

Does Formal Independence Matter for Regulatory Outcomes? Measuring Regulatory Interdependence in Networks: The Case of Telecoms Sector in Egypt

By
Dr. Ahmed Badran

RP 1101

Dr. Ahmed Badran
Research Fellow
Aston Centre for Critical Infrastructure and Services (ACCIS)
Aston University, Aston Triangle,
Birmingham, B4 7ET

A.badran@Aston.ac.uk

March 2011
ISBN No: 978-1-85449-767-3

Aston Academy for Research in Management is the administrative centre for all research activities at Aston Business School. The School comprises more than 70 academic staff organised into thematic research groups along with a Doctoral Programme of more than 50 research students. Research is carried out in all of the major areas of business studies and a number of specialist fields. For further information contact:

The Research Director, Aston Business School, Aston University,
Birmingham B4 7ET

Telephone No: (0121) 204 3000 Fax No: (0121) 204 3326 <http://www.abs.aston.ac.uk/>

Aston Business School Research Papers are published by the Institute to bring the results of research in progress to a wider audience and to facilitate discussion. They will normally be published in a revised form subsequently and the agreement of the authors should be obtained before referring to its contents in other published works.

Does Formal Independence Matter for Regulatory Outcomes? Measuring Regulatory Interdependence in Networks: The Case of Telecoms Sector in Egypt

Abstract

Work on regulatory outcomes has traditionally concentrated on the consequences for outcomes of regulatory agencies' independence from political overseers and their independence from regulated bodies. Formal measures of independence are often used, especially in comparative studies. However, regulatory interdependence suggests that multiple actors, different political actors, regulators, regulated bodies and broader social and economic actors are all important influences on outcomes. Informal as well as formal aspects of these relationships are important. This paper argues that advances in methods for mapping networks assist the development of measures of informal and formal regulatory interdependence and their effects on regulatory outcomes. It contrasts a perspective on regulatory outcomes in Egyptian telecommunications that uses formal measures of independence from politicians and regulators with a perspective mapping formal and informal regulatory interdependence.

Empirical material collected from analysis of documents and 44 interviews with different stakeholders in the Egyptian telecommunications market is used. Measuring the independence of the regulatory agency against the formal criteria shows a higher level of independence compared to informal measures which indicates that in practice regulatory independence is more limited. Politicians are able to circumvent formal restrictions on intervention and major incumbents use their resources of expertise to influence regulatory outcomes. Broader societal actors exert influence in the network as well as the triangle of politicians, regulators and regulated. The paper suggests areas of regulatory outcomes where narrower measures of formal independence from politicians and regulators perform well in explaining regulatory outcomes relative to the full measures of regulatory interdependence, and where they are less useful. These findings offer a way of assessing the strengths and limitations of much cross-national regulatory analysis.

Key words: formal regulatory independence, informal regulatory independence, regulatory interdependence, regulatory networks

Introductions

In network settings the notion of ‘interdependence’ between network actors is paramount. As noted by (Kickert, Klijn, and Koppenjan; 1997: 31-33) interdependence in networks is a direct result of dependency relationships between network actors which represent a precondition for network formation. According to their view, networks develop and exist because of interdependencies between actors. The environment of an organization is made up of a set of other organizations. Each of these organizations controls resources such as capital, labour, information ...etc. No organization can generate all needed resources on its own. In order to acquire the necessary resources for goal achievement and survival organizations should interact with each other. The resources an organization may need depend on the nature of goals that it wants to achieve. This situation of resources dependency creates interdependencies between actors in policy networks. Actors are dependent on each other if they are unable to conclude games in a manner satisfactory to themselves without the cooperation of other actors (see also Klijn, Koppenjan, and Termeer; 1995: 439).

With such a high level of emphasise on interdependence the question becomes how this may affect relationships between state and non-state actors. On the one hand, state actors including policy making bodies and regulatory agencies depend on the regulatees to deliver the intended policy and regulatory goals each in his respective domain. On the other hand, non-state actors including the regulatees and other interested stakeholders depend on the regularity agency and policy making bodies to acquire legitimacy and to guarantee policies and regulatory decisions that create a suitable environment for service delivery and profit making.

In this paper we focus on one aspect of network relationships “regulatory independence” in an attempt to figure out whether interaction and interdependent between network actors can compromise the formal independence of the regulatory agency (e.g. regulatory agency vs. rgeualtees and regulatory agency vs. the parent organisations). We contrast the formal independence as reflected in the legal mandate of the regulatory agency with the actual or de facto independence as reflected in the everyday practices of the network actors. The paper draws on the experience of regulatory networks in the Egyptian telecommunications market particularly two main

regulatory arenas: internet service provision and Mobile telephony. This will be used as illustrative case study however a more comparative perspective that may include the experience of other countries is intended for future research.

Our contention in this paper is that there is no a clear cut causal relationship between the de jure and the de facto independence of regulators which is mechanically may lead to the assumption that high de jure independence means high de facto independence and in turn better regulatory outcomes. To come to this conclusion each regulatory network should be examined against both aspects of regulatory independence. By doing this the relational aspects of regulatory networks as opposed to the dominant actor perspective will come into play and may lead to a different understanding of the independence relationship. Theoretically speaking, diverse models of regulatory independence may emerge including:

- A strong formal but weak de facto independence of regulators and in turn bad regulatory outcomes;
- A strong formal and strong de facto independence with better regulatory outcomes;
- A weak formal independence but the regulator enjoys high level of de facto independence in relation to the other network actors and achieve regulatory outcomes;
- A weak formal and a weak de facto independence of the regulator with bad regulatory outcomes.

Having said that, generalisations regarding the relationship between de jure and de facto independence of regulators and the impact of this on the regulatory outcomes should be carefully considered within the range of the abovementioned possibilities.

Regulatory Independence: De Jure and De Facto Perspectives

Regulatory independence is one of the hot issues in the debate over the institutional design of regulatory systems. Many scholars agree that providing regulatory agencies with a sufficient amount of independence is a prerequisite for designing effective regulatory systems. However, in practice, IRA is a fuzzy concept that is not well defined. For example, the WTO (1997) interprets the term as referring to a regulator who makes decisions independently, without outside interference. In the EU, the term IRA is used to describe a regulatory agency which is supposed to be independent of the licensees and the government. Smith (1997) has defined regulatory independence as consisting of an arm's length relationship with regulatees, consumers and other private interests, and political authorities. Concentrating on the independence of decision-making Melody (1997) has defined this in terms of autonomy to implement policy without undue interference from politicians or industry lobbyists.

The better regulation task force (2003) has defined IRA as 'a body which has been established by act of parliament, and operates at arm's length from government and which has one or more of the following powers: inspection, referral, advice to a third party, licensing, accreditation, or enforcement'. Hence, IRAs operate under the authority of laws made and can be revised by legislators, on the basis of annual budgets that must be approved, under the leadership of regulators who must be appointed, under judicial review, and under a policy framework established by ministers. The construction of these relationships will define the nature of regulatory independence.

In the context of this study, the notion of regulatory independence is used in the broader sense to refer not only to the legal or formal independence of utility regulators, but also to the independence of human and financial resources, in addition to the ability to decide upon what to do and how to do it without interference from the parent organisations. A distinction will be made between De Jure independence of IRAs (determinants of regulatory independence as stated in the legal mandate of the regulatory agency) and De facto independence (how these determinants are translated into actions without interference and undo of other stakeholders namely the parent organisation). For utility regulators to be independent, they should be captured neither

by parent organisations nor by regulatees. In the words of Srivastava (2000) they should be insulated from improper influences from both sides.

Independence from parent organisations: Although the primary source of regulatory independence is the statute that creates the agency and the legal mandate that specifies its core functions, in practice there are number of areas where that independence can be compromised. These areas include finance, personnel, operations and enforcementⁱ: Financially, the means by which utility regulators are funded has a bearing on the nature and scope of their activities, and on the extent of their independence. The activities of regulators can be funded via different means including grants from government, charges on the regulated industry, and fees or charges for inspections, authorisations, certification, and licensing. In most cases regulators tend to diversify their financial resources by a combination of these methods. Managerially, the independence of the decision-making process and the freedom to choose the appropriate strategy to put such decisions into effect, in addition to personnel independence, are equally important issues to the financial one. Regulators should also have the ability to make independent decisions and to decide on their enforcementⁱⁱ. Whatever the chosen strategy, it should be guided by a well-defined set of guidelines, and regulators should tell both those whom they regulate and those on whose behalf they regulate about the adopted strategy.

Operationally, the dividing lines between the regulator and the parent Ministry should be clear. Roles and responsibilities should be identified and documented. In this context, agreeing upon a management statement between the regulator and the parent Ministry could be helpful. This management statement should set out the following: the regulator's overall aim(s), objectives and targets, the rules and guidelines relevant to the exercise of the regulator's functions, duties and powers, the conditions under which any public funds are paid to the regulator, and how the regulator is to be held to account for its performance. With such a statement in place, confusion in roles and responsibilities will be diminished and the accountability of each party will be clear.

Independence from the regulated industry: It is not enough for regulators to be legally, structurally, financially and operationally independent from parent governmental organisations, it is equally important to be independent from the regulatees as well which means regulators should not be captured by the interests of the regulateesⁱⁱⁱ. Despite the fact that all regulatory regimes are vulnerable to capture

by organised interest groups, particularly by those whom the regulation seek to control (Dnes, 1991), the risk of regulatory capture can be higher in the case of utility regulators. As sector-specific independent regulators, utility regulators are vulnerable to capture by the very industry they regulate, because they depend on the industry for information and cooperation in order to do their job. The risk of capture can increase if regulators are under-equipped and under-financed, if incumbent firms have political power and can intimidate regulators through the political system, and if regulatory systems allow excessive appeals and layers of decisions, so that regulatory decisions become delayed in years of controversy before they become effective (Jacobs, 2001: 7-8).

Measuring Regulatory Independence: An Overview on the Previous Research

A glance at the literature on regulatory independence reveals the fact that scholars tend to focus on either the formal or de facto independence of regulatory agencies. Very little attention has been given to linking these two sides of regulatory independence together and even less has been said about whether the relationship between these two aspects affects regulatory outcomes. To measure the formal independence of regulatory agencies Gilardi (2005) has developed an index that attributes formal independence to five main criteria: status of the agency head; status of the members of the management board; relationship with government and parliament; financial and organisational autonomy; and regulatory competencies. Each of these criteria has been divided into sub-indicators and each indicator has been given a score 0-1. The overall score of an agency shows how independent it is in relation to the mentioned aspects (see appendix 1).

In the same vein comes the contribution of Johannsen (2003) who used almost the same index but added another criterion to measure the formal independence of regulatory agencies in relation to other stakeholders including the regulated industry. Considering the focal point of this paper that is to investigate the relationship between de Jure and de facto independence of regulators and how this reflects in the regulatory outcomes the authors will not attempt to develop their own index for measuring the formal independence of the regulatory agency. Instead, they will use the one developed by Gilardi (2005) in order to find out the formal status of the regulator in the Egyptian telecommunications market in relation to the mentioned criteria. The

reason for this is that despite the reservations on these types of independence indices (see Hanretty and Koop 2009) the one developed by Gilardi (2005) is more comprehensive and includes many criteria that help identifying regulatory independence at the formal level.

Moving now to the de facto independence and how it has been measured by scholars it is worth mentioning that compared the de jure or formal independence the de facto independence is more difficult to measure. Some attempts have been made to measure de facto or informal independence. For instance, Maggetti (2005) has attempted to develop a framework to informal independence of agencies. In this paper the author focuses mainly on two aspects (1) the degree of self-determination of the agencies' preferences and (2) the degree to which those preferences are translated into regulatory acts (see table 1).

Dimensions	Component	Indicators negatively affecting de facto independence
(1) Relationship IRA - Political Decision Makers	<i>Indicators of self-determination of preferences of the IRA</i>	<ul style="list-style-type: none"> - Frequency of revolving door - Frequency of ad hoc contacts (internships, exchanges of expertise, regular meetings) - Influence on budget setting - Influence on organisation setting - Weight of partisan membership on board members nominations, moderated by balance of powers and heterogeneity - Political vulnerability (earlier departures of IRA chief and board members)
	<i>Autonomy of the activity of regulation</i>	<ul style="list-style-type: none"> - Active participation to the IRA's rules-making process
	<i>Indicators of self-determination of preferences of the IRA</i>	<ul style="list-style-type: none"> - Frequency of revolving door - Frequency of ad hoc contacts (internships, exchanges of expertise, regular meetings) - Relative (in)adequacy of budget dimension - Relative (in)adequacy of organisation dimension - Closeness of the (former and current) professional activity of board members, moderated by full time positions. - Possible personal or affair relations, episodes of corruption or intimidation
(2) Relationship IRA - Regulatees	<i>Autonomy of the activity of regulation</i>	<ul style="list-style-type: none"> - Active participation to the IRA's rules-making process

Table1: measures of de facto regulatory independence

Source: Maggetti (2006: 9)

In 2006 the same author tried to find out a solution to the autonomy-control dilemma in the relationship between politicians and regulators by focusing on the de facto independence of regulators. To this end, the author tried to spot the variation between what is stated in the legal status of regulatory agencies and the actual practice of these legal provisions.

Hanretty and Koop (2010) have attempted to go one step further and to link between de jure and de facto independence of regulatory agencies in Europe. In this context the

have used an amended version of Gilardi's index (2005) to measure the formal independence and came up with other two criteria to measure the de facto independence which are: a measure of the average turnover of the chief executive of the agency (TOR), and an index of political vulnerability (VUL).

Despite the value of these measures they are not applicable in the Egyptian context for two main reasons: first the novelty and the young age of the regulator which did not allow enough time for turnover to occur (only two heads have been appointed since the inspection of the authority); and secondly, the impact of government turnover on the status of the head of the regulatory agency is less likely to be significant because the dominant position of the ruling party (different governments for the same party).

To overcome this predicament, we will depend on a previous work of the authors that has utilised social network analysis and policy network approach to measure relationships and interactions between the network actors involved in two telecommunications regulatory arenas: mobile telephony and internet service provision. The underlying assumption here is that the stronger the link between the regulator and other network actors the weaker the level of independence that it enjoys in relation to this actor. This will be supplemented by another measure of dependency relationships among the network actors. We will assume that the higher the level of dependency relationship the lower the level of independence of the regulator in relation to the other network actors.

The data for this analysis has been collected via interviewing policy-makers in the ministry of telecommunications and senior regulatory staff in the regulatory agency. Regulatory and governmental affairs members of staff in the regulated industry have also been interviewed. The same questions related to the above-mentioned measures have been directed to all interviewees to get reciprocal responses regarding the level of regulatory independence. The scores have been calculated and the average score has been taken as an indicator to the strength of the relationship and the level of dependency.

Measuring the De Jure Regulatory Independence in Telecommunications Regulatory Networks in Egypt

In this section the index adapted from Gilardi (2005) will be used to measure the formal independence of the NTRA (the sector regulator). To this end the legal mandate of the authority (law 10/2003) has been reviewed and mentioned criteria in the index have been examined. The results are summarised in the following table:

		Weight	Coding
Status of the agency head		0.20	
Term of office	fixed term under 4 years or at the discretion of the appointer		0.20
Who appoints the agency head?	one or two ministers		0.00
Dismissal	there are no specific provisions for dismissal		0.33
May the agency head hold other offices in government?	no		1.00
Is the appointment renewable?	yes, more than once		0.00
Is independence a formal requirement for the appointment	Yes		1.00
Total			2.53
Status of the members of the management board		0.20	
Term of office	fixed term under 4 years or at the discretion of the appointer		0.20
Who appoints the members of the management board?	one or two ministers		0.00
Dismissal	there are no specific provisions for dismissal		0.33
May the members of the management board hold other offices in government?	no specific provisions		0.00
Is the appointment renewable?	yes, more than once		0.00
Is independence a formal requirement for the appointment	no		0.00
Total			0.53
Relationship with government and parliament		0.20	
Is the independence of the agency formally stated?	yes		1.00
What are the formal obligations of the agency vis-à-vis the government?	there are no formal obligations		1.00
What are the formal obligations of the agency vis-à-vis the parliament?	there are no formal obligations		1.00
Which body, other than a court, can overturn the decisions of the agency where the latter has exclusive competence?	no body		1.00
Total			4.00
Financial and organisational autonomy		0.20	
What is the source of the agency's budget?	both the government and fees levied on the regulated industry		0.50
How is the budget controlled?	by the agency		1.00
Which body decides on the agency's internal organisation?	the agency		1.00
Which body is in charge of the agency's personnel policy (hiring and firing staff, deciding on its allocation and composition)?	the agency		1.00
Regulatory competencies	the agency only		1.00
Total			4.50

Table 2: Formal regulatory independence of the NTRA

As the table indicates, concerning the procedures of appointing the head of the agency and the board of directors the score is relatively low. The main reasons for this are: first the short term and the renewability of appointment, second the appointing body.

According to the law 10/2003 “The NTRA shall have an Executive President who is to be appointed for a period of two renewable years and have his financial matters set by a resolution from the Prime Minister upon a proposal from the Minister Concerned” (article 15). Regarding the board of directors the law states that “The NTRA shall be managed by: A Board of Directors appointed by a decree from the Prime Minister and presided by the Minister Concerned” “the Board of Directors membership duration shall be two years, renewable, and the membership remuneration shall be determined by a decree from the Prime Minister” (article 12).

At the institutional and organisational level the index shows high scores of the NTRA independence. In this regard, the telecommunication law has clearly identified the formal status of the NTAR in terms of the role and the objectives of the authority:

“The NTRA shall aim to regulate the Telecommunication Service and to enhance and deploy services in compliance with the most advanced technology means satisfying the Users’ needs at the most appropriate prices. The NTRA shall also encourage national and international investment in this field within free competition rules, especially in the following: guaranteeing the provision of Telecommunication Services to all regions; protecting National Security and the State top interests; guaranteeing the optimum usage of the Frequency; guaranteeing the compliance of the effective international agreements and monitoring the realization of the technical and economical efficiency programs for different Telecommunication Services” (article 4).

In fulfilling this role, the law has formally assured the independence of the NTRA by stating that it has the right to take all the necessary actions “without limitation to the governmental rules and regulations” (article 5). The law has also mentioned no formal obligations on the NTAR towards the government or the parliament. Additionally, the independence of decision-making has been assured by stating in (article 13) that “The NTRA Board of Directors is the dominant authority over all of its affairs and disposition of its matter and shall take whatever decisions it considers necessary to achieve the goals it was established for”.

At the financial level the telecommunications law (article 8) has identified The NTRA financial resources as consisting of the following: funds assigned for it in the general budget of the State; annual fees for licenses and permits; charges for works, burdens and services; the percentage allocated by the Cabinet for the NTRA from Concession fees; the yield of investing the NTRA funds; fines and compensations; loans; Grants, donations and subsidies to be accepted by the Board of Directors. In (article 9) the law

indicated that “The NTRA shall have an independent budget” with the variety of funding sources and the formal statement of budget independence the financial independence of the NTRA has been guaranteed.

With regard to personnel and internal affairs the agency has its own rules and regulations which are developed and approved by its board of directors “The Board of Directors shall handle its competencies as stated in this Law, especially in the following: [---] approving internal regulations related to technical, financial and administrative matters, purchases and warehouse regulations, and others related to NTRA activities, without limitation to governmental rules and regulations; approving the NTRA personnel regulations regarding hiring, salaries, allowances, remunerations, promotions, penalties, dismissal and other personnel matters in consideration of productivity standards without limitation to the governmental rules and regulations and without breach of employees acquired rights” (article 13).

A wide range of competencies has been assigned to the NTAR and has assured the full independence of the agency in performing them (articles 5, 13). These competencies include: setting up the rules guaranteeing Users protection; specifying the standards and regulations for uneconomically feasible Telecommunication Services; specifying the general rules binding Operators and Telecommunication Service Providers; setting up the required rules for granting Equipment permits; setting up a National Numbering Plan for telecommunication and supervising its execution; setting up the rules and conditions for granting special licenses for the establishment of Telecommunication Networks Infrastructure.

nature of regulatory issues in the sector and the way in which such issues should be dealt with' (Int. 1).

Such a close and strong relationship raises an important question about the degree of independence of the regulatory agency from the parent organisation. According to the regulator's point of view, there is not what could be called complete independence of the regulatory agency from the parent organisation. At the end of the day, the regulatory body needs to report to another body. Because of the highly technical nature of the field of telecommunications, the regulator sees the MCIT as the most qualified party in the network to report to. Added to the above, what really matters according to the regulator's view is the way in which roles and responsibilities are assigned to each party and the mutual respect of each party's role in the regulatory process. 'We are both involved in the process of policy-making and implementation, but with different roles and responsibilities. What matters here is the way in which such roles and responsibilities are determined and the mutual respect of each party for the other's duties and roles' (Int. 1). Added to this, from a structural perspective, the NTRA is independent managerially and financially from the MCIT.

Regarding the relationship between the NTRA and the regulated companies, the graph shows that equally strong ties connect all ISPs and the NTRA. This in fact has many implications. Despite the close relationship between the Ministry and the regulator that has been admitted by the majority of the ISPs, when it comes to the way in which the NTRA treats the regulated companies, most of them have regarded the regulator as a 'fair player'. This in turn can give another indication about the level of trust and credibility of the regulatory agency.

Dependency Relationships and Regulatory Independence

Regarding dependency relationships, such relationships are measured in the two studied networks by asking the interviewees which of the following best describes their dependency on the following actors (NTRA, MCIT, TE, and Other ISPs). The respondents were given four options: A. very high, B. high, C. moderate, and D. weak. The collected data has been used to establish a combined matrix of actors' dependency relationships. Actors with a very high level of dependency (other actors are highly dependent on them) were given score 4. Actors with a high level of dependency were given score 3. The moderate level of dependency was given score

2. And finally, the low level of dependence was given score 1. Actors' dependencies on each other are represented with double headed arrows. The score shown at the end of each arrow reflects the level of dependency from one actor to the other (see figures 3 and 4).

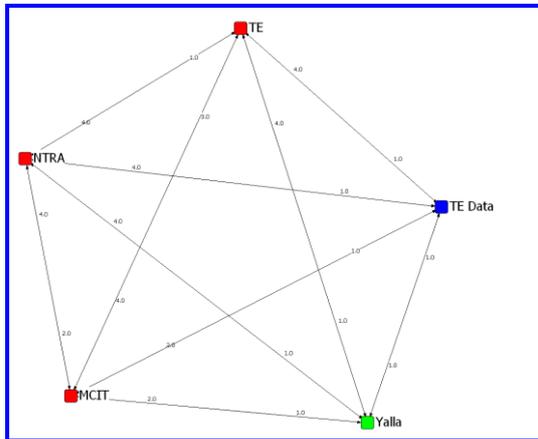


Figure 3: Dependency Relations in the Internet Arena

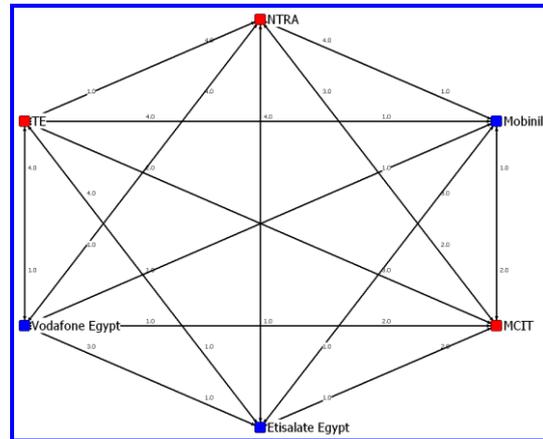


Figure 4: Dependency Relations in the Mobile telephony Arena

Examining the graphs, a high level of dependency from ISPs on the NTRA can be seen. That means according to this measure the NTRA is highly independent from the regulated industry. At the same time a moderate level of dependence exists from the NTRA to the MCIT which means is consistent with the results of the previous measure that showed a strong tie between these two entities. This is also consistent with the image that other network actors hold regarding the relationship between the regulator and the Ministry as we well see later.

In order to validate the results of these two measures I asked respondents to reflect on the level of independence between the NTRA and the MCIT on the one hand, and between the NTRA and the regulated industry on the other hand. In plain English, respondents were asked how independent they think the NTRA is from the MCIT and from the regulated industry. The answers to my question varied according to the respondents' understanding of the meaning of 'independence'. The term was not intentionally defined for them at the beginning in order to give them the opportunity to reflect on the different aspects of this concept.

From the interviews responses it can be noticed that, when it comes to the relationship between the NTRA and the MCIT, there is an overall agreement from the viewpoint of the regulated companies that the NTRA *is not* independent of the MCIT. However, it is worth mentioning in this regard that informants' opinions regarding the degree of dependency from the NTRA on the MCIT vary. For some regulated companies, the NTRA, the MCIT and TE represent the interests of the government, while private regulated companies represent the interests of business. According to this dichotomous viewpoint (government vs. business) of this group of informants, there is no place to talk about 'independence' in the relationship between the NTRA and the MCIT.

'At the end of the day, the NTRA and the MCIT are parts of the government apparatus. They both work together within a wider framework that reflects the policy orientations of the government. Therefore, personally I think there is no difference between these two bodies' (Int.18)

In addition to the group of respondents who rejected the notion of regulatory independence to describe the relationship between the NTRA and the MCIT on the ground that both organisations have the same affiliation, another group of respondents share the same opinion but on different grounds. Structurally speaking, this group of regulated companies' representatives rejected the notion of regulatory independence due to the fact that the Minister of Telecommunications is the head of the board of directors of the NTRA. As has been summarised by some respondents:

'With the existence of the Minister at the top of the NTRA nobody can say that it is totally independent. In many cases the NTRA do what the Minister tells it to do because they both represent the interests of the governmental side. From this perspective when the company has a problem with the NTRA it resorts to the Minister hoping that he would support the company but this did not happen.' (Int.30)

'Regarding the relationship between the NTRA and the MCIT, the former is not independent from the latter. The MCIT in fact presides over the NTRA. The NTRA cannot do anything that the MCIT does not want it to do. And if it tries, the Minister is there as the head of its board of directors to correct this situation if it happened' (Int.24)

Another group of respondents have seen the NTRA as *partially* independent in its relationship with the MCIT. The analysis of this group's answers reveals that their interpretation of the term 'independence' differs from the previous group who sees the NTRA as totally dependent on the MCIT. This group of informants adopts a more functional interpretation of regulatory independence. Their understanding of the notion of independence is very close to the way in which scholars such as Melody (1997) define this concept (see chapter 2). According to them, independence means

the capability of the regulatory authority to make its own decisions and to implement them without undue intervention from political authorities. In other words, they regard regulatory independence as non-interference by the MCIT in the way that the NTRA regulates the sector. From this perspective, the majority of interviewees have confirmed that, when it comes to technical and regulatory issues, the Ministry gives the NTRA enough authority to make and enforce its own decisions.

Following on from the above discussion it can be concluded that, regarding the relationship between the NTRA and the MCIT, the regulated industry considers the authority as either dependent on the Ministry or partially independent based on their interpretation and understanding of the notion of independence. The question that needs to be answered now concerns the independence of the NTRA from the regulated companies. With reference to the interviewees' responses, apparent agreement on the independence of the NTRA from the regulated companies can be inferred. Most of the interviewees from the regulated industry have confirmed that, while they regard the regulator as totally or partially dependent on the Ministry, they have no doubt that it is to a large extent independent of the regulated companies. The following comments by interviewees support this observation:

‘In its relations with the regulated industry the NTRA is totally independent. It tries to be an impartial player and make decisions that benefit the whole sector’ (Int.30)

‘The NTRA is not independent from the MCIT because the Minister of telecommunications is the head of its board of directors. However, when it deals with the regulated companies the NTRA tries to be as fair as much as it can and from this perspective it is trusted and respected by most of the companies’ (Int.20)

‘The NTRA is not independent from the MCIT; however, it is impartial and fair in dealing with the regulated companies’ (Int.19)

In spite of the agreement of the regulated industry representatives that the NTRA is independent to a great extent in its relationship with private companies, they also highlighted the fact that this is not the story with other state actors such as TE.

‘In my view the NTRA is partially independent from the government but totally independent from private companies. At the same time the NTRA has a special relationship with TE upon which all ISPs depend in providing their services. Because of the close relationship between TE and TEdata the former always gives the latter preferable treatment’ (Int.18)

‘The NTRA is independent to a great extent from the MCIT and to a greater extent from the regulated industry. This is not to say that there is a special relationship between the MCIT, the NTRA, and TE as the three of them are governmental bodies. However, what is important for us as a regulated company is that the NTRA is balancing the interests of all parties and its decisions do not benefit one of them at the expense of the other. One example of such a special

relationship is that sometimes the NTRA consults TE first on a specific issue before the other regulated companies' (Int.22)

The discussion so far reflects what the regulated companies think about the independence of the regulator from the parent organisation and from the regulated industry. In order to complete the picture input from the NTRA and the MCIT in this regard is required. From the analysis of the responses of the interviewees from these two bodies it can be noticed that both the NTRA and the MCIT share a conception of regulatory independence closer to that adopted by group two of interviewees from the regulated industry (partial independence). Firstly, they admit that there is no total or complete independence from the regulatory agency. Some statements made by the regulator when asked to reflect on the relationship between the NTRA and the MCIT can clarify this issue. In this regard and as has been mentioned before he described such a relationship as 'organic' which means both bodies are part and parcel of the overall governmental machinery. In addition to this he commented on the notion of independence by saying that 'there is not 100% independence between regulators and parent organisations anywhere in the world'.

Secondly, based on the mutual respect of jurisdictions and of spheres of actions as one of the ground rules that governs the relationship between all actors involved in regulatory networks, representatives from the NTRA and the MCIT have confirmed that the NTRA enjoys a high level of independence with regard to making and enforcing regulations and regulatory decisions.

'Regarding the process of policy-making the NTRA is involved in the process of making policy and the process of implementation as well. In the process of making policies the NTRA is only one vote among many other stakeholders who participate in this process. However, in the implementation process it is the main player responsible for enforcing regulations and policies' (Int.2)

Despite such an agreement on the partial independence of the NTRA, the interpretation of the NTRA and the MCIT of regulatory independence is broader in nature than that adopted by the regulated companies. In addition to the independence of decision-making and implementation processes, respondents from the authority and the Ministry have added some new elements such as independence with regard to financial and human resources. In this sense, to be independent is to work at arm's length from the parent organisation and the regulated industry at the same time (compare Smith 1997). Accepting this notion in principle, the following question will be how long is that arm that separates the NTRA and the MCIT? Is it long enough to

enable the NTRA to perform its regulatory duties? And if so, what about the Minister and his presidency of the board of directors of the NTRA? The answers to these questions may clarify the issue of regulatory independence and reduce the level of confusion regarding what is meant by independence.

Generally speaking, it can be concluded from the answers of the interviewed staff in both the NTRA and the MCIT that the length of the arm that separates the parties is enough for the former to perform its regulatory duties in an effective way without any kind of unwanted intervention from the MCIT. Added to this, most of the interviewees do not see any problem with the Minister of Telecommunications as the head of the authority board of directors.

When we talk about the independence of the NTRA we should consider the fact that it is divided into two main parts: the board of directors and the executive body. From this perspective the existence of the Minister of Telecommunications as the head of the board of directors does not affect the independence of the NTRA for many reasons:

- Firstly, at the end of the day, the NTRA is the prime organisation responsible for regulation enforcement and not the MCIT. In this area the NTRA is totally independent and has the authority to play this role effectively.
- Secondly, from a structural view point, the NTRA is not a part of the organisational structure of the MCIT. It has its own rules that regulate its internal affairs. It also has its independent budget and its organisational chart that does not come under the MCIT.
- Thirdly, the board of directors consists of representatives of the different stakeholders who might be affected by the authority's decisions. As such, all parties are represented, and the powers within the boards of directors are balanced. Each party can defend the interests of his organisation and the final decision should be taken on the majority ground. Hence, the Minister of Telecommunications represents only one vote among many others that can oppose him. (Int.9)

Added to the above-mentioned points some of the staff in the NTRA sees the presidency of the Minister of Telecommunications of the board of directors of the authority as a necessity for reporting and coordination, and functional purposes:

'The NTRA is financially and managerially independent from the MCIT but it should be reporting to someone. Regulators all over the world follow the minister concerned, the prime minister, or the parliament. In our case in Egypt I see it is better to follow the Minister of Telecommunications for the following reasons:

- As the minister concerned, the Minister of Telecommunications is most capable of understanding the nature of the market and the characteristics of the problems that the players in this market face. Hence, he would be able to cooperate with those players to come-up with a solution that serves the interests of most of them.
- Also as the minister concerned, the Minister of Telecommunications has the power to pressure some major player such as TE to provide information or to take some actions that cannot be done without his interference.

- From a competency point of view, other institutions such as Parliament are not qualified enough to be involved in discussion on technical issues related to telecommunications and making sound decisions.
- Added to this, the dual role of the Minister of Telecommunications as the head of the board of directors of the NTRA and as the head of the MCIT serves the coordination purposes between the two organisations

Taking all these reasons together I can conclude that the existence of the Minister of Telecommunications as the head of the board of directors is in the best interests of the NTRA and the whole sector. We should not worry too much about the independence issue because there are many votes within the board which can counterbalance the powers of the Minister (Int.2)

It is worth mentioning in this context that the above expressed viewpoint regarding the benefits of the existence of the Minister of Telecommunications as the head of the NTRA board of directors represents not only the opinion of the state actors but also the view of some of the regulated industry:

‘The existence of the Minister of Telecommunications at the head of the NTRA board of directors has benefited the latter. The reason for this is that the Minister comes from the industry. He is a communication engineer and he fully understands the nature of the industry and the way in which the sector should be dealt with. Such expertise and awareness are reflected in the way in which the MCIT is dealing with the NTRA and the approach that both of them follow to manage and regulate the ICT sector. In this context, the MCIT has emphasised the impartiality of the NTRA and tries to reinforce its independence. If we supposed the opposite case, in other words the Minister of Telecommunications coming from another industry, such harmony and understanding in the relationship between these two bodies would disappear and the independence and impartiality of the NTRA might be affected’ (Int.16)

The same point has been emphasised by the regulator himself when he referred to the mutual understanding between himself and the Minister because they have the same technical and educational background (both are telecoms engineers) so that they both can speak the same ‘language’ and can understand the nature of the problems that face the sector and in turn develop a common vision with regard to how these problems should be dealt with.

Concluding Remarks: Does Formal Regulatory Independence Really Matter?

Following on from the above discussion, a simple and straightforward answer to the question on whether formal regulatory independence matters for regulatory outcomes would be yes it does matter. From an institutional point of view, formal independence is necessary for guaranteeing the effectiveness of the regulatory system. It can lead to positive outcomes better regulatory decisions and above all innovative policies at the

macro level. However, the examination of the two studied regulatory networks has revealed the fact that regulatory formal independence is a necessary but not a sufficient factor to guarantee the effectiveness of the regulatory system and better outcomes. From the perspective of the regulated companies, the existence of an accountable regulatory system that ensures transparent and clear ground rules which are applied for all players on equal footing can be more important than independence.

‘Dependency relationship does not necessarily mean it is negative by nature. On the contrary, I see it as a positive relationship because what matters at the end of the day is the way in which the NTRA deals with the regulated companies. In this respect I can assure you that the NTRA plays its role as a regulator very well; it is fair, competent, and works in the best interests of the whole sector’ (Int.22)

Added to this, the formal measure of the independence of the regulatory agency in the telecommunications sector in Egypt has reflected a high level of independence; nonetheless, the way in which such these formal and institutional guarantees have been translated in the every day practice has led to a more complex picture of regulatory independence where a whole set of other non-legal factors come into play including trust, fairness, competency, professionalism and not necessarily formal independence per se. An investigation of the impact of such factors on the de facto independence of the regulator and in turn the regulatory outcomes represents an interesting venue for future research.

Bibliography

1. Dnes, A. (1991) 'Franchising, Natural Monopoly, and Privatisation', in Veljanoveski, C. (ed.), *Regulators and the Market: An Assessment of the Growth of Regulation in the UK* (London: Institute of Economic Affairs).
2. Gilardi, F. (2005). The formal independence of regulators: a comparison of 17 countries and 7 sectors. *Swiss Political Science Review*, 11(4):139–167.
3. Jacobs, S. (2001), 'Building Credible Regulators for Liberalized Utility Sectors', Paper Presented At the First Workshop of the APEC-OECD Co-operative Initiative on Regulatory Reform, Beijing, China.
4. Johannsen, K. (2003) 'Regulatory Independence in Theory and Practice – a Survey of Independent Energy Regulators in Eight European Countries' AKF Forlaget.
5. Kickert, W., Klijn, E. and Koppenjan, J. (eds), *Managing Complex Networks: Strategies for Public Sector* (London: Sage Publications).
6. Klijn, E.H., Joop Koppenjan and Katrien Termeer (1995) 'Managing Networks in the Public Sector: A Theoretical Study of Management Strategies in Policy Networks', *Public Administration*, 73: 437-454.
7. Koop, C. and Hanretty, C. (2009) 'Measuring the statutory independence of regulators', Presented at the American Political Science Association, Toronto, Canada. Available from: <http://www.chrishanretty.co.uk/publications/HK09.pdf>.
8. Maggetti, M. (2007). De facto independence after delegation: A fuzzy-set analysis. *Regulation & Governance*, 1(4):271–294.
9. Melody, W. (1997) 'Policy Objectives and Models of Regulation in Telecom Reform: Principles', *Policies and Regulatory Practices*, Denmark, Technical University.
10. Smith, W. (1997) 'Utility Regulators: The Independence Debate', *Public Policy Public Policy for the Private Sector*, World Bank Group.
11. Srivastava, L. (2000) 'Issues in Institutional Design of Regulatory Agencies', Paper presented in SAFIR Core Training Course on Infrastructure Regulation and Reform Organised by the World Bank and Tata Energy Research Institute, New Delhi.
12. World Trade Organisation (1997) *Telecommunications Services: Reference Paper*, WTO: <http://www.wto.org>, accessed 26/8/2007.

Interviews

1. Interview with the Executive President (NTRA), Cairo, 2/4/2007
2. Interview with the vice President (NTRA), Cairo, 2/4/2007
3. Interview with a consultant for research and development (NTAR), Cairo, 2/4/2007
4. Interview with a member of Consumer rights protection committee (NTRA), Cairo, 19/4/2007
5. Interview with an Advisor Internet Technical Affairs (NTRA), Cairo, 25/4/2007
6. Interview with a Senior Telecommunication Planning Engineer (NTRA), Cairo, 18/4/2007
7. Interview with an Information System Engineer (NTRA), Cairo, 18/4/2007
8. Interview with a Senior Telecommunication Planning Engineer (NTRA), Cairo, 18/4/2007
9. Interview with a Senior Advisor To The Minister Of Telecommunication On Policy Issues (MCIT), Cairo, 30/4/2007
10. Interview with a Legal Advisor (MCIT), Cairo, 30/4/2007
11. Interview with the Executive Director of the Information and Communication Technology Project (MCIT), Cairo, 11/4/2007
12. Interview with the Head of e-Health programs at the Egyptian Ministry of Communications and Information Technology (MCIT), Cairo, 11/4/2007
13. Interview with the Deputy Manager, Information Technology Institute (MCIT), Cairo, 23/4/2007
14. Interview with the IT Sector Supervisor (Academy of Scientific Research and Technology), Cairo, 16/4/2007.
15. Interview with the Manager of User Services Department (Egyptian National Scientific & Technical Information Network), Cairo, 16/4/2007
16. Interview with the Vice Chairman And Managing Director (TEData), Cairo, 9/4/2007
17. Interview with the Product Marketing and Gov Affairs Director (TEData), Cairo, 9/4/2007
18. Interview with the Governmental Relations Manager (LINKdotNET), Cairo, 21/4/2007
19. Interview with the Governmental Relations Manager (Menanet), Cairo, 14/4/2007
20. Interview with the Governmental Relations Manager (Noor), Cairo, 14/4/2007
21. Interview with the C.E.O. Egyptian company for networks (EgyNet), Cairo, 3/4/2007
22. Interview with the C.E.O and Vice Chairman Nile on line (NOL), Cairo, 29/3/2007
23. Interview with the Chief technical officer Nile on line (NOL), Cairo, 27/3/2007

24. Interview with the Governmental Relations Manager (Yalla Misr), Cairo, 12/4/2007
25. Interview with the Strategic Planning Manager (Yalla Misr), Cairo, 12/4/2007
26. Interview with the General Manger For Governmental Relations And Regulatory Affairs Telecom Egypt (TE), Cairo, 19/4/2007
27. Interview with the Strategic planning manager Nile on Line (NOL), Cairo, 27/3/2007
28. Interview with the Regulatory and Government Affairs Senior Manager (Vodafone Egypt), Cairo, 24/4/2007
29. Interview with a Regulatory Relations Expert (MobiNil), Cairo, 22/4/2007
30. Interview with the Regulatory Affairs Manager (Etisalat Egypt), Cairo, 15/7/2008
31. Interview with ACTO Company.
32. Interview with the Country Manager, Egypt SAP Arabia, Cairo, 10/4/2007
33. Interview with Blue zone company USA
34. Interview with the Senior Manager Huawei Technology Co., LTD Egypt Representative Office, Cairo, 7/4/2007
35. Interview with the Technical Department Director National Telecom Cards Company (NTCC), Cairo, 7/4/2007
36. Interview with the Head of ITU Arab, ITU Regional Office, Cairo, 14/4/2007
37. Interview with a Telecommunications Expert, ITU Arab, ITU Regional Office, Cairo, 14/4/2007
38. Interview with a Consultant to the Egyptian Foundation in Technological Education and Development, (Nile University), Cairo, 5/4/2007
39. Interview with the IT Manager (Abu Ghazaleh Intellectual Property), Cairo, 3/4/2007
40. Interview with the Deputy Chairman British Electronics and Computer (BEC Online) Port Said, 1 /4/2007
41. Interview with the Managing director of Arab Business Forum for Information and Communication Technology, Cairo, 4/4/2007
42. Interview with the Director of ArabDev organisation, Cairo, 28/3/2007
43. Interview with the Director of Egyptian initiative for Personal Rights, Cairo, 31/3/2007
44. Interview with the Director of the Egyptian Information Telecommunications Electronics And Software Alliance, Cairo, 28/3/2007

Appendix 1:

	<i>Weight</i>	<i>Coding</i>
<i>Status of the agency head</i>	<i>0.20</i>	
Term of office		
• over 8 years		1.00
• 6 to 8 years		0.80
• 5 years		0.60
• 4 years		0.40
• fixed term under 4 years or at the discretion of the appointer		0.20
• no fixed term		0.00
Who appoints the agency head?		
• the members of the management board		1.00
• a complex mix of the parliament and the government		0.75
• the parliament		0.50
• the government collectively		0.25
• one or two ministers		0.00
Dismissal		
• dismissal is impossible		1.00
• dismissal is possible, but only for reasons not related to policy		0.67
• there are no specific provisions for dismissal		0.33
• dismissal is possible at the appointer's discretion		0.00
May the agency head hold other offices in government?		
• no		1.00
• only with the permission of the government		0.50
• yes / no specific provisions		0.00
Is the appointment renewable?		
• no		1.00
• yes, once		0.50
• yes, more than once		0.00
Is independence a formal requirement for the appointment		
• yes		1.00
• no		0.00

Status of the members of the management board	0.20
Term of office	
• over 8 years	1.00
• 6 to 8 years	0.80
• 5 years	0.60
• 4 years	0.40
• fixed term under 4 years or at the discretion of the appointer	0.20
• no fixed term	0.00
Who appoints the members of the management board?	
• the head of the agency	1.00
• a complex mix of the parliament and the government	0.75
• the parliament	0.50
• the government collectively	0.25
• one or two ministers	0.00
Dismissal	
• dismissal is impossible	1.00
• dismissal is possible, but only for reasons not related to policy	0.67
• there are no specific provisions for dismissal	0.33
• dismissal is possible at the appointer's discretion	0.00
May the members of the management board hold other offices in government?	
• no	1.00
• only with the permission of the government	0.50
• yes / no specific provisions	0.00
Is the appointment renewable?	
• no	1.00
• yes, once	0.50
• yes, more than once	0.00
Is independence a formal requirement for the appointment?	
• yes	1.00
• no	0.00
Relationship with government and parliament	0.20
Is the independence of the agency formally stated?	
• yes	1.00
• no	0.00
What are the formal obligations of the agency vis-à-vis the government?	
• there are no formal obligations	1.00
• presentation of an annual report for information only	0.67
• presentation of an annual report that must be approved	0.33
• the agency is fully accountable to the government	0.00
What are the formal obligations of the agency vis-à-vis the parliament?	
• there are no formal obligations	1.00

• presentation of an annual report for information only	0.67
• presentation of an annual report that must be approved	0.33
• the agency is fully accountable to the parliament	0.00
Which body, other than a court, can overturn the decisions of the agency where the latter has exclusive competence?	
• no body	1.00
• a specialised body	0.67
• the government, with qualifications	0.33
• the government, unconditionally	0.00
<hr/>	
Financial and organisational autonomy	0.20
<hr/>	
What is the source of the agency's budget?	
• fees levied on the regulated industry	1.00
• both the government and fees levied on the regulated industry	0.50
• the government	0.00
How is the budget controlled?	
• by the agency	1.00
• by the accounting office or court	0.67
• by both the agency and the government	0.33
• by the government only	0.00
Which body decides on the agency's internal organisation?	
• the agency	1.00
• both the agency and the government	0.50
• the government	0.00
Which body is in charge of the agency's personnel policy (hiring and firing staff, deciding on its allocation and composition)?	
• the agency	1.00
• both the agency and the government	0.50
• the government	0.00
<hr/>	
Regulatory competencies	
<hr/>	
• the agency only	1.00
• the agency and another independent authority	0.75
• the agency and the parliament	0.50
• the agency and the government	0.25
• the agency has only consultative competencies	0.00
<hr/>	

Source: Gilardi (2005: 147-149).

Rubbish

Whatever the adopted definition, creating such bodies in different social and economic sectors is seen to be able to achieve many advantages^{iv}. Through concentration on privatised public utilities, independent regulators are meant to regulate more efficiently and build confidence among market actors by: clarifying any confusion among multiple roles of government^v; shielding market intervention from political and commercial interference; allocating risks and establish market incentives; improving transparency for market actors and consumers; deepening expertise and technical skills, and enhancing stability and commitment to optimal long-run policy based on competition and consumer welfare (Jacobs, 2001: 1).

Formal independence

Independence criteria	Status of the NTRA
Formal status, mission and responsibility	Independent
Formal independence from the parent organisation	Independent
Competencies and independent decision-making	Independent
Financial and organisational autonomy	Independent

Checklist of formal regulatory independence

		Weight	Coding
Status of the agency head		0.20	
Term of office	fixed term under 4 years or at the discretion of the appointer		0.20
Who appoints the agency head?	one or two ministers		0.00
Dismissal	there are no specific provisions for dismissal		0.33
May the agency head hold other offices in government?	no		1.00
Is the appointment renewable?	yes, more than once		0.00
Is independence a formal requirement for the appointment	Yes		1.00
Total			2.53
Status of the members of the management board		0.20	
Term of office	fixed term under 4 years or at the discretion of the appointer		0.20
Who appoints the members of the management board?	one or two ministers		0.00
Dismissal	there are no specific provisions for dismissal		0.33
May the members of the management board hold other offices in government?	no specific provisions		0.00
Is the appointment renewable?	yes, more than once		0.00
Is independence a formal requirement for the appointment	no		0.00
Total			0.53

Relationship with government and parliament			0.20
Is the independence of the agency formally stated?	yes		1.00
What are the formal obligations of the agency vis-à-vis the government?	there are no formal obligations		1.00
What are the formal obligations of the agency vis-à-vis the parliament?	there are no formal obligations		1.00
Which body, other than a court, can overturn the decisions of the agency where the latter has exclusive competence?	no body		1.00
Total			4.00
Financial and organisational autonomy			0.20
What is the source of the agency's budget?	both the government and fees levied on the regulated industry		0.50
How is the budget controlled?	by the agency		1.00
Which body decides on the agency's internal organisation?	the agency		1.00
Which body is in charge of the agency's personnel policy (hiring and firing staff, deciding on its allocation and composition)?	the agency		1.00
Regulatory competencies	the agency only		1.00
Total			4.50

ⁱ For more information see Better Regulation Task Force (2003).

ⁱⁱ A wide range of enforcement strategies is available to regulators, ranging from command-and-control on the one hand to many voluntary, cooperative, and self steering strategies such as voluntary codes, self-regulation, charters, co-regulation, covenants, and negotiated agreements on the other hand. Recently, such voluntary approaches have become increasingly popular tools to enforce regulations, and their use has permeated worldwide. The reasons for this include: the limits of command-and-control regulation; the need to fill the vacuum left by the retreat of the state, and the interest of industry itself in seeking a flexible, cost-effective and more autonomous regulations (Gunningham, 2002: 51).

ⁱⁱⁱ Regulatory capture is said to occur in one or more of the following circumstances: when the regulated interest control regulation and the regulatory agency; when the regulated parties succeed in coordinating the regulatory body's objectives with their activities; when the regulated party manages to neutralize or insure non-performance or mediocre performance by regulators; when the regulated party succeeds in co-opting the regulators into seeing things from their own perspective, and thus giving them the regulation they want, and when the basic structure of the reward system leads neither venal nor incompetent regulators inevitably to a community of interests with the regulated party (Mitnick, 1980).

^{iv} Some of these advantages have been identified by the better regulation task force including: more consistency of decision-making; long term strategic decisions; more transparency and better accountability; more trust between regulators and regulatees, and freedom from political interference.

^v As Jacobs (2003) notes independent regulators in sectors characterised by a mix of competitive and natural monopoly activities replace the traditional combination of policy, regulation, ownership, and promotion tasks inside line ministries.