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TRADE & INDUSTRIAL POLICY STRATEGIES

Economic regulation of network industries

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TIPS
TRADE & INDUSTRIAL POLICY STRATEGIES

List of Abbreviations

DME	Department of Minerals and Energy
ECA	Electronic Communications Act
EU	European Union
FERC	Federal Energy Regulatory Commission
ICASA	Independent Communication Authority of South Africa
IEA	International Energy Agency
IPP	Independent Power Producer
NER	National Electricity Regulator
NERSA	National Energy Regulator
NMPP	New Multi Products Pipeline
PPA	Power Purchase Agreement
SOE	State-Owned Enterprises
UK	United Kingdom

1 Introduction

South Africa is in its infancy regarding independent economic regulation of network utilities. Although economic regulation of public utilities have been exercised in South Africa for a number of years (usually by the line Government Department), the establishment of *independent* economic regulation had only emerged a little more than ten years ago.

Changes are already occurring in the regulatory scene with more independent regulatory entities developing, e.g. moving away from an electricity regulator to an independent energy regulator, the development of a ports regulator and changes in the regulation of telecommunications. There has been a move to more convergence for certain sectors. Overall, regulators have however developed pretty much in silos.

The purpose of this paper is to re-establish the rationale and principles of sound economic regulation of network industries and to highlight the importance of some principles, for example political independence. It will also provide a brief overview of the differences in terms of regulatory principles among current economic regulators in South Africa.

2 Why economic regulation?

It is relevant to firstly re-establish again why there is a need for economic regulation of network utilities. The International Energy Agency (IEA) (2003) states that historically countries developed their network utilities through state-owned enterprises (SOEs) mainly because it was considered to be an efficient way to centrally plan and manage these developments and to ensure that the goods and services are delivered to the public. These utilities also consisted of certain characteristics that made it presumably 'unavoidable' for the state to intervene, e.g. natural monopoly elements, requirement for huge sunk investments and the universal service issue. However, during the 1980s the SOE model came under increasing pressure because of inter alia globalization and a view that there should be greater reliance on market forces rather than state interventions. The view was that the state's focus should be on setting the policy framework while the actual operation of the particular activity should be left to the private sector and market forces.

It is perhaps relevant to ask the question at this stage as to whether network utilities really are of such importance that it warrants so much attention. The answer is a definite yes. Network utilities (water, electricity, gas, petroleum pipelines, telecommunications and transportation) are of crucial importance for economic growth and national competitiveness. A case in point is the huge cost to the South African economy due to the recent power failures.

In the context of specifically developing countries big financial investments need to take place and there is therefore a need to attract private investment in the infrastructure industries since government need to focus on priority public needs and can not fund all of these investments. These network industries usually exhibit two characteristics. Firstly, they provide a distribution, transmission, or transport service through a network of cables, pipes or other facilities which tend to enjoy such large scale economies as to become natural monopolies. Secondly, since the service they provide is often regarded as an 'essential' input to other industries, the efficiency of utilities has a widespread impact on the efficiency of other firms.

The United States (US) deregulated some of its network industries (airlines and railways), however the Federal Energy Regulatory Commission (FERC) continues to regulate interstate electricity, gas and petroleum pipelines, the United Kingdom (UK) privatized (and regulated) its network industries and the European Union (EU) issued stronger gas and electricity directives in 2003, replacing the original weaker directives of 1998. Similarly with many transition and developing countries Kessides (2004) reports that between 1990 and 2001 (mainly because of debt and fiscal challenges, but also because of weak performance in these industries) these countries took steps in the direction of privatization of network industries. Other contributing factors to a drive towards privatization were the damage caused by mismanagement of public enterprises, unsustainable price controls and related to previous factors were the drain on state funds that took away funds from social priorities. An example of the debt burden is that in Argentina between 1980 – 1984 and 1995 – 1998 public infrastructure investment as a share of GDP dropped from 3.1% to 0.2% in Argentina, from 5% to 2% in Bolivia, from 3.7% to 0.6% in Brazil, from 3.1% to 1.7% in Chile, from 2.5% to 0.4% in Mexico and from 2% to 0.6% in Peru (Kessides, 2004).

The following figure shows that Latin America has led the developing region in terms of private investment in infrastructure:

Table 1: Latin America and the Caribbean has led developing regions in private investment in infrastructure, 1990 – 2001

Developing regions	Private investment
Latin America and the Caribbean	$361 billion
East Asia and the Pacific	$211 billion
Europe and Central Asia	$97 billion
South Asia	$40 billion
Sub-Sahara Africa	$23 billion
Middle East and North Africa	$23 billion
TOTAL PRIVATE INVESTMENT	$754 billion (2001 US$ billion)

Source: Kessides (Figure 1.1, 2004: 34)

The main reason for the difference in private investment can be attributed to the difference in regulatory reforms that took place, e.g. in Latin America reform was focused on privatization and Independent Power Producers (IPPs) (in electricity for example), whereas in African countries the focus was more on maintaining national state ownership while opening the market through power purchase agreements (PPAs) and IPPs (in electricity) (Jamasb, 2002). It is interesting to note that South Africa is not alone in its current investment challenges as Kessides (2004) reports that many transition and developing countries have recently been characterized by underinvestment, under pricing and low operational and financial performance with regard to network utilities. Interesting to note is that Sub-Saharan Africa's total private investment of $23 billion pales against Eskom's capital requirement of R3 trillion

over the next 25 years. Add to this the requirements for water, telecommunications, transport etc. and the desperate need to attract private capital for infrastructure investment is obvious.

Just as obvious is the need to establish a level playing field in a sector where competition and private investment need to take place to facilitate economic growth and where there is a large incumbent service provider. This is normally assumed to come naturally with competition. This level playing field needs to ensure that competitors have fair access to network facilities that are controlled by incumbent service providers. Economic regulation should provide the right investment incentives to market participants and should protect consumers from monopoly abuse.

Regulation tends to vary from a light-handed or hands-off approach to one characterized by detailed and onerous constraints on regulated activities. The light-handed approach, e.g. New Zealand, relies mainly on competition law and anti-trust institutions to address anti-competitive behaviour in an ex post manner. More detailed regulation, as in the US, UK and Argentina, use more explicit mechanisms to reinforce competition law through regulating the behaviour of natural monopolies, including pricing and handling of network access as well as financial and operational performance.

Since the 1960s however, the economics of regulation literature has focused on circumstances where 'regulatory failure' may be the found, i.e. where the regulation of markets might reduce rather than increase economic welfare. This is a point that is sometimes forgotten as the assumption normally is that when a regulator is created all the problems will be solved which is definitely not the case. Parker et al. (2000) refers here to issues such as the importance of the institutional context to the processes and outcomes of any regulatory regime; the fact that regulation is associated with information asymmetries; the risk for investors that investment in a regulated environment is subject to a threat of hold up leading to under-investment; the risk of regulatory capture; the importance of an effective and efficient regulatory system meaning that the regulator should do what is set out by policy and should do it at the least cost; and the notion that competition is superior to economic regulation and should be preferred. Economic regulation after all attempts to simulate a competitive environment, but it can do so only in a 'second best' way because competitive markets generate superior knowledge of consumer demands and producer supply costs

Since 1990 the World Bank has encouraged privatisation, deregulation and liberalization of national economies. However opposing views focused on the limits to free markets of incomplete information, inadequate markets and unworkable institutions – conditions particularly likely to apply in less developed countries. It is therefore important to take into consideration that there is not a "one size fits all' solution in terms of regulation.

Regulators have existed from early on in South Africa, e.g. the Electricity Control Board. However, the global trend of reducing the role of the Government in network industries has also lead to new developments in regulation in South Africa. In South Africa, particularly, the levels of market dominance by incumbents are high. Traditionally government undertook the functions of sector operation and regulation but there has been a general notion of moving the responsibility for sector operation towards the private sector which has lead to

an increased focus on independent regulatory oversight. Particular emphasis is now placed on regulation which protects consumers, attracts investors and enables government to achieve its policy objectives.

To date the evidence suggests that the effects of current regulatory reforms in developing countries are debatable. There seems to be serious errors in the sequencing of reforms, which have had widespread and significantly negative impacts, especially on the poor. Where privatisation has been undertaken in a hurry, under international pressure, and in the absence of good regulatory controls and competent institutions, as in Russia for example, the result has been the enrichment of a small elite, a flood of capital out of the country, rapid industrial decline, damage to social institutions and an enormous increase in the numbers of people living in poverty. In contrast China, where the development of a market economy has been both gradual and accompanied by strong state support for market-based regulatory reform, has enjoyed well above average growth and a reduction in poverty levels (Prokopenko, 2000).

3 Establishment of a regulator

In establishing a regulator it is perhaps in hindsight that the importance of designing these institutions in a co-ordinated fashion comes to the fore.

In establishing a regulator certain key decisions need to be made, firstly regarding the type of regulator, secondly regarding the breadth of the regulatory umbrella (e.g. industry regulator/sector regulator/multi-sector regulator) and thirdly regarding the principles according to which the regulator will be created.

In order to attract private investment government needs to set a clear policy environment with clear rules (through a clear and unambiguous legal framework that is in line with the general sector specific policy objectives of government). Because of the nature of network industries it is the norm to establish an independent regulator mainly for the following reasons: Investors need to be assured that the rules won't change from one election to another and that decisions are not taken based on political considerations. In effect they need to be assured that they will be able to recover their investment and that they will earn a return that is in line with the risk that they are taking. This is difficult in an environment where a large SOE is also operating. Liberalisation will be very challenging unless a level playing field for all players are created. As long as the perception exist that SOEs have political power investors will be wary to invest.

The decisions that government therefore needs to take in establishing a regulator need to firstly consider the type of regulator, e.g. government agency, semi-independent or independent.

If competition in the sector is important then the design of the regulator is of crucial importance. If the regulatory design is not appropriate the incumbent operators will have market power that will have an inhibiting effect on inter alia market entry, investment and customer choice.

3.1 Type of regulator

A network utility can be managed in various ways, but the following are the three broad forms that exist:

- Public ownership – ministerial agency. This was historically the case where the nature of these utilities have caused it to be of a public ownership nature, i.e. owned by the public and managed by government for the public. In this case government is the owner and the regulator. The Department of Minerals and Energy (DME) is an example of a ministerial agency that regulates the Petroleum Products Act;

- Public or private ownership, where a semi-independent economic regulator can be created. This means that the regulator has some independence from government, but the minister can overturn decisions of the regulator, e.g. the previous National Electricity Regulator (NER) that regulated the electricity industry.

- Public or private ownership with an independent economic regulator, where only the courts can overturn decisions of the regulator. An example here is the National Energy Regulator that regulates the energy sector.

How does a government decide what form of regulator to establish? In the case of public ownership of a utility and where government has made the decision that it will invest in the industry and that it will control the industry no competition and private investment is envisaged. In this case a ministerial regulatory agency or semi-independent regulator is appropriate. In the case where government decides that it wants to facilitate investment and promote competition it needs to establish an independent regulator to regulate the natural monopoly elements of the relevant utility. An independent regulator will set potential investors' minds at ease that government for example will not have a change of heart after a year or two that might put their investment at risk. Network utilities involve huge investments and investors are very concerned about any perceived risk. An independent regulator should of course not be a 'loose cannon' and therefore must be accountable in terms of the law.

3.2 How important is the breadth of regulatory coverage?

Without going into an analysis of the advantages and disadvantages of each typically the following kinds of regulators can be found:

- Industry regulators. This occurs where regulators are established for every industry, e.g. a regulator that only regulates electricity and another regulator regulating gas (e.g. in Latin America and the South African Ports Regulator) is also an example.

- Sector regulators. This occurs where regulators are established by combining the different industries in each sector, e.g. a telecommunications regulator (includes telecommunications and broadcasting) and an energy regulator (includes electricity, gas and petroleum). Examples of these can be found in the USA, Canada, EU and South Africa (National Energy Regulator).

- Multi-sector regulator. This occurs where a regulator is established that include all the relevant sectors, e.g. telecommunications, energy, water and transport. Examples are Jamaica and Latvia.

South Africa has followed more the sector regulatory route and in some cases an industry regulatory route. However, it might be useful to think about these structures for a moment and consider the following questions:

- Are there any human resource limitations with regard to regulatory experience and qualifications in South Africa?
- What are the costs involved in having a large number of regulators compared to a single over-arching multi-sector regulator? Costs are necessarily involved in economic regulation, namely the cost of the actual regulation (internal to the regulator) and the regulatory compliance cost (licensed activities).
- Do decisions that affect one industry also have a potential effect on other regulated network industries? And if so would it not have been more efficient if these regulators were part of a multi-sector regulator?
- Could the challenge of consistency in regulatory approaches in for example attracting investment possibly be better dealt with in a single entity? A lack of consistency in regulatory approaches can lead to economic distortions.
- What is the compliance, resource and time related costs involved for regulated entities in following different rules and formats to comply with different regulators?
- A challenge has always been the timidness of consumers to participate in regulatory processes. However, the question may be as to how practical it is for a consumer to participate when regulators have different approaches and are far apart in terms of location? It might just not be worthwhile in terms of time and cost for a consumer to get involved.
- Could it be that there might be an improvement in effectiveness and efficiency if regulators are combined and there is subsequently more consistency in approaches?
- A concern may be that some industries are smaller than others and may not receive sufficient industry focus in a single multi-sector regulator. However, is that really a valid concern? It is not really valid in the writer's opinion since the framework can be drawn up as such as to ensure that all industries are covered sufficiently.
- What is the potential for regulatory capture in a multi-sector regulator compared to an industry specific regulator?
- Is the power to resist political interference not stronger in a multi-sector regulator compared to an industry/sector specific regulator?

It is not the intention of this paper to answer the above questions. However, it will become apparent later in the paper that there are differences in approaches among regulators in South Africa. The question in retrospect is whether the way regulators were designed was appropriate for the country in terms of its unique characteristics and constraints.

In South Africa, the main reason for the creation of independent sectoral economic regulators such as National Energy Regulator of SA (NERSA), the Independent Communication Authority of SA (ICASA) and the National Ports Regulator was to promote investment and competition. These regulators were established

in silos that led to the creation of regulators that are different in organizational structure, conduct and legislation.

3.3 What is good regulation?

A regulatory system should be both effective and efficient otherwise it defeats the whole purpose. Effective regulation means that the regulator implements the principles as was established by parliament by legislation and not according to the whims of individuals in government. However, the regulator is not a 'loose canon' and must take into account policy as approved by cabinet. Efficient regulation should implement the goals in the relevant policies and legislation at minimum economic cost.

Ideally the regulator should facilitate competition. However, this is not always possible and where competition is not effective the danger is that economic regulation can distort the market. Information asymmetry can cause incorrect decisions by regulators. They might promote one type of efficiency for example without realizing the consequences as they may not have sufficient information.

Where there is no effective competition economic regulation needs to provide monopolies with proper ***incentives*** so that they aspire to the objectives of meeting long-term customer needs through efficient investment and operations. The regulator must have a large degree of ***commitment*** and ***stability*** which is mainly derived from legitimate processes that require openness, transparency, consistency and accountability.

The ***independence (with accountability)*** of a regulatory body is one of the most important characteristics of a regulator for ensuring long-term consumer interests and efficient business decisions. The moment a potential investor suspect some risk such as political pressure (which would increase the cost of capital) it will defeat the purpose of having a regulator. Good regulatory governance is critical, .e.g. a regulator must not be able to be dismissed or deprived of funds simply for making politically unpopular decisions.

What are the main characteristics of a "sensible" regulatory system? This includes both the instruments that are chosen to achieve the desired result and the ways in which the chosen instruments are used (DFID, 2004). Despite significant differences in the approach to regulation, a number of general principles are commonly regarded as desirable in regulatory practice (International Energy Agency, 2003), namely:

- The rule of law is the foundation of a regulatory system as it ensures the legitimacy of regulation.
- Transparency is essential for regulatory quality. Public consultation and accessibility are two key instruments for improving transparency.
- Neutrality means that the regulations should be neutral to all market players without favoring one or another group (non-discrimination).
- Predictability and consistency: Rulings and judgments issued by the regulatory authority should be consistent and should have a reasonable degree of predictability based on previous rulings in similar cases.
- Independence of the regulator from the regulated companies is a prerequisite for any sound regulatory system. Independence from government and political actors in the implementation of legislated policy may be desirable

to ensure long-term stability of regulatory policies. This independence is critical in countries where there is public ownership of network utilities. Independence also implies that the regulator needs to be provided with the adequate resources, skills and information. In transition and developing countries the challenge of independence has not always been appreciated which have lead to regulators struggling to be independent as was contemplated by the IEA for example.

- Accountability: Independence of the regulator must not be confused with a lack of accountability. A regulator must be held accountable for its actions and must be subject to adequate efficiency controls.

The above principles correspond largely with regulatory principles that were developed by the African Forum for Utility Regulators (2003).

4 South African situation

Various kinds of economic regulators for network industries currently exist in South Africa. Across the transport, water, energy and telecommunications sectors economic regulators are divergent. Typically the general form of economic regulators varies from being a government agency (e.g. water regulator and Regulating Committee for Aviation), a semi-independent regulator (e.g. previous NER) or an independent regulator (e.g. NERSA, ICASA and the National Ports Regulator).

There are differences among regulators in terms of the clarity and application of sound regulatory principles. Also, it is apparent that a rail regulator (rail industry falls under the Department of Transport) is being considered and that water regulation (currently falls under the Department of Water Affairs and Forestry) may also undergo some changes in the long term.

All legislation that pertains to network industries does include the necessity of competition in the sectors and the involvement of the private sector. It is with regard to this that conflicts of interest have arisen between government and regulators as government entities are dominant in many of the network industries.

The following are some thoughts on existing regulators' performance.

4.1 Policy and regulatory coherence

An aspect that is applicable in the South African context and that also is raised with regard to other developing countries relates to policy and regulatory coherence. Policy and regulatory coherence firstly mean that all ministries and regulators have clearly defined roles and responsibilities and that a decision about a certain issue is always made by a specific minister or regulator. Secondly, conflicting requirements between legislation and comments by government officials also creates incoherence. It is here that regulatory governance comes in and this has generally been a contentious issue, especially between government and regulators – which exacerbate the problem for other stakeholders, as roles are not clearly outlined, making it difficult for them to assess who to approach under which circumstances.

In some cases stakeholders approach both the government and the regulator, which adds to the cost of regulation and to the resource burden of the company. A good example here is the difficulty private investors experienced in gaining access to the electricity market in South Africa. The market for IPPs have not been a particularly

welcoming one – potential investors were unsure of which avenues to follow and were accustomed to being sent from pillar to post. Future market structures and opportunities for IPPs are also uncertain although not as much as previously (even though Eskom as the incumbent player does play a dominant role in decision-making regarding future players/competitors). Since IPPs have to invest considerable resources, especially in terms of capital and time, in projects in this arena, policy uncertainty could contribute substantial risk.

Regulatory failure has occurred in the South African context specifically where regulatory coherence is concerned. An example of regulatory failure in this regard can be found in the telecommunications sector especially. All in all the perception exist that ICASA has been a weak regulator and generally ineffective. There has been a tendency to maintain a high degree of government involvement in the operation of the telecommunications industry for example. The Minister of Communication has a structural conflict of interest due to on one hand her responsibility for state assets and shareholder value in the telecommunications sector and on the other hand policy and regulation. Conflicting or vague policy statements are a further barrier to competition.

Another example of not so much regulatory failure but a lack of timeous regulatory action is the electricity capacity shortages that South Africa was experiencing in the recent past. The answer to this question probably relates to the nature of the market and to capacity planning, which up to now has been the responsibility of three main role players – government, the regulator and Eskom. At the time that electricity generation capacity was diminishing and investment decisions on new capacity were needed the then NER failed to sound the alarm (hard enough) then or later. In Johannesburg there were major outages during 2004 and yet it was public pressure, rather than regulatory action, that finally forced the local authority to upgrade its system. Regulatory transparency has increased dramatically since the NERSA Act has been in force.

4.2 Regulatory independence

Independence does not mean that the regulator can do what it wants but it does mean that it can make binding decisions within a legal and policy framework of limitations and requirements without fear or favour. What is interesting to note in the case of independent regulators in the South African context is that different “levels” of independence exist. Three so-called “independent” economic regulators have been established. NERSA is probably the most independent regulator as NERSA’s decisions can only be overturned by the High Court. With regard to regulation of the Ports and Telecommunications sectors the Minister has certain powers that can be used to “interfere” in the work of the regulator, which might create a sense of uncertainty for role players. In the case for example of Telecommunications the Minister can take a strong role in regulatory affairs through the issuing of policy directives, appointment of Councillors and the budget. The relevant Electronic Communications Act (ECA) is complex. It leaves scope for the Minister to “interfere” in the licensing process through policy directives that can have a negative influence on the promotion of competition. Although the Act is a big improvement from previous legislation in depoliticising the process ICASA still lacks the resources to achieve for example licensing in a timely fashion. The regulator also has a difficult role since the department of communications and of public enterprises remain major players which make independent regulation difficult. In the case of the National Ports Regulator the Regulator may issue directives subject to the concurrence of the Minister on issues such as the forms to be used when complaints or appeals are submitted, the time periods for the former and filing of prices charged by providers

other than the NPA. So, although the Ports Regulator is supposed to be independent it still needs the concurrence of the Minister for certain issues.

What seems to be forgotten sometimes is that an independent regulator is of great advantage to a sector Minister because the Minister can set the regulatory framework and leave it to the independent regulator to administer the framework and if there are any court cases it's the regulator who gets tied up in them.

4.3 Regulatory certainty

A very important concept that South African regulators also lack relates to the need for regulatory certainty and predictability through explained regulatory decisions. It is accepted that government should decide the form of regulation to be put in place, but once such a decision has been taken, it is important that regulation happens in a transparent manner – role players need certainty and clarity.

It must be remembered that in all these network utilities investment will be critical, it has to happen timeously and the private sector has an important role to play since the state is unable to finance all infrastructure development alone. The role of economic regulators will be important and natural monopolies will have to be curbed. However, it is clear that SOEs will continue to be a considerable force in the development of infrastructure. Independent regulators thus have an important role to play in creating an investor-friendly climate for *all* potential investors while still protecting captive customers.

Advocates for SOEs use the argument that SOEs will *always* have lower prices because the state is the shareholder and they will always be able to deliver affordable energy to the poor. Large infrastructure projects are relatively easy to roll out but it will cost a huge amount of money. Delivering affordable energy to the poor is always a challenge – and it is important that this is where government should focus its attention. Since large expansion projects require large investments, government should use the private sector to invest and in doing so alleviate the pressure on itself. Government should facilitate this by making the process transparent and easily accessible for potential private investors. SOEs would benefit from competition induced efficiency if there were private involvement.

4.4 Competition where possible and regulation where necessary

It is important that competition should occur where possible and regulation where necessary. Government should not engage in regulation but should continuously monitor the policy environment as well as the implementation thereof and in a transparent and consultative way amend policy where the objectives are not being achieved – preferably through a regulatory impact assessment which is an evidence-based, problem-solving technique. It is important to remember competition (liberalisation) does not mean privatisation per se but allows private investment into the sector. It is thus important from a regulator's perspective to ensure a level playing field between SOEs and private entities.

4.5 Regulatory capacity

Another crucial aspect in the South African context relates to the lack of human regulatory capacity on all levels. It is important to remember that regulatory capacity is a concern in many developing countries and not only in South Africa. Regulation has only been happening in the past ten years and therefore is still developing. It is therefore worthwhile to reconsider the regulatory model (mushrooming of different institutions) and whether the way it is designed currently is appropriate. Familiarity with only the technical aspects of the network industries is not sufficient to be a good regulator.

4.6 Regulatory transparency

Regulatory transparency has overall shown an improvement especially in the case of NERSA, e.g. regulatory decisions on pipeline investment and tariffs. However, it is also in the case of NERSA where an interesting example exists of attempts by government to interfere in the operation of the Regulator. A private company, iPayipi, applied for a license for a pipeline in competition to Transnet Pipelines' New Multi Products Pipeline (NMPP). The application was opposed by Government and the DME issued a statement that it was not the government's intention to allow private sector players to operate in the petroleum pipelines sector. A DME official stated that "NERSA is there to regulate prices, not to regulate who the participants are". These statements were in direct contradiction to the Petroleum Pipelines Act and the DME issued a weak retraction the following day. A "Business Day" newspaper editorial stated that this "is an important test case that raises questions not only about the scope for private sector investment in SA, but also about the independence and integrity of the regulator itself" (Business Day, 2007). This pipeline application was approved by NERSA in the end with a clear decision containing reasons for the decision.

4.7 Regulatory structure

Regulator structures vary across all the network industries. Some regulators consist of part-time members (National Ports Regulator – 9 part-time members), some of a combination of full-time and part-time members (NERSA – 4 full-time and 5 part-time members) and some of full-time members (ICASA – 9 full-time councillors including CEO) only. In the case of ICASA the structure is perceived as costly and cumbersome. The number and role of full-time Councillors is perceived as a problem. On the other hand to only have part-time members also create a challenge, since all these members have other employment and can never pay their full attention to regulatory matters. Regulatory matters are generally of a complex nature. In the case of the Regulating Committee (for Aviation) 5 part-time members are appointed. It is basically a government agency since the Minister of Transport also has to approve its decisions. The different structures illustrate the point that regulators have been established in silos.

There appears to be an assumption in SA that regulators should be structured in the form of a company with a board that passes judgment on work done by the regulatory staff. This is mostly an inefficient way of conducting regulation. The regulator should be directly involved with the assistance of the staff. It should be remembered that it is not the staff that leads and the regulator that only puts a rubber stamp on decisions. In the end it is the regulator members that are legally accountable.

5 Conclusion

A fact is that regulation is not always appreciated as the complex task that it really is. It can be construed as a 'game', a 'balancing act' for which great wisdom, knowledge and experience are needed. Economic regulatory (consisting of regulatory governance and the regulatory substance) capacity is limited in South Africa, especially in view of new legislation and the creation of independent regulators.

Although a multi-sector regulator in the context of South Africa makes sense, it is also true that regulators for the different sectors can be different. However, compliance with the basic regulatory principles should be non-negotiable, e.g. transparency, explained decisions and rule of law. All kinds of models can work, but what is important is that there should be consistency in regulatory approaches.

South Africa is in need of improved service delivery, competitive prices and investment in its network industries such as energy, telecommunications, transport and water. The service delivery issue has been highlighted by the current electricity crises. So, there is a huge task for regulators to be proactive in ensuring that a conducive investment climate is created.

The last comment is that it is not easy to determine how effective and efficient South African regulators have been in general. There should be some healthy pressure put on regulators so that there is a realization of their accountability. In the end regulation is a cost to the economy and in order to justify it they should be effective, efficient and there should be some positive impact on South African industry performance, growth and investment.

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