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The Future of Economic Regulation in Scotland: an outsider's view

Luis Correia da Silva, Oxera

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[1] The views expressed in this paper are those of the author, and not those of Oxera. I am grateful for comments from the participants of the David Hume Institute round table held in Edinburgh on 8th April 2013, as well as my colleagues Robin Noble, Colin McNaughton and Fod Barnes.

Foreword

It has been a long haul, but worthy of all the effort. These latest research papers mark the final stage in our series of four 'conversations' on issues related to possible constitutional change in Scotland. We are most grateful to the ESRC for providing support for this venture; and to Professor Charlie Jeffery and colleagues at the Department for Government at the University of Edinburgh for being our partners in the venture. Along the way we have had a great deal of support from many people, including a number of DHI Trustees. Their input is much appreciated; and I must also acknowledge the major assistance provided by Catriona Laing and Joan Orr in the DHI office. Catriona has nobly worked with me on organising all the round tables and seminars and Joan has had responsibility for all the publications. The operation would not have been feasible without them.

To remind you all, each 'conversation' has followed a similar format. We have sought draft papers from a number of key and informed parties, to be discussed at a private round table. Then the papers have been re-visited and discussed at a full DHI seminar, with a main speaker and contributions to an extended Q&A/discussion session from all authors. Both round table and seminars were held, as is usual for our events, at the Royal Society of Edinburgh in George Street. The papers have been published on our web site just in advance of our seminars. Generally there has also been significant media interest.

The first 'conversation' covered issues related to macro-economic policies and financial regulation. Then we moved on to welfare and social security matters before tackling the energy sector – in co-operation with the Scottish Council for Development and Industry. Our final topic, for which we have worked closely with the Scottish Government, has been competition policy and regulation. The papers for this last conversation are now being published.

For conversation 4 the round table was held at the RSE on 8th April, ably chaired by DHI Trustee Kyla Brand – who also happens to run the Office for Fair Trading office in Edinburgh but was operating in a personal capacity. (I should also note that for over 8 years I have been a member of the Competition Commission, but my involvement was as DHI Director.) Papers were prepared by Martin Cave and Jon Stern – on the over-arching background and key issues; David Simpson (ex DHI Trustee and ex WICS board member) on the positive experience in the water sector; Iain Osborne based upon his experience as a senior regulator across five different sectors and at the EU, UK and devolved levels; Luis Correia da Silva of OXERA – providing an informed outsider's view; the Netherlands Authority for Consumers & Markets; and David Saunders the Chief Executive of the Competition Commission specifically on competition matters. We owe a huge debt to them all.

It is my firm view that this set of papers, and the various discussions which have taken place, will be of major assistance to the Scottish Government as it considers the best way forward for competition policy and regulation in the event of a yes vote at the referendum next year; and also in the event of a no vote when there might well be scope for beneficial change and possibly further devolution of responsibilities. The whole series has been a great success and this last venture in particular should be seen as making a major positive and constructive contribution to informed decision-making and policy formation.

Nevertheless it is my eternal duty, while Director, to note that while the DHI welcomes the contribution made to debates of this nature, we have no view and as a charity can have no view on the policies considered. It is now for others to make best use of the fruit of our labours.

Jeremy A Peat
Director
David Hume Institute

Background and context

The David Hume Institute has asked Luis Correia da Silva, from Oxera, to provide a perspective on the key issues for consideration if Scotland is given full responsibility for economic and competition regulation. This report gives an overview of these issues.[2]

Introduction

Some sectors of the economy (or parts of a sector, such as a network) are supplied by only one firm, or a very small number of firms. In markets where supply is tied to a particular geographic location (eg, water supply), even when there are multiple suppliers in the market, for any particular purchase only one supplier may be available. This is typically because the industry has high fixed costs in order to supply one customer, but low variable costs in order to supply more customers (or supply the same customers with more of the product/service). This means that where multiple suppliers exist, the total costs that customers would have to cover would be significantly higher than the (efficient) costs if there was only one (or very few) suppliers. In many cases this means that the supply of these goods or services requires high, fixed, capital costs supporting long-lived assets. Making the right investment decisions, and the efficiency of financing these investments, is therefore often critical to the provision of these services at low prices.

However, market dynamics naturally result in one, or very few, suppliers.[3] Where this is the case, the one, or very few, suppliers can act largely independently of their customers, and potentially exploit them by raising prices and providing a low-quality product/service.

As a result, sectors with these economic characteristics are generally subject to some form of economic regulation that requires or encourages them to deliver outcomes that are comparable to those that might arise if there were greater competition in the sector. Outcomes desired (and sometimes achieved) could include lower prices, better service levels, and higher levels of investment.[4] However, the design of economic regulations so that they are effective in producing the desired outcomes is not straightforward, and countries have been trying to perfect regulation for a number of years (with some, but still limited, success).

This paper focuses on two features of economic regulation that are intended to achieve similar outcomes to those that would be achieved from competition—giving customers more say in what is produced (ie, what they have to pay for), and achieving effective and efficient investment in (expensive) long-term assets. These features are:

- the recent regulatory development to increase the level of customer involvement in decisions about price levels or future service-level improvements;

[2] The Scottish government recently started the discussion about the future of economic and competition regulation in an independent Scotland as part of a wider discussion about the constitutional future of Scotland. This is set out in Scottish Government (2013), 'Economic and competition regulation in an independent Scotland', February. In most cases, economic regulation is carried out by sector regulators at the UK level. The exception is the economic regulation of the Scottish water industry, which has its own regulator (the Water Industry Commission for Scotland, WICS). Competition regulation is also undertaken at the UK level, where responsibilities are divided between the Office of Fair Trading (OFT) and the Competition Commission (soon to be merged into the new Competition Markets Authority). The Competition Commission and the Competition Appeal Tribunal provide additional checks on the system.

[3] For example, this is often the case in network industries (which have high costs related to laying pipes, etc), where duplication of the network would lead to increased costs for consumers.

[4] Sectors that have only a small number of firms are called natural monopoly sectors. Recognised market failures from a natural monopoly sector include higher prices, lower levels of service, and underinvestment.

– having a well-established regulatory regime that provides a stable and predictable environment in order to encourage greater investment in infrastructure assets.

If Scotland is to have responsibility for economic regulation through either further devolution or independence, it has the opportunity to: (i) learn from experience from elsewhere; and (ii) be at the forefront of recent developments in regulation. This paper therefore considers the two features above from this perspective.

Developments in customer involvement

All economic regulators have legal duties that they must follow when setting price limits. A duty that is common across all economic regulators, in some form, is that they must set price limits that: (i) allow the industry to meet its obligations at an efficient cost; and (ii) ensure that the company is financeable over the period. Regulators, however, have discretion over the methodology that they use to set price limits, and to meet their legal duties.

Although most regulators have a general requirement that regulated prices approximate efficiently incurred costs, this overall requirement leaves a significant amount of discretion about when costs are recovered and the distribution of the recovery of costs from different services and/or groups of customers. Different methodologies for setting prices may all meet the overall requirement over a long time period, but they can produce dissimilar patterns of prices. For example, where the capital investment is lumpy and demand is expected to grow over time (eg, broadband services), the adoption of a rather obscure approach of 'economic depreciation' will tend to even out prices (as experienced by customers) through time. On the other hand, straight-line depreciation would produce higher prices at the start of the service, and lower prices towards the end of the life of the investment.

Similar obscure differences in methodologies can change the way volume discounts are applied, which in turn can change the distribution of the recovery costs from low-use (often poorer) and high-use customers. Economic theory (or at least good theory) is remarkably poor at indicating which of these methodologies produces generally 'better' or 'worse' outcomes (from a consumer perspective). Consequently, these choices require judgement as well as technical mastery.

Regulators also find that they have discretion within the limitations of setting cost-based prices where large new investment is required. If the overall level of current investment sets the future service levels that will be possible, regulators are setting (or at least approving) choices between future high-price/high-quality or lower-price/lower-quality services. The economic characteristics of these sectors may well mean that, although there is a choice of price/quality outcomes in the future, one particular trade-off position has to be chosen for *all* customers.

These types of decisions really require a different sort of legitimacy from the traditional view that economic regulation (and, indeed, the application of competition law) is a purely technical activity, applying scientific certainty to achieve a universally agreed outcome.

Partly as a result of this, a number of regulators have reviewed (or are in the process of reviewing) the methodologies that they use to set price limits.[5]

[5] Ofgem (2013), 'Strategy decision for the RIIO-ED1 electricity distribution price control: overview', March. Ofwat (2013), 'Setting price controls for 2015-20 – framework and approach', January.

A common trend across all of the economic regulators is that they have increased, or are trying to increase, the level of customer involvement in regulatory decision-making. This is typically in decisions about current levels of investment and service levels, which then have an impact on future price levels and the position of the price/quality trade-off that has to be applied to all customers.

A common rationale for this trend is to:

- **understand the priorities of customers.** Economic regulators make decisions that affect the levels of service that customers receive. Customer involvement is intended as a way to understand the service improvements that customers consider most important and are willing to pay for;[6]

- **improve the legitimacy of the regulated sector.** Regulated sectors typically attract attention about bill increases, or the financial returns earned. Customer involvement can potentially help to improve customers' understanding about why bill increases, or financial returns, may be necessary—for example, to finance a large-scale CAPEX programme. It may therefore 'de-risk' the price determination from a political perspective.

The following table summarises the approaches that regulators have typically adopted in this area. It also sets out the extent to which customer representatives can influence the process.

[6] See, for example, Littlechild, S. (2010), 'A customer consultation process for the water and sewerage sectors', May.

Table 1 Summary of customer engagement

Regulator	Sector	Price review	Approach	Level of influence of customers
CAA	Aviation	Q5 price control review in 2008 and 2009, covering the period to 2014	Airlines engage with the airport to agree on certain inputs to the regulatory determination—eg, CAPEX	Decisions on certain aspects
Ofgem	Energy (gas & electricity)	RIIO-T1 and RIIO-GD1 (2012), covering the period 2013–21	Consumer Challenge Group (CCG) provides advice to Ofgem on key inputs to the price control settlement	Advisory
Ofwat	Water & sewerage	Price review in 2014 (PR14), covering the period 2015–20	Each company has its own CCG that provides advice to Ofwat on the strength of the company business plan, and the engagement process	Advisory
WICS	Water & sewerage	SRC 2015–21	A Customer Forum has been set up to engage with Scottish Water on all areas of the price determination	Potentially decision-making

Note: Quinquennium 5 (Q5) is the Civil Aviation Authority's (CAA) fifth airport price control review. RIIO-T1 was the first transmission price control review under Ofgem's Revenue = incentives + innovation + outputs (RIIO) methodology. RIIO-GD1 was Ofgem's first gas distribution price control under the RIIO methodology. PR14 is Ofwat's price review in 2014 (PR14). SRC 2015–21 is WICS's Strategic Review of Charges covering the period from 2015 to 2021.
Source: Civil Aviation Authority (2005), 'Airport regulation: the process for constructive engagement', May. Civil Aviation Authority (2011), 'Extending the current price regulation at Heathrow and Gatwick airports, The CAA's Decision', March. Ofgem (2013), 'Strategy decision for the RIIO-ED1 electricity distribution price control: overview', March. Ofwat (2013), 'Setting price controls for 2015-20 – framework and approach', January.

The apparent politicisation of regulatory decisions is unlikely to diminish in the medium term. If consumer engagement is to be used to provide legitimacy and to actually arrive at outcomes that are generally in the customers' interests, the design of consumer representation structures will become more important. This is particularly relevant when these bodies have potential decision-making powers and/or the interests of different consumer groups diverge. As a result there are likely to be a number of questions to consider with respect to customer representation if Scotland has full responsibility for economic regulation. These include the following.

Who negotiates with the regulated company? Customer representatives could be drawn from several sectors. For example, a Customer Forum, the model used for customer engagement in the Scottish water industry, could be adapted and used as appropriate.[7]

[7] The Customer Forum was a customer group that was set up to engage with Scottish Water on key aspects of the price determination. It was created through an agreement between WICS, Consumer Focus Scotland and Scottish Water.

What is the remit of the customer representative, and how much power does it have? This depends on the legitimacy of the customer representative (ie, the extent to which it is seen to represent the interests of all/most customers), and the ability of the people involved in the customer engagement process to grasp the key issues and negotiate. It will be important to review the outcomes of customer engagement in the UK (Ofgem), England and Wales (Ofwat), and Scotland (WICS), to understand what does and does not work well.

What is the role of the economic regulator? This depends on how much power the customer representative is given. If the customer representative is allowed to agree on price limits and service levels, the role of the regulator could change to one where they facilitate the engagement process and act as an arbiter in the event that agreement cannot be reached. Otherwise, the regulator could take a much more active role in the price-setting process (ie, similar to Ofwat, Ofgem, etc).[8]

It is clear that some form of customer engagement will be desirable in Scotland (eg, for reasons of legitimacy, as discussed above). Scotland has the opportunity to review what works well from the experience of economic regulation and customer engagement in other sectors, and adopt best practice.

A stable environment for investment

As discussed above, it is typically network companies that are subject to economic regulation, given the cost structure of such industries. Since investment in such industries is typically in assets that have long asset lives (such as a network of pipes), investors require a commitment that they will be able to earn a fair return over the lifetime of that investment.

For this reason, the most common model of economic regulation in the UK (price-cap regulation) has evolved to become much more explicit (or at least formal) in relation to the long-term recovery of the costs of long-term assets. As originally conceived, the price-cap regulation of BT was seen as temporary, and hence the price control was seen mainly as a way of dealing with short-term incentives to operational efficiency. As it became clear that price regulation was, even in telecommunications, going to be for the long term, and that incentives to efficient long-term investment were critical to the economy, the regulatory structure has evolved (albeit in a piecemeal way) so that investors are given more certainty (or at least the illusion of more certainty) about how current investment will be rewarded in ten or more years' time. Various sorts of commitment are now contained in the regulatory structure of different sectors, which are designed to avoid (or reduce) the risk that future regulatory price decisions stop investors recovering the costs of efficiently incurred past investments.

These mechanisms are, however, largely untested; fear of a negative outcome at some future date can have a chilling effect on investors' willingness to commit significant sums to capital projects that are required to ensure the efficient functioning of the whole economy—eg, a high-speed ubiquitous broadband telecommunications network; nuclear power stations; transmission infrastructure to connect up renewable electricity generation; even transport infrastructure where private sector capital is being used.

[8] Ofgem (2013), 'Strategy decision for the RIIO-ED1 electricity distribution price control: overview', March. Ofwat (2013), 'Setting price controls for 2015-20 – framework and approach', January.

From an economy-wide perspective, this may be the most serious issue facing the existing regulatory structure, and if Scotland needs to create a new system of utility regulation, this is an area where getting it right (or at least better) should deliver considerable advantages to the Scottish economy. Although, it should also be noted that this is not a trivial task, and that the still quite widespread response in regulatory circles that 'whatever the question, more competition is the answer' is economically not very helpful.

Getting this right is important, as it:

- provides a stable environment to encourage large-scale investment (the investment requirements are often large in such industries);

- ensures that companies can access finance for that investment at a low cost of capital (all else being equal, the lower the cost of capital, the lower the bills that customers pay).[9]

For example, the credit rating agencies, which provide ratings of a company's credit quality, place considerable weight on the stability of the regulatory framework.[10]

- Moody's rating methodology for water companies shows that the regulatory environment and asset ownership model accounts for 40% of its overall rating.[11]

- Standard & Poor's notes that 'an established track record of regulation is important. We assign little benefit to an unseasoned regulatory system, as it is susceptible to change.'[12]

The importance of stability and regulatory consistency was recently demonstrated in Northern Ireland for Phoenix Gas (PNGL). The economic regulator, The Northern Ireland Authority for Utility Regulation (NAIUR), proposed to reduce the regulatory capital value in order to recover historical outperformance. This was overturned by the Competition Commission. The reason given was that an ex post adjustment to the regulatory capital value could have increased the investors' perception of regulatory risk and could have had implications for PNGL's future network expansion. In its initial findings, the Competition Commission concluded that:

> On balance, and taking into account the relevant statutory duties, we consider that there is not a sufficiently strong case for implementing [the NIAUR's] proposed [total regulatory value] adjustment. This is because the size of the annual impact on most customers (particularly domestic customers) is small, whereas the adverse effects on future customers of any deterrent effect on network expansion could be very large.[13]

The Competition Commission therefore recognised the adverse consequences that may have arisen from changing the regulatory approach 'after the fact'—ie, ex post. Other regulators and competition authorities have similarly recognised the importance of regulatory consistency in decision-making, and that adverse consequences may arise from ex post intervention.

[9] This reduces the regulatory risk of investing in such industries, which, all else being equal would mean that investors require a lower cost of capital to provide finance to the industry for investment.
[10] Credit ratings are important, as they affect the availability and cost of debt.
[11] Moody's (2009), 'Rating methodology – Global regulated water utilities', December.
[12] Standard & Poor's (2004), 'The role of regulation and Government in rating European corporate securitisations', October, p. 2.
[13] Competition Commission (2012), 'Phoenix Natural Gas Limited Price Determination – A reference under Article 15 of the Gas (Northern Ireland) Order 1996', provisional determination, August 6th, p. 12.

One example relates to a decision by Ofcom. In 2005, Ofcom changed the way it valued BT's copper access network assets. The change meant that BT was allowed to recover more than its costs for the network assets that were deployed prior to August 1997 (when the accounting change came into force). However, Ofcom chose not to claw back any of the associated over-recovery from BT, on the basis that this could set a precedent of ex post appropriation that could, in turn, affect investment incentives:

> Ofcom remains of the view that it would be inappropriate to propose to 'clawback' any over-recovery that may have crystallised in the period up to the implementation of the results of this review. Ofcom believes that any attempt to do so would be retrospective, in contravention of Ofcom's regulatory principles, and could be perceived as opportunistic. Further, such retrospective action would set a precedent leading to investment uncertainty signalling the potential for ex-post expropriation of returns legitimately earned under the agreed regulatory framework.[14]

Similarly the OFT, in its infrastructure review, considered evidence on the pricing power of the M6 toll road, and the contract for the M6 toll:

> We considered evidence from existing toll operators, including the M6 toll road. We found that the operator does have pricing power, in spite of clear alternative routes for drivers. This is likely to reflect inelastic demand of drivers with a high willingness to pay to avoid congestion on the alternative routes. The original contract for the M6 toll explicitly allowed the operator to raise charges, and we consider that ex post intervention would risk chilling future investment.[15]

The OFT found that reopening the contract terms for the M6 toll, in light of the pricing power of the M6 toll, would have adverse consequences for future investment.

These examples are interesting, not only because they show how regulators (including the Competition Commission) view this problem, but they also throw light on why decisions that *undermine* regulatory stability are attractive. If, for example, the operators of the M6 toll road are, in the particular outcome that occurs, apparently earning revenues well in excess of their costs, the political incentive to deliver lower prices to (in this case) motorists is likely to be strong. Similarly, where the specific outturn results in over-recovery of costs in, say, nuclear power generation or universal high-speed broadband, delivering immediately lower prices to consumers is going to be attractive to both regulators and politicians. However, the impact on investors' willingness to make future investments is likely to be seriously negatively affected, which, in the longer term, is unlikely to be beneficial for consumers, or the economy more generally.

The implication is that the stability and predictability of the regulatory framework is something worth paying for. This is because the stability of the regulatory framework may affect the availability of external capital in the future, which is needed to finance future investment. The potential impact for future investment appears to be the main rationale for the regulator, or the competition authority, not intervening in the above examples.

[14] Ofcom (2005), 'Valuing copper access – Final statement', August 18th, p. 17, para 4.6.
[15] Office of Fair Trading (2010), 'Infrastructure ownership and control stock-take: final report', December, p. 8.

However, and it is a significant limitation, there are going to be future outcomes where, politically, it will not be possible for the regulator (or, indeed, the politicians) to refrain from taking some ex post action. This may occur when extreme outcomes, which were thought to be unlikely at the time the investments were being made, actually occur. In addition, long-term stability in regulatory approaches is only going to be acceptable to customers if the regulator is, and is seen to be, competent in setting the appropriate terms for investors at the time that investments are made. This is quite a tall order; it requires regulators to be prepared to contemplate (and make decisions based on) unlikely outcomes, and to ensure that they have the expertise to make long-term, but probabilistic, predictions.

Unfortunately, much of the development of regulation has concentrated on increasing the complexity (under the guise of increasing 'accuracy') of dealing with immediate, short-run issues, rather than putting in place longer-term approximate, but stable, conditions to encourage long-term investments.

So, a key question is what an economic regulator in Scotland could do to ensure that the regulatory framework is stable, transparent and predictable (at least in relation to the recovery of past investment costs). Two things that a regulator can do to move towards such an outcome are as follows.

– **Define the regulator's approach to long-term price-setting where there are long-lived assets in the statute, or in the specific company licence**

For example, a licence could set out the economic regulator's approach to this aspect of price regulation, which could reduce regulatory risk. One way to do this would be for the licence to include a commitment to allow an appropriate return on all investment that is efficiently incurred at the time the investment is made (ie, without the benefit of hindsight), to ensure that the company can finance its functions. Indeed, this is supported in the academic literature, where Levy and Spiller (1996) argue that the credibility of UK utility regulators stems from the use of licences as a 'technology of commitment.'[16] Appropriately selected and clearly defined licence conditions should therefore provide investors with some confidence that the regulator will be consistent over time.

– **Adopt a (more) consistent approach over time**

The regulator must adopt a consistent approach in the decisions that it makes, to give investors some ability to predict the nature of the decisions that they will be subject to in, say, 20 years' time. One approach is to establish a track record in relation to regulatory decision-making, but that takes time and, in reality, may still be seen as a relatively weak constraint on future behaviour when there are strong political pressures that 'something must be done'. So the key question is: how can a Scottish regulator(s) quickly establish a stable regulatory environment that is conducive to long-term efficient capital investment? Part of the solution could involve building on the regulatory structures already in place in Scotland (eg, WICS, or Ofgem's Scotland office), which already have such a track record for regulatory decision-making. Another part is to establish a robust political settlement with respect to long-term investment, within which the regulators can operate.

[16] Levy, B. and Spiller, P.T. (1996), 'A framework for resolving the regulatory problem', in B. Levy and P.T. Spiller (eds), *Regulations, Institutions, and Commitment: Comparative Studies of Telecommunications*, Cambridge: Cambridge University Press.

To be effective this has to be realistic, both economically and politically, so that the framework and the regulatory settlement have support across the stakeholder groups, and through time. Simplistic structures that promise undeliverable outcomes will not only not deliver what is promised, but what they actually deliver is also likely to be unnecessarily expensive. An outcome that helps no-one, apart from perhaps lawyers and regulatory economists.

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