard to complain about its lack of means to operate efficiently, from which possibly can be deducted an insufficient financial independence. As regards its credibility the BIPT is suffering from a lack of it. The sector is questioning its decisions to a considerable degree. The BIPT has taken approximately 100 regulatory decisions between June 2003 and end 2006. Approximately 50 appeals are running against BIPT decisions before the courts.

Besides that, the Belgian level of telecom services prices and of business investment in telecom is not very good compared to other European member states. The Belgian consumer pays significantly more for broadband access or mobile telephone services than the French or German consumer for instance. Business investment in sub-sectors such as fixed and mobile telephony services, cable television networks are among the lowest in the European Union. ECTA (2006) detects a clear statistical relationship between the regulatory framework and the investment level.

The energy regulator is struggling as well. Criticism about the effects of the recently liberalized gas and electricity markets is mounting. Consumer prices are increasing instead of going down. The cause is not really to be found in insufficient action by the regulator. Responsible are the price increases on the international oil and gas markets and the fact that government is taxing away the benefits of the increased competition. Nevertheless the perception of energy markets is rather negative: the incumbent holds a dominant position in the various segments of gas and electricity activity. Investment levels are esteemed to be low, maybe causing long term problems, to a degree that the government decision taken several years ago to step out of nuclear energy is now coming under fire. These perceptions cast their shadow on the credibility of the regulator. One of the ways through which this crystallizes is the fact that at the moment 268 decisions taken by the CREG are now being appealed. Contrary to other regulators a lack of means cannot be discerned. Intimates in the circles of the CREG ascertain that the wages are among the highest in the broad governmental sector.

Although it is probably too early to express oneself on the railway regulator the impression is that it has to start its operation on a wrong footing. Independence levels are generally very low. Regulation has not stabilized yet and it is not clear in which direction regulation is heading. The regulator has a minimal staffing of two persons and it is fully embedded in the government administration. All this is not very promising for credibility.

What can we conclude with respect to less developed countries:

1. It could be a good idea to use the methodology of this paper to quantify the independence of regulators in less developed countries. The CUTS Research Report of October 2006 offers an excellent basis for such a quantification by presenting a good sampling of less developing countries and of regulated sectors in those countries.
2. A necessary, although insufficient, condition to have credible, well functioning regulators seems to be financial independence. In the design of regulatory institutions in less developed countries special attention should at least be directed at offering them sufficient means.
3. It is no coincidence that the only Belgian regulator with a high credibility is also the regulator which scores highly on independence, namely the financial regulator. Notwithstanding the various caveats that should be kept in mind in using western experiences for the problems of developing countries, this remains a robust fact for the Belgian situation.
4. Last but not least it should be admitted that the lessons to be learned by less developed countries out of the Belgian experience remain relatively limited. In my view this has less to do with the economic dichotomy between poor and rich, but more with specific institutional, political and cultural differences between countries in general. When comparing Belgium in the field of regulators to other member states of the European Union, than we have to diagnose that, even in the presence of the unifying force of the Union, each country is looking for its own design of regulatory structures. In doing so countries can look into each others gardens, but it does not prevent them from laying out and tending their own garden.

References

Amttenbrink, F. (1999) *The democratic accountability of central banks*, Oxford, Hart.

Coen, D. & M. Thatcher (2005), "The New Governance of Markets and Non-Majoritarian Regulators", in: *Governance*, Volume 18 Issue 3, 329.

Commission of the European Communities (2004), *Annex to the European Electronic Communications Regulation and Markets (10th Report)*, Commission Staff Working Paper, COM(2004)759 final, Brussels, 2.12.2004.

CUTS International (2006), *Creating regulators is not the end. Key is regulatory process*, Research Report, October.

ECTA, Jones Day & SPC Network (2006), *Regulatory scorecard. Report on the relative effectiveness of the regulatory frameworks for electronic communications in Austria, Belgium, Czech Republic, Denmark, France, Germany, Greece, Hungary, Ireland, Italy, The Netherlands, Poland, Portugal, Spain, Sweden and the United Kingdom*, 1st December 2005 (updated 27th April 2006).

Gal, M.S. (2003), *Competition policy for small market economies*, Harvard University Press.

Genoud, C. (2003), *Toward a content and contextual approach of delegation, or "how and why should we open the regulation black box"*, ECPR Joint Session 2003 "Delegation in Contemporary Democracies", Edinburgh, March 28th – April 2nd.

Gilardi, F. (2002), "Policy Credibility and Delegation of Regulatory Competencies to Independent Agencies: A Comparative Empirical Consideration", in: *Journal of European Public Policy*, Volume 9, Number 6, 1 December 2002, pp. 873-893(21)

Gilardi, F. (2003), "Institutional Change in Regulatory Policies: Regulation through Independent Agencies and the Three New Institutionalisms", in: Jordana J. & Levi-Faur D. (eds) (2004) *The Politics of Regulation: Examining Regulatory Institutions and Instruments in the Age of Governance*, Edward Elgar and the CRC Series on Regulation, the University of Manchester

Gilardi F. (2006), *The same, but different. Central banks, regulatory agencies and the politics of delegation to independent authorities*, Political Science Working Paper Series, Université de Lausanne, N° 25

IMF (2006), *Belgium: Financial System Stability Assessment, including Reports on the Observance of Standards and Codes on the following topics: Banking Supervision, Securities Regulation, Insurance Supervision and Regulation, and Securities Settlement Systems*, IMF Country Report No. 06/75.

Johannsen K.S. (2003), *Regulatory Independence in Theory and Practice. A Survey of Independent Energy Regulators in Eight European countries*, AKF Forlaget, Copenhagen.

Johannsen K.S. L.H. Pedersen & E.M. Sørensen (2004), *Independent Regulatory Authorities – a Comparative Study of European Energy Regulators*. AKF Forlaget, Copenhagen.

Keefer P. & Stasavage D. (1998), "When does Delegation Improve Credibility? Central Bank Independence and the Separation of Powers", WPS/98-18

Kirkpatrick C, Parker D & Zhang Y (2006), "Foreign direct investment in infrastructure in developing countries: does regulation make a difference?", in: *Transnational Corporations*, Vol. 15, No. 1 (April 2006)

Kydland, F.E. & E.C. Prescott (1977), "Rules Rather than Discretion: The inconsistency of Optimal Plans", in: *Journal of Political Economy*, Vol. 85, No 1, pp. 73-491

Larsen A., Pedersen L.H., Sørensen E.M. & Olsen O.J. (2005), "Independent Regulatory Authorities in European Electricity Markets", accepted for publication in: *Energy Policy*

Majone, G. (1996), *Regulating Europe*, Routledge, London and New York.

Majone, G. (1997), "Independent Agencies and the Delegation Problem: Theoretical and Normative Dimensions", in: Steunberg, Bernard and Van Vught (eds.), *Political Institutions and Public Policy*, Dordrecht, Kluwer Academic Publishers, pp. 139-156

Minogue, M. (2005), *Apples and orange: problems in the analysis of comparative regulatory governance*, Working Paper Series, Centre on Regulation and Competition, University of Manchester, Paper No. 94, January.

Naert, F. (2006a), *Competition authorities and regulators: the birth of a Belgian model*, paper presented at the 3rd INTERNATIONAL CONFERENCE ON INDUSTRIAL ORGANIZATION, ECONOMICS & LAW, June 12-14, 2006, Athens, Greece.

Naert, F. (2006b), "Een politiek-economische evaluatie van het Belgisch mededingingsbeleid", in: *Kwartaalschrift Economie*, 3, Jaargang 3, oktober.

OECD (1999), *Relationship between regulators and competition authorities*, DAF/CLP(99)8, 24 June 1999.

OECD (2002), *Restructuring Public Utilities for Competition*, Policy Brief, February 2002.

OECD (2005a), *Bringing Competition to Regulated Industries*, DAF/COMP/GF(2005)1

OECD (2005b), *The relationship between competition authorities and sectoral regulators*, DAF/COMP/GF(2005)2, 2 February 2005.

Oliveira, G., E.L. Machado, L.M. Novaes & C.B.Guimaraes Ferreira (2005), *Aspects of the Independence of Regulatory Agencies and Competition Advocacy*, International Competition Network, Competition Policy Implementation Working Group, Subgroup 3, Competition Advocacy in Regulated Sectors, May 2005, at 6.

Pedersen, L. & E. Sørensen (2004), *Transfer and Transformation in process of Europeanization* in: EGPA 2004 Annual Conference, September 2004.

Quintyn, M. & M.W. Taylor (2003), "Regulatory and Supervisory Independence and Financial Stability", in: *CESifo Economics Studies*, Vol 49, 2/2003, p. 259-294.

Scherp, J. (2005), *Rail (de-)regulation in EU Member States and the Future of European Rail*, CESifo/DICE report 4/2005

Smith, W. (1997), *Utility Regulators. The Independence Debate*. Public Policy for the Private Sector, Note No. 127. from: <http://rru.worldbank.org/documents/PublicPolicyJournal/127smith.pdf>

Spyrelli, C. (2003), "Regulating the regulators? An assessment of institutional structures and procedural rules of national regulatory authorities", in: *International Journal of Communications Law and Policy*, Issue 8, Winter 2003/2004.

Thatcher, M. (1998), "Institutions, Regulation and change: New Regulatory Agencies in the British Privatized Utilities", in: *West European Politics*, Vol 21, No1, pp. 120-127

Thatcher, M. (2001), "The Commission and National Governments as Partners: EC Regulatory Expansion in Telecommunications 1979-2000", in: *Journal of European Public Policy*, 8, no. 4 (2001), pp. 558-584.

Wu I. (2004), *Traits of an Independent Communications Regulator: a Search for Indicators*, FCC International Bureau Working Paper Series

Appendix: Johannsen a.o. (2004)

Van de vragenlijst van Johannsen werden enkel de vragen overgehouden waarvan de antwoorden in de variabelen en de independence index werden opgenomen. Waar nodig werden de vragen die oorspronkelijk naar de elektriciteitssector verwezen, aangepast De oorspronkelijke nummering van de vragen werd behouden.

De constructie van de variabelen is gebeurd zoals bij Johannsen (2004, p. 106):

‘In the independence index, we have weighted the variables in each section together to construct four key variables (A, B, C and D). The overall independence index is calculated as the average of the values for the four key variables.

In the construction of variables, all answers have been given a value between 1 and 0; 1 being the answer indicating a high degree of independence and 0 indicating a low degree of independence. Where there are three possible answers, we have accorded the answers the values 1, 0.5 and 0, and where there are four possible answers they have been accorded the values 1, 2/3, 1/3 and 0.12.

In section C, we have constructed a single variable out of the six items from question 17 regarding the competencies of the regulatory authority. The answers for each variable have been coded as the above (1, 2/3, 1/3, 0). The mean of values accorded to the six items in variable 17 is added to the variables coming out of question 19, 20 and 21, concerning the accountability of the regulatory authority vis-à-vis government and legislature.

Together they make up the regulatory authority’s score on key variable C concerning competency.’

A. Formal independence from government and legislature: Status of the regulatory authority

5) What is the term of the agency head or the commissioners?

- a) more than 7 years
- b) 4 to 6 years
- c) 1 to 3 years
- d) no fixed term or at the appointer’s discretion

6) Who appoints the agency head or the commissioners?

- a) a mix of the legislature and the executive
- b) the legislature
- c) the executive collectively
- d) one or two ministers

7) What are the provisions regarding dismissal of the agency head or commissioners?

- a) dismissal is impossible
- b) dismissal is only possible for reasons not related to policy
- c) there are no specific provisions for dismissal
- d) dismissal is possible at the appointer’s discretion

8) May the agency head or the commissioners hold other offices in government?

- a) no
- b) only with the permission of the executive
- c) there are no specific provisions
- d) yes

9) Is the appointment renewable?

- a) no
- b) yes, once
- c) yes, more than once

10) Is independence a formal requirement for the appointment?

- a) no
- b) yes

B. Independence from stakeholders

12) May commissioners/the agency head have held a position in the regulated (public or private) industry/industrial associations *in the years preceding* their/her appointment?

- a) no
- b) yes, but not within the last two or more years prior to the appointment
- c) yes
- d) yes, and they can hold a position in industry during their term of office.

13) Are there provisions restricting the commissioners'/the agency head's possibilities of accepting a job in the regulated industry after their term?

- a) yes, regulators are not allowed to take positions in the regulated industry for several years after finishing their term
- b) yes, regulators are not allowed to take positions in the regulated industry for up to a year after finishing their term
- c) no

14) Are there provisions forbidding discussions of pending cases with stakeholders?

- a) yes, in the specific legislation regarding the regulator/the specific statute for the regulator
- b) yes, in the general legislation regarding good governance
- c) no

15) Are there any provisions forbidding that the agency head/commission members have any personal or pecuniary interest in the regulated sector?

- a) yes, both in relation to the appointment and in relation to the individual cases
- b) yes, in relation to individual cases
- c) no

C. Substantial independence from government and legislature: Competencies and independent decision-making

17) Which competencies does the regulatory authority exercise in relation to the following tasks in relation to the regulated sector?

=> Approval or determination of the tariffs of monopolistic companies (ex ante or ex post)

- a) the regulatory authority is fully competent
- b) the regulatory authority shares decision-making power with another institution
- c) the regulatory authority plays a consultative role
- d) the regulatory authority has no competencies

=> Network access

- a) the regulatory authority is fully competent
- b) the regulatory authority shares decision-making power with another institution
- c) the regulatory authority plays a consultative role
- d) the regulatory authority has no competencies

=> Licensing and modification of licenses

- a) the regulatory authority is fully competent
- b) the regulatory authority shares decision-making power with another institution
- c) the regulatory authority plays a consultative role
- d) the regulatory authority has no competencies

=> Laying down rules regarding terms of delivery (within the limits of the existent legislation)

- a) the regulatory authority is fully competent
- b) the regulatory authority shares decision-making power with another institution
- c) the regulatory authority plays a consultative role
- d) the regulatory authority has no competencies

=> Dispute settlement (between companies and between companies and their customers)

- a) the regulatory authority is fully competent
- b) the regulatory authority shares decision-making power with another institution
- c) the regulatory authority plays a consultative role
- d) the regulatory authority has no competencies

=> Enforcement

- a) the regulatory authority is fully competent
- b) the regulatory authority shares decision-making power with another institution
- c) the regulatory authority plays a consultative role
- d) the regulatory authority has no competencies

19) Which are the formal obligations of accountability of the regulatory authority vis-à-vis the government?

- a) none
- b) presentation of an annual report for information only
- c) presentation of an annual report for approval
- d) the agency is fully accountable

20) Which are the formal obligations of accountability of the regulatory authority vis-à-vis the legislature?

- a) none
- b) presentation of an annual report for information only
- c) presentation of an annual report for approval
- d) the agency is fully accountable

21) Who, other than a court, can overturn the regulatory authority's decision where it has exclusive competency?

- a) nobody
- b) a specialised body (e.g. a legal tribunal)
- c) the government, with qualifications
- d) the government, unconditionally

D. Financial and organisational autonomy

23) Which is the source of the regulatory authority's budget?

- a) external funding (e.g. fee levied on regulated firms)
- b) government and external funding (e.g. fee levied on regulated firms)
- c) the government

24) When budget has been appropriated, who controls the budget?

- a) the regulatory authority
- b) government and the regulatory authority in co-operation
- c) the government

25) Who decides the regulatory authority's internal organisation (internal procedures, allocation of responsibility, tasks etc)?

- a) the regulatory authority
- b) the regulatory authority and the government in co-operation
- c) the government

26) Who is in charge of the regulatory authority's personnel policy (recruitment, promotion, salaries)?

- a) the regulatory authority
- b) the regulatory authority and the government in co-operation
- c) the government