

# The Pros and Cons of Competition in/by the Public Sector

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## Preface

“The Pros and Cons of Competition in/by the Public Sector” is the eighth in the Swedish Competition Authority’s Pros and Cons series. This volume collects the four papers that formed the base of an inspiring and well-attended conference, which was held in Stockholm on November 13. Authors from around the world presented their work and senior officials from competition authorities acted as discussants. The lively debate and many appreciative comments I heard at the conference is testimony of the high professional standard of the contributions and of their relevance and timeliness for competition policy.

I would like to express my sincere gratitude to all contributing authors, to the discussants and to the moderator of the conference, Mattias Ganslandt. At the Swedish Competition Authority, Arvid Fredenberg has managed the project and acted as editor; he deserves due credit. The same goes for Bengt Kopp, who assisted with the organization of the conference and in producing this conference volume.

Stockholm, November 2009

Dan Sjöblom  
*Director-General*

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## The contributors

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**D. Daniel Sokol** is an Assistant Professor at the University Of Florida Levin College of Law. He is the author of the recent book "Competition law and policy in Latin America" (with Eleanor Fox) and of a number of articles and book chapters. Professor Sokol serves as a non-governmental advisor to the International Competition Network. He is a member of the Advisory Board of the Center for Competition Policy at the Catholic University of Chile, a member of the Executive Board in the American Association of Law Schools Antitrust and Trade Regulation Section, and Vice Chair for Membership of the ABA Antitrust. He has provided capacity building and technical assistance to antitrust agencies and utilities regulators both in-country and through the University of Florida Public Utilities Research Center biannual training done in conjunction with the World

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**Hans W. Friederiszick** was appointed managing director of ESMT Competition Analysis in October 2006 and the following year in July he joined ESMT's full-time faculty as a Faculty Professional. Before joining ESMT he was part of the Chief Economist Team of DG COMP (since 2003) which is responsible for the economic assessment of antitrust, merger and state aid cases.

His interests lie in the fields of applied microeconomics and industrial organization, with a specialization in competition economics. Beside his involvement in merger and antitrust cases he was during his stay at the Commission one of the main contributors to the development of what is called the "refined economic approach in the field of State aid," including contributions to the SAAP and the recently adopted R&D&I Guidelines. He worked on several important state aid cases, on IPR related merger and antitrust cases as well as on cartel cases. Recent publications address inter alia economic methods for cartel detection, the economics of state aid control and the more economic approach in competition policy. He is also author of a study on the effectiveness of State aid measures, carried out 2003 for DG ECFIN. Before working for the Commission he was partner of an economic consulting firm, where he gained a wide experience in the management and implementation of academic research and consulting projects. He has prepared studies for the German Federal Ministry of Economics and Labor (BMWA) and the European Commission, and has written numerous reports for industrial associations and private enterprises. Hans W. Friederiszick was awarded his doctorate from the PhD program "Applied Microeconomics," offered jointly by the Free University and the Humboldt University Berlin. His dissertation was titled "Competition and Firm Cooperation."

**Jakub Kałużny** joined ESMT Competition Analysis in February 2009. He has extensive experience applying both empirical and theoretical economic analysis to antitrust litigation and regulatory matters. His areas of expertise include evaluation of the competitive effects of mergers, monopolization and vertical restraints, both in the United States and Europe. His analyses cover a wide range of industries including consumer goods, healthcare, agriculture, chemicals and information technology.

Jakub holds a Ph.D. degree from Northwestern University, where he specialized in fields of industrial organization and economic theory. Prior to joining ESMT Competition Analysis he worked as a Senior Consultant in the Antitrust Practice and Environmental and Product Liability Practice of Bates White, an economic consulting firm based in Washington, D.C. Earlier, he was a Lecturer in the Statistics Department at Northwestern University.

**Michael Steinicke** is Professor of Public Procurement law and market law at the University of Southern Denmark. He has written or edited 14 books and numerous articles in Danish or English. The issues he has dealt with has been different public procurement topics, the interface between public procurement and competition law, state aid, contract law and municipality law, Danish and European competition law, public companies in a EU perspective, general EU law and certain aspects of WTO law. He started at the University of Southern Denmark in 1998 after finishing his masters degree in commercial law and economics and he received his ph.d. in 2001 based on a thesis on "The free movement of goods and public procurement". He became professor of law in 2004 and head of the law department from 2006. He has extensive experience as consultant for private companies, public authorities and law firms. He is currently affiliated as external legal council with the law firm Delacourdanía, which is one of the larger law firms in Denmark.

# 1 Introduction

*Arvid Fredenberg*

Public intervention in markets can often result in distortion of competition and act as a barrier to market entry and expansion. A key difference between private and public entities is that the latter cannot be declared bankrupt and public entities also benefit from being financed through tax funding. Consequently, they operate on the market under different conditions and their mere *presence* on the market give rise to inevitable market distortions; e.g. it acts as a disincentive to private undertakings to expand or establish themselves. This increases barriers to market expansion and entry. In order to address the competition issues that arise when the public sector competes with private undertakings on the open market, the Swedish Government recently proposed an amendment to the Swedish Competition Act. The Bill (2008/09:231) on public commercial activity which proposes new rules stipulating that the Stockholm District Court may prohibit:

- certain *conduct*, in the context of *offering goods or services*, by a municipality, county council, state or companies controlled by either of these bodies; or
- an *activity*, consisting of *offering goods or services*, from being carried out by municipalities, county councils or companies controlled by either of these bodies;
- ...if that conduct or activity
  - *distorts*, by object or effect, the conditions for effective competition on the market; or

- *impedes*, by object or effect, such competition from occurring or developing.

If adopted by the Swedish Parliament later this autumn, the new rules will be included in the Competition Act and come into force on 1 January 2010. Designing adequate competition law that in an easy way handles these issues is hard. Competition authorities are thus helped by a deeper knowledge of the effects of public interventions in markets. This volume is devoted to exploring the pros and cons of competition in or by the public sector.

In the first contribution, Gianni De Fraja from University of Leicester and University of Rome "Tor Vergata", explores the economics of mixed oligopoly. He studies the interaction between private and public agents in three different kinds of markets. Traditional goods markets, banking and welfare state services. It turns out that the results are not always what one might have thought. He goes on to argue that *"from a competition policy viewpoint the issue should be whether or not a firm's alleged anti-competitive behaviour is compatible with its objective function. It is only if it is incompatible that allegations of anti-competitive behaviour should be investigated and deterred."*

D. Daniel Sokol from University of Florida Levin College of Law makes two key observations, the first being that good corporate governance for state-owned enterprises can minimize bad management. The second that competition policy can reduce distortions of state-owned enterprises. He notes however that we lack empirical studies in order to verify the observations, which is a challenge for academia. He proposes that *"The next stage in research in the area of competition and corporate governance of state-owned enterprises is to undertake a full cross country comparison and to do so across a number of different types of state-owned enterprises, rather than in just one sector to examine all cases and determine how the law in practice matches the law on the books for both corporate and antitrust laws."*

In the third contribution, Hans W. Friederiszick and Jakub Kałużny from ESMT Competition Analysis, conduct a thought

experiment: considering public ownership as a form of state intervention and applying European state aid control principles. In doing so, they first note that the total welfare standard is used in state aid cases as opposed to the consumer welfare standard in competition law cases. Secondly, they ask whether public ownership is the best regulatory instrument. They conclude by stating some specific theories of harm that arise when it comes to state-owned enterprises.

In the final contribution, Michael Steinicke from University of Southern Denmark goes out on a search for the correct market price under state aid rules. The market price is needed to assess what constitutes state aid. He suggests looking at the public procurement rules as a way to finding an answer, but warns that *“It is important to keep in mind that public procurement has a role within the area of state aid law that is different from the role the procurement rules play in a “regular” purchasing context.”*

Taken together, the four contributions shed light on the issue of the pros and cons of competition in or by the public sector. Hopefully, this volume contributes towards a better understanding of the mechanisms through which such competition has an impact on markets – and towards a more effective enforcement of the competition rules.

## 2 Mixed Oligopoly: Old and New\*

*Gianni De Fraja*<sup>†</sup>

### 2.1 Introduction

Many industries and “sectors” of a modern economy display the interaction of private and public agents which forms the topic of this seminar. A first approximation classification identifies three broad types of situations, which beyond the *prima facie* similarity are however radically different in origin and nature.

- Traditional goods markets, such as cars, ships or steel manufacturers, or traditional insurers, and so on. A loose generalisation is that these markets started off as fully private markets, and some firms became public at a later stage, that is, they were nationalised. Unlike many of the public utilities, which were nationalised with a view to prevent monopoly suppliers of essential services from exploiting their monopoly power, and where, typically, the entire industry was taken over by the state sector, firms in these industries were nationalised to stop them from going bankrupt, which could have labour market, and other economic social and political

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negative consequences, and therefore, following nationalisation, operated in the same market as the firms which remained private.

- Recent dramatic financial events have brought about the creation of a totally new and utterly unexpected new sector where private and public organisation vie to supply the same customers: several banks in several OECD countries have been effectively nationalised. As history repeats itself, a model often cited is the partial nationalisation of three Swedish banks in the late 1980's (Forsta Sparbanken, Nordbanken, and Gota Bank, which led the government to own over a fifth of the country's banking assets for a brief period). The general consensus seems to be that this situation should be short lived, but given the importance of the sector, it is essential that economic theory provides some understanding of the effects of the interaction among state-owned agents and private suppliers.
- A third group of markets where public and private agents interact are those for goods associated with the welfare state, such as health, education, pension provision, social housing, and so on. These have a longer history of public involvement in provision, though this is far from exclusive. State schools were absent in Europe and in the US at the beginning of the nineteenth century, and widespread one hundred years later, though not necessarily free to all users, and private schools have continued to exist and prosper in most countries alongside public providers of educational services. In the 1880's, under Bismarck's Chancellorship, the German state began to provide accident, health and pension insurance. At the same time, other schemes, like those in Scandinavia, were based largely on the provision of benefits through mutualist arrangements, essentially private in nature. The National Health Service, created in Britain in 1948, nationalised the entire

provision of health care, and in the years that followed many other countries, with the notable absence of the US, followed the lead with substantial public sector involvement in health care provision.

In these situations, just like in any environment with different agents, interaction must obey some rules, and the role of a competition authority is to ensure that rules are obeyed. I argue in this paper that in order for the competition authority to assess the fairness of certain behaviours to ascertain whether or not rules have been broken, it is indispensable to know the objective functions of the agents in the market, and to understand the consequences of the interaction of agents with different objectives. The ownership of a firm or an agency will affect its objective, and different objectives will lead to different behaviours, which in turn might affect differently other firms or agencies in the industry.<sup>1</sup> However, there is nothing intrinsically “right” or “wrong” in having one objective or another. In particular, many agents, both public and private, pursue a different objective from profit maximisation. From a competition policy viewpoint the issue should be whether or not a firm’s alleged anti-competitive behaviour is compatible with its objective function. It is only if it is incompatible that allegations of anti-competitive behaviour should be investigated and deterred. Put differently, evidence of anti-competitive behaviour is not tantamount to evidence of anti-competitive intent; the latter is illegal, but the former is not, with the implication that an allegedly anticompetitive behaviour should be prosecuted only if is incompatible with the achievement of the objective function of the public entity in question.<sup>2</sup>

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<sup>1</sup>Note that, as a consequence of their interaction, a firm will in general prefer its competitors to have an objective function rather than another.

<sup>2</sup>A football example may clarify the situation. A mid-table team may field a team with many reserve players in the final game of the league for a variety

The paper explores the consequences of this argument in the three broad classes of situations illustrated above, and shows that, when private and public agents interact, differences in objective function between them will lead to differences in observed dimensions of performance, often in unexpected and counterintuitive ways.

The paper is organised as follows. Section 2 discusses the well established model of mixed oligopoly. Section 3 sketches a very simple and tentative analytical model for the analysis of the interaction between private and public banks. Section 4 discusses how the interaction between public and private provider of services funded by the state should be organised.

## **2.2 Traditional “Mixed Oligopoly” Theory**

Early theoretical interest in the interaction between public and private firms began in the 1980's, at the time when game theory was influencing the analysis of firms with market power. Just as with the interaction between profit maximising firms, counterintuitive results are often obtained. For example, De Fraja and Delbono (1989) showed that, if a public firm may wish to maximise industry welfare, its pursuit of this objective in interaction with private profit maxi-

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of reasons: if it does so because it has been promised a large payment by the opposition, which needs to win the game to clinch the championship, then the behaviour is illegal. If it does so because it wants to rest some of its first team players in view of the crucial mid-week cup game or because it wants to give some first team experience to its young promising academy players, then the behaviour is perfectly compatible with the spirit of the game. The behaviour may be the same — fielding a weak team — but the legality of the behaviour must be ascertained in relation to the objectives being pursued through that behaviour.

miser firms will lead it to obtain a greater profit than that obtained by its otherwise identical private competitors.

The archetypal model can be presented in a very simple case (based on Cremer et al 1989).

Consider the market for a homogenous good. The demand function is linear and can be normalised to

$$Q = 1 - p$$

where  $Q$  is the total quantity the consumers buy when the price is  $p$ . There are two firms, one private, one public. They both produce in condition of no fixed costs, and constant marginal and average cost. This is (normalised to) 0 for the private firm, and to  $c > 0$  for the public firm. The additional cost reflects the idea that the public firm is less efficient (I'll come to the possible causes for this later). The private firm is a profit-maximiser. The objective function of the public firm is instead the maximisation of the total surplus in the industry, given by the sum of the two firms' profit and the consumers' surplus, defined as the difference between the consumers' total willingness to pay for the quantity of the good they consume and what they actually pay for it. Firms compete in quantity that is they simultaneously and independently choose the quantity each supplies, and the price adjusts to clear the market.

Let  $q_s$  and  $q_p$  the quantity produced by the two firms, with subscript  $p$  and  $s$  mnemonics for "private" and "state-owned". The equilibrium in this market is "Cournot-Nash" namely, it is the simultaneous solution of the following two problems:

$$\max_{q_p} \pi_p = (1 - q_s - q_p)q_p \quad (1)$$

$$\max_{q_s} W = (1 - q_s - q_p)q_p + (1 - q_s - q_p - c)q_s + \frac{(q_s + q_p)^2}{2} \quad (2)$$

(1) is the profit obtained by the private firm. In (2), the first term is the private firms' profit, the second the state-owned firm's profit and

the last the consumers' surplus, measured by the area between the demand curve and the price. The solution, for  $c < \frac{1}{2}$  is

$$q_p = c$$

$$q_s = 1 - 2c$$

Which determines a price of  $c$ . This implies that the state firm produces a quantity such that the market price equals its marginal cost: in the absence of a private competitor, this corresponds exactly to the conditions for maximisation of welfare of a public firm operating in conditions on monopoly (derived long ago by Boiteux 1956). The public firm breaks even (its profit is 0) and the private firm makes a positive profit.<sup>3</sup>

Notice here the possibility of a perception of unfairness: if there were any fixed costs, the public firm would be unable (unlike its private counterpart) to cover them with a positive price-cost margin, and would incur losses which would then need to be funded by the taxpayer.

One drawback of the model is that it does not explain the difference in efficiency between the private and the public firms, but it assumes it exogenously. This appears *ad hoc* and unsatisfactory: what is the source of the different efficient level? In other words, why can't the public firm copy the technology used by the private firm? This higher slack (or X-inefficiency, Leibenstein 1966) in public firms is sometimes attributed to the fact that they enjoy a soft budget constraint, which allows them to survive even if they incur losses, and protects them from the rigorous discipline of a competitive

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<sup>3</sup>Theoretically, an intriguing feature of this equilibrium is that the two firms behave exactly as they would in a standard duopoly where they compete in price and the marginal cost of the inefficient firm is lower than the industry monopoly price.

environment. Public firms, it is claimed, are under pressure to increase employment (Boycko et al 1996), or give a low priority to ability in selecting their employees (Krueger 1990) for political reasons, and this increases their costs. As Vickers and Yarrow (1988) however point out, equally plausible are stories which can justify lower efficiency in a private firm. For example, in wage negotiations with a union, a private firm operating in a noncompetitive environment may also survive with some X-inefficiency, and may have weaker incentive to drive a hard wage bargain, as it does not obtain any additional benefit from building a reputation of toughness to the same extent that the government owner of the public firm would, given that the government will be involved in further wage negotiations with different unions.<sup>4</sup>

To endogenise cost differences suppose that the technology displays increasing returns to scale, at least beyond a certain level of output. To proceed formally, let each firm be able to produce output  $q$  at a cost of

$$c(q) = \frac{k}{2} c q^2.$$

Where  $c = 1$  for the private firm, and  $c \geq 1$ , for the public firm. Repeating the analysis carried out above for the linear technology, the two firms's output will be the simultaneous solution of the following problems:

$$\max_{q_p} (1 - q_s - q_p) q_p - \frac{k}{2} q_p^2.$$

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<sup>4</sup> Difference in efficiency between private and public agencies are attributed to the by Dewatripont et al (1999) to the nature of the objectives, ie whether they are specific or fuzzy and multiple. This tallies well with the observation that public agencies with a clearly specified objective tend to perform better.

$$\max_{q_s} (1 - q_s - q_p)q_p + (1 - q_s - q_p)q_s - \frac{k}{2}q_p^2 - \frac{ck}{2}q_s^2 + \frac{(q_s + q_p)^2}{2}.$$

Carrying out the optimisation one gets:

$$q_s = \frac{1 + k}{1 + k + 2ck + ck^2} \quad (3)$$

$$q_p = \frac{k}{1 + k + 2ck + ck^2} \quad (4)$$

which gives a price of

$$ck \frac{1 + k}{1 + k + 2ck + ck^2} \quad (5)$$

and the these profit levels for the two firms:

$$\pi_p = \frac{1}{2}c^2k^2 \frac{2 + k}{(1 + k + 2ck + ck^2)^2} \quad (6)$$

$$\pi_s = \frac{1}{2}ck \frac{(1 + k)^2}{(1 + k + 2ck + ck^2)^2} \quad (7)$$

The following are immediate consequences of (3)-(7).

**Corollary 1** *The public firm's marginal cost equals the market price.*

**Corollary 2** *For every value of  $c \geq 1$ , the public firm has a higher output, a higher marginal cost, and a higher average cost than the private firm.*

**Corollary 3** *If  $c \in \left[1, \frac{(1+k)^2}{k(2+k)}\right)$  then the public firm's profit is higher than the private firm's.*

According to Corollary 2, any observed higher costs in a public firm need not necessarily be caused by lower efficiency, but may happen even when the two firms used the same underlying technology ( $c = 1$ ) and simply be a consequence of the combination of the facts (i) that public firms produce more and (ii) that this technology has decreasing returns to scale. Corollary 3 extends the previous analysis. The public firm makes *more* profit for itself, even though its objective function is not the maximisation of its own profit. Welfare maximisation makes the public firm very keen to increase output: this leaves a smaller potential market to the private firm (that is a lower residual demand, than it would have if its competitor were another private profit maximising firm. Facing a smaller market, the private firm will restrict output: in the end, even though it can produce more cheaply than the public firm, the lower sales drive its profit below the public firms, unless the cost difference is very high.<sup>5</sup>

The intuition for this surprising result is in fact quite straightforward. It is a consequence solely of the oligopolistic interaction: in condition of monopoly, a public firm will produce to its break-even output level, forgoing monopoly profit in pursuit of lower prices, which are beneficial to consumers. In the presence of competitors, it behaves in the same way: because it benefits more than private firms from an increase in output, the public firm does produce more than the private firms. But because it does not need to produce as much as it would in monopoly condition, it earns the price mark-up over a greater output, even if the mark-up itself is lower, and it makes higher profits, even though it may produce less efficiently.<sup>6</sup> And

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<sup>5</sup>Note that both firms charge the same price. This is the consequence of the Cournot assumption that they supply identical goods. With product differentiation, public firms charge lower prices. For example Sapienza (2004) find this to be the in the banking market (more on which later).

<sup>6</sup>Of course that a firm which sets out to do something other than maximising profit, may end up making more profit than it would if it had

clearly it does not seem unreasonable for a public firm to try to maximise industry welfare, rather than its own profit. If one takes the view that pursuing an objective in line with the owners' wider goals should not be seen per se as an anticompetitive practice, then welfare maximisation should be a perfectly acceptable goal, just as it is for state schools to provide free education, or for state hospitals to provide free medical care, even though these behaviours also reduce the ability of private institutions to pursue their own objectives.

Notice the crucial role of the objective function: precisely because the public firm wants to maximise welfare, it needs to produce more: any other believable objective which would induce a public firm to increase output beyond what a profit maximiser would do would achieve the same effect. One typical example is the sustainment of employment in industries which are politically or socially considered deserving taxpayer support. A private profit-maximising competitor will be induced to reduce its own output and will therefore see its profit reduced as a consequence of a credible commitment by the public firm to pursue such objective.

### **2.3 An Instructive Very Simple Banking Story**

A likely development in the banking industry is that public ownership of banks will be a temporary phenomenon (eg Richardson 2009). Moreover, following the Swedish example, bad debts might be

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set out to maximise profit is a well known and understood fact in the presence of strategic interaction (Vickers 1985, which build on the seminal insight of Schelling 1960 shows that rewarding managers with a bonus depending on sales is consistent with profit maximisation).

allocated to portions of the banks intended to remain in public ownership for a longer period, with good loans assigned instead to parts of the company to be privatised as soon as possible as separate entities. In this case a strong asymmetry between private and public banks, in addition to their objective function, would remain. But the size of the public sector share and the likely time span of the current industry structure suggest that banking will indeed be a mixed oligopoly at least for a few years.<sup>7</sup> And so the study of a model of which provided insight into the interaction of private and public firms has more than academic interest.

The simple model contained in De Fraja and Iossa (2009), isolates the role of the objective function as the sole difference between public and private banks.

There are two banks and an entrepreneur. The entrepreneur has a project, which can be good or bad. Financing from one of the two banks is necessary for the project to be completed: with no funding the project is not carried out, and everyone's payoff is (normalised to) 0. The payoff to the entrepreneur is always non-negative, and so she wants to always carry out the project irrespective of the value.

The entrepreneur chooses one bank (randomly) and asks it for a loan to finance the project. If the loan requested is provided, the entrepreneur runs the project and the game ends. If funding for the project is refused, the entrepreneur goes to the other bank, and again asks it to finance the project. The project is run if it is financed by one bank, and the game ends.

If a project is completed then the profit to the bank is  $V_G > 0$ , if the project is good and  $V_B < 0$  if the project is bad. I assume that the expected value of the project is positive:

$$gV_G + (1-g)V_B > 0 \tag{8}$$

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<sup>7</sup> In many developing countries co-existence of public and private banks is a long term situation (Andrianova et al 2008).

where  $g$  is the prior probability that the project is good.

A bank can be competent or incompetent. A competent bank observes perfectly the quality of the project, whereas the incompetent bank has no information about it. We begin with the benchmark case where both banks are private, and aim to maximise their own profit.

It is easy to see that the competent bank has an easy choice to make: it finances the project if it is good and it does not if it is bad. The incompetent bank, on the other hand, has a more complicated problem, because it needs to maximise in conditions of uncertainty. For the sake of definiteness, I assume that the second bank knows whether funding for a project has been applied for and rejected. The formulae would be different in the opposite case, but conceptually the analysis would be similar.

**Proposition 1** (De Fraja and Iossa (2009)) *If both banks are private, then the first incompetent bank finances the project, the second does not.*

The intuition for this result is the following. Given the behaviour of the first bank, the second bank understands that the only possibility for the project to be refused finance is for it to be bad and for the first bank to be competent. It therefore knows that a rejected project is bad, and reject it itself. The first bank, on the other hand, simply maximises its expected profit, and because (8) holds, it finances the project if it is incompetent.

Now consider the case where one bank is public. As before, it seems natural to posit that the payoff of the private bank is its own profit, the payoff of the public bank is total industry profit, that is the sum of the profit of the private and the public bank (for the sake of simplicity let the profit of the entrepreneur be small, for example because she operate in a competitive market: a richer model, where the entrepreneur's profit is non-negligible, would give similar qualitative results). Given the very secondary role of the second bank in Proposition 1, the following is not surprising.

**Proposition 2** (De Fraja and Iossa (2009)) *Let the first bank approached be the private one. Then the first incompetent bank finances the project, the second never does.*

In Propositions 1 and 2, the probability that a good project is financed is 1, and the probability that a bad project is financed is  $(1-\gamma)$ . A summary measure of the quality of the organisation of the industry can be given with reference to the following magnitude:

$$gV_G + (1-g)(1-\gamma)V_B \quad (9)$$

The above can be defined as “private oligopoly value of the overall project”, and is a different concept from the LHS of (8), in that it embodies the quality of the bank decision making (and so it increases with  $g$ ). Ideally, of course one would wish to finance only good projects, which would give a “private oligopoly value of the overall project” of  $gV_G$ .

Interestingly, it turns out that the behaviour of the public bank when it is approached first is different depending on the “private oligopoly value of the overall project”, (9). To the extent that the value of the project correlates with the business cycle, we can roughly say that if the economy is in an expansion (recession) phase, the “private oligopoly value of the overall project” is high (low). High is defined for parameter combinations such that

$$(1-\gamma)gV_G + (1-g)V_B \geq 0 \quad (10)$$

Notice that a project can have a positive expected value (that is (8) holds), and a negative “private oligopoly value of the overall project” (that is (10) is violated). Consider the case in which the first bank approached is the public one. It is useful to distinguish two cases.

**Proposition 3** (De Fraja and Iossa (2009)) *Let the first bank approached be the public one, and let (10) be violated (recession). Then neither incompetent bank finances the project.*

Recall that if the first bank is private and incompetent, then it finances the project (Propositions 1 and 2). So Proposition 3 says that the presence of the public bank reduces the probability of financing of a project. In particular, a good project is accepted if either bank is competent, that is with probability  $1 - (1 - \gamma)^2$ . A bad project is never accepted. The value of the overall project in this case is:

$$g(1 - (1 - \gamma)^2)V_G \quad (11)$$

Note that (11) is greater than (9) (recall we are in the “recession” case): the presence of the public bank improves the payoff to society because all bad projects are rejected, even if this comes at the cost of rejecting a good project with some positive probability. Since in recession there are few good project rejecting a fraction of them is less costly than accepting some bad projects. The public bank, in a recession, behaves more conservatively than a private bank would in identical circumstances. Note that this stands at odds with what is advocated that public banks should try to increase their lending. Intuitively, the public bank’s payoff improves when the second bank is competent, because only good projects are accepted: if the public bank accepted every project (as an incompetent private counterpart would), then the second bank would play no role: it would reject the project if it is asked for finance, and does not consider it if the first bank has financed it. But to the extent that the public bank benefits from the second bank being competent, if the public bank is incompetent it should “delegate” the financing decision to the second firm.

Note that when the second bank is incompetent, it does not finance the project. This is unlike the case where it chooses first,

because the fact that it receives the project conveys some information, and affects its belief that the project is good.

**Proposition 4** (De Fraja and Iossa (2009)) *Let the first bank approached be the public one, and let (10) hold (expansion). There are three equilibria. In one equilibrium the first incompetent bank finances the project, the second incompetent bank (if called to) does not; in a second equilibrium, the first incompetent bank does not finance the project, the second incompetent bank (if called to) does finance it. In a third equilibrium, both incompetent banks finance the project with probability*

$$\frac{1}{1-\gamma+z}, \text{ where } z < -\frac{1}{1-\gamma} \text{ is } \frac{g}{1-g} \frac{V_G}{V_B}.$$

In each of the three equilibria, the behaviour of both banks is independent of its ownership.

The dry technical description of the equilibria given in the statement invites a more illustrative discussion. Consider the equilibrium where the first incompetent public bank funds the project. This equilibrium is exactly the same as the one with two private banks: the second (private) bank never finances the project, because it knows that the first bank (either public or private) only rejects bad proposals. The public bank is however more conservative than the private bank, that is it has a higher threshold for funding a project, because it internalises the possibility that it is incompetent.

Consider the converse equilibrium: here the incompetent public bank does not fund the project: because it is possible that the private bank is in fact competent, it lets it decide whether the project should be funded: given the move, the private bank is not pessimist, it understand the strategy followed by the public bank, and knows that a refusal to fund could be due *either* to the bank being competent and knowing that the project is bad, *or* to the bank being incompetent and following its equilibrium strategy. Given the relative probability of these events, it will fund the project if the (10) holds. In both these equilibria, the project is accepted with probability 1 if it is good, and

is funded with probability  $(1 - \gamma)$  if it is bad, exactly the same as in a private oligopoly. In the mixed strategy equilibrium, on the other hand, a good project is funded with probability  $\left(1 - \left(\frac{\gamma}{1+z}\right)^2\right) g$ , and a bad project is funded with probability  $\left(1 - \left(\frac{\gamma z}{1+z}\right)^2\right) (1 - g)$ .

While potentially intriguing, mixed strategy equilibria are in this case not fully intuitive, and can be ruled out by an economics argument: the public bank can choose one of the two equilibria as a focal point (eg by announcing that it will be conservative in its lending). The exact details of the equilibrium aside, this very simple model illustrates again the simple point that the objective function of the public firm affects the behaviour and payoff of all agents in the industry.

## 2.4 Public-Private Competition in the Welfare State

The industries considered above are traditionally private: in contemporary western societies, public provision in these industries is either a temporary response to an emergency situation, or considered justified on the basis of some special characteristics of the industry where public suppliers operate.

In other sectors of economic activity, public involvement has a wider political acceptance, and is widespread, albeit with remarkable variation from sector to sector and from country to country.

In order to understand this wide variety of modes of public intervention, it is important to separate conceptually *provision* and *funding*, even though they are often confused by political and media commentators.

1. The service is supplied to final consumers by a state agency, which has the monopoly right to supply.
2. The service is supplied by private profit maximising contractors, either by multiple competing private suppliers, or in

monopoly conditions, for example following a competitive auction for the right to be the *ex-post* sole supplier among *ex-ante* competing private suppliers. Typically the buyer is a public agency.

3. The service is supplied by multiple suppliers, not necessarily all private profit maximisers: the price paid by consumers is independent of the type of ownership of the supplier.
4. As in 3, but with the price instead depending on the type of ownership of the supplier.

Essentially all state activities can be classified in one of the above categories. These are some examples.

1. Police protection, national security, defence, crime prosecution.
2. Practically all public procurement, from road building to ancillary services (cleaning hospital, re-cycling, school meals) to PFI in the building and running of prisons, hospitals, schools, and so on.
3. Medical care where patients can use private or public hospitals at the same cost, typically 0; some school voucher systems (where the voucher covers the full cost).
4. Pension provision, housing, and schools (in the absence of a full voucher) are among the examples of this case.

Notice that the pattern of provision varies greatly among these services. Police protection and defence are publicly provided in practically every country. The administration of justice is publicly provided, whereas its necessary counterpart, legal representation, is typically privately provided, even when it is publicly financed

through legal aid. On the other hand, there are many services, health and education among them, which are publicly provided in some countries, almost entirely private in others, and partly publicly partly privately provided in yet other countries.<sup>8</sup>

A common thread among all of these services identified by De Fraja (2008) is the role of human capital in the quality of provision. This is very important for these sectors, and I argue in that paper that the ability of workers in these sectors to deliver a quality much is strongly affected by the interaction with fellow workers while at work: “a doctor will find it easier to perform an operation well or to make a correct diagnosis if her assistants are well trained or if she can readily obtain a second opinion from an experienced colleague. Police officers, teachers, and the military all find the performance of their duties easier [...] if those they cooperate with in the pursuit of criminals, in the classroom, and in the battle field are ‘good colleagues’, dedicated, capable and well trained” (De Fraja 2008, p 965). The analysis in that paper highlights that the nature of the human capital externality affects the incentives of public and private providers in a different way, because of their different objectives,

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<sup>8</sup> Note also how the mode of provision has switched quite radically in the course of history: education was originally provided by private tutors and private schools, to be extensively nationalised as it became compulsory; in many western countries the trend now seems to be reversing towards more private provision (while keeping public funding). In Renaissance Italy defence was provided privately: cities did not maintain defence capability, but hired small mercenary armies if and when they needed to engage in wars: the first “modern” publicly financed, publicly provided armies appeared in Europe around the time of the thirty years war (1618-48); before them, armies were feudal in nature, private properties of the local lords. Another example is fire protection: nowadays is publicly provided and funded almost everywhere. In 1791 London, it was provided by three private “Insurance” companies: the first public fire brigade in Britain was established in Edinburgh in as recently as 1824.

and so the two modes of provision may differ in the cost of training, and so the amount of training they provide.<sup>9</sup>

Here I want to argue that the role of training has important implications for the acceptability, from a competition authority's viewpoint, of tax financed subsidies to public suppliers of these services.

In traditional markets public firms must compete "fairly" with private firms. Thus, for example, it is to be assumed that article 87 of the EU treaty, prohibiting "any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods" applies to state-owned firms as well, effectively constraining the possibility of subsidising the price at which a public firm supplies its customers. Certainly, a state owned chain of hotels which were to provide below cost services would need to be in exceptional circumstances if it were to avoid challenges by private hoteliers.

And yet private schools, universities or hospitals do not complain about state-owned subsidised suppliers.<sup>10</sup> It is difficult to see that the fact that private schools and hospitals are not-for-profit organisations should be a sufficient reason to justify the difference in treatment: after all a private school will have an objective function, and the difficulty it encounters in recruiting students must inevitably make more difficult for it to achieve its objectives.

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<sup>9</sup> And moreover that potentially small changes in the technology of provision could flick the "better" mode of provision from private to public and vice versa, which could be a possible explanation of the differences from country to country and across time in the same country.

<sup>10</sup> While there are proposals completely to abolish every public intervention into the provision of education, they originate from the right wing fringe of US academic institutions (Lott 1987, McGee 1996), and have never been remotely considered by any US administration, let alone European ones.

I argue here that these differences in the degree of opposition to public subsidies to certain goods for consumers who purchase them from public entities can be explained with reference to the human capital training content of their provision.

To begin to form an intuition for this, let us consider the following goods and services, grouped according to the role and importance of training:

- primary and secondary education, health, tertiary education;
- police protection, defence;
- pension provision and social housing;
- “traditional” state owned enterprises (eg car manufacturers or utilities).

In the first group of services, human capital is a very important input in production. In practice, the training necessary to create human capital is nowadays overwhelmingly provided by public suppliers. Many doctors, after university, train and practice in public hospitals, and, their specialisation completed, may then work in private hospitals. This career path implies that private suppliers do not need to incur the cost of training, a cost which can be substantial, while still enjoying the benefit. Similarly, teachers’ training programmes and classroom experience take place mainly in publicly owned schools: it is comparatively rare for teachers to spend their junior years in a private school to move to the state sector for senior jobs; in academia many doctoral students receive a subsidy from governments to study at state universities, and may then go to work for private universities.

In the second group of services, human capital is also very important, and again it is provided chiefly by public sector organisations. As in the first group, there is a considerable spill over from public to private agencies: many airline pilots trained as air-force

pilots, and many security guards and consultants are ex-army or ex-police officers. The symmetric career move, from private to public sector providers, is much rarer. But, if human capital side is common to private and public providers, the difference with the services in the first group is on the demand side: the public sector entity operates in a situation of (typically legal) monopoly and therefore the taxpayer's contribution to the cost of their activity does not directly affect private suppliers.

In the third and the fourth groups of services, human capital is a relatively small component of the cost of provision. This might be because the degree of standardisation is quite high or because "on-the-job-training" is less important. Moreover, casual observation suggests that the flow of human capital to and from the private and public sector is not as strongly asymmetric as for the services in the first and second groups.

Theoretically, this identifies a potential externality bestowed by public organisations, and to a different, but no less important, extent by public financing of human capital: a substantial portion of human capital training in health and education is financed by the state sector through university funding, and another important portion of training is acquired on-the-job, by teachers, doctors, nurses and so on who spend some of the working life in state schools and hospitals. Of course there are some workers who join or re-join the public sector after spending some time working for, and accumulating valuable human capital in, the private sector: this is less frequent, and, considering the fact that medical and teacher training is carried out almost exclusively in public hospitals<sup>11</sup> and schools the balance is likely to tip heavily towards the externality going from the public sector to the private sector.

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<sup>11</sup> US medical schools at private universities are an exception: the cost, however, is carried out by students themselves both in private and in public medical schools.

So in these markets the negative output/price externality bestowed by the organisations in the public sector is offset by a positive human capital training externality. A different way of putting it is that public organisations produce two outputs: services to students and patients, and human capital training.

High output by the public sector implies fewer potential customers for private operators, but higher supply of qualified workers. The former reduces demand for private suppliers, but the latter reduces their costs.

These considerations might explain why private providers in health and education do not typically complain about unfair competition by tax financed suppliers who charge little or nothing for their services.

It is also the case that private suppliers do not complain about public subsidies to services in the third group either: house builders and financial intermediaries do not complain about subsidised council housing and state provided old-age pensions. The reason here is not human capital provision, but quality. These goods are usually supplied by the public sector below cost, but only in very low qualities: low income individuals may choose to receive the good in this way, whereas high income households prefer to pay for higher quality (as theorised by Besley and Coate 1991):<sup>12</sup> the objective

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<sup>12</sup>We note that, with incomes growing, the need to provide these services as a redistributive tool also diminishes, in the very long term, somewhat contradicting Alfred Marshall's opinion put in 1893 to the *Royal Commission on the Aged Poor* that state pension provisions 'do not contain . . . the seeds of their own disappearance. I am afraid that, if started, they would tend to become perpetual' (Great Britain Parliament. House of Commons (1895), p 543). Privatisation of private housing is another manifestation of the same trend: according to Ginsburgh, "direct provision of affordable rented housing by local authorities is fast disappearing in Britain with the transfer of homes to quasi-private landlords" (2005, p 115).

pursued by the government is redistribution towards low income households. To the extent that the higher end of the market is more profitable, as is empirically the case and as it is predicted by theoretical model (Gabscewitz and Thisse 1979 and Shaked and Sutton 1982) the free supply by public sector agencies is of little concern to profit seeking private suppliers, as they would anyway prefer to supply different segments of the market.

Subsidies for some goods and services may therefore be justified on efficiency ground, to internalise a positive human capital externality, and so that it is and it may be accepted by private suppliers, as they benefit indirectly from it because of a steady availability of trained personnel. But how large should the subsidy be? There is no reason to assume that the optimal subsidy is equal to the cost of production. It will in general depend on the technology and the extent of the externality, and may well be higher or lower than the cost of production. A higher subsidy implies that users are paid to consume the goods. This does happen occasionally. Examples include paying rural children to attend primary school (formally compensating them for lost earnings and travel cost, see Behrman et al 2005), paying tangers from low income households to attend non-compulsory school (Dearden et al 2003, Cardoso and Souza 2003). University tuition fees and co-payment for medical care are examples of a subsidy lower than the cost of production.

An effective way to internalise the human capital externality and at the same time pursue a redistributive objective is through vouchers. At the moment vouchers are used mainly in compulsory education. In its essence, a voucher is a lump sum given to (the parents of) school-age children, which they can use towards the cost of education at a private institution, while state schools remain free to those who choose them: households pay only part of the cost if they choose private education. There is no reason why some form of vouchers could not be used in health or for other goods financed by

the public sector.<sup>13</sup> The size of the voucher determines the difference in the price paid by those who choose to use the public and the private service, and it is this difference that should be of concern to a competition authority: the smaller the voucher the more difficult for private supplier to remain in the market and a competition authority may therefore be required to express an opinion as to the size of the voucher, in order to strike a balance between the government's redistributive concern and the benefit of competition.

That a tax financed subsidy to, for example, publicly supplied education is justified by the training externality rather than a redistributive concern, is confirmed by the observation that it is not necessarily the case that quality is lower for the public sector. One would expect that private schools can charge a positive price — and therefore exist — only if they offer better quality than the public school. In practice, whether private schools are “better” than state schools is an empirical point. Surprisingly, relatively few tests have been performed to determine the validity of this conclusion. While Dearden et al (2000, p 21) find that “the impact on educational qualifications of attending [...] a private school is large and significant”, De Fraja et al (forthcoming) use the same dataset, but account

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<sup>13</sup>Paradoxically, the debate about vouchers is hottest in the US, because, in Europe, many schools which would be considered private in the US typically receive public funding in some form or other. In the UK many state school are religious, and are allowed to impose criteria of admission based on the religious attendance of parents schools (many do); until recently, all private school had “assisted places”: essentially scholarship paid for out of public funds: while the Labour government elected in 1997 abolished the assisted places scheme, tuition fees at private schools remain VAT exempt, and this reduces the cost to parents, and is, in effect, a voucher. In many countries in continental Europe a substantial proportion of education is privately provided and government funded (see Toma 1996).

also for children's and parents' effort and find that the effect is mild. Similarly, in a study of Belgium, France, New Zealand, Ontario and the US, Toma (1996) also finds a positive effect of private schools on attainment, but Feinstein and Symons find that "contrary to received wisdom in the UK, attendance at private school is nowhere significant" (1999, p 310). Another UK study, Naylor et al (2002), finds that university graduates who had, prior to university, attended a private school, on average obtain better results at university than graduates who had previously attended a state school (their figure is 3.4% for females and 3.1% for males), but their earnings are not significantly different. An analogous exercise is performed for Italian students by Bertola and Checchi (2001), who, on the contrary, find that attendance of a private school prior to university, *lowers* a student's performance at university.

One of the benefits that justifies the cost to the taxpayer of a voucher scheme is the efficiency enhancing role of competition from private providers, which may not be able to survive if households had to pay for the entire value of the school fees.

Even though this interaction is widespread, and even though there is large body of work that studies the role of competition in "traditional" markets (eg, Vining and Boardman 1992 or Dewenter and Malatesta 2001), or in fully public (quasi-)markets (eg Propper 1996 or Le Grand 1991), evidence investigating the effects of competition between private and public providers in the welfare state is scarce. Shleifer 1998 states that competition has a positive effect on efficiency, even though Propper et al (2004) "find that the relationship between competition and quality of care appears to be negative: greater competition is associated with higher death rates". Similarly Cellini et al find no effect of competition in the Italian health care market. Other evidence on the effects of competition is presented in Dranove and White (1994). An earlier analysis for competition among hospitals, which measured efficiency by mortality rates, found "no statistically significant association between mortality rates among inpatients and either the type of hospital ownership or the number of hospitals competing in the market area"; but demand side

pressure given by enrolment in health maintenance organizations does however have a positive effect on efficiency (Shortell and Hughes 1988; related work is Hirth 1999, who studies the role of competition for non-profit agencies).

Coming now to education provision, Brasington (2000) studies quality, and finds that the quality in "public school (...) is responsive to private-school competition but not to competition from other public schools" (p 583). Similar results are obtained by Couch et al (1993), which however Newmark (1995) and Simon and Lovrich (1996), among others, dispute. An interesting work is Allen and Shen (1999). They consider a private, religious higher education university, and calculate the cross-price elasticities of its demand for admission with the tuition fee charged by three other relevant institutions: a public university located in the same town, a research oriented public university located in the same state, and a private, secular university located in a neighbouring state. The main finding of this paper (which reflects the results obtained by other, older studies, such as McPherson et al 1978) is that public universities do not in fact affect the admission policy of the private university considered. This is attributed by the authors to the large difference in fees between the two types of institutions. The substitutability between institutions is much stronger between private universities. This study is clearly interesting, but, just as clearly, it suffers from the limitation of considering one institution only, and therefore the authors are unable to distinguish from a general causality relationship between fees and admission and the possibility that local effects overwhelm the price effects. The topic is clearly an important one, and, in view of the importance that issue of competition between schools and universities is likely to play in the future, it seems important that more research is carried out.

## 2.5 Concluding Remarks

Interaction between private and public entities is hugely important, and while the playing field has shifted from traditional firms to providers of public sector services such as health and education, it will clearly be a fundamental feature of developed economies for the foreseeable future.

I argue here that whether a taxpayer financed subsidy to some suppliers (typically the public ones) is tantamount to “unfair” competition should be assessed with the understanding of the nature of the objective function of the providers: behaviour which would be deemed anti-competitive for a profit maximising oligopolist, may be in line with the objective function of a public, welfare-maximising supplier.

On the other hand, where the presence of public suppliers bestows a positive externality on the private suppliers, for example in the form of the supply of human capital training, then a taxpayer financed subsidy distributed asymmetrically to the players in the sector according to their ownership may benefit all suppliers, private and public alike. The paper closes highlighting the role of vouchers in providing a subsidy to public suppliers which is less than the cost of supply, whilst maintaining the principle that the users of the publicly provided service receive at no cost.

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### 3 What Role for Government Ownership in Business and What is the Best Form of Oversight?

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#### 3.1 Introduction

There are important theoretical differences between SOEs and publicly traded corporations. In a number of substantive areas, it is typically more difficult to effectively monitor SOEs than private firms. Good corporate governance may provide firms with an edge over competitor firms. Good governance may improve resource availability within the firm and “better” corporate governance may lead to improved performance.<sup>2</sup>

Key theoretical insights a half century ago from Alchian and Stigler suggest that competitive industries make it more difficult for managerial slack.<sup>3</sup> Competition, therefore, can be a substitute for good corporate governance. Empirical work suggests that the inverse is also true. In industries that are not competitive, corporate govern-

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<sup>2</sup> Rene Stulz, *Globalization, Corporate Finance and the Cost of Capital*, 12 *J. APPLIED CORP. FIN.* 3 (1999).

<sup>3</sup> Armen A. Alchian, *Uncertainty, Evolution, and Economic Theory*, 58 *J. POL. ECON.* 211 (1950); George J. Stigler, *The Economics of Scale*, 1 *J. L. ECON* 54 (1958).

ance seems to have little impact.<sup>4</sup> This is not to suggest that competition and corporate governance are perfect substitutes. Where there is no competition within an industry, good corporate governance is less necessary than in situations where there is robust competition. Because of the imperfect substitutability of corporate governance and competition policy, jurisdictions may need only choose one form of regulation to ensure economic gain for society.

In itself, the lack of effective corporate governance would not be fatal if some of the SOE anti-competitive distortions could be remedied under antitrust law. However, a review of antitrust decisions on the issue of predatory pricing by SOEs reveals that antitrust is equally ineffective in its attempts to monitor SOE bad behavior. This chapter does not suggest that better corporate governance will necessarily cure the type of anti-competitive behavior that antitrust remedies. Rather, it makes the point that SOEs from a standpoint of efficiency create problems and that improved corporate governance and effective competition policy are substitutes that could lead to more efficient outcomes regarding SOEs. Predatory pricing is not the only form of exclusionary anti-competitive behavior that an SOE can undertake. However, it is an area which illustrates a gap between how laws generally apply to all firms without taking into account the different dynamics between private and state ownership. This chapter does not make the claim that good corporate governance will prevent antitrust violations. The linkage between corporate governance and antitrust is more indirect. Both are possible legal/regulatory tools to address inefficiencies regarding SOEs. However, one could make the case that with bad corporate governance in which directors are reckless, antitrust and other violations might be more likely.

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<sup>4</sup> Xavier Giroud and Holger M. Mueller, "Does Corporate Governance Matter in Competitive Industries?", ECGI - Finance Working Paper No. 185/2007 (February 2008) available at <http://ssrn.com/abstract=1006118>.

Section 3.2 provides an analysis of the difference between public (government) and private (generally publicly listed) ownership in terms of incentives and mechanisms of control of corporate governance. Section III provides an analysis of competition policy predatory pricing tests that could limit the potential anti-competitive harm that SOEs might create. Section IV concludes and offers a series of recommendations on improved corporate governance and competition law and policy of SOEs.

## **3.2 Private vs. Government Control of Firms**

### **3.2.1 A. SOEs Generally**

SOEs are different from private firms in that the profit motive in an SOE may not exist.<sup>5</sup> Some SOE functions may be based on non-financial goals. One potential problem with state ownership is that it may be used for political objectives. Some objectives for SOEs may include employment, social goals, or capital formation. This is not to suggest there are not some situations in which SOEs should play a role in the economy. The most persuasive defense of state ownership is market failure. There may also be a need for intervention for social reasons to redistribute to the very poor. Moreover, SOEs may be desirable if a public good needs to be provided and if quality is difficult to specify in a contract.<sup>6</sup> These goals, however, for the most part are not based upon an efficiency rationale.

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<sup>5</sup> Michael Trebilcock & Edward Iacobucci, *Privatization and Accountability*, 116 HARV. L. REV. 1422, 1425 (2003).

<sup>6</sup> Timothy Besley & Mairteesh Ghatak, *Government Versus Private Ownership of Public Goods*, 116 Q.J. ECON. 1343 (2001).

Some SOEs may not be about profit maximization because they are in regulated industries in which regulators pressure firms to undertake certain policies with outcomes to benefit politicians rather than shareholders.<sup>7</sup> Government must balance its role as regulator with its role as the owner of a firm. Bureaucrats may have an incentive to protect SOEs from competition when bureaucrats serve as both regulators and market participants. Bureaucrats also have an incentive to increase the size of bureaucracy (such as an SOE) because the increased size and scope of a bureaucracy provides them with greater prestige and the ability to advance their careers.<sup>8</sup>

The lack of an efficiency rationale changes the incentives for an SOE. Since SOEs lack shareholders because they are owned by the government, the ultimate shareholder equivalent in an SOE is the country's citizens. Yet, there is a potentially significant agency cost problem in the arrangement in which citizen's interests are not aligned with SOE management, directors and regulatory overseers. Behavior of firms in state hands will be less aligned with owner welfare because the types of incentives used to align behavior that the market provides are either non-existent or more limited when dealing with SOEs.

Owners do not have direct ownership rights in the SOE. Therefore they do not receive the proceeds of the firm. Unlike private firms, there is a restricted ownership right in the SOE. Transferability of shares in private firms means that there is exit by shareholders dissatisfied with managerial decision-making. This is also an important control mechanism, as a lower share price creates a threat to management through the market for corporate control, which SOEs do not face. The fundamental principal-agent in the SOE context is one that "exists between taxpayers and the government rather than

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<sup>7</sup>Michael C. Jensen & Kevin J. Murphy, *Performance Pay and Top-Management Incentives*, 98 J. POL. ECON. 225 (1990).

<sup>8</sup>WILLIAM A. NISKANEN, *BUREAUCRACY AND PUBLIC ECONOMICS* (1994).

between the owner, which is actually the government, and the state-owned enterprises.”<sup>9</sup> Thus, this relationship leads to higher agency costs that would exist with management and owners of private firms. The various internal and external mechanisms that limit agency cost problems in private firms are far less effective for SOEs, as the various traditional governance mechanisms may not a fit an SOE that may not be motivated by profit.

SOEs may not exist to maximize “shareholder” (citizen) value. There may be non-commercial activities that an SOE pursues and potential political interference in the day-to-day management of SOEs. Worse, if the political elements of government decide SOE policy, this takes independence and authority away from the SOE board of directors. There is a growing literature in the United States on shareholder democracy and accountability of boards and management.<sup>10</sup> Whatever such issues exist among publicly traded firms, the accountability problems of board and management are more severe in SOEs, yet have received less attention.

Further, government may create an uneven-playing field in those markets where an SOE competes with private firms.<sup>11</sup> Government has an interest in ensuring that its state owned firms succeed. As such, the government as regulator may restrict competition by providing various benefits to SOEs that it does not offer to other

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<sup>9</sup> Yoichi Takahashi, “Does discipline by SOE bonds work? – Japan’s experience with Zaito reform.” Paper for conference on corporate governance of state-owned enterprises in China, Beijing, 18-19 January 2000. OECD, Development Research Centre of the State Council of PRC, ADB at 2.

<sup>10</sup> See e.g., Lucian A. Bebchuk, *The Case for Increasing Shareholder Power*, 118 HARV. L. REV. 833 (2005); Lucian A. Bebchuk, *Letting Shareholders Set the Rules*, 119 HARV. L. REV. 1784 (2006).

<sup>11</sup> Eleanor M. Fox, *An Anti-Monopoly Law for China - Scaling the Walls of Protectionist Government Restraints*, 75 ANTITRUST L.J. 173, 178-79 (2008)

firms. Though this might result in direct preferences, some of the preferences might be indirect, such as implicit loan guarantees for favorable lending, regulatory preferences such as the creation of a large monopoly position in related industries, limitations on foreign ownership, or implicit subsidies through a lack of taxation or more lax corporate governance requirements vis-à-vis private firms. The nature of SOE regulation might be arbitrary where the only predictability in regulation may be that government looks to protect its SOE over all other goals.<sup>12</sup> High barriers to entry limit the ability of the market, through competition, to serve as a check on the poor decision-making of SOEs.

Alchian made a theoretical prediction that since private firms behaved differently than state owned firms, the performance of each type of firm would vary, with private firms more successful than state owned firms.<sup>13</sup> The costs of decision-making remain less concentrated in private firms than in SOEs and there is more accountability in private firms based on the outcome of such decisions. It is more difficult to constrain public actors than private ones because there is less accountability for making a mistake. Indeed, there is a risk that management may not have an accurate sense of the organizational structure of an SOE (more than of a private firm) because of greater principal-agent problems. An SOE may have many sub principal agent problems because of what may be an overly complex chain of command. This reduces accountability, especially when there are multiple principals (assuming that one can always identify the principals). Managers in SOEs are less likely to be fired by the board for making a bad decision and the

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<sup>12</sup> Timothy Irwin & Chiaki Yamamoto, "Some Options for Improving the Governance of State-owned Electricity Utilities," World Bank Energy and Mining Sector Board Discussion Paper Series no. 11 (2004) at 7.

<sup>13</sup> Armen Alchian, *Some Economics of Property Rights*, 30 IL POLITICO 816 (1965).

state is more likely to bail out a mismanaged SOE. From a theoretical standpoint, we should expect to see improved performance of a private firm because the incentives between management and shareholders will be better aligned for better performance in firms.<sup>14</sup> Empirical work on the difference in performance between state owned and privatized firms confirms this theoretical insight.<sup>15</sup> For example, Shirley and Walsh find that among 52 studies they survey, in only 5 of the 52 studies do SOEs outperform private firms.<sup>16</sup>

### **3.2.2 B. Internal Controls**

#### Corporations

#### Managerial Ownership and Pay

Jensen and Meckling in their seminal work on agency costs found that increased managerial ownership led to reduced of agency costs

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<sup>14</sup> Jean-Jacques Laffont & Jean Tirole, *Privatization and Incentives*, 7 J. L. ECON. & ORG. 84 (1991); David E. M. Sappington & Joseph E. Stiglitz, *Privatization, Information and Incentives*, 6 J. POL'Y ANALYSIS & MGMT. 567 (1987); Carl Shapiro & Robert D. Willig, "Economic Rationales For the Scope of Privatization," in *THE POLITICAL ECONOMY OF PUBLIC SECTOR REFORM AND PRIVATIZATION* (Ezra Suleiman & John Waterbury eds., 1990).

<sup>15</sup> Belen Villalonga, *Privatization and Efficiency: Differentiating Ownership Effects from Political, Organizational, and Dynamic Effects*, 42 J. ECON. BEHAVIOR & ORG. 43 (2000).

<sup>16</sup> Mary M. Shirley & Patrick Walsh, "Public vs. Private Ownership: The Current State of the Debate," World Bank Policy Research Working Paper No. 2420 (2001).

and thus increased maximization of the firm.<sup>17</sup> Work by other scholars yields similar conclusions.<sup>18</sup> Building from this insight, some scholars have qualified the role that management's ownership of a firm plays in improved firm outcomes. Too high an ownership level may reduce corporate performance because it may reduce the ability to dismiss ineffective management. Yet, some level of corporate ownership by management may increase firm performance.<sup>19</sup> In many cases, SOE managers do not face the types of financial rewards of private firms. SOE managers cannot be rewarded additional compensation based on the increase of the stock price of the SOE.

### Board Oversight

A firm has a board of directors rather than an executive who rules by fiat because deliberation of a group with complementary skills should lead to better business outcomes. The board serves to monitor managers on behalf of shareholders. In theory, the board protects shareholders from potentially risk and costly managerial mistakes in strategy. The board also provides oversight to ensure that management does not shirk its responsibilities.

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<sup>17</sup> Michael C. Jensen & William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, 3 J. FIN. ECON. 305 (1976).

<sup>18</sup> John J. McConnell & Henri Servaes, *Equity Ownership and the Two Faces of Debt*, 39 J. FIN. ECON. 131 (1995); Eric R. Gedajlovic & Daniel M. Shapiro, *Management and Ownership Effects: Evidence from Five Countries*, 19 STRATEGIC MGMT. J. 533 (1998); Benjamin E. Hermalin & Michael S. Weisbach, *The Effects of Board Composition and Direct Incentives on Firm Performance*, 20 FIN. MGMT. 101 (1991).

<sup>19</sup> Randall Morck, Andrei Shleifer, & Robert Vishny, *Management Ownership and Market Valuation: An Empirical Analysis*, 20 J. FIN. ECON. 293 (1988).

In SOEs the voice of any shareholder equivalent (a voter) and cannot easily be aggregated the way that institutional investors can aggregate votes because of collective action problems.<sup>20</sup> The organizational costs of most SOEs are larger because it is more difficult to fire people in government than in private firms — SOEs are less responsive to market forces.

Other factors distinguish corporate governance of SOEs. Property rights in private firms are transferable. An SOE lacks such transferability. The only way that SOE shareholder equivalents can vote with their feet is indirectly through national elections, where a new party might impose a different set of priorities for SOEs. The effect is a disconnect between present behavior and future outcome that a listed stock provides non-government owned firms. Because of the non-transferability of ownership, there is less incentive to monitor because the principal cannot create more value that she can then capture through a sale of the ownership stake.<sup>21</sup> Without effective monitoring, it is easier for managers in SOEs to make bad decisions because of a lack of accountability for the consequences that such decisions otherwise would entail. SOE managers and directors do not face repercussions such as termination for poor decision-making.

### **3.2.3 C. External Controls**

External controls refer to elements outside of the firm that limit agency costs of managers. Such elements include the market for corporate control, the equity market, the bond market, the market for managers and bankruptcy.

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<sup>20</sup> See generally, MANCUR OLSON, *THE LOGIC OF COLLECTION ACTION: PUBLIC GOODS AND THE THEORY OF GROUPS* (1965).

<sup>21</sup> Louis De Alessi, *The Economics of Property Rights: A Review of the Evidence*, in *RESEARCH IN LAW AND ECONOMICS* 27-28 (Richard O. Zerbe, ed.) (1980).

## Market for Corporate Control

Henry Manne first identified the market for corporate control that impacts firm behavior.<sup>22</sup> Managers may be replaced through takeovers. If management decision-making is poor, this will be reflected in a depressed stock price for the firm. If management is ineffective, the stock price of the corporation should fall. A lower stock price due to poor management is an invitation for a potential takeover. A takeover is more likely because the corporation can be bought on the cheap.

The possibility of takeover via a hostile acquisition such as a tender offer or proxy contest creates incentives for managers within the firm. These incentives discipline managerial behavior. In a takeover, the new owners are likely to replace poorly performing managers. Conversely, if management performs well, the stock price of the corporation is more likely to rise. This will reduce the possibility of takeover of the corporation because the cost of shares increases, which reduces the difference between the potential arbitrage of current versus potential share price.<sup>23</sup> Managers therefore should keep their jobs when they perform well.

Though control problems will occur even in private firms, these distortions are not as severe as those of government owned firms. SOEs are not subject to the same sorts of repercussions from bad management. Because of government ownership, SOEs need not face acquisition threats from firms that may be able to unlock value from the firm through better management. Unlike private firms, SOEs do not operate under hard budget constraints. Instead, they operate under what economists term “soft” budget constraints. These cons-

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<sup>22</sup> Henry Manne, *Mergers and the Market for Corporate Control*, 73 J. POL. ECON. 110 (1965).

<sup>23</sup> JONATHAN MACEY, CORPORATE GOVERNANCE 119 (2008); Daniel Fischel, *The Corporate Governance Movement*, 35 VAND. L. REV. 1259, 1264 (1982).

straints are “soft” because another institution (in our case, another part of government) will pay the shortfall for mismanagement of the SOE. Such firms do not fear the negative consequences of bad mistakes because even a chronic loss making firm will be bailed out by the state.<sup>24</sup> Managers of the SOE will expect this external financial assistance and as such, may not undertake the types of sound and profitable strategies of private firms.

### Equity

Publicly traded shares of stock provide information on the relative state of a firm. The capital markets provide a signal about the valuation based on discounted value of profits of a firm which is based on the current and future state of the management team and its decisions.<sup>25</sup> We assume that the market appropriately prices the value of the ownership right. Even, however, if the market does not, it is still a better indicator of the value based on performance than measures of public sector performance management. SOEs are not publicly traded so they lack this signal of firm performance that equity markets provide.

### Debt

Debt is a mechanism to control and measure the performance of the firm. If a firm issues debt, there are consequences on firm management. Debt reduces free cash flow, thus disciplining management because there is less money to spend due to the need to service the

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<sup>24</sup> Janos Kornai, *The Soft Budget Constraint*, 39 KYKLOS 3 (1986); Janos Kornai & Eric Maskin & Gerard Roland, *Understanding the Soft Budget Constraint*, 41 J. ECON. LIT. 1095 (2003).

<sup>25</sup> KENNETH R. FERRIS & BARBARA S. PÈCHEROT PETITT, VALUATION: AVOIDING THE WINNER'S CURSE 74 (2002)

debt. Firms that are poorly managed and are in financial difficulty will have a poor debt rating. If a firm has a poor debt rating, it will be more expensive for a firm to borrow money since the rating will reflect the possibility that the debt may not be repaid. Banks frequently review credit decisions. Moreover, credit rating agency such as Moody's and Standard & Poor's ("S&P") rate borrowers and update such ratings. These regular recalibrations in the market for debt send a signal about the health of a given firm. If a firm's rating were to deteriorate, it would signal to the market that the firm has undertaken harmful decisions that have increased firm risk.

There should be a risk premium associated with borrowing money for an SOE. This means that banks should lend debt with worse grades since SOEs are more likely to be poorly managed relative to private firms. However, because the government either explicitly or tacitly guarantees this debt (which it does not do for most private firms), SOEs have an advantage over their private competitors.

### Market for Managers

An informal mechanism to reduce agency costs is the reputation of managers. Success or failure at a firm in theory would affect the ability of managers to negotiate their next contract and therefore future wages.<sup>26</sup> Therefore, reputational consequences may force a manager to better run a firm to preserve his/her reputation going forward. Moreover, for managers at the end of their career, reputation still may be an important factor in leaving behind a "legacy" at a firm. This is not to suggest that some managers will be willing to risk long term reputation for short term gain. Corporate scandals such as Worldcom, Enron, and Tyco teach us otherwise. Rather, in a

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<sup>26</sup> Eugene F. Fama, *Agency Problems and the Theory of the Firm*, 88 J. POL. ECON. 288, 292 (1980).

number of cases reputation does serve to limit agency cost problems and the Enrons of the world are most likely outliers.

In SOEs, managers may be poorly monitored relative to private firms. With SOEs, it is more difficult to measure reputation based on performance. Because of the lack of external controls such as access to the capital markets for equity and debt, it is more difficult to rate the performance of managers.<sup>27</sup> However, because the firm may not be profit maximizing, managers will be secure in their jobs regardless of firm performance. Many potential managers will choose careers in the private sector rather than the public sector because of greater pay, greater potential upside incentives for increased pay and in terms of risk taking and innovation. This is not to suggest that other excellent people do not choose government service within an SOE out of a sense of civic duty or altruistic motivations. Rather, for those managers in SOEs who are inferior to their counterparts in private firms, there is greater job security. With market based accountability in private firms, it is easier to fire under-performing managers. At SOEs, it is more difficult to fire under-performers because standards are not clear or not important.

## Bankruptcy

Forced exit through bankruptcy is a potential outcome for a poorly managed firm. Bankruptcy is one mechanism by which firms exit the market. It is the legal process through which the exit process unfolds for financially distressed firms. The risk of bankruptcy and possible liquidation forces many firms to undertake less risk because of the potential negative consequences of overly risky strategies. In contrast to private firms, SOEs generally do not go bankrupt (though

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<sup>27</sup>Michael Trebilcock & Edward Iacobucci, *Privatization and Accountability*, 116 HARV. L. REV. 1422, 1428 (2003).

countries sometimes do).<sup>28</sup> The lack of bankruptcy means that SOE managers do not face the same constraints as private firms for making mistakes. Without the potential specter of bankruptcy, SOEs might expand businesses even if there is not a profit making case to do so.

### 3.3 III. Competition and SOEs

Ex ante, the competition issues involving SOEs can be addressed somewhat by corporate governance in terms of structuring the incentives of a firm to behave more like private firms, with an efficiency rationale. Without soft budget constraints, an SOE cannot get away with predatory pricing so easily. Ex post, competitive distortions can be solved through antitrust, which provides the potential of relief against anti-competition abuses.

#### *A. Incentives for SOE Anti-competitive Behavior*

Competition is the foundation for a market economy. Market competition has profound effects upon firms. It eliminates inefficient firms.<sup>29</sup> Moreover, it can make the monitoring of firms more effective.<sup>30</sup>

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<sup>28</sup> OECD, CORPORATE GOVERNANCE OF STATE-OWNED ENTERPRISES: A SURVEY OF OECD COUNTRIES 14 (2005).

<sup>29</sup> Armen A. Alchian, *Uncertainty, Evolution, and Economic Theory*, 58 J. POL. ECON. 211 (1950);

<sup>30</sup> Edward P. Lazear & Sherwin Rosen, *Rank-Order Tournaments as Optimum Labor Contracts*, 89 J. POL. ECON. 841 (1981).

Governments may erect many types of regulatory barriers to limit competition.<sup>31</sup> For example, bias by the government to protect SOEs may take the form of favorable lending rates vis-à-vis private firms. SOEs therefore may have a different cost of capital than do private firms. This may have an effect of an implicit subsidy for SOEs. Government may open its purse to provide for lower borrowing rates than market rates. SOEs also may benefit from discriminatory regulation. SOEs may not be required to pay taxes or may be immune from antitrust. Moreover, SOEs may benefit from information asymmetries. Information asymmetries occur where SOEs have data that private competitors do not where the government collects the data. An SOE can use its economies of scope to create high barriers to entry that effectively forecloses competition by efficient competitors.<sup>32</sup> Because of cost structure and incentives of an SOE, SOEs are more successful in their attempts to prevent foreign entry than similarly situated private firms.<sup>33</sup>

### 1. Revenue Maximization as an SOE Goal

Because of the soft budget constraint, SOEs may have goals other than profit maximization, such as revenue maximization.<sup>34</sup> Government support of SOEs through government created distortions (e.g., a large reserve sector, implicit loan guarantees, preferences for

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<sup>31</sup> Eleanor M. Fox, *Economic Development, Poverty, and Antitrust: The Other Path*, 13 SW. J. L. & TRADE AM. 211, 224 (2007); Timothy J. Muris, *Principles for a Successful Competition Agency*, 72 U. CHI. L. REV. 165, 170 (2005).

<sup>32</sup> John C. Panzer, "Interactions Between Regulatory and Antitrust Policies in a Liberalized Postal Sector," working paper 2008 at 5.

<sup>33</sup> Anusha Chari and Nandini Gupta, "The Political Economy of Foreign Entry Liberalization," NBER Working Paper (2005).

<sup>34</sup> JOHN R. LOTT, ARE PREDATORY COMMITMENTS CREDIBLE?: WHO SHOULD THE COURTS BELIEVE? 77 (1999).

zoning) allows SOEs to price below its marginal cost due to the explicit and implicit subsidies that governments grant SOEs and not their private competitors. This creates a situation, unlike the typical US antitrust predation case, which does not require recoupment for successful SOE predation.<sup>35</sup>

The ability of SOEs to engage in non-recoupment predatory pricing poses an important question. If consumers do not see higher prices as a result of the predation, is there any consumer harm? When an SOE can pursue a successful predation strategy, this reduces the resources of a competitor to innovate or operate. The “but for” case is that there might have been even lower prices and more innovation. Successful predation also may have reputational effects if a firm competes in multiple product markets. This reputational effect creates a credible threat that allows firms to reap the benefits of predation even in markets in which they did not predate. This in turn negatively affects the overall market. When predator firms benefit, this reduces consumer welfare. An increasing economic literature notes that predatory pricing may be rational in other settings for profit maximizing firms as well.<sup>36</sup> How to address issues of predation outside of the SOE context is beyond the scope of this Chapter.

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<sup>35</sup> David E.M. Sappington and J. Gregory Sidak, *Competition Law for State-Owned Enterprises*, 71 *Antitrust L.J.* 479, 522-23 (2003).

<sup>36</sup> Patrick Bolton, Joseph F. Brodley & Michael H. Riordan, *Predatory Pricing: Strategic Theory and Legal Policy*, 88 *GEO. L. J.* 2239, 2241 (2000) (describing that “modern economic analysis has developed coherent theories of predation that contravene earlier economic writing claiming that predatory pricing conduct is irrational” and thus that “the consensus view in modern economics [is] that predatory pricing can be a successful and fully rational business strategy.”).

Predation must be distinguished from raising a rival's cost.<sup>37</sup> Predation in non-SOE settings requires antitrust to think about short run benefits versus long run costs. In raising the cost of rivals, the goal is to increase the price of output for rivals rather than decrease price. A successful raising a rival's cost strategy would be one in which the dominant firm average costs increase less than the incremental costs of a rival. This allows a dominant firm to create an asymmetric impact on costs relative to its rivals.<sup>38</sup>

The ultimate goal of raising a rival's cost is different than predation. A successful raising a rival's cost strategy does not require the firm with higher costs to exit the market, merely to allow the dominant firm to raise its price above the competitive level.<sup>39</sup> As Sappington and Sidak suggest, "Consequently, even though an SOE may value the profit that its anticompetitive activities can generate less highly than does a private profit-maximizing firm, the SOE may still find it optimal to pursue aggressively anticompetitive activities that expand its own output and revenue."<sup>40</sup> Given that an SOE may have revenue rather than profit enhancement objectives, it can more effectively absorb the cost of raising the costs of its private rivals. It can do so because the government acts to constrain rival firms.<sup>41</sup>

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<sup>37</sup> Deborah Cope, *Regulating Market Activities in the Public Sector*, 7 OECD J. Comp. L. & Pol'y 32, 38-40 (2005); David E.M. Sappington & J. Gregory Sidak, *Competition Law for State-Owned Enterprises*, 71 ANTITRUST L.J. 479, 496 (2003).

<sup>38</sup> STEPHEN MARTIN, *ADVANCED INDUSTRIAL ECONOMICS*, 2d ed. 244-246 (2002).

<sup>39</sup> Thomas G. Krattenmaker & Steven C. Salop, *Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power over Price*, 96 YALE L.J. 209, 242 (1986).

<sup>40</sup> David E.M. Sappington & J. Gregory Sidak, *Competition Law for State-Owned Enterprises*, 71 ANTITRUST L.J. 479 (2003).

<sup>41</sup> David T. Scheffman & Richard S. Higgins, *20 Years of Raising Rivals' Costs: History, Assessment, and Future*, 12 GEO. MASON L. REV. 371, 376 (2003).

When an SOE can pursue an effective raising a rival's cost strategy, it can expand its scope. Predation or raising rivals' cost takes away the ability for competitors to invest in increase research and development and limits the ability to roll out new products and services and processes that increase dynamic gains from innovation.<sup>42</sup> SOEs may have particular incentive to raise the costs of its rivals. As the rival's marginal cost increases, it may be costly to the SOE but it simultaneously increases the demand for the SOEs product or service. Since the SOE is a revenue maximizer, it benefits from the increased demand.<sup>43</sup>

### *B. Antitrust Solution*

Monopolization creates a consumer welfare loss. There are a number of different cost based tests that antitrust law uses to combat predatory pricing abuses.<sup>44</sup> Antitrust may be a possible solution to anti-competitive conduct when there is no direct immunity of regulated industries (and many SOEs are inregulated industries). However, a lack of immunity does not entail that antitrust will be an effective tool to remedy anti-competitive conduct. In many cases, SOEs may be dominant in their relevant markets. When this is the case, SOEs have the potential to monopolize. This makes the ability to utilize antitrust effectively more important. Yet, domestic antitrust law may not apply the types of analytical tools to remedy anti-

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<sup>42</sup> Eleanor M. Fox, *US and European Merger Policy--fault Lines and Bridges: Mergers That Create Incentives for Exclusionary Practices*, 10 GEO. MASON L. REV. 471, 474 fn 14 (2002) (citing *United States v. Microsoft Corp.*, 253 F.3d 34, 50-53 (D.C. Cir. 2001)).

<sup>43</sup> David E.M. Sappington & J. Gregory Sidak, *Incentives for Anticompetitive Behavior by Public Enterprises*, 22 Rev. INDUS. ORG. 183, 196-97 (2003).

<sup>44</sup> Raising rival's cost is not a judicial antitrust claim but is a theoretical tool to frame exclusionary behavior. Oftentimes courts use the theory of raising rival's costs without explicit mention of it.

competitive conduct by SOEs. The general state of antitrust law enforcement in most jurisdictions does not recognize that sustained predation below cost is possible without recoupment because it is based on the premise of profit maximizing firms rather than employment and/or revenue maximizing firms. Moreover, antitrust law is ill equipped to address predation by SOEs because antitrust uses the same cost test for both private firms and SOEs. That is, current antitrust tests do not impute the various government preferences into the actual costs of SOEs.

Because of the inability to obtain quantitative data to determine the full extent of the costs of SOEs worldwide, this article employs a qualitative rather than quantitative research method. In such circumstances, a case study approach may be the most effective way to ground analysis in experience rather than mere theory.<sup>45</sup> This chapter uses multiple qualitative case studies to illustrate the impact of the difficulty of antitrust to address anti-competitive behavior by SOEs. Case studies provide an explanatory theory that has high construct validity and accommodates complex causal relations. Multiple case studies provide for more meaningful comparisons across cases and for better generalizations for the case studies.<sup>46</sup>

The following table explains by jurisdiction the various predatory price tests employed in case law. Though antitrust agencies may utilize different tests in their investigations, this chart limits the inquiry merely to decided cases because it is easier to measure what jurisdictions have done. Where there are no cases in which a jurisdiction uses a particular test, it is noted with a "No" response.

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<sup>45</sup> GARY KING, ROBERT O. KEOHANE & SIDNEY VERBA, *DESIGNING SOCIAL INQUIRY* 67 (1994).

<sup>46</sup> Christopher H. Achen & Duncan Snidal, *Rational Deterrence Theory and Comparative Case Studies*, 41 *WORLD POLITICS* 143, 146 (1989). A danger of case studies is the possibility of selection bias.

Table – Comparative Predatory Pricing Test

Jurisdiction	Pricing test	Utilized in case law (rather than in theory)?	Representative Cases
United States <sup>47</sup>	Below AVC	Yes	<i>Northeastern Telephone Co. v. American Tel. &amp; Tel. Co.</i> , 651 F.2d 76 (2d Cir.1981); <i>Stearns Airport Equip. Co. v. FMC Corp.</i> , 170 F.3d 518, 532 (5th Cir.1999); <i>Advo, Inc. v. Phila. Newspapers, Inc.</i> , 51 F.3d 1191 (3d Cir.1995); <i>Arthur S. Langenderfer, Inc. v. S.E. Johnson Co.</i> , 729 F.2d 1050, 1056 (6th Cir.1984)
	Below AAC	Yes	<i>United States v. AMR Corp.</i> , 335 F.3d 1109, 1115, 1116 (10th Cir. 2003).
	Below LRAIC	Yes	<i>MCI</i>

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<sup>47</sup> The leading Supreme Court case in this area, *Brooke Group* does not specify a particular test. *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 222 (1993).

			<i>Communications Corp. v. American Tel. and Tel. Co.</i> , 708 F.2d 1081 (7th Cir. 1982).
	Below ATC	No	<i>McGahee v. N. Propane Gas Co.</i> , 858 F.2d 1487, 1500 (11th Cir.1988)
European Commission	Below AVC	Yes	Case 62/86 <i>AKZO Chemie BV v Commission</i> [1991] ECR I-3359
	Below AAC <sup>48</sup>	No	
	Below LRAIC	Yes	COMP/35.141- <i>Unitel Parcel Service/DP AG</i> , 20 March 2001
	Below ATC	Yes	France Télécom v Commission (ECJ 2 April 2009),
Chile	Below AVC	Yes	Decision N° 39, <i>James Hardie Fibrocementos Limitada</i> , sentence of the Supreme

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<sup>48</sup> This test is the current policy preference of the Commission. Directorate-Gen. for Competition, European Comm'n, Discussion Paper on the Application of Article 82 of the Treaty to Exclusionary Abuses 31 (2005), available at <http://ec.europa.eu/comm/competition/antitrust/art82/discpaper2005.pdf>.

			Court of November 29, 2006, sentence of the Tribunal for the Defense of Competition of June 13, 2006
	Below AAC	No	N/A
	Below LRAIC	No	N/A
	Below ATC	No	N/A
South Africa	Below AVC	Yes	<i>Nationwide Airlines and South African Airways (92/IR/Oct00)</i>
	Below AAC	No	N/A
	Below LRAIC	No	N/A
	Below ATC	No	N/A
South Korea <sup>49</sup>	Below AVC	No	N/A
	Below AAC	No	N/A
	Below LRAIC	No	N/A
	Below ATC	No	N/A
	Other – Below the normal trade price	Yes	<i>Cadland, Samsung Tesco, Ahnkook, Lucky, Sangyong</i>
New Zealand <sup>50</sup>	Below AVC	No	N/A

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<sup>49</sup> Does not use a cost based test for predatory pricing.

	Below AAC	No	N/A
	Below LRAIC	No	N/A
	Below ATC	No	N/A
Canada	Below AVC	Yes	<i>R. v. Hoffmann La Roche Ltd.</i> (1980), 28 O.R. (2d) 164 (H.C.J.), affirmed 33 O.R. (2d) 694 (C.A.); <i>R. v. Consumers Glass Co.</i> , (1981), 33 O.R. (2d) 228
	Below AAC	Yes <sup>51</sup>	<i>Canada (Director of Investigation and Research) v. Air</i>

<sup>50</sup> There is only one case to date (*Carter Holt Harvey Building Products Group Ltd v CC* [2006] 1 NZLR 145; (2004) 11 TCLR 200 (PC)). The case is not explicit as to the particular price test though in investigations the New Zealand Competition Commission has used both AVC and AAC in investigations. This case law is analogous to that of Australia, which New Zealand looks to for support. *Boral Besser Masonry Ltd v ACCC* (2003) 195 ALR 609; (2003) 215 CLR 374 (Australian predatory pricing which also does not explicitly adopt a particular price test). There is no predatory pricing case specific to New Zealand SOEs.

<sup>51</sup> In *Air Canada*, the particular AAC test was statutorily mandated by the law that addressed airlines. Since then, the preference for the Competition Bureau is for the AAC test more generally. Competition Bureau, Can., Enforcement Guidelines: Predatory Pricing 1415 (2008), available at [http://www.competitionbureau.gc.ca/epic/site/cb-bc.nsf/vwapj/Predatory\\_Pricing\\_Guidelines-e.pdf/\\$file/Predatory\\_Pricing\\_Guidelines-e.pdf](http://www.competitionbureau.gc.ca/epic/site/cb-bc.nsf/vwapj/Predatory_Pricing_Guidelines-e.pdf/$file/Predatory_Pricing_Guidelines-e.pdf). There have not been any predatory pricing decisions since *Air Canada*.

			<i>Canada</i> (2003), 26 C.P.R. (4 <sup>th</sup> ) 476
	Below LRAIC	No	N/A
	Below ATC	No	N/A
Japan	Below AVC	Yes	<i>Daikoku</i>
	Below AAC	No	N/A
	Below LRAIC	No	N/A
	Below ATC	Yes	<i>Hamaguchi Petroleum</i>

### 3.3.1 A. United States

The basis for monopolization claims under US antitrust law derives from Section 2 of the Sherman Act, although other antitrust laws implicate single firm conduct.<sup>52</sup> Case law has developed regarding the appropriate test to use for predation, though at lower court levels the standards are still not exactly clear.<sup>53</sup> The seminal Supreme Court case in this area is that of *Brooke Group v. Brown & Williamson Tobacco Corp.*<sup>54</sup> Under *Brooke Group*, two factors must be met in a successful predatory pricing claim. First, a plaintiff must show that the prices at

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<sup>52</sup> 15 U.S.C.A. § 2.

<sup>53</sup> Daniel A. Crane, *The Paradox of Predatory Pricing*, 91 CORNELL L. REV. 1, 7-9 (2005)(also noting that plaintiffs recast predatory behavior into other antitrust classifications of harm to overcome courts' reluctance to find for plaintiffs on predation claims).

<sup>54</sup> 509 U.S. 209 (1993).

issue “are below an appropriate measure of its rival’s costs.”<sup>55</sup> Second, that must be a showing “that the competitor had ... a dangerous probability, of recouping its investment in below-cost prices.”<sup>56</sup> Two recent Supreme Court cases, *Linkline*<sup>57</sup> and *Weyerhaeuser*, upheld the *Brook Group* approach.<sup>58</sup> Circuit courts across the United States have interpreted the *Brook Group* case differently.<sup>59</sup> For example, *US v. AMR*, the 5<sup>th</sup> Circuit “decline[d] to dictate a definitive cost measure for all cases” although it used an average avoidable cost test in that particular case.<sup>60</sup>

One reason that there are few predatory pricing cases is because of the Supreme Courts’ concern of the potential for type II errors of mistaken prosecution. As the Supreme Court notes, “mistaken inferences in cases like this one are especially costly, because they chill the very conduct the antitrust laws are designed to protect.”<sup>61</sup> As such, the Court has created various procedural hurdles for plaintiffs in predatory pricing cases. Many of the same behaviors that could lead to allegations of predatory pricing are precisely the ones that

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<sup>55</sup> *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 222 (1993).

<sup>56</sup> *Id.* at 224 (1993).

<sup>57</sup> *Pacific Bell Telephone Co. v. Linkline Communications, Inc.*, 129 S.Ct. 1109 (2009) (supporting the use of predatory pricing tests in the retail cost context of a price squeeze claim).

<sup>58</sup> *Weyerhaeuser Co. v. Ross-Simmons Hardwood Co.*, 127 S. Ct. 1069 (2007) (upholding the cost test in predatory buying circumstances).

<sup>59</sup> Daniel A. Crane, *Rules Versus Standards in Antitrust Adjudication*, 64 WASH. & LEE. L. REV. 49 (2007).

<sup>60</sup> *United States v. AMR Corp.*, 335 F.3d 1109, 1115, 1116 (10th Cir. 2003).

<sup>61</sup> *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 597 (1986).

could increase competitions, such as price cuts. The Supreme Court most recently restated this explicitly in *Weyerhaeuser*.<sup>62</sup>

There are a number of reasons why SOE antitrust cases are not typical in the United States. Many are state action cases that involve decisions based on whether or not the state action has been clearly articulated rather than on substantive claims of anti-competitive conduct. However, there has been a recent Supreme Court case regarding a postal SOE. As with other US cases involving SOEs, this case was not decided upon the merits but on whether or not antitrust immunity applied.

The Supreme Court found that the Sherman Act did not apply to the post office in *United States Postal Service v. Flamingo Industries*.<sup>63</sup> Among the claims that Flamingo made was that the USPS sought to create a monopoly in mail sack production and that it could do so in large part because of its monopoly in the postal reserve sector. In *Flamingo*, the Supreme Court stated that the USPS was a part of the federal government and therefore not under the purview of the antitrust laws of the United States.<sup>64</sup> In a departure from the prevailing economic literature on SOEs, the Supreme Court reasoned that the USPS' "powers are more limited than those of private businesses. It lacks the prototypical means of engaging in anti-competitive

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<sup>62</sup>*Weyerhaeuser Co. v. Ross-Simmons Hardwood Lumber Co., Inc.*, 127 S.Ct. 1069, 1077 (2007) citing to *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209 at 226, 113 S.Ct. 2578 ("The costs of erroneous findings of predatory-pricing liability are quite high because the mechanism by which a firm engages in predatory pricing - lowering prices - is the same mechanism by which a firm stimulates competition, and therefore mistaken liability findings would chill the very conduct the antitrust laws are designed to protect.").

<sup>63</sup> 540 U.S. 736 (2004). Since then, the 2007 Act explicitly allows for the application of antitrust to the USPS.

<sup>64</sup>*United States Postal Serv. v. Flamingo Indus.*, 540 U.S. 736, 749 (2004).

behavior: the power to set prices.”<sup>65</sup> Under this flawed reasoning, an SOE does not have an incentive to drive competitors out of business. As discussed earlier in this Chapter, economic theory suggests that an SOE may have other motivations than profit maximization. Even if an SOE does concern itself at times with profit, it is also motivated by revenue maximization and by an interest in increasing the scope of its services and its number of employees.<sup>66</sup> The reasoning of the Supreme Court ignores the possibility of no-recoupment predation because of government ownership and of raising rivals’ cost strategies.

A second weakness of the Supreme Court decision was its reliance of the Postal Commission, the sector regulator, to overcome potential anti-competitive behavior by the USPS.<sup>67</sup> The old Postal Rate Commission, where the Commission lacked a subpoena power and the ability to mandate that the USPS provide it with data. Whatever data it received came voluntarily from the USPS.<sup>68</sup> Such a situation created additional information asymmetries between the regulator and the regulated industry and makes it more difficult to detect the anti-competitive cross subsidies between the postal and express delivery sectors.

Because of the weakness of the postal regulator, antitrust would have been the only alternative to remedy the anti-competitive behavior. The Postal Commission that existed at the time of the decision in 2004 was a weak regulator. Unlike regulators in other

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<sup>65</sup> *United States Postal Serv. v. Flamingo Indus.*, 540 U.S. 736, 748 (2004).

<sup>66</sup> David E.M. Sappington & J. Gregory Sidak, *Competition Law for State-Owned Enterprises*, 71 ANTITRUST L.J. 479 (2003); Rick Geddes, *Do Vital Economists Reach a Policy Conclusion on Postal Reform?*, 1 ECO. J. WATCH 61 (2004).

<sup>67</sup> *United States Postal Serv. v. Flamingo Indus.*, 540 U.S. 736, 747 (2004).

<sup>68</sup> R. Richard Geddes, *Reform of the U.S. Postal Service*, 19 J. ECON. PERSP. 217, 219 (2005).

network industries such as electricity or telecommunications, the Postal Commission could not set rates. Rather, it could only recommend rate changes and such recommendations can be overridden by the USPS board of directors.<sup>69</sup> Yet, somehow, in spite of a regulator that lacks the ability to set prices and to have its dictates followed, the Court found that regulatory oversight was a factor that prevented USPS from monopolization.

In any determination of whether to bring an antitrust case, the first and perhaps most important issue is one of assembling evidence. Even if the USPS was subject to antitrust law at the time, bringing such a case would have been very difficult, even had there been an effective measure of cost predation that took into account government advantages granted to the USPS.

The existing US predatory pricing methodologies, as noted in the previous discussion, require recoupment. While this might make sense for private firms that operate based on profit, a cost based test is ineffective for government owned firms with soft budget constraints that might maximize revenue rather than profit.

*Flamingo* also underscores how important the predation and raising rival's cost claims are in terms of understanding the potential anti-competitive harm on the part of the postal service. Since the USPS defines the size of its reserve sector broadly, it has an incentive to increase the definition of the reserve sector to reduce competition.<sup>70</sup> This limits the potential scope and scale of competitors in the non-reserve and related sectors<sup>71</sup> The USPS also has a monopoly

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<sup>69</sup> 39 U.S.C. §§ 3625, 3628.

<sup>70</sup> Compare the US reserve sector to the EU's postal liberalization that significantly reduces the reserve sector. Directive 97/67/EC, as amended by Directive 2002/39/EC).

<sup>71</sup> This is particularly true when the SOE exhibits cost complementarities in its production technology. David E.M. Sappington & J. Gregory Sidak,

over the mail box itself. It is unique in the world in this monopoly over the mail box.<sup>72</sup>

Under the Postal Act in place at the time of *Flamingo*,<sup>73</sup> the US government offered the USPS credit guarantees through direct borrowing from the Federal Financing Bank. The credit guarantee allowed the USPS to provide a 12.5 basis point premium for its debt above the US Treasury bond rate.<sup>74</sup> This financing provided lower rates for the USPS than private firms. The Supreme Court failed to understand that the USPS has the power of eminent domain. It also has the power to self zone, while express delivery competitors must apply for local zoning permits.<sup>75</sup> Private firms must go through the costly and time consuming process to set up an effective distribution network.

Competition in postal and express delivery was not robust under the old Postal Act. Evidence suggests that the USPS uses its monopoly over delivery to cross subsidize its express delivery ser-

*Incentives for Anticompetitive Behavior by Public Enterprises*, 22 REV. INDUS. ORG. 183, 198 (2003).

<sup>72</sup> *United States Postal Serv. v. Council of Greenburgh Civic Ass'ns*, 453 U.S. 114 (1981); Damien Gérardin & J. Gregory Sidak, *The Future of the U.S. Postal Service: American and European Perspectives After the Presidential Commission and Flamingo Industries*, 28 WORLD COMPETITION: L. & ECON. REV. 163 (2005); R. Richard Geddes, "Anticompetitive Behavior in Postal Services," in *COMPETING WITH THE GOVERNMENT: ANTICOMPETITIVE BEHAVIOR AND PUBLIC ENTERPRISES* 88 (R. Richard Geddes ed., 2004).

<sup>73</sup> The new Postal Reorganization Act of 2007 was in part a consequence of *Flamingo*.

<sup>74</sup> R. Richard Geddes, "Case Studies of Anticompetitive SOE Behavior," in *COMPETING WITH THE GOVERNMENT: ANTICOMPETITIVE BEHAVIOR AND PUBLIC ENTERPRISES* 30-31 (R. Richard Geddes ed., 2004).

<sup>75</sup> *Id.* at 34.

vice where it faces competition.<sup>76</sup> This behavior can be traced to the 1970 Postal Reorganization Act. The Act increased cross subsidies to the competitive mail classes.<sup>77</sup> For example, the rate increase of first class post to 25 cents occurred while the Postal Service decreased the price of next day express service even though the express service arm was already in the red. This postal rate increase coincided with a reduction in the amount charged on foreign express delivery by the USPS from \$18 to \$8.75. As a result, revenue increased for the USPS.<sup>78</sup>

### 3.4 B. European Union

Article 82 is the article of the Treaty of Rome that addresses an abuse of a dominant position under EC law and therefore the basis for a predatory pricing claim. A number of different elements make up the criteria for a predatory pricing case for purposes of EC law. These are – sacrifice, anti-competitive foreclosure, and efficiencies.<sup>79</sup> A “sacrifice” by a firm may be predatory if through evidence, a plaintiff can show that conduct entails a sacrifice (loss) for the dominant firm, which the firm undertakes deliberately. Sacrifice does not require any single cost benchmark. Rather, such a sacrifice occurs,

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<sup>76</sup> R. Richard Geddes, “Anticompetitive Behavior in Postal Services,” in *COMPETING WITH THE GOVERNMENT: ANTICOMPETITIVE BEHAVIOR AND PUBLIC ENTERPRISES* 93-97 (R. Richard Geddes ed., 2004).

<sup>77</sup> RICK GEDDES, *SAVING THE MAIL: HOW TO SOLVE THE PROBLEMS OF THE U.S. POSTAL SERVICE* 5 (2003).

<sup>78</sup> JOHN R. LOTT, *ARE PREDATORY COMMITMENTS CREDIBLE? WHO SHOULD THE COURTS BELIEVE?* 69 (1999).

<sup>79</sup> European Commission, “Guidance on the Commission's Enforcement Priorities in Applying Article 82 EC Treaty to Abusive Exclusionary Conduct by Dominant Undertakings,” available at <http://ec.europa.eu/competition/antitrust/art82/guidance.pdf>.

according to the new EC Dominance Guidance paper when a firm: (a) charges a lower price for some portion or all of its output over the relevant time period at issue; (b) expands its output over the relevant time period; or (c) incurs avoidable losses.<sup>80</sup> The first cost benchmark that begins current EC analysis is average avoidable cost. The commission's thought is that AAC is often the same as AVC (since it is the variable costs that can be avoided).<sup>81</sup> Pricing below AAC is therefore seen as sacrifice. The EU courts have yet to use the AAC benchmark. In most cases AVC and AAC will be the same, as often only variable costs can be avoided. The distinction between the two thus depends on the facts of the case.<sup>82</sup>

EC case law supports the sacrifice approach currently undertaken by the Commission. The seminal case of *AKZO Chemie v Commission* involving chemical products held: "A dominant undertaking has no interest in applying such prices except that of eliminating competitors so as to enable it subsequently to raise its price by taking advantage of its monopolistic position, since each sale generates a loss..."<sup>83</sup> In *Akzo*, the pricing strategy undertaken by AKZO Chemie required a sacrifice involved pricing at below the average total cost. The ECJ found that when (a) prices are below AVC; or (b) prices are below ATC but above AVC and it is possible to prove that the firm has intended to eliminate competitors. A line of cases has developed this approach further. In *Tetra Pak II*,<sup>84</sup> a case involving the manu-

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<sup>80</sup> Id. at ¶ 63.

<sup>81</sup> Note however that when AVC and ACC are dissimilar that the Commission believes that ACC is a better indicator of avoided costs.

<sup>82</sup> Guidance on the Commission's Enforcement Priorities in Applying Article 82 EC Treaty to Abusive Exclusionary Conduct by Dominant Undertakings at FN 40.

<sup>83</sup> Case 62/86 *AKZO Chemie v. Commission* [1991] ECR I-3359, paragraph 71.

<sup>84</sup> Case C-333/94 P *Tetra Pak International SA v. Commission* [1996] ECR I-595I.

facture of aseptic and non-aseptic cartons, and in *France Télécom*,<sup>85</sup> a case involving charging of below-cost prices for ADSL high-speed Internet services, the European Court of Justice held that the Commission could use two separate cost measures. In *France Télécom*, the court reaffirmed a lack of recoupment for institutional reasons. The court reasoned that to demonstrate recoupment would increase the evidentiary burden upon plaintiffs. This reasoning provides an opening that might allow for cases against SOEs to be successful, though it does not recognize that SOEs might never need recoupment in the first place.

France Télécom also discusses, however, that recoupment may be entertained where prices are below Average Total Cost (ATC) and above AVC. In such circumstances, proof of recoupment may show eliminatory intent.<sup>86</sup> The Commission entertains predation claims between AVC and ATC because “Such prices can drive from the market undertakings which are perhaps as efficient as the dominant undertaking but which, because of their smaller financial resources, are incapable of withstanding the competition waged against them.”<sup>87</sup> This Commission belief in the importance of protecting less efficient competitors goes to the idea embodied in Article 82 of protecting the competitive process.<sup>88</sup>

The above cases all dealt with situations in which there was only a single product market. In *Deutsche Post AG*, the Commission examined different product markets, in which it used Long Run Average Incremental Costs for those non-common fixed costs. *Deutsche Post AG* is also the case most on point in EC jurisprudence

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<sup>85</sup> Case C-202/07 P, *France Télécom v. Commission*, judgment of 2 April 2007.

<sup>86</sup> *Id.* at para 111.

<sup>87</sup> Case 62/86 *AKZO Chemie v Commission* [1991] ECR I-3359, paragraph 72.

<sup>88</sup> ALISON JONES, BRENDA SUFRIN & BRENDA SMITH, *EC COMPETITION LAW* 3d ed. 337 (2007).

on SOEs regarding predatory pricing involved the European Commission investigation Deutsche Post AG (“DPAG”) for abuse of a dominant position in Germany. At the time of the initial complaint against DPAG, DPAG was a 100 percent SOE. The Commission found that because of the excess revenue produced from the reserve area, the reserve area could serve as a “likely and permanent source of funding” for cross subsidization because the revenues in the reserve sector exceeded the costs.<sup>89</sup>

The Commission held that between 1990 and 1995, DPAG’s revenue was below its incremental cost of providing mail order parcel services. This allowed DPAG to successfully pursue predation. It did so through the cross subsidization of activities in the competitive sector by revenues from the reserve sector.<sup>90</sup> The Commission also discovered a longer lasting (1974-2000) anti-competitive fidelity rebate scheme.<sup>91</sup> The cross subsidization of DPAG enabled it to tie its fidelity program for mail parcel services even though the parcel services was less efficient than its competitors. The fidelity rebates

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<sup>89</sup> Case COMP/35.141, *Deutsche Post AG*, 2001 OJ (L 125) 27, para (6). More recently, the Commission has suggested that cross-subsidies may be predatory, even in situations where the predator firm is not dominant in the predation market. (“The Commission may also pursue predatory practices by dominant undertakings on secondary markets on which they are not yet dominant. ... While the dominant firm does not need to predate to protect its dominant position in the market protected by legal monopoly, it may use the profits gained in the monopoly market to cross-subsidize its activities in another market and thereby threaten to eliminate effective competition in that other market.”). Guidance on the Commission’s Enforcement Priorities in Applying Article 82 EC Treaty to Abusive Exclusionary Conduct by Dominant Undertakings at FN 39.

<sup>90</sup> Case COMP/35.141, *Deutsche Post AG*, 2001 OJ (L 125) 27, para (6).

<sup>91</sup> DPAG had entered into standard form contract fidelity agreements in which firms had to entrust all mail order parcels to DPAG. Case at para 34.

prevented entry into the parcel services market by other firms through tying. New entrants could not generate a critical mass necessary to sustain entry into the market. This is an understanding of raising rival's costs even though it is not explicit. Because of the lack of critical mass, it was not possible for mail order traders to set up an alternative delivery network infrastructure to that of DPAG. The cost structure of the DPAG parcel services market was such that between 1990 and 1995, every DPAG sale presented a loss. In the medium term, this was not in the economic interest of DPAG. In the long term, continuing this line of business prevented entry by competitors. The Commission fined DPAG €24 million and forbade any such conduct in the future. It also imposed a structural remedy to separate DPAG's commercial parcel services from its reserved sector services. Given that the cost of the penalty was less than the gains of anti-competitive conduct, it is unclear that this remedy created a chilling effect on anti-competitive behavior. The case did not need to get to particulars of what constituted a "cost" for purposes of LRAIC cost methodology so we lack an understanding on whether a different cost test would have been used for SOEs.

### 3.5 C. South Africa

South Africa's abuse of dominance provisions can be found in Section 8(d)(iv) of the South African Competition Act 89 of 1998, specifically "selling goods or services below their marginal or average variable cost." In spite of a specific test in the statute, South African case law from the Competition Tribunal explains that other cost based tests may be used beyond that of MC and AVC.<sup>92</sup> The elements

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<sup>92</sup> *Nationwide Airlines and South African Airways* (92/IR/Oct00) ("[T]he complainant is not bound to follow the prescribed cost formula suggested in 8(d)(iv). In other words if a complainant, relying on section 8(c), can

for a successful predation claim include a showing of dominance based on market share and market power, that the goods or services are sold below MC or AVC and that efficiency defences do not outweigh competitive harm.<sup>93</sup> The Commission has addressed frequent challenges recently against SOEs for unfair competition and abuse of their dominant market position. One case addresses predatory pricing by an SOE, *South Africa Airways*. In that case, the Competition Tribunal of South Africa ruled against the plaintiff based on an AVC test.<sup>94</sup> The Tribunal noted that it was open to the use of other tests. However, there was no explicit discussion of cost based tests for SOEs and whether it would be different for non-SOEs.

### 3.6 D. Korea

There are two bases for a predatory pricing claim under Korean law, called the Monopoly Regulation and Fair Trade Act, Article 3-2 prohibits the abuse of dominant positions; and Article 23 of the Act that prohibits unfair business practices and applies to predatory pricing by non-dominant firms. Unlike other jurisdictions, Korea does not utilize a cost based test for predation. Rather, Korean predatory decisions focus on whether or not alleged predatory pricing was “fair.” According to Korea’s predatory pricing test, price could be

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show that a respondents costs are below some other appropriate measure of costs not mentioned in the section it may prevail provided it adduces additional evidence of predation beyond mere evidence of costs. To determine what that should be we need to examine the phenomenon of predatory pricing and then examine some of the approaches taken in other jurisdictions.”).

<sup>93</sup> South African Competition Act 89 of 1998 § 7.

<sup>94</sup> *Nationwide Airlines and South African Airways* (92/IR/Oct00).

above average total cost and still be predatory intent is relevant, and there must be market foreclosure or consumer harm.

A series of examples of Korean case law provides a sense of what constitutes unfair competition. In the *Cadland* case,<sup>95</sup> the KFTC argued that Cadland purchased software from an American company but then bid at 1 won to provide Korean Electric with thousands of copies of this software (though the case does not specify the amount of the US purchase, presumably it was at an amount greater than 1 won). The KFTC argued that Cadland was willing to do this because once Korean Electric starts using its software, Cadland would have locked in future business worth millions, making this contract essentially a long term deal.<sup>96</sup> Such underbidding conduct, according to the KFTC, constituted an unfair and anti-competitive practice. This line of reasoning holds for other Korean predatory pricing cases, such as *Samsung Tesco*,<sup>97</sup> and predatory bidding cases such as *Ahnkook*,<sup>98</sup> *Lucky*,<sup>99</sup> and *Sangyong*.<sup>100</sup>

In *Samsung Tesco*, Samsung Tesco paid Coca Cola 984 won (approximately \$0.73 per 1.5 liter) to distribute Coca Cola in its stores from August 30, 2000 through November 2, 2000. However, Samsung Tesco sold Coca Cola below its cost at 390 won to 890 won (approximately \$0.25 to \$0.65) in order to attract more customers. KFTC concluded that this was anti-competitive. The case does not offer specifics as to whether or not there was some sort of short term price cutting defense that might have been part of some sort of loss

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<sup>95</sup> *KFTC v. Cadland Co.*, [1996] KFTC 96-18.

<sup>96</sup> The KFTC estimated that the winner of this bid would be guaranteed to get about 3 billion won, or about \$2.2 million, worth of future business.

<sup>97</sup> *KFTC v. Samsung Tesco Co.*, [2001] KFTC 2001-31.

<sup>98</sup> *KFTC v. Ahnkook Co.*, [1994] KFTC 94-328.

<sup>99</sup> *KFTC v. Lucky Brands Co.*, [1983] KFTC 83-12.

<sup>100</sup> *Sangyong Co.*, Case No. 9512.1241 (cease/desist letter from KFTC).

leader promotion. A pro-competitive defence is possible under Korean predatory pricing law although the case does not mention if Samsung Tesco made such a defence.

The Korean Supreme Court ruled against predatory pricing in a claim that the KFTC brought in *Hyundai Information Technology Co.*<sup>101</sup> In *Hyundai*, the city of Incheon offered a contract for software with an estimated price of 972 million won (approximately \$700,000). Three companies bid. Hyundai Information Technology Co. bid at 29 million won (approximately \$21,000), Daewoo Information Systems Co. bid at 195 million won (about \$141,000), and Samsung SDS bid at 330 million won (approximately \$240,000). Daewoo and Samsung complained to the KFTC and the KFTC intervened. The parties litigated the case went to the Korean Supreme Court. The Supreme Court held for Hyundai. It ruled that Hyundai's bid of 29 million won did not violate Korea's competition law because: 1) all other bidders bid below the City's estimated price, and 2) the contract was for a software system that did not have any entrenched long term derivative benefits attached to it. The second factor distinguished it from the fact pattern in *Cadland*.

### 3.7 E. Chile

Article 3<sup>c</sup> of the Chilean Competition Act prohibits predatory practices that abuse a dominant position. So far, there has been only one predatory pricing case in Chile's antitrust jurisprudence, *James Hardie Fibrocementos Limitada*.<sup>102</sup> The Tribunal held with fixed assets that produced both products, each product was above AVC.

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<sup>101</sup> *Hyundai Information Technology Co. v. KFTC*, Feb. 11, 1999.

<sup>102</sup> *James Hardie Fibrocementos Limitada*, sentence of the Supreme Court of November 29, 2006, sentence of the Tribunal for the Defense of Competition of June 13, 2006.

Moreover, there was no recoupment in another market. On appeal, the Supreme Court reversed and held that James Hardie conducted predatory pricing in the first market by selling below ATC and then recouped its losses in the second market. This case involved a private firm rather than an SOE. The issue of what constituted a cost did not come up in terms of the analysis of either the Tribunal or the Supreme Court, merely the allocation of costs as to AVC. Chilean case law is therefore silent on what outcome would be likely for a predatory firm with a soft budget constraint.

### 3.8 F. Canada

The Competition Act governs Canadian competition law. Predatory pricing analysis is a sub-area of abuse of dominance, section 79(1) of the Act.<sup>103</sup> Moreover, Article 50 provides for penalties for unreasonably low prices under section 50 of the Act.<sup>104</sup> In 2008, the Canadian Competition Bureau published its Predatory Pricing Enforcement Guidelines, which present the state of the art thinking on Canadian predatory pricing policy.<sup>105</sup> The most recent Canadian predatory pricing case is *Air Canada*, which utilized an AAC test. *Air Canada* marked a shift from the AVC test previously adopted under *R. v.*

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<sup>103</sup> *Canada (Commissioner of Competition) v. Air Canada* (2003), 26 C.P.R.(4th) 476 (Comp.Trib.); *Canada (Director of Investigation and Research) v. Tele-Direct (Publications) Inc.* (1997), 73 C.P.R. (3d) 1.

<sup>104</sup> *R. v. Hoffmann La Roche Ltd.* (1980), 28 O.R. (2d) 164 (H.C.J.) affirmed 33 O.R. (2d) 694 (C.A.); *R. v. Consumers Glass Co.* (1981), 33 O.R. (2d) 228 *Consumers Glass Co.*

<sup>105</sup> Canada, Predatory Pricing Enforcement Guidelines (2008), available at <http://www.cb-bc.gc.ca/eic/site/cb-bc.nsf/eng/02713.html>.

*Hoffmann La Roche Ltd.*<sup>106</sup> In *Air Canada*, the litigation focused on what constituted an avoidable cost for an airline route. For example, whether to prohibit starting an unprofitable route even if it adds value to the network via more travellers using the network might make economic sense because revenues might increase on other routes. Whether to count such routes, called those “beyond contribution”, as an avoidable cost would impact whether such conduct could be shown as predatory.<sup>107</sup> The Tribunal held that Air Canada had engaged in predatory pricing below AAC on two routes. However, the Commission ultimately dropped the case because of Air Canada’s entry into bankruptcy and changes that occurred in Canada’s airline sector. As the cost based tests all deal with private firms, it is unclear how soft budget constraints might be counted as costs. However, the Air Canada decision suggests that judicial administrability might have been a factor in how costs are to be calculated because of the fear that plaintiffs would be unable to carry out complex cost calculations.<sup>108</sup>

### 3.9 G. New Zealand

The generic prohibition for abuse of dominance under the Commerce Act is in Section 36. There is only one case to date on predatory pricing, *Carter Holt Harvey Building Products Group Ltd v CC*.<sup>109</sup> The

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<sup>106</sup> *R. v. Hoffmann La Roche Ltd.* (1980), 28 O.R. (2d) 164 (H.C.J.), affirmed 33 O.R. (2d) 694 (C.A.).

<sup>107</sup> *Canada (Commissioner of Competition) v. Air Canada* (2003), 26 C.P.R.(4th) 476 (Comp.Trib.) at para. 301.

<sup>108</sup> Cyril Ritter, *Predatory Pricing Law in Canada, Australia and New Zealand: Recent Developments*, 2005 EURO. COMP. L. REV. 48, 52.

<sup>109</sup> *Carter Holt Harvey Building Products Group Ltd v CC* [2006] 1 NZLR 145; (2004) 11 TCLR 200 (PC).

case involved differentiated products in the building insulation markets.<sup>110</sup> The case is not explicit as to the particular price test, though in investigations the New Zealand Competition Commission has used both AVC and AAC.<sup>111</sup> This case is analogous to one in Australia, which New Zealand looks to for guidance in its antitrust jurisprudence. In the Australian case *Boral Besser Masonry Ltd v ACCC*, the court did not explicitly adopt a single price test.<sup>112</sup> There is no predatory pricing case specific to New Zealand SOEs. However, it is unlikely that it would be possible to win such a case in New Zealand as the Privy Council stated that recoupment is a requirement in a successful claim of predatory pricing.<sup>113</sup>

### 3.10 H. Japan

Two sets of provisions under the Japanese Act Concerning Prohibition of Private Monopolization and Maintenance of Fair Trade address predatory pricing. The first is Article 3 prohibition against monopolization. The second is Article 19, which prohibits unfair trade practices. Section 6 of Article 19 proscribes predatory pricing.

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<sup>110</sup> The court stated, “INZCO could recoup the cost of the Wool Line special pricing arrangement if the scheme meant that NWP was constrained from expanding in the market or eliminated from it. The recoupment would take the form of maintaining the list prices of Pink Batts at levels that were otherwise threatened by NWP, and at the same time increasing its market share for Pink Batts and other INZCO products.” *CC v Carter Holt Harvey Building Products Ltd* (2000) 9 TCLR 535, Supplementary Judgement of Professor Lattimore, paragraph 51.

<sup>111</sup> New Zealand Commerce Commission, 2008 Unilateral Conduct Working Group Questionnaire submission to the ICN (on file with the author).

<sup>112</sup> *Boral Besser Masonry Ltd v ACCC* (2003) 195 ALR 609; (2003) 215 CLR 374.

<sup>113</sup> *Id.* at. 469-470.

According to Section 6, “excessively below the cost incurred in the said supply” is interpreted as below AVC, and “a low consideration” is interpreted as below ATC.<sup>114</sup> Judicially, the AVC standard has been recognized in the private action *Daikoku* decision<sup>115</sup> whereas the *Hamaguchi Petroleum* decision recognized above AVC but below ATC test.<sup>116</sup>

A private suit, *Yamato v. Japan Post*<sup>117</sup> concerned predatory pricing by Japan Post. Both the Tokyo District Court and Tokyo High Court rejected Yamato’s claim made pursuant to Article 24. The Tokyo High Court rejected the assertion by the plaintiff that Japan Post’s cost in commercial parcel delivery should be calculated on “stand-alone” basis (separated from Japan Post’s regulated postal delivery). The Court opined that it is economically rational for an enterprise, when it enters into new business, to make use of its resources in its existing business. Separate from the case, The Japan Federal Trade Commission (“JFTC”) published its opinion on the case as a study group report in 2006. The JFTC study group opinion was hostile to the position of Japan Post, advocating “stand-alone” basis (at least regarding Japan Post pre-privatization) should be the method of allocating common fixed costs when a monopolist in market A entered market B.<sup>118</sup> The Tokyo High Court in Yamato rejected the idea of a stand alone basis because the stand-alone cost method was not mature as a legal test. As a general matter, JFTC’s regulatory standard on low pricing is that it usually considers pricing below

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<sup>114</sup> Available at <http://www.cas.go.jp/jp/seisaku/hourei/data/utp.pdf>.

<sup>115</sup> Tokyo High Court decision, Case number 2002 (Ne) 1413 (29 September 2004).

<sup>116</sup> JFTC remedy order, 53 Shnketsushu 867-68 (16 May 2006).

<sup>117</sup> Tokyo High Court decision, 2006 (Ne) No. 1078, LEX/DB Legal Database No. 28140088 (28 November 2007)

<sup>118</sup> <http://www.jftc.go.jp/e-page/pressreleases/2006/July/060721.pdf>.

purchase price illegal when it harms competition.<sup>119</sup> One problem in the *Yamato* case had to do with evidence because the JFTC did not first bring a case of its own. Yamato could not obtain necessary cost data of the Japan Post to prove its sales below cost arguments. Therefore, it tried to rely on unfair advantage such as the tax exempt status the Japan Post enjoys relative to private companies.

There have been some other state owned enterprise predatory pricing cases in Japan. All of them are private suits. Nearly all of the decisions held for the defendants.<sup>120</sup> The only exception is the Tokyo District Court decision in the *Slaughterhouse* case.<sup>121</sup> The Supreme Court opined in that case that the Antimonopoly Act was applicable to low pricing by the Tokyo Municipal Slaughter House that cross-subsidized its sales. Nevertheless, the District Court found the low pricing to be legal since the pricing did not harm fair competition as slaughterhouses outside Tokyo were as inexpensive as the defendant.

### 3.11 V. Conclusions

SOEs remain an important part of economic life in many countries. SOE corporate governance seems to be better when there is more accountability. There is more accountability when SOE governance statutes reflect those of private firms. This result holds across legal

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<sup>119</sup> See JFTC, Guidelines Concerning Unfair Price Cutting under the Antimonopoly Act (20 November 1984), translation available at <http://www.jftc.go.jp/epage/legislation/ama/pricecutting.pdf> (visited 25 November 2008).

<sup>120</sup> *Postcard case* (Osaka High Court in 1994); *Bus for Aged Citizens case* (Yamaguchi District Court Shimonoseki Branch in 2006).

<sup>121</sup> The Supreme Court: Tokyo Municipal Slaughter House decision Supreme Court decision, 43 (12) Minshu 2078, 2083 (14 December 1999).

origins. Indeed, some of the most un-competitive SOEs are in common law advanced economies such as Canada and the United States. Antitrust solutions against SOE anti-competitive behavior seem to hold across jurisdictions regardless of legal origin. Predatory pricing jurisprudence does not distinguish between private and government firms even though the incentives may be different given the soft budget constraints of government firms.

The next stage in research in the area of competition and corporate governance of SOEs is to undertake a full cross country comparison and to do so across a number of different types of SOEs, rather than in just one sector to examine all cases and determine how the law in practice matches the law on the books for both corporate and antitrust laws. This is a significant task. The government oversight across SOEs varies both across and within countries. In some countries there are sector regulators or multiple regulators (sector, financial, etc.) to overview the SOE. In other countries there is a general SOE law. With the creation of such a database, it would be possible to undertake cross country quantitative analysis to learn more about some dynamics of SOEs.

Below this chapter offers a number of recommendations that would improve competition and corporate governance of SOEs.

### **3.12 A. Improved External Oversight**

An annual performance review beyond annual reports may be necessary to encourage good corporate governance of SOEs. This would benchmark the SOE relative to other SOEs in the same sector in other countries and establish how well the corporation is meeting its target relative to similar entities elsewhere.<sup>122</sup> The benchmarking would

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<sup>122</sup> Maria Luisa Corton & Sanford V. Berg, *Benchmarking Central American Water Utilities*, 30 UTILITIES POL'Y 1 (2008); Céline Nauges & Caroline van

include specific metrics to measure financial, management and service aspects of the SOE relative to other SOEs.<sup>123</sup> Benchmarking across countries is made difficult by the various different goals that SOEs might have across countries.

Separate oversight functions for financial and management/regulation across government agencies would reduce opportunities for regulatory capture. Other types of oversight include mandating accounting of SOEs by private auditing firms rather than by another part of government. This would reduce the possibility of government self dealing that might limit a full discovery of the condition of SOEs in auditing results. Part of an improvement in oversight would include an increase in effective penalties for bad oversight and management, particularly when SOEs engage in anti-competitive actions. There is a need for personal sanctions for bad behavior on the part of SOE managers such as the loss of job for SOE executives and barring work from other parts of government for a set time period after they are fired from SOE management. Another potential penalty would be for an SOE that is caught engaging in unlawful anti-competitive activity or bad corporate governance to enter into a process of structural separation between the statutory monopoly business and the competitive business.

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den Berg, *Economies of Density, Scale and Scope in the Water Supply and Sewerage Sector: A Study of Four Developing and Transition Economies*, 34 J. REG. ECON. 144 (2008).

<sup>123</sup> Antonio Estache, Sergio Perelman & Lourdes Trujillo, "Infrastructure Performance and Reform in Developing and Transition Economies: Evidence from a Survey of Productivity Measures," (2005), World Bank Policy Research Working Paper No. 3514 (providing a framework benchmarking); Céline Nauges & Caroline Berg, *Economies of Density, Scale and Scope in the Water Supply and Sewerage Sector: A Study of Four Developing and Transition Economies*, 34 J. Reg. Econ 111 (2008) (using panel data for cross country benchmarking).

Codes of conduct should be established and enforced between regulated and unregulated entities. Where SOEs could compete based on efficiency concerns, they should not be allowed to potentially utilize moneys from its non-profit making function in anti-competitive ways.

Another method of external oversight is through the capital markets. Governments should make SOEs go to capital market for loans. This will encourage SOEs to be disciplined to pay back the loans, so long as there are no soft budget constraints. If governments implicitly guarantee loans, this solution is not viable because the worse the governance of the firm, the better the rate because the more likely the government is to guarantee repayment of the loans.

### **3.13 B. Improve Internal Corporate Governance**

It is important to improve the quality of internal corporate governance of SOEs. The corporate social responsibility movement and the shareholder democracy movement that seek to empower shareholders to provide for greater accountability have been issues of significant attention in both academic and policy circles. If we are to take the corporate social responsibility movement seriously, it is particularly necessary to do so with regard to SOEs. Governance is more opaque and less responsive to shareholders of SOEs than of publicly traded firms. This would entail greater penalties for a fiduciary breach on the part of the SOE board. This should include steep financial penalties for managers and directors that breach their duties. Governments should strive to increase the use of non-governmental appointed directors on the board of SOEs. The state should reduce the number of political appointments on SOE boards and increase the number of directors who have previous business experience that would be useful in running a company. There might be some informal norms such as shaming that might improve corporate governance. For shaming sanctions to be successful, there needs to be enough transparency for information about bad corpo-

rate governance of SOEs to emerge and a sense in a given country that the lack of accountability is something for which one should be ashamed.

### 3.14 C. Corporatization of SOEs

Some countries have shifted the nature of SOE governance to move to a more corporatized form of governance. In postal delivery, most EU countries' postal operators have a corporatized form.<sup>124</sup> SOE management and directors may be mandated to have specific skills and/or experience.<sup>125</sup> Creating a competency profile provides a set of standards by which government can require effective managers. Policy targets, including financial goals, would create quantifiable targets for the SOE to meet. The failure to meet such targets could lead to the ouster of SOE leadership. This process would align management's interest more with residual owners because management would have incentive to create a more efficient SOE.

Corporatization has proven to be an intermediate step for SOEs that reduces some incentives for mismanagement due to soft budget constraints and a lack of internal and external accountability by making the SOE act more like a private firm.<sup>126</sup> Corporatization forces firms to ask if there are better ways to achieve lower costs. If

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<sup>124</sup> WIK Consult GmbH, "Main developments in the postal sector (2004-2006)," (2006), available at [http://ec.europa.eu/internal\\_market/post/doc/studies/2006-wik-final\\_en.pdf](http://ec.europa.eu/internal_market/post/doc/studies/2006-wik-final_en.pdf).

<sup>125</sup> David F. Scott, "Strengthening the Governance and Performance of State-Owned Financial Institutions," World Bank Policy Research Working Paper No. 4321 (2007).

<sup>126</sup> José A. Gómez-Ibáñez, "Alternatives to Infrastructure Privatization Revisited: Public Enterprise Reform from the 1960s to the 1980s," World Bank Policy Research Working Paper No. 4391, 25-27 (2007).

an SOE is in a corporatized form, it is easier to keep track of the performance because of better and more information. Some empirical work supports the proposition that corporatization can improve the efficiency of SOEs.<sup>127</sup> In most cases, this is a second best solution. If there are strong concerns about managerial incentives of SOEs, corporatization is not equivalent to privatization.<sup>128</sup> However, if privatization is not possible politically, corporatization may be a second best solution or an intermediary step to privatization.

Where there has been increased commercialization and corporatization of SOE postal incumbents, SOEs behave more like private companies. Generally, this has been successful and not surprisingly, it is successful in precisely those countries that provide for greater competition.<sup>129</sup> Thus competition and good corporate governance indeed seem to be somewhat substitutable. A successful commercialization provides an example of how to limit some of the impulse of a SOE postal incumbent to raise the cost of rivals. Let us examine the case of New Zealand. Prior to its transformation, New Zealand

<sup>127</sup> Varouj A. Aivazian, Ying Ge and Jiaping Qiu, *Can Corporatization Improve the Performance of SOEs Even Without Privatization?*, 11 J. CORP. FIN. 791 (2005) (analyzing corporatized Chinese SOE performance).

<sup>128</sup> Andrei Shleifer, *State Versus Private Ownership*, 12 J. ECON. PERSP. 133 (1998) (claiming that private ownership is superior to government ownership because private ownership creates incentives to reduce costs while government officials have incentives to supply monopoly rents); Timothy Besley & Maitreesh Ghatak, *Government Versus Private Ownership of Public Goods*, 116 Q. J. ECON. 1343, 1343-44 (2001) (arguing that government ownership should be limited only in situations where the SOE project creates primarily public goods and the government values those goods more than anyone else).

<sup>129</sup> Michael A. Crew & Paul R. Kleindorfer, "Developing Policies for the Future of the United States Postal Service," in *COMPETITIVE TRANSFORMATION OF THE POSTAL AND DELIVERY SECTOR* (Michael A. Crew & Paul R. Kleindorfer eds., 2003).

Post had a statutory monopoly with its large reserve sector based on parcels with a weight of less than 500g. On April 1, 1998, New Zealand removed the statutory monopoly on all letters, regardless of weight. New Zealand Post was given, for the most part, equal treatment with all other postal operators including full application of competition laws. By the end of the year, there were 17 registered postal operators within New Zealand. The majority of these competitors were small local businesses. Corporatization of the SOE in New Zealand between 1987 and 1998 increased transparency and accountability of New Zealand Post. Staff became more productive (A staff decrease of 40 percent, fewer handles, and an increase of business of 20 percent), New Zealand Post more profitable (a \$NZ37.9 million loss became a profit of \$NZ47.7 million), prices lower (the basic letter price was at the same nominal price in 1987 and 1998), and service delivery quality improved.<sup>130</sup> New Zealand closed a third of the country's post offices. This led to remarkable results: 100 percent increase in labor productivity, 30 percent increase in mail volume and a 30 percent decrease in both the real price of postage and of costs. All of this was done while maintaining the SOE status of New Zealand Post.<sup>131</sup>

Corporatization is not an end solution. Even if the goals of private and public firms were the same, the behavioral outcome of such firms would be different. As Alchian explains, “[B]ecause even with the same explicit organizational goals [between public and private firms], the cost-rewards system impinging on the employers

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<sup>130</sup> OECD, Promoting Competition in the Postal Sector, DAFPE/CLP(99)22, 247-252.

<sup>131</sup> FTC, Accounting for Laws That Apply Differently to the United States Postal Service and its Private Competitors 79 (2007); available at <http://www.ftc.gov/os/2008/01/080116postal.pdf>.

and the ‘owners’ of the organization are different.”<sup>132</sup> Not surprisingly, therefore, some corporatized SOEs do very poorly, even those in common law jurisdictions. Both USPS and Canada Post are corporatized but both maintain a significant reserve sector. Perhaps the better lesson about corporatization is the more an SOE actually looks corporatized, with director control rather than government control and the more competition it faces to ensure that corporatization actually matters, the more SOE outcomes may reflect those of private firms.

### 3.15 D. Increase Competition

Competition means the elimination or at the very least a significant reduction of the reserve sector, such as what the EU has undertaken. It also means a limit upon incumbent firms to abuse the universal services requirement for anticompetitive purposes. As noted earlier in this article, liberalization creates competitive pressure that will constrain poor governance from firms. Liberalization is politically difficult.<sup>133</sup> This is especially true in the current period of world-wide economic crisis. The rhetoric of liberalization has not matched the reality of liberalization, where in fact some liberalization efforts are merely a different and perhaps only somewhat less restrictive form of regulation. However, when these half hearted liberalization schemes fail, there may be significant public resentment and then pushback against liberalization.<sup>134</sup>

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<sup>132</sup> Armen Alchian, *Some Economics of Property Rights*, 30 *IL POLITICO* 816 (1965).

<sup>133</sup> Edward Iacobucci, Michael Trebilcock & Ralph A. Winter, *The Canadian Experience with Deregulation*, 56 *U. TORONTO L.J.* 1 (2006).

<sup>134</sup> Eleanor M. Fox, *Economic Development, Poverty, and Antitrust: The Other Path*, 13 *SW. J. L. & TRADE AM.* 211 (2007).

### 3.16 E. Privatization

Privatization eliminates the soft budget constraint because firms have to rely upon the market, which creates a level of financial discipline.<sup>135</sup> One legislative response to the problem of SOEs has been to privatize these enterprises. During the 1980s and 1990s, countries privatized over 100,000 firms around the world, particularly in Latin America, East Asia, and the former Soviet block.<sup>136</sup> SOEs are less efficient than private firms. Therefore the overall performance of SOEs vis-à-vis private firms compares poorly.<sup>137</sup> Where privatization has not lead to greater efficiencies, in many cases it has been a result of the failure of the architects to introduce liberalization in conjunction with privatization. Put differently, when privatization failed, it seems to be because of flawed design and implementation.<sup>138</sup> That is, there are potential risks to privatization when there are situations of market failure and where there is inadequate regulation to protect the market from functioning. Empirical work in Russia suggests that privatization without ade-

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<sup>135</sup> Emmanuelle Auriol & Pierre M. Picard, *Infrastructure and Public Utilities Privatization in Developing Countries*, 23 WORLD BANK ECON. REV. 77, 80 (2009) (providing a literature review).

<sup>136</sup> John Nellis & Nancy Birdsall, "Privatization Reality Check: Distributional Effects in Developing Countries" in JOHN NELLIS & NANCY BIRDSALL, REALITY CHECK: THE DISTRIBUTIONAL IMPACT OF PRIVATIZATION IN DEVELOPING COUNTRIES 3, 11-12 (2005)

<sup>137</sup> Simeon Djankov & Peter Murrell, *Enterprise Restructuring in Transition: A Quantitative Survey*, 40 J. ECON. LIT. 739 (2002) (studying the effects of privatization).

<sup>138</sup> Harry M. Trebing & Sarah P. Voll, *Infrastructure Deregulation and Privatization in Industrialized and Emerging Economies*, 40 J. ECON ISSUES 1, 5 (2006).

quate regulation can lead to corporate looting.<sup>139</sup> Similarly, Carlos Slim became the world's richest man because he bought the telecom incumbent in Mexico when it was privatized and allowed to maintain its statutory monopoly in fixed line telephony.<sup>140</sup>

A difficult situation may emerge where if there is no privatization and liberalization in the near term, the yearly government bail out will create an even bigger mess in the long term. At that time, the effect of trying to create cost controls on SOEs may come at a higher cost. Addressing this situation means overcoming significant public choice problems not merely from SOEs but from vested private interests that benefit from the status quo. Though competition advocacy on the part of antitrust agencies may help, competition advocacy has its limits as agencies are subject to political retribution from the legislators who might not want a pro-competitive message.<sup>141</sup> For example, while the FTC has had a strong advocacy program,<sup>142</sup> it has never questioned why there should be a state action exemption nor in the postal context did it discuss the possibility of privatization of the USPS.

### 3.17 F. Create an Effective Antitrust Test

One problem with antitrust approaches to predatory pricing cost based tests is that they do not account for the government created

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<sup>139</sup> Bernard Black, *Does Corporate Governance Matter? A Crude Test Using Russian Data*, 149 U. PA. L. REV. 2131, 2133 (2001).

<sup>140</sup> D. Daniel Sokol, *Barriers to Entry in Mexican Telecommunications: Problems and Solutions*, 27 BROOK. J. INT'L L. 1 (2001).

<sup>141</sup> D. Daniel Sokol, *Limiting Anti-Competitive Government Interventions That Benefit Special Interests*, 17 GEO. MASON L. REV. [\_\_] (2009 (forthcoming)).

<sup>142</sup> Todd Zywicki, James C. Cooper & Paul A. Pautler, *Theory and Practice of Competition Advocacy at the FTC*, 72 ANTITRUST L.J. 1091 (2005).

distortion in creating a revised baseline for how to measure a cost.<sup>143</sup> One conclusion from the cross country analysis is that antitrust has been ineffective, across legal origins, in accounting for the nature of SOEs in cost based tests to determine predatory pricing. Incremental cost tests may not detect potentially anti-competitive behavior by SOEs. As Panzer suggests, "Because a revenue maximizing SOE wishes to offer below cost prices on a continuing basis, it may find optimal to alter its strategic investment policies so as to distort the outcome of any incremental cost test to which rates may be subject."<sup>144</sup> However, current predatory pricing tests do not account for this difference.

This chapter suggests that antitrust predatory pricing tests require an imputation of the various costs and benefits of government ownership and government support of SOEs. This test would measure the various indirect benefits that SOE providers receive from their governments in terms of assessing the cost floor. Part of the reason for the lack of the use of such a test may be that, in practice, a SOE often incurs both advantages and disadvantages from its state-owned status, and some of these disadvantages (e.g. loss of managerial control) may be difficult to quantify.

Administrative ease is certainly an important practical concern. Some rough rule of thumb might be proposed on these grounds. The most appropriate rule of thumb (and rule generally) will depend upon the relevant social objective. Is it clear what this objective should be? If the social objective is efficiency and through the use of antitrust law, then the counters of such a test might be based on an imputation test for SOEs.

One imprecise analogy would cost imputation in TELRIC pricing in telecommunications. The cost imputation of TELRIC pricing of the

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<sup>143</sup> Sidak and Sappington at 518.

<sup>144</sup> John C. Panzer, "Interactions Between Regulatory and Antitrust Policies in a Liberalized Postal Sector," working paper 2008 at 13.

1996 Telecom Act seems to have been unadministrable for quite some time in the US, New Zealand and other jurisdictions. However, there are also differences between SOE cost imputation and TELRIC cost imputation. TELRIC methodology was adopted primarily because of the issue of selling inputs to retail competitors. This issue, and thus the TELRIC methodology, may be less germane in many relevant settings. While TELRIC served primarily to keep the incumbent's (wholesale) prices relatively low, pricing restrictions for SOEs may serve primarily to keep the incumbent SOE's (retail) prices relatively high.

Many antitrust systems are concerned with the potential of false positives in prosecution.<sup>145</sup> This is particularly a concern in predatory pricing cases when low prices may support competition even if they harm competitors. Compounding the issue of what might go into a SOE predatory pricing test is the concern that courts may not be able to handle such complexity. That is, legal rules must be administrable. As Hovenkamp notes:

[T]here is relatively little disagreement about the basic proposition that often our general judicial system is not competent to apply the economic theory necessary for identifying strategic theory as anticompetitive. This makes the development of simple antitrust rules critical. Antitrust decision making cannot consider every complexity that the market presents.<sup>146</sup>

Accordingly, it is better to have an easier to administer test of predation for SOEs than complex test if the error cost for the complex test would be too high. Administrability is particularly a concern regarding a predatory pricing test that would treat one form of entity

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<sup>145</sup> Frank H. Easterbrook, *The Limits of Antitrust*, 63 TEX. L. REV. 1, 2-3 (1984) (discussing the greater harms of false positives over false negatives).

<sup>146</sup> HERBERT HOVENKAMP, *THE ANTITRUST ENTERPRISE: PRINCIPLE AND EXECUTION* 47 (2005).

differently than another and would require a complex imputation test.

What is not clear is whether or not a separate SOE predatory pricing test is administrable in either common law or civil law jurisdictions. Such a test would require a sense of the costs of an efficient entrant. To determine this cost, there would need to be a way to determine what costs are due to the soft budget constraint of the SOE based on its governance structure and the special privileges that the government grants it. Based on the general concern of administrability of predatory pricing, it is not clear that such a specific test, if it could be devised might be understood and administered by courts. Antitrust case law would need to catch up to economic thinking on SOEs and on government support for firms. Courts across the countries surveyed have yet to be able to show an ability to grapple with these issues effectively and seem to have some trouble even with cost based tests involving private firms. An anti-trust solution needs more work both at the theoretical level and in terms of implementation within antitrust doctrine.

The premise behind much of antitrust analysis is to determine what an efficient competitor would do. However, in the case of SOEs, the problem is that an efficient new entrant would never have created the type of network that many SOEs have. European state aids jurisprudence recognizes this point but most countries lack a state aids regime.<sup>147</sup>

### **3.18 G. Final Thoughts**

Overall, SOE competition and governance issues are difficult questions. Unfortunately, the prospects for a simple, neat rule for SOE

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<sup>147</sup> *Chronopost SA, La Poste and French Republic v Ufex and others*, C-341/06 P and C-342/06 P, decided Dec. 6. 2007 at para. 38.

pricing seem limited. Competition law is inadequate at present given a lack of an effective test to measure predation by SOEs as well as administrability problems. A larger competition policy may or may not be inadequate – privatization is clearly not palatable and competition advocacy to liberalize markets may be a non-starter during the current global crisis. Public choice concerns limit regulatory liberalization and these concerns must be overcome. Some SOEs matter more than others, particularly those in critical network industries (e.g., transport, finance, utilities). In these areas sector regulators have serious capture problems. Perhaps the world-wide macro-economic crisis will lead to a reinvigorated IMF that demands liberalization might be the only way to create more competition. Better corporate governance, akin to the requirements of corporate governance for publicly traded firms might help. A key role of price floors for SOEs is to limit “empire building” by SOE managers. Perhaps empire building can be limited more effectively in practice via internal governance reform the ideal rules for SOE pricing may well be sector-specific.<sup>148</sup> These are themes worth developing in future scholarship.

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<sup>148</sup> Mark Armstrong & David E.M. Sappington, *Regulation, Competition, and Liberalization*, 44 J. ECON. LIT. 325, 325 (2006).

## 4           **On the Difficult Relationship between Competition Policy and Public Enterprises: Lessons to be Learned from Recent Develop- ments in the Field of European State Aid Control**

*Hans W. Friederiszick and Jakub Kałużny*<sup>1</sup>

### 4.1           **Introduction**

The financial crisis has put pre-crisis political consensus with respect to market organization in Europe into question: Several formerly private banks have come under state control; the willingness of governments to bailout failing firms has risen again; only the future will show whether liberalization efforts will come to a halt. This leads to the general question: is the primacy of private over public firms still the right vision for Europe?<sup>2</sup>

In such an environment the recent competition policy reform in Sweden – allowing the application of Art. 82 to public firms without

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<sup>1</sup> ESMT Competition Analysis

<sup>2</sup> In fact the primacy was already contested before the financial crisis heated-up. In an effort to react to the failed quorum of the French citizens on the Lisbon treaty the French President Sarkozy succeeded in toning down the relevance of ‘undistorted competition’ among the EC policy objectives. See for instance: <http://www.spiegel.de/international/europe/0,1518,490136,00.html>

proving dominance (but proving common interest violation) – is a timely initiative, implementing an independent agency to review the behaviour of public firms.

In this chapter we consider public ownership **as a form of state intervention** and apply the principles recently laid down in the field of European State aid control.

This analytical experiment reveals several implications for the proper assessment of the potentially anti-competitive behaviour of public enterprises:

First, a consumer welfare standard – applied in most jurisdictions in the field of competition policy – may require adaptation to remain useful when applied to public firms. A thorough assessment of public firms under a **total welfare standard** is therefore welcomed.

Second, the question of whether the ‘public firm’ as a regulatory instrument is the **best regulatory instrument** available for reaching the policy goal shall be assessed carefully. In case of an existing regulatory body, i.e. existence of sector specific regulation, intervention by state subsidized competition seems to us inferior and requires strong justifications.

Finally, **specific theories of harm exist** in the field of state interventions which are not typical under a traditional competition policy perspective, e.g. its strong focus on crowding-out effects, concerns of keeping inefficient market structures alive or distorting dynamic incentives. Reviewing a case from that perspective might provide additional insights.

The chapter is structured along the following lines: First, we summarize the competition law enforcement in the EC with respect to public enterprises. Second, the key differences between private and public firms and insights of the economic literature regarding mixed oligopolies are derived. Third, our policy conclusions are presented based on a few examples. The chapter ends with some final remarks.

## **4.2 Public Enterprises under European Competition Law – a Summary**

The Directorate General of the European Commission holds a dual position with respect to competition policy enforcement: On the one hand it enforces competition policy principles vis-à-vis firms (Article 81, Article 82 and the Merger Guidelines) and on the other hand it oversees government interventions which have the potential to distort competition in the Community (Articles 86 to 87).

The dual role of the Commission becomes most transparent in the case of public enterprises: those entities are subject to direct enforcement of the competition policy principles in their role as an ‘undertaking’ and – in parallel – any measures of its shareholders, the government, is scrutinized under comparable principles.

The following paragraph briefly reviews these two hats of the Commission with a focus on the treatment of public enterprises. Please note that this section does not pretend to provide a thorough legal description.<sup>3</sup>

### ***4.2.1 Application of Competition Law on Public Firms in their Role as an Undertaking***

In general EC competition law applies equally to public enterprises and to private firms. In fact, Article 295 of the EC Treaty establishes that the Commission has to apply competition law independently from the ownership status of the firm, i.e. whether it is a private or public firm.<sup>4</sup>

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<sup>3</sup>See Faull and Nikpay (2007) Mederer, Pesaresi and Van Hoof (2008) and OECD (2009a, 2009b).

<sup>4</sup> Article 295 of the EC treaty says: „This Treaty shall in no way prejudice the rules in Member States governing the system of property ownership.”

For a public firm to escape competition policy enforcement there is one main exit route: In as far as it is **not considered** an ‘undertaking’ competition law does not apply.<sup>5</sup>

In order to be an undertaking an entity must be “*engaged in an economic activity*”. This is defined as “*any activity consisting in offering goods and services on a given market*”. Recent case law appears to consider any activity that **may be fulfilled** by a private undertaking to be economic in nature – a rather broad definition comprising also potential competition. An activity directly related to essential functions of the state is exempted from the application of competition law though.

Interestingly, an entity may be an ‘undertaking’ in certain circumstances but not in others as it is the particular activity and not the institutional body which defines its legal status. This dichotomy inevitably requires transparency rules to render firm internal circumvention impossible.<sup>6</sup>

#### **4.2.2 Application of Competition Law on State Measures in Favor of (Public) Firms**

A further important delineation line of relevance for public enterprises is whether the potentially anticompetitive behaviour is due to an autonomous decision taken by the public firm or induced by some state intervention. In the former case Articles 81 and 82 apply. In the later case Article 86 (in conjunction with the relevant antitrust

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<sup>5</sup> For a definition of undertakings under Art.81 and Art.86 see Faull and Nikpay (2007) pp.188 and pp.598.

<sup>6</sup> See the collection of Commission texts on that matter. Transparency of Financial Relations between Member State and Public Undertakings. [http://ec.europa.eu/competition/state\\_aid/legislation/compilation/I\\_10\\_07\\_09\\_en.pdf](http://ec.europa.eu/competition/state_aid/legislation/compilation/I_10_07_09_en.pdf)

paragraphs) or Article 87 applies. In the following we will briefly summarize these two provisions.<sup>7</sup>

### **4.2.3 Article 86**

Article 86<sup>8</sup> is addressed to Member States, addresses a particular state measure and becomes relevant only in conjecture to the general competition rules (i.e. Article 81 and 82).

Article 86(1) establishes that competition policy rules equally apply for state measures favouring public undertakings and undertakings to which Member States grant special or exclusive right. The Article covers (together with Art. 82) measures which:<sup>9</sup>

- either actually lead the undertaking to behave in such a way as to abuse its dominant position

<sup>7</sup> Article 86 and 87 equally apply for state measures in favor of private firms.

<sup>8</sup> Article 86 of EC treaty says:

*“1. In the case of public undertakings and undertakings to which Member States grant special or exclusive rights, Member States shall neither enact nor maintain in force any measure contrary to the rules contained in this Treaty, in particular to those rules provided for in Article 12 and Articles 81 to 89.*

*2. Undertakings entrusted with the operation of services of general economic interest or having the character of a revenue-producing monopoly shall be subject to the rules contained in this Treaty, in particular to the rules on competition, in so far as the application of such rules does not obstruct the performance, in law or in fact, of the particular tasks assigned to them. The development of trade must not be affected to such an extent as would be contrary to the interests of the Community.*

*3. The Commission shall ensure the application of the provisions of this Article and shall, where necessary, address appropriate directives or decisions to Member States.”*

<sup>9</sup> Jonathan Faull and Ali Nikpay (2007) p.607.

- or have the potential to lead the undertaking to behave in such a way as to abuse its dominant position
- or produce effects similar to those of an abusive behaviour.

The last bullet point has to be highlighted as it considers behaviour by a public firm anti-competitive even if under the regulatory setting no anti-competitive conduct by the public firm is required or observable to produce the anti-competitive effects.

Article 86(2) provides an exemption of competition rules to firms entrusted with SGEI “*in so far as the application of such rules does not obstruct the performance, in law or in fact, of the particular tasks assigned to them.*”

Article 86(3) provides the Commission with the quasi-legislative competence (but not the duty) to enforce Art. 86 by horizontal directives or decisions, i.e. enhance liberalisation efforts. Article 86(3) is however only rarely applied by the Commission (so far this provision has been mainly used to address the financial transparency between public undertakings and Member States and in the telecommunications sector).

#### **4.2.4 Article 87**

A second article of major importance to understand the Commission’s policy towards public enterprises is Article 87. Article 87 regulates specific interventions of the state in favour of undertakings. While it equally applies to private undertakings a particular concern are interventions in favour of public firms.<sup>10</sup>

Article 87 EC specifies a two stage approach. First, with a view to establish *jurisdiction*, it is assessed whether a specific state measure

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<sup>10</sup> A second concern related to ownership are aid measures in favor of national undertakings. See for instance Damien Neven (2008).

constitutes “state aid” within the meaning of Article 87(1). Only state measures which constitute “state aid” within the meaning of Article 87(1) are subject to EU state aid control.<sup>11</sup> Second, there is the assessment of *compatibility*, to determine whether the aid measure can be allowed under the provisions of the EC Treaty.

The Treaty applies a negative presumption to all forms of state aid, declaring those measures incompatible with the common market.<sup>12</sup> The Commission may grant an exemption, however, and declare state aid “compatible” under Article 87(2) or Article 87(3) EC. Measures falling under Article 87(2) are compatible as such.<sup>13</sup> Measures falling under Article 87(3), which are in practice more important, can be declared compatible under the discretion of the Commission. In order to enable the Commission to exercise its control, all measures covered by EU jurisdiction have, in principle, to be notified to the Commission *ex ante*, and then approved by the Commission before they are implemented. The way in which the Commission

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<sup>11</sup> The case law identifies four conditions to be fulfilled jointly for a measure to constitute state aid in the meaning of Article 87(1) EC (See Judgement of the European Court of Justice of 24 July 2003, Case C-280/00, *Altmark Trans GmbH and Regierungspräsidium Magdeburg v Nahverkehrsgesellschaft Altmark GmbH* (“Altmark judgment”), paragraph 75.):

(i) Transfer of state resources - there must be an intervention by the State or through State resources;

(ii) Economic advantage - it must confer an advantage on the recipient;

(iii) Distortion of competition - it must distort or threaten to distort competition;

(iv) Effect on trade - it must be liable to affect trade between MS.

<sup>12</sup> In the European context, the term “common market” stands for the European (EU) market.

<sup>13</sup> These measures primarily relate to social measures aimed at individuals, as well as measures addressing damage due to natural disasters.

exercises its discretionary powers is outlined in a number of Regulations and in so-called *soft law* provisions, such as Guidelines and Communications.<sup>14</sup>

#### **4.2.5 The Refined Economic Approach**

The field of state aid control has been under major reform over last years introducing the refined economic approach in this area. Most important documents comprise the State Aid Action Plan (SAAP),<sup>15</sup> the R&D&I Guidelines,<sup>16</sup> the Environmental Aid Guidelines,<sup>17</sup> the Risk Capital Guidelines<sup>18</sup> and more recently the Common Principle Paper,<sup>19</sup> the Communication regarding large investment projects<sup>20</sup>

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<sup>14</sup> See Rydelski (2006), Faull/Nikpey (2007) and Mederer, Pesaresi and Van Hoof (2008) for comprehensive overviews. A brief description of the main soft law provisions is provided in the Vademecum on Community Rules on State Aid, 2008, available at [http://ec.europa.eu/competition/state\\_aid/studies\\_reports/vademecum\\_on\\_rules\\_09\\_2008\\_en.pdf](http://ec.europa.eu/competition/state_aid/studies_reports/vademecum_on_rules_09_2008_en.pdf).

<sup>15</sup> State aid action plan (2005).

<sup>16</sup> Community Framework for State aid for Research and Development and Innovation, OJ C 323, 30.12.2006, p. 1–26.

<sup>17</sup> Community guidelines on state aid for environmental protection. Official Journal C 82 of 01.04.2008, page 1.

<sup>18</sup> Community guidelines on state aid to promote risk capital investments in small and medium-sized enterprises, Official Journal C 194, 18.08.2006, pages 2-22.

<sup>19</sup> "Common principles for an economic assessment of the compatibility of State aid under Article 87.3 EC-Treaty". DG Competition staff working paper (2009).

and the Broadband Guidelines.<sup>21</sup> In several cases the refined economic approach has been implemented.<sup>22</sup> In the following we briefly outline the main concepts of the new approach.

### The Welfare Standard

The common element for exempting aid under Article 87(3) is that the aid is in the 'common interest'. In economic terms 'common interest' encompasses the "*welfare of all stakeholders and in particular on the welfare of the recipient, its competitors, consumers but also input suppliers (for instance labour).*"<sup>23</sup> Within this approach common interest is exhaustively described by two fundamental aspects, efficiency and equity. Efficiency objectives relate to situations where the market

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<sup>20</sup> Communication from the Commission concerning the criteria for an in-depth assessment of regional aid to large investment projects, OJ C 223, 16.9.2009, p. 3–10.

<sup>21</sup> Community Guidelines for the application of State aid rules in relation to rapid deployment of broadband networks. Official Journal C 235, 30.9.2009, p.7.

<sup>22</sup> Examples are the following cases: C 36/2005 (ex N 373/2005 and CP 255/2005) - United Kingdom Investbx; N 284/2005 - Ireland Regional Broadband Programme: Metropolitan Area Networks ("MANs"), phases II and III; The Netherlands - C 35/2005 (ex N 59/2005) - Broadband development in Appingedam; C 11/2005 (ex N 21/2005) - State aid planned by Germany for the construction of an ethylene pipeline in Bavaria; France - N 674/2006 Soutien de l'Agence de l'innovation industrielle en faveur du programme de R&D NeoVal. A comprehensive case list is given in the Appendix of the Common Principles paper. "Common principles for an economic assessment of the compatibility of State aid under Article 87.3 EC-Treaty". DG Competition staff working paper (2009).

<sup>23</sup> Common Principles Paper (2009).

does not produce the outcome desirable from a total welfare perspective, that is state aid is required to remedy a market failure. Equity objectives relate to how welfare is distributed.

For instance in the R&D&I Guidelines it is explicitly spelled out that State aid to R&D&I activities normally focus on efficiency considerations only (and not on equity considerations). In Footnote 3 of the Guidelines it is explained: *"In economics, the term 'efficiency' (or 'economic efficiency') refers to the extent to which total welfare is optimised in a particular market or in the economy at large. Additional R&D&I increases economic efficiency by shifting market demand towards new or improved products, processes or services, which is equivalent to a decrease in the quality adjusted price of these goods."*

## The Test

By implementing the State Aid Action plan<sup>24</sup> the EC Commission initiated a refined assessment of the economic effects. As a conceptual framework for evaluating state aid measures, the EC Commission puts forward the use of a general balancing test.<sup>25</sup> In essence, this test asks whether (1.) the state aid addresses a market failure or other objective of common interest; (2.) the state aid is well targeted (i.e. is the aid an appropriate instrument, does it provide an incentive effect and is it kept to the minimum necessary) and whether (3.) the distortions of competition are sufficiently limited so that the overall balance is positive. In particular, the following 3-step test for asses-

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<sup>24</sup> State Aid Action Plan (footnote 5), paragraph 11 and 20; Communication on Innovation, COM(2005) 436 final of 21 September 2005.

<sup>25</sup> See in particular State Aid Action Plan (footnote 5), paragraph 11 and 20; Community Framework for State Aid for Research and Development and Innovation (2006/C 323/01), para 1.3.1. and "Common principles for an economic assessment of the compatibility of State aid under Article 87.3 EC-Treaty". DG Competition staff working paper (2009).

sing the compatibility of a state aid measure under Article 87(3) is put forward:

1. *Is the aid measure aimed at a well-defined objective of common interest (e.g. growth, employment, cohesion, environment)?*
2. *Is the aid well designed to deliver the objective of common interest i.e. does the proposed aid address the market failure or other objective?*
  - i. *Is State aid an appropriate policy instrument?*
  - ii. *Is there an incentive effect, i.e. does the aid change the behaviour of firms?*
  - iii. *Is the aid measure proportional, i.e. could the same change in behaviour be obtained with less aid?*
3. *Are the distortions of competition and effect on trade limited, so that the overall balance is positive?*

Fundamentally, the test balances the positive and negative effects of state aid as was the underlying principle already under the old regime. The balancing test is now explicitly spelled out though, measuring the “benefits” of a state aid measure under steps 1 and 2 and the “cost” or negative effects of an aid measure under step 3, including the balancing.

### Services of General Economic Interest

In the context of public service obligations (services of general economic interest), the Court has held that subsidies given to a company providing the public service do not constitute state aid in the sense of Article 87(1) when specific conditions are met relating to, amongst other things, the amount of the subsidy and the way in which it has been granted.<sup>26</sup>

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<sup>26</sup> *Altmark* judgement, paragraph 95

- *“first, the recipient undertaking is actually required to discharge public service obligations and those obligations have been clearly defined;*
- *second, the parameters on the basis of which the compensation is calculated have been established beforehand in an objective and transparent manner;*
- *third, the compensation does not exceed what is necessary to cover all or part of the costs incurred in discharging the public service obligations, taking into account the relevant receipts and a reasonable profit for discharging those obligations;*
- *fourth, where the undertaking which is to discharge public service obligations is not chosen in a public procurement procedure, the level of compensation needed has been determined on the basis of an analysis of the costs which a typical undertaking, well run and adequately provided with means of transport so as to be able to meet the necessary public service requirements, would have incurred in discharging those obligations, taking into account the relevant receipts and a reasonable profit for discharging the obligations.”*

The first two elements of the Altmark test focus on a proper and transparent entrustment of the undertaking with respect to the particular public service. The third and fourth criteria assess the level of compensation. Most notably the fourth criterion proposes – in case no public procurement procedure has been applied – a comparison with a firm *“well run and adequately provided with means of transport”* firm, thereby opening the door for a direct comparison of efficiency of a private and a public enterprise.

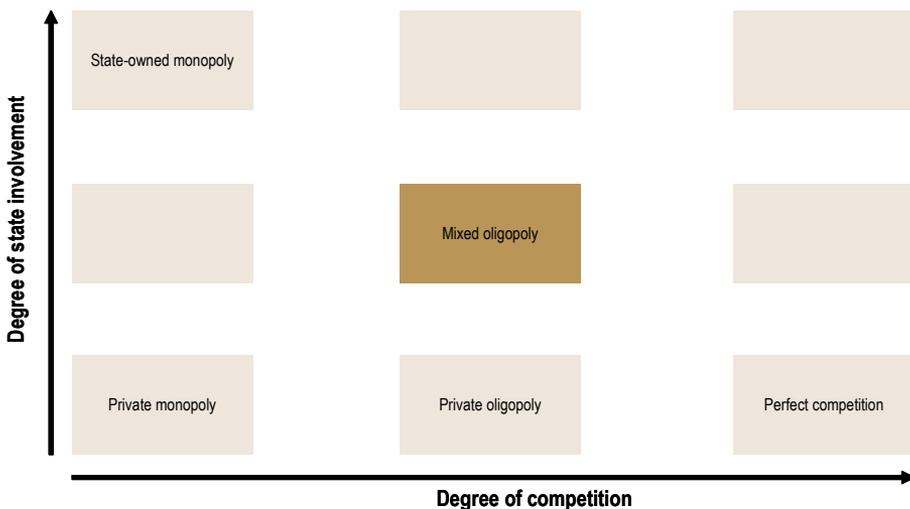
While the Altmark test addresses the issue of jurisdiction, compatibility of the aid measure is assessed in various documents. The gist of those documents is that state aid in support of a SGEI is compatible, if the first three criteria of the Altmark test are fulfilled, that is a transparent and verifiable entrustment is assured and overcompensation can be excluded.

### 4.3 Private vs. Public Enterprises

There are many different ways in which a state may be involved in private markets. Figure 1 shows in stylized terms the different market structures emerging

By simplifying one can categorize different types of industries along two main dimensions: the degree of competition and the degree of government involvement. The degree of competition measures different types of competition, like competition in the market or competition for the market (the later is often accompanied by some form of government regulation, e.g. tendering of specific procurement contracts). Effective competition may also be limited to some dimensions: price may be set by market forces while the (minimum) quality level is regulated (e.g. private bus services). In other industries prices are set – at least partially – by the regulator, while firms compete strongly on innovation or quality (e.g. pharmaceutical industry).

Figure 1: Forms of market organization



Source: Own research

The degree of government involvement depends on whether the state effectively controls the behaviour of some or all firms. "Control of behaviour" may be achieved by different means: a controlling stake in an enterprise, de facto control through tough *ex ante* regulation or indirect influence via state aid. The degree of government involvement varies also depending on whether some firms are public while others are private.

The two extremes are the (uncontested) state monopoly with no existing or potential competition on the one hand and, on the other hand, perfect competition, which is characterized by head-to-head competition between numerous private firms. The relevant case for the question at hand lies between the two extremes: a situation where private firms strategically compete against public firms, often labelled as 'mixed oligopoly'.

### **4.3.1 Key Differences between Public and Private Firms**

To understand the key challenges of competition policy in an environment of mixed oligopoly it is helpful to start with identifying the differences between private and public firms. One can distinguish the following aspects.

#### **4.3.1.1 Differences in Objectives**

The main difference between private and public firms is often seen in their different objective function. Regarding the objective function of private firms it is normally assumed that private firms maximize their profits. In contrast to that, public firms are considered to follow different goals, often pursued in parallel. Potential objectives of the public firm are welfare maximization, output maximization or unemployment minimization. The objectives of the public firm may or

may not overlap with the policy objectives pursued by the state as shareholder – an issue to which we will come back later again.

Following any of these objectives in general results in larger output than a profit maximizing firm would choose.

#### ***4.3.1.2 Closer Ties to the Government***

A second, important difference is the closer tie to the government. Key positions in public firms are often assigned to political allies, increasing their ability to lobby politicians, influence over legislation and regulation. The closer ties to government may also result in captive government customers.

#### ***4.3.1.3 Incumbency Effects***

A third difference – closely linked the difference mentioned before – are incumbency effects working for or against an incumbent operator. Public firms may exhibit a strategic advantage vis-à-vis private firms for instance because of cheaper access to finance or implicit government guarantees (see for instance the German Landesbanken cases). They may also control important facilities in network industries.

On the other hand, public firms are also often affected by strategic (sometimes also labelled “structural”) disadvantages. Lock-in in long term labour contracts that increase costs is one example; public service obligation is another one.

#### ***4.3.1.4 State-owned Firms are Often Considered Less Efficient***

Finally, state-owned firms are often considered less efficient. This may partially be a consequence of the points raised earlier (for in-

stance a firm maximizing employment may chose, for a given technology, an inefficient mix of production inputs, i.e. overutilization of labour to decrease unemployment), partially be due to other reasons: in particular public firms are protected from credible takeover threats, which lowers the incentives to improve efficiency. Internal incentives structures are often less powerful, resulting in low growth (but eventually also low risk) path.

### ***4.3.2 The Objectives of Public Firms and its Effects on Market Outcome***

The existing theoretical models of interaction between state-owned and private firms focus on a number of separate issues that can affect the equilibrium outcomes of a mixed oligopoly. Usually these issues are analysed in isolation and models abstract of many real world complexities. Nevertheless it is useful to summarize major themes and results of the mixed oligopoly literature to get the feeling of the potential competitive problems that may arise.

Some of the main issues that have been analyzed in the literature include:

- effects of state-owned firm on quantity produced and prices
- effects of state ownership on industry structure, entry and exit
- effects of state ownership in differentiated goods markets
- effects of a state ownership on incentives to innovate
- effects of orders of moves on the equilibrium outcome
- impact of state ownership on choice of technology and cost structure

### **4.3.2.1 Effects of State-owned Firm on Quantity Produced and Prices**

Oligopolistic competition in mixed markets results in equilibria with different properties than those found in the standard literature. For example, in a standard Cournot oligopoly with private, profit-maximizing firms, each firm is interested in increasing its own output and market share but at the same time the firms also want to keep the price high, which requires them to restrict output. These two tendencies work in opposite directions and balance between them determines the equilibrium. While the business stealing effect puts prices under pressure, the second effect prevents destructive price wars and is responsible for prices above the competitive level in equilibrium. The outcome of the Cournot equilibrium is inefficient with insufficient output and excessive prices relative to the social optimum, so there is some scope for welfare improvement by a state-owned firm with objectives different than profit maximization.

In contrast, if the goal of one of the firms is to attain high market share or to maximize its output rather than profit, then the concern about high prices is more limited, prices are more likely to fall and aggregate output is likely to expand. In general, this is desirable from the social welfare perspective, since in the private equilibrium the output is socially too low and prices are too high.

**Summary:** Regardless whether the objective function of a state-owned firm is welfare maximization, output maximization or employment maximization, in general it leads to increased output and lower prices.

### **4.3.2.2 Effects of State Ownership on Industry Structure, Entry and Exit**

The presence of a state-owned firm can also have significant implications on industry structure, entry and exit. As noted above, in a

very general sense, the state-owned firms have increased incentives to expand output and lower prices. Consequently, state-owned firms may be more able to drive their competitors from the market than private, profit maximizing firms. It is also more likely to lower incentives of private firms to enter and thus affect the overall market structure, likely leading to increased concentration.

Such increased concentration may be desirable in some models which show, that if all firms are private and profit-maximizing, the free entry equilibrium may result in a suboptimal level of welfare. For example, Mankiw and Whinston (1986) showed that with a homogeneous product there may be excessive entry, as individual firms do not properly take into account the effect of business-stealing on their competitors. Thus direct regulation of entry may increase welfare. However, presence of a public firm may also lower private firms' incentives to enter the market and serve as an indirect entry regulation mechanism.

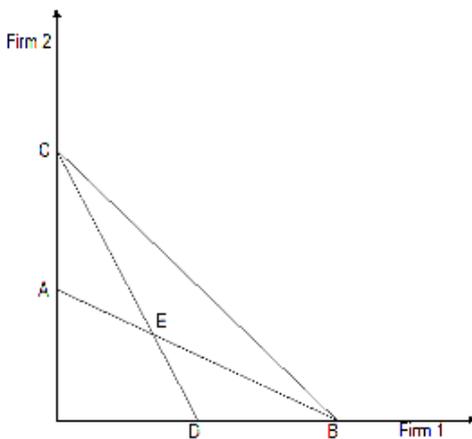
Existing theoretical models show that if the number of competing firms is given exogenously, then the welfare-maximizing behaviour by the public firm is suboptimal though. Specifically, the public firm's strategy cannot fully compensate for all the private firms' strategic reactions. These responses place significant constraints on the equilibrium outcome and often the first-best outcome cannot be realized. The realized second-best outcome – welfare maximization constrained by the private firms' strategic responses – generates lower welfare than the unconstrained first-best.

However, more recent research by Matsumura and Kanda (2005) indicates that with free entry of private firms – in contrast to the case with the fixed number of firms – welfare-maximizing behaviour by the public firm can achieve the first-best outcome in the mixed oligopoly models. This topic is also explored by Brandão and Castro (2007) who showed that with a state-owned, welfare maximizing firm operating in the market welfare can be higher than if market is unregulated or even if entry is regulated directly by the social planner.

How changes in ownership affect the industry structure is illustrated in a simple model in Figure 2.

It is assumed that demand function is linear and that average costs are constant and identical for the two firms. The horizontal axis describes the output of firm 1 and the vertical of firm 2. In a standard Cournot model with both firms private, line CD is the reaction function of firm 1 and line AB is the reaction function of firm 2. The equilibrium outcome is E, where the two reaction functions intersect. If firm 1 is nationalized, its reaction function moves to the right, from CD to CB. In this new setting, with state-owned firm 1, the new equilibrium is at the point B where the two reaction functions intersect and production of firm 2 is zero. This illustrates a scenario, in which the market is not a natural monopoly while being private, but becomes a natural monopoly, when one of the firms is nationalized.

**Figure 2: Reaction functions in a private and mixed oligopoly**



Source: ESMT CA

In this simple case, the change from a private monopoly to the state-owned monopoly is welfare enhancing, because the state-owned monopoly produces the socially optimal output and sells it at the

marginal cost. This need not be the case, however, in a more sophisticated settings, e.g. in a situation where marginal costs are not constant.

**Summary:** The expanded output by the state-owned firm may have an impact on industry structure, usually preventing entry, causing exits and increasing concentration.

#### ***4.3.2.3 Effects of State Ownership in Differentiated Goods Markets***

Most of the mixed oligopoly literature focuses on homogeneous good markets. One notable exception is the paper by Cremer et al. (1991), who analyze a mixed oligopoly with horizontal product differentiation and firms choosing both their location and price in a standard Hotelling linear city model with quadratic transport costs. The results depend both on the total number of firms and their relative positions. It is shown for a market in which there are between 3 and 5 firms, that the private oligopoly is socially preferable to the mixed oligopoly. In other cases, the mixed oligopoly generates higher total welfare.

With just two private firms, they both choose their location on the opposite ends of the city, to reduce to minimum the effect of price competition. This leads to increased transportation costs for the consumers, who need to travel further on average to purchase the goods. On the other hand, if one of the firms is public, the firms choose the efficient locations which obviously has a very strong positive effect on social welfare.

A private oligopoly with three firms is inefficient for two separate reasons. First, as was also the case in the private duopoly, the firms are inefficiently located within the city. Second, the allocation of consumers to different firms is inefficient, because equilibrium prices charged by the firms are not equal. The centrally located firm charges lower price than its peripheral competitors, because it

competes against two rivals while the peripheral firms compete against only one firm, so they do not need to be as aggressive and set higher prices. The inequality in prices results in turn in an inefficient allocation of consumers to different firms.

In contrast, in the mixed oligopoly with one state-owned and two private firms, the more efficient allocation is if the public firm is the central one. If the locations of peripheral private firms were unaffected by the central firm being public, the mixed oligopoly would be more efficient because prices would be equal and total transportation costs would be lower. However, the private firms' optimal response is to move closer to the centre than in the private oligopoly, because the state-owned firm adopts a less aggressive pricing policy than its private counterpart. The overall result is lower total welfare than in the private oligopoly.

Another reason while total welfare in a mixed oligopoly with differentiated goods may be lower relative to the welfare in a fully private oligopoly is that the presence of a state-owned firm and associated output expansion induces private firms to offer less product variety to consumers.

**Summary:** State-owned firm has lower incentives to differentiate itself from its competitors.

#### ***4.3.2.4 Effects of a State Ownership on Incentives to Innovate***

A separate strand of the mixed oligopoly literature considers effects of state-ownership on incentives to innovate and to engage in research and development activities. One of the main results of that literature is that state-owned firms invest more in cost reducing R&D than private firms. The reason is that with spillover effects invented cost reductions are easily duplicated by all firms and hence R&D investments do not substantially increase profits and private firms have limited incentives to invest in R&D. However, even if production cost savings resulting from R&D activities do not increase

profits, they increase welfare, and so a public firm will have more incentives to invest in R&D than their privately-owned competitors. This increases overall welfare.

Even if there are no significant spillover effects, a public firm can also have a positive effect on welfare, by reducing overall R&D costs. The reason is that in a fully private industry characterized by the winner-take-all assumption there is some inefficiency due to the duplication of effort and hence there is overall overinvestment in R&D. In contrast, with a state-owned firm, each firm invests less than in a private oligopoly and although the expected time of innovation may be postponed, even taking this into account social welfare can be higher than in a fully private oligopoly (Delbono, Denicolo (1993).

**Summary:** State-owned firm has different incentives to innovate than private firms.

#### ***4.3.2.5 Effects of Orders of Moves on the Equilibrium Outcome***

The equilibrium outcome in mixed oligopoly models depends also on the order of moves and this issue has been studied intensively in the literature. One of the results, obtained in a fairly general setting, is that it is a Pareto superior choice for the state-owned firm to be a Stackelberg leader, rather than to be a Stackelberg follower or to play the simultaneous move Cournot game with private firms (De Fraja, G. and Delbono, F. (1987)).

In fact, if the number of firms is sufficiently large and if the state owned firm plays the simultaneous move Cournot game with private firms then it is possible that higher welfare can be obtained when the state-owned firm were privatized (i.e. it maximized profits rather than welfare). If the public firm tries to maximize welfare instead of profits, it produces a very large output and with increasing marginal cost the total cost is higher and more than offsets the increase in consumers' surplus.

With increasing marginal costs, even if the state-owned firm is a Stackelberg leader, which is socially the most desirable setting, the price is set at a higher level than the state-owned firm's marginal cost.

#### ***4.3.2.6 Impact of State Ownership on Choice of Technology and Cost Structure***

So far our analysis assumed that private and state-owned firms differ only with respect to their objective function. However a separate important issue, which the existing theoretical literature often ignores, is the question of relative inefficiency of the state-owned firms relative to the private ones. There are at least two different sources of such inefficiencies.

First, even if the technologies and cost functions of state-owned and private firms are the same, inefficiencies may arise in the presence of decreasing economies of scale, because the state-owned firm with its objective of output maximization may produce the quantity above the efficient scale of operation. So while in general consumers benefit as the aggregate output increases, productive efficiency requires also that the output be equally divided among all the firms. If the state-owned firm expands its output beyond the efficient scale of operation and private firms contract their outputs accordingly, then some productive inefficiency arises. One possible solution to this problem offered in the literature is partial state-ownership (partial privatization), which causes the partially state-owned firm to reduce its output relative to the situation where it is fully state-owned and hence reduces the wasteful asymmetry associated with public firm's tendency to produce more output than its rivals. This solution has been suggested for example by Matsumura (1998) and Matsumura and Kanda (2005).

Second, if a state-owned firm has other objectives, such as unemployment minimization, it may use a different input mix of capital and labour than its private competitors, likely using more labour and

less capital. The overall effect of such strategy on welfare is uncertain.

### **4.3.3 Industry History**

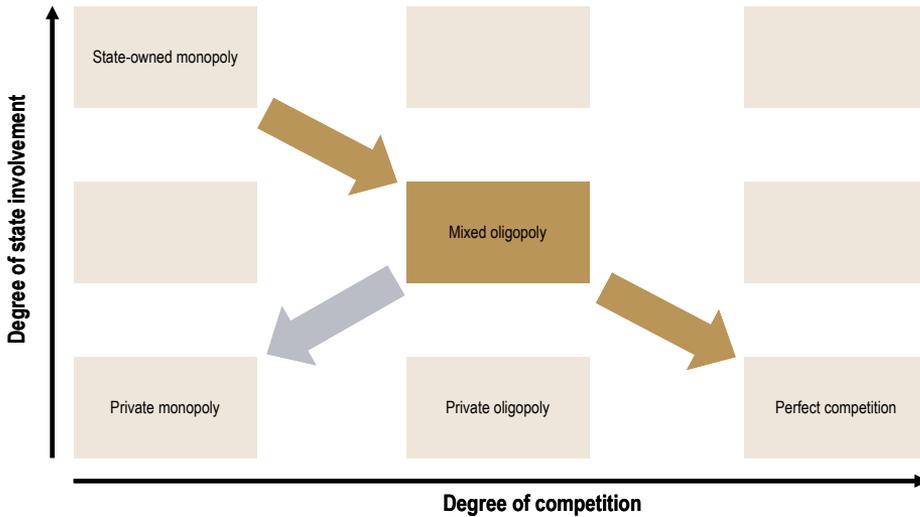
A further important factor which has to be taken into account is the industry history. To a large extent, many state owned firms operate in industries which were former national monopolies. Typically, these industries were liberalized and private competitors were allowed to enter the market to compete with the state-owned incumbent. These industries usually were heavily regulated as government monopolies and usually there are still some regulations remaining in the mixed oligopolies, which can potentially affect the competition analysis.

In other cases the emergence of a mixed oligopoly was a result either of government takeover/bailout of failed private firms or of government entry. In those situations the creation of mixed oligopolies was preceded by private competition. Those three different scenarios resulting in a mixed oligopoly situation are discussed in the following.

#### **4.3.3.1 Liberalization**

Beginning with a national monopoly changes in public policies, e.g. due to EU integration, are designed to increase competition in the market. In a first step partial liberalization takes place with few, inferior private competitors entering the market and a mixed oligopoly is established. As the competition matures, at some point competition policy takes over instead of *ex ante* regulatory measures, guiding the process from a mixed oligopoly situation, hopefully, towards perfect competition.

**Figure 3: Industry History – Liberalization**

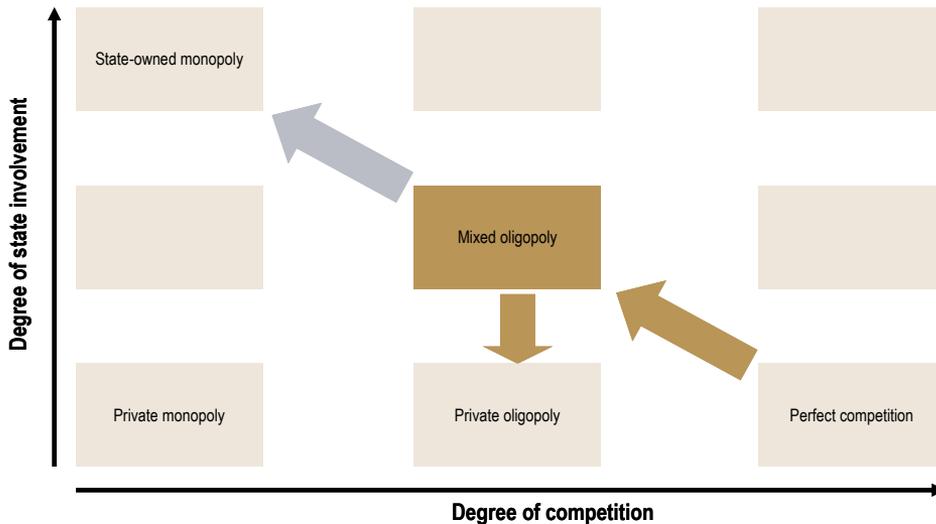


Source: own research

In industries with such an industry history main competition concerns are to limit incumbency effects without interrupting the dynamics in the industry (i.e. the incentives to invest). The interaction between *ex ante* regulation and *ex post* regulation is the key element to be taken care of.

#### **4.3.3.2 Failing Private Firms, Bailouts, Nationalization**

Another way of state involvement includes state intervention and state help for failing private firms through their bailouts and nationalization. In this case a structurally impaired private industry is temporarily propped up by the government to achieve its efficiency. The government involvement is dictated by social and structural policy objectives (e.g. firms “too big to fail”).

**Figure 4: Industry History - Bailouts**

Source: own research

Recent bailouts and nationalizations illustrate another aspect of finding the right regulatory response. Nationalization is often represented as the last resort dramatic response to extraordinary circumstances which arose as a result of the failure of traditional regulation. Nationalization into the market is portrayed mainly as a temporary solution until a new, better regulatory regime can be established. In this sense, in the long term in theory traditional regulation is viewed as a clearly superior way than industry participation, as long as a working regulatory regime can be established. Yet at the same time, the necessity of government's involvement in assisting failing institutions illustrates the difficulties in creating an effective regulatory regime.

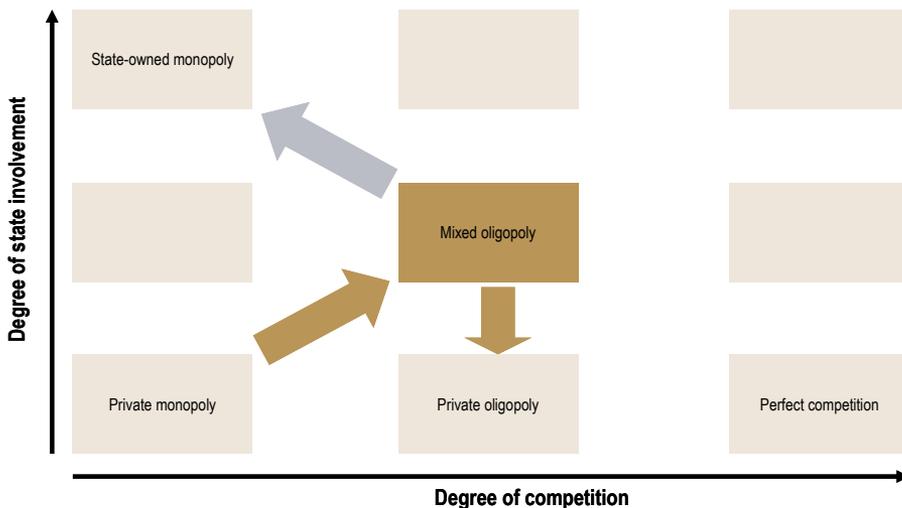
Some examples of industries recently following this path include car manufacturers and banking. The key element here involve structural reforms in the industry (e.g. introduction of new financial regulation standards) to ensure that the reformed industry can function effectively and return to a pure private competition. The risk

include failed reforms and long-term dependence on government support leading possibly to state-owned monopolies, if the enterprises cannot return to financial viability as independent private entities or if agreement on the new, more effective regulatory regime cannot be reached.

#### **4.3.3.3 State Entry into a Private Market to Stimulate Competition**

The third way of state involvement into otherwise private markets includes state entry into a private market to stimulate competition. This may happen, when there is a justified belief of some sort of market failure and that pure private competition is not able to resolve it on its own. For example, a state-sponsored enterprise may get involved in costly infrastructure investment or other forms of entry that appear to be unprofitable to private firms.

**Figure 5: Industry History - stimulate competition**



Source: own research

Examples include local (municipal) involvement in broadband infrastructure. Using public resources to subsidize entry begs answers to the following questions: What exactly is the market failure? Why entry by private firms is not profitable? One possibility can be related to a “regulatory hold-up”: private entities may be reluctant to invest in the costly infrastructure, because of concerns that *ex post* their facilities will be subject to regulation and will not generate a rate of return necessary to finance the investment. In this sense, direct involvement can also be viewed as an imperfect substitute of more traditional forms of regulation, in this specific case the inability of regulators to commit to future policy making.

State involvement in stimulating competition may have many important long term consequences, not all of which are desirable. For example, state ownership of important infrastructure may lead to natural state monopolies, which may in turn need to be liberalized in the future.

#### **4.4 Public Firms as a Form of Regulation**

In this section we interpret public firms as a form of state intervention. Governments pursue goals in being engaged in economic activities channelled through public firms. The recent reform in the field of state aid provides a consistent framework for assessing public interventions: In essence, this test asks whether (1.) the state aid addresses a market failure or other objective of common interest; (2.) the state aid is well targeted (i.e. is the aid an appropriate instrument, does it provide an incentive effect and is it kept to the minimum necessary) and whether (3.) the distortions of competition are sufficiently limited so that the overall balance is positive.

#### **4.4.1 The Welfare Standard**

In difference to other areas of competition policy, the EC Commission applied a general welfare standard in the field of state aid (instead of a consumer welfare standard). There are several reasons for this:

- the broadness of the objectives
- the relevance of the impact of direct competitors
- the importance of dynamic elements

All those reasons are of relevance also in the area of public enterprises. An additional argument emerges from our earlier assessment of the objectives of public firms: A state-owned firm in general has much stronger incentives to price the goods and services it produces below the prices that would be offered in a purely private oligopoly. Such lower prices may be in principle desirable from a consumer welfare point of view, at least in static environments. However, the practical experience from the field of state aid seems to contradict these claims, as there is ample evidence that state-owned enterprises commonly undertake suboptimal investment decisions and given their lower efficiency the prices charged to the final consumers are either not lower than prices of private competitors or are lower, but only as an effect of some subsidies, explicit or hidden. Hence, any assessment by an NCA focusing on public enterprises has to be carried out under a total welfare standard.

#### **4.4.2 Common Interest**

Like in other cases of state intervention one can broadly distinguish between two categories of policy objectives – market failure (also labelled efficiency considerations) and equity considerations. The following policy goals are typically associated with public undertakings:

- Equity considerations
  - Lack of universal coverage
  - Prices discrimination between customer groups
  - Employment goals
  
- Efficiency consideration
  - Some of the assets or services may have character of public goods (externalities)
  - High capital (infrastructure) costs that private firms are unable or unwilling to provide given the risks
  - Natural monopolies

The definition of a set of reasonable objectives and credible criteria for assessing state measures is one of the innovative elements of the Commission's approach.<sup>27</sup> Significant efforts have been put for instance into the R&D&I guidelines to operationalize the various market failures present in this policy area.

One relevant question is whether market power shall be accepted as a policy goal in itself. For instance, the recently adopted Broadband Guidelines<sup>28</sup> indicate the Commissions willingness to approve such a justification.

The Broadband Guidelines define a negative presumption for areas where at least two broadband operators are present (black areas) and a presumption of legality for areas where no private investment in NGA is expected in the future (white areas). However, in the grey areas, where an incumbent already exists, criteria are

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<sup>27</sup> Note that the question of who – the Competition authority or the Government – has to carry the burden of proof is a different question.

<sup>28</sup> 17.9.2009 Community Guidelines for the application of State aid rules in relation to rapid deployment of broadband networks. Official Journal C 235, 30.9.2009, p.7

suggested to assess state aid that is granted in support of building a second infrastructure, i.e. aid is granted to subsidize competition itself.

This raises the fundamental questions of whether tax payers' money should be used to subsidize competition per se, or only when the goal of rapid deployment of broadband networks is likely to be achieved. In our view it is the latter that justifies the usage of public resources.<sup>29</sup>

### **4.4.3 Targeting of State Intervention**

Under its second pillar of the general test it is assessed whether (2.) the state intervention is well targeted (i.e. is public ownership an appropriate instrument, does it provide an incentive effect and is public intervention kept to the minimum necessary)

In the field of public ownership it is in particular the question of whether public ownership is the appropriate instrument to reach the policy objective. The reason for this is that public companies often operate in a partially (*ex ante*) regulated environment (see the section on industry history) and that the activity of a public firm is to remedy regulatory failures: one state intervention (public firm) is deployed to heal the short comings of another state intervention (*ex ante* regulation). This seems to us a very expensive, second best solution of the regulatory objective. It is, therefore, our view that public ownership shall – if at all – be justified based on regulatory failure only after a thorough assessment.

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<sup>29</sup> See H.W. Friederiszick, R. Nitsche and L.H. Röller (2009): Does Europe need subsidized competition for achieving the goal of rapid deployment of broadband networks?

[http://ec.europa.eu/competition/consultations/2009\\_broadband\\_guidelines/esmt\\_en.pdf](http://ec.europa.eu/competition/consultations/2009_broadband_guidelines/esmt_en.pdf)

To see that this is indeed a problem we again refer to the Broadband Guidelines. Paragraph 39 of the Broadband Guidelines state (emphasis added): *“Where the market does not provide sufficient broadband coverage or the access conditions are not adequate, state aid may play a useful role.”* In Paragraph 48 it is further explained: *“In this respect, the Commission has noted in previous decisions that whilst ex ante regulation has in many cases facilitated broadband deployment in urban and more densely populated areas, it may not be a sufficient instrument to enable the supply of broadband service, especially in underserved areas where the inherent profitability of investment is low”*

It seems that the Commission proposes that state aid could be granted to remedy access conditions that are not adequate. It remains to be seen how the Commission balances the delicate trade-off of healing failures of the ex ante regulatory system with a rather expensive, untargeted and potentially distortive alternative regulatory instrument – the provision of goods and services by public enterprises.

Justifying state aid by regulatory failure broadens the scope of state aid considerably. Although this is in principle possible, more effects based evidence and clearer criteria is needed, before embarking on using public resources to subsidize entry. Provisions to assure the temporary scope of such kind of “double” regulation are required.

#### **4.4.4 Negative Effects on Competition and Trade**

Several potential theories of harm have been identified in the field of state aid. In the field of R&D&I-Guidelines the possible distortions of competition resulting from State aid are categorized as follows:<sup>30</sup>

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<sup>30</sup> These seem to be broadly consistent with the distortions mentioned in the Common Principles Paper. The text defines distortive effects on long term

- disrupting the dynamic incentives of undertakings and crowding out;
- supporting inefficient production;
- exclusionary practices and enhancing market power;
- effects on the localization of economic activities across Member States.

Most interestingly only one of the four potential distortions directly addresses market power related concerns. In comparison to the competitive assessment in traditional competition policy cases much stronger emphasis is put on crowding out effect, i.e. effects on (privately funded) competitors.

The first (distortions of dynamic incentives) and second theory of harm (supporting inefficient production) highlight two additional specificities. The importance of a dynamic perspective puts significant burdens on the Competition Authority to scrutinize the concerns in a robust and facts based manner. The focus on production efficiencies brings efficiency considerations much more in the centre of the competitive assessment than it is true for other areas of competition policy. This will require complementary skills to be developed within the competition authorities.

## 4.5 Conclusion

In this section we interpreted activity of a public firm as **a form of state intervention** and reflected on the implication of such a per-

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incentives, crowding out effects regarding private sales or investments and allocative inefficiencies on input markets or location decisions. Pages 14 to 17.

spective on the competitive assessment. Several conclusions are derived:

First, a state-owned firm in general has much stronger incentives to price the goods and services it produces below the prices that would be offered in a purely private oligopoly. Such lower prices may be in principle desirable from a consumer welfare point of view. The implications for total welfare are less clear though. A thorough assessment of public firms under a **total welfare standard** is therefore welcomed.

Second, the question of whether the regulatory instrument 'public firm' is the **best regulatory instrument** available for reaching the policy goal, shall be assessed carefully. In case of an existing regulatory body, i.e. existence of sector specific regulation, intervention by state subsidized entry seems to us inferior and requires strong justifications.

Finally, **specific distortions of competition** exist which are not common under traditional competition policy perspective, e.g. keeping inefficient market structures alive. Reviewing a case from that perspective can give additional insights.

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## **5 Public Contracts Through Procurement – Can There Still Be State Aid?**

*Michael Steinicke<sup>1</sup>*

### **5.1 Introduction**

State aid and public procurement are two of the key elements in the combined and collective regulatory weaponry against competitive distortion by/in the public sector.

Even though the two regulating regimes focus on different competitive problems and have different characteristics, there are a number of similarities and links between them.

The public procurement regime within the EU is primarily centred on Directive 2004/18/EC (the Procurement Directive) and Directive 2004/17/EC (the Utilities Directive). These two directives have the purpose of ensuring that the market for public contracts is open to all interested European companies by fighting protectionism and by promoting equal treatment and transparency. This is done by establishing a set of rules on when public contracts must comply with the procurement rules and specific procedures in every step of the formation of contracts for the public entities. For the purpose of this article the reference to the procurement rules will be to the Procurement Directive. The EU state aid regime is comprised of Articles 87-89 in the EC Treaty and a few pieces of secondary

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legislation.<sup>2</sup> Article 87 is the main rule and contains a prohibition on state aid in the form of economic benefits from a public entity to one or more private companies. Such economic benefits would enable the company to use the extra finances to strengthen its market position and influence the market in general. The purpose of the rules is to prevent any illegitimate public interference in the market.

This article gives a contribution to the interpretation of one of the overlapping areas of state aid and public procurement, and the contribution is titled: Public contracts through procurement – can there still be state aid?

The starting point of the analysis is that the European Court of Justice in numerous cases has stated that when a public entity selects a contracting partner through a procurement procedure there seems to be a presumption against state aid.<sup>3</sup> In C-280/00, *Altmark*, the Court stated that the level of a compensation for supplying public services would be legitimate (no state aid) if the service had been found through a procurement procedure. In another variation the Commission stated that there is presumed to be no state aid when a public contract is awarded through an open, transparent and non-discriminatory procedure. The rationale behind this presumption is that the contract formed through a procurement procedure is formed in a competitive environment, and the contract price is therefore expected to be at the market level. The market price indicates a balance between the contracting parties which ensures equilibrium between rights and obligations and that none of the parties will gain a unilateral economic benefit from the agreement. In this article this

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<sup>2</sup> Most prominently Regulation 659/1999 on the procedures for enforcing the state aid rules.

<sup>3</sup> Several cases have established this during the last decade, the most prominent case being C-280/00, *Altmark*. See paragraph 93.

fundamental premise of automatically reaching the market price through procurement procedures is tested by the question:

Will a price found through a procurement procedure always reflect the market price?

Before initiating the analysis it will be necessary to delimit the theme and scope of the article. The main part of the case law indicates that the question of state aid relies (primarily) on whether or not the market price is reached in any given contract. A few cases show, however, that this is not the only question of relevance when considering whether state aid is present. The Court of First Instance decided in T-14/96, *Bretagne Angleterre Irlande (BAI)*, that there was a case of state aid in a situation where a public entity purchased a number of tickets to a certain ferry route. The relevant question was not whether or not the price was at the market level. Based on an ex post assessment of the contract the Court concluded that there was in fact state aid since the public entity bought too many tickets compared to the needed.

The question raised in T-14/96, BAI is different from the question of whether the price is at the market level and it will be outside the scope of this article to analyze this other topic further.

The intention of the following analysis is to present and evaluate procurement procedures in order to establish the effect of different elements in such procedures and the probability of these elements affecting the level of the price diverging it from the market level. Furthermore, it is the intention to discuss the current line in the case law and the Commission's view on this issue.<sup>4</sup>

Procurement procedures are used in a number of contexts, e.g. as an instrument when a public entity is purchasing or selling. The

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<sup>4</sup> There are some practical issues connected to the theme of the article, e.g. how to deal with the mandatory notification to the Commission before the contract commences if there is any state aid involved. Such enforcement issues will not be dealt with in the article.

design of the procedures can be different in the various situations.<sup>5</sup> In order to have a fairly uniform and representative background for the analysis the following will be focusing on public purchasing contracts, and therefore leaves out selling procedures.

## **5.2 Introductory Comments on the Market Price – Conceptual Issues**

The market price is the primary element when assessing whether or not the private contract partner has received an economic advantage. If the contract price seems higher than the market price, then it is assumed that there is an advantage in favour of the private contracting part – an advantage, equivalent to state aid.

The concept of the market price seems simple to grasp. However, in order to apply the concept to contracts formed through a public procurement procedure a few fundamental issues must be addressed.

One of these issues is that it seems to be a prerequisite for the discussion of procurement and state aid that there can be only one market price. The idea of two or more market prices makes little sense in a state aid context. The market price has the function of a benchmark for comparison to the price of any particular contract. Since the purpose of the state aid rules is to ensure that no transaction between a public entity and a private company results in an economic advantage for the private party, there has to be one (and

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<sup>5</sup> Normally the procedure for selling e.g. real estate will be simpler than the procedure for buying. When selling the primary interest is to get the right price whereas a purchase of a product or service requires considerations as to the quality of the product, the price, delivery date, service conditions, etc. These differences often necessitate two very different procedures.

only one) measure to which the comparison is made. The market price has the function of acting as that measure of comparison.

The notion that there could be more than one market price would jeopardize the efficiency of the state aid rules. Indeed, even if there was a range of prices within which the market price would be found, then this would open for cases where there might be room for some unilateral economic benefits for the private company without it being categorised as state aid. This of course opens a door for circumventing the state aid rules.

Another issue concerns the market price as a result of business to business relations. The characteristic feature of the market price is that it represents the price that a private market participant would accept. The use of the market price has been made practical by the so-called market operator principle which in short states that if a public entity engages in economic activity (e.g. concludes a contract) in the same way and at the same price and conditions as a private market operator would do, the market mechanisms have been respected, and no party have gained a unilateral economic advantage.<sup>6</sup> At first glance the market operator principle seems to pose a practical and accessible solution to testing the economic balance in a contract between a public and a private entity. However, a few objections might be raised to an uncritical application of a “private” method of thinking to the purely public entities. The way that contracts are concluded between private companies is characterised by formlessness and flexibility. The private parties have an interest in adapting the procedure for the formation of contracts to the specific circumstances and need for the contract. There is no ob-

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<sup>6</sup>The principle is found in different forms distinct by the specific market activity they represent, e.g. buying, selling, investing, etc. See Erika Szyszczak: *The Regulation of the State in the Competitive Market in the EU*, p. 186, Conor Quigley: *European State Aid Law and Policy*, p. 101 and Leigh Hancher, Tom Ottervanger and Piet Jan Slot: *EC State Aids*, p. 73.

ligation to invite a certain number of potential bidders before entering into a contract, just like there are no formalities to be considered during a negotiation process. The distinctions between this contracting process and the more bureaucratic public procurement procedure pose the question of whether the same benchmark could reasonably be applied to private and public contracts alike. In other words: could or should the market price be expected to be the same when the pre-contractual phases are very different?

This issue has not been discussed at any length in the legal theory or by the authorities enforcing the rules. It is apparent by the case law and other sources used in this article that the pre-contractual phase does have significance in relation to the outcome – the contract. It doesn't seem, however, that the decisive factor is whether or not the procurement procedure resembles a non-formalistic, private-to-private pre-contractual phase. On the contrary, it seems as though the more bureaucratic and formalistic the procurement procedure the more the result will be in accordance with the market forces. This is at least the way that the Commission has approached the question.

Another issue which could be considered is whether the market operator principle is reasonable since public entities cannot be expected to follow the mindset of a profit-searching private enterprise, even when acting on the market. It could be argued that there should be some room for incorporating public policies to some degree in the expected market behaviour of a public entity.<sup>7</sup>

As it has been shown, the concept of a market price and the connected market operator principle is not without ambiguities in the context of state aid and procurement.

This issue of implementing public policy issues legitimately into the market operator principle will not be pursued further in this

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<sup>7</sup> Such considerations has been submitted with only very modest success in a few cases, see e.g. C-303/88, *Italy v Commission* and C-305/89, *Italy v Commission*.

context. The focus will be on the more technical issue of which procurement procedure designs that will and should lead to a presumption of a contract price at the market level.

### 5.3 The Role of Public Procurement in State Aid

The relationship between public procurement and state aid is one of many facets, and public procurement as an institution plays an important role within the state aid regime. The relationship is not one-sided, and state aid considerations also play a role within the public procurement regime. Article 55 in the Procurement Directive is an example of this. This provision concerns the procedure for rejecting abnormally low tenders and makes an explicit reference to the state aid rules.<sup>8</sup>

It is important to keep in mind that public procurement has a role within the area of state aid law that is different from the role the procurement rules play in a “regular” purchasing context. It would be an obvious first impulse, that all the procedures found in the Procurement Directive would automatically fulfil the conditions in state aid case law and legislation since all the procurement procedures are focusing on establishing pre-contractual competition. At the same time it is quite clear that this is not the prevailing approach.<sup>9</sup> Furthermore, the rules that are considered to form the core of the procurement regulation are not necessarily the same rules as the

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<sup>8</sup> Abnormally low offers do not play any role in this specific context and Article 55 is therefore not included in the analysis.

<sup>9</sup> As an example, see the Commissions comments in state aid case N 475/2003 where it is stated that the Commission’s role in the Altmark test is not merely reduced to detect whether there has been a procurement procedure, but must include a material assessment of the characteristics of the used procedure.

procurement rules that play a role within the state aid system. Whether or not a procurement procedure used in order to avoid any suspicion of state aid is in breach of the Procurement Directive, is not (in the first instance) relevant when used in state aid circumstances. Even a procedure that is not in accordance with the Procurement Directive might fulfil its task in a state aid context. This absence of harmony and convergence between the two sets of rules is an important factor to remember in regard to the use of procurement procedures within the state aid system.

The purpose of this analysis is to investigate to which extent different procurement procedures would satisfy the conditions set forth in the case law as an indication that state aid is not present. The courts have not made any positive statements on the issue, but several contributions can be found in legal theory and by the Commission. These contributions range from the point of view that only certain procedures with specific characteristics can refute the suspicion of state aid to other views contending that if the procurement procedure is in accordance with the Procurement Directive, it will be in compliance with the state aid requirement.<sup>10</sup>

Even though the purpose of the use of procurement procedures within the state aid context overall is the same – ensuring a price at the market level – there are slight differences between the *Altmark* case law and other case law, e.g. represented by the *London Underground* case. In *Altmark* and subsequent cases there have not been any qualifications to speak of as to when a specific procedure fulfils the requirement of ensuring market prices. In *London Underground*,

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<sup>10</sup> See Christian Koenig and Susanne Kiefer: Public Funding of Infrastructure Projects under EC State Aid Law, *European State Aid Law Quarterly*, 2005, p. 416 with reference to the Commission in N 264/2002, *London Underground*, para. 79. See also David O'keeffe: Public Private Partnerships, Local Authorities and State Aid, *European Public Private Partnership Law Review*, p. 21, 2007.

on the other hand, the Commission has qualified the definition to such where the procedure is open, transparent and non-discriminatory. It must be expected, however, that the same requirements will characterise the procurement procedures mentioned in Altmark, since the requirement must be categorised as basic procurement principles within the EU.

#### **5.4 Is the Use of Public Procurement Always a Guarantee for the Market Price?**

Focus of the investigation will be whether or not variation in the procurement procedure and the design of the procedure could actually lead to different prices for the same purchase, which logically leads to a situation where (at least) one of the prices would depart from the market level.

Issues that might influence the outcome of the procurement procedure (the contract price) could be: the specific procurement procedure chosen, the use of award criteria, use of electronic auction, the numbers of participants, etc. Besides these sources of influence from within the Procurement Directive there are even more questions relating to procurement procedures not rooted in the Procurement Directive.

In the following the most prominent issues in regard to influencing the price of the contract will be introduced. The analysis is not in any way intended to be exhaustive, and there might therefore be a number of other factors in the procurement process which could affect the price. The purpose of this analysis is merely to illustrate the general point that the procurement process can in fact taint the level of the price.

## Specific Procurement Procedures

The purpose of the Procurement Directive is to open the public market in the European Union to competition,<sup>11</sup> and as a result thereof the different procurement procedures described in the Directive are all designed to ensure a high degree of competition. At the same time the procurement procedures also have the purpose of providing the opportunity to form the best possible public contracts. The public entities have a genuine interest in contracts that ensure the best value for money. A look at the Procurement Directive reveals that the procedures represent very different designs in regard to openness for interested companies, the number of stages in the procedure, possibilities of negotiation, etc. These variables and the way they are combined in the procedures result in very different procurement processes and potentially different results in regard to contract prices. The great diversity within the Procurement Directive spans from the open procedure with a duration of only 52 days, only one phase and no possibility to negotiate the subject of the contract or the price, to the competitive dialogue (Article 29) which is carried through over a significant length of time, contains several phases and allows for discussions of all aspects of the contract.

The public entity has the choice between a number of different procedures. Some of the procedures are generally accessible, whereas some can be used only in exceptional circumstances. The two generally accessible procedures are the open and the restricted procedures.

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<sup>11</sup> See C-243/89, *Commission v. Denmark* and 2nd consideration in the Preamble to the Procurement Directive.

## Traditional Procedures

The open procedure is open to all companies which are interested in the contract. This means that all companies who would like to participate can do so and furthermore that there will be a potentially large field of competitors which should ensure a fierce competition through the process. These characteristics have made this procedure the favourite procedure for the Commission.<sup>12</sup>

The restricted procedure is divided into two phases: the first phase is concerned with the evaluation of the companies who wish to submit an offer whereas the second phase is the actual submitting and subsequent evaluation of offers by the tenderers that have been invited following the evaluation in the first phase. In the first phase there will most commonly be a shortlisting of the companies who wish to participate in the procedure. The Procurement Directive requires that there should be invited at least 5 companies to participate in the bidding stage. In certain circumstances the public entity might invite fewer than 5 bidders under the prerequisite that there will (still) be genuine competition. The negotiated procedure and the competitive dialogue do also have a shortlisting phase.<sup>13</sup> In these procedures the public entity can reduce the number of potential tenderers to 3. It has been emphasised that these procedures do not “permit all potential contractors to submit tenders, and it thus cannot be ruled out that a potential contractor who was not invited would have submitted a tender at a lower (relative) price than the winner.”<sup>14</sup>

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<sup>12</sup> See Jayant Mehta: State aid and public procurement – two faces of the same coin?, *European Public Private Partnership Law Review*, 2007, s. 142.

<sup>13</sup> Procurement Directive Article 44, para. 3.

<sup>14</sup> Jens Hillger: The award of a public contract as state aid within the meaning of Article 87 (1) EC, in *Public Procurement Law Review*, 2003, p. 118.

It is true that there will often be some interested companies excluded from one of these procedures. But this is also the case for the open procedure, even though in a slightly different situation. In all procurement procedures the public entity has the possibility to evaluate the interested companies in order to ensure that the participators have the required capacities in order to fulfil the specific contract. Here there will be a potential risk for all companies to be excluded, and as a consequence there might be some offers that might not be submitted even though they would have been competitive. This will in turn reduce the number of participants and therefore also in a numerical sense reduce the competition.

In economic theory the open and the restricted procedure fall within the category of first price sealed bid auctions. This kind of competition is a so-called closed auction where no information on prices is exposed. More importantly this kind of competition is also characterized by the one-shot-principle which covers the fact that all bidders only have one chance of submitting an offer and no chance to change the offer once it has been submitted. Such an approach might easily influence the bidding behaviour of the companies, and the chances of reaching the market level will be depending on the bidders' expectations of the level of the prices.<sup>15</sup>

### More Than One Round of Pricing

Besides the open and restricted procedures the Procurement Directive contains a number of other procedures that might be used only in specific circumstances. Seen in an auction theory perspective they constitute either a modified first price sealed bid or another type of

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<sup>15</sup> For more on the bidding behaviour, see Paul Klemperer: Auctions: Theory and Practice.

auction. Distinctive for these procedures is that the bids (including the price) may be modified during the process. This circumstance results in a new starting point for the bidders since strategic considerations should be included before submitting the initial offer. The strategic considerations will decide the balance between submitting the best possible offer initially and leaving some room for improvement of the offer in the subsequent competition during the procedure. It is a question whether this strategic element should have an influence on the legitimacy of the procedures in a state aid context. It might be argued that the risk that strategy and a too conservative first bid might prevent the competition from reaching the level of the first price sealed bid auction and therefore in certain cases result in a price higher than the market price.

Two other procurement procedures that might give reason to consider the formation of the price are framework agreements<sup>16</sup> and dynamic purchasing systems.<sup>17</sup> Both procedures allow for preliminary pricing. Article 32 in the Procurement Directive enables the public entity to enter into framework agreements. These agreements are characterised by detailed specifications on the price, quality, delivery details, etc., but not the purchased quantum. The specific quantity will be decided as the need for the product arises during the contract period. If the contracting entity has entered into a contract with two or more contracting partners, then it must be decided which contracting partner will be awarded the specific order. The public entity has two choices in regard to such specific awards within the overall framework agreement; either the criteria for the specific award is established in advance, or the public entity carries

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<sup>16</sup> A framework agreement is not as such a procedure but a type of contract. Despite this, the type of contract entails in certain situations specific procedural characteristics that are not seen in the other procedures.

<sup>17</sup> The Procurement Directive Articles 32 and 33.

through a mini-tender. When the procuring entity chooses the latter option, such mini-tender can be based on different criteria, including price. If price is the decisive factor, then there has been, in fact, a double competition on price during the procurement. The question is whether this will result in another price than the one reached within the auspices of an ordinary contract (not during the two phases of a framework agreement).<sup>18</sup>

### Electronic Auctions

The Procurement Directive allows the use of a procedure called electronic reverse auctions. It is not a full procedure, but merely a way of finishing one of the other procedures. The approach is the following: the public entity starts a procedure, e.g. a restricted procedure. After the obligatory announcement in the Official Journal the public entity carries through a prequalification process and ends up with a number of private companies all of which are qualified to perform the specific contract. When the evaluation of the offers is completed on the basis of the award criteria (which would normally mark the end of the procurement procedure), the use of the electronic auction starts. Before the auction commences, the procuring entity will have to supply the bidders with certain information including details regarding which issues might be changed during the auction (e.g. price, time of delivery, etc.), how the used mathematical model for the auction is designed, and a number of practical information, including the way the electronic auction is concluded. The public entity can conclude the auction in a number of ways by choice of the public entity. The auction may finish at a certain date and time when there are no new bids of a certain margin

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<sup>18</sup> In Article 33 (dynamic purchasing systems) a similar process is described even though with certain modifications.

from the previous bids or when a given number of auction phases are completed.

In contrast to the open and restricted procedures the electronic reverse auction is a so-called English auction. Such type of auction gives rise to a different set of strategic issues, and the bidding pattern will differ dramatically. One difference is that the offers submitted<sup>19</sup> in the first round (before the electronic auction) will often not reflect the real competitive standing of the tenderers since they save a competitive margin for the subsequent electronic auction.

With the possibility that the public entity will use electronic auction, different scenarios might be contemplated – possibly with alternative outcomes in respect of price. First, the situation is that the public entity will choose the way that is most commonly used, i.e. where the procurement procedure does not entail the electronic auction. In this scenario, the price of bids will be set from the bidder's expectations to the level of competition and their level of costs. Second, the situation might occur where the public entity will use electronic auction in the finishing stage of the procurement. In this situation at least two alternative scenarios are conceivable. First of all, it is conceivable that some or all of the bidders would give their best offer in the initial bidding-round, which is the same approach as e.g. in the open procedure. These bids and the prices might be amended during the auction process even though the scope for improvement of the offers is quite limited. The strategy will be that this offer will be able to hold its competitive momentum throughout the procedure. Second, it is also thinkable that the first bid will contain a higher price than if the bid was submitted during an "ordinary" procurement contest. The reason for this approach from the bidders is that the higher price is seen as a competitive

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<sup>19</sup> Auction theory and the implications of this in regard to the parties of a procurement procedure have been analyzed by several, notably Paul Klemperer: *Auctions: Theory and Practice*.

starting point from which the bidder can reduce their price during the electronic auction. The procedure allows them to successively reduce the price, if necessary, to the level that they would have chosen from the beginning, had the procedure been without the electronic auction, while at the same time maintaining the flexibility that allows the public entity to stop before reaching the “real” price level.

### **5.4.1 The Possibility of Negotiations**

Within the context of the Procurement Directive there seems to be an important distinction between procedures that allow negotiations and procedures that do not allow negotiations. The generally applicable open and restricted procedures do not allow negotiations whereas the negotiated procedure and the competitive dialogue both allow for discussions as part of the process.<sup>20</sup> From a procurement perspective negotiations are seen as potentially increasing the risk of favouritism and decreasing transparency. It is not clear whether negotiations are seen in the same light in regard to state aid rules.

There are (at least) two issues that have importance when it comes to the impact of negotiations in regard to reaching the market price. The first element is the negotiations themselves. Will it be possible to negotiate all aspects of the contract, or are there limi-

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<sup>20</sup> David O’keeffe seems to draw a line between the negotiated procedure and the competitive dialogue and states that the negotiated procedures should be used only in very limited circumstances, Public Private Partnerships, Local Authorities and State Aid, *European Public Private Partnership Law Review*, 2007, p. 21. There seems no reason for this distinction, neither in the Procurement Directive nor in the state aid context since the procedures are very much alike in terms of applicability and procedure.

tations as to which subjects that might be changed? The second element is that negotiations result in diminished transparency as compared to the more restricted situation where no negotiations are allowed. Negotiations are characterised by the fact that they are necessarily conducted in an atmosphere of secrecy and based on an implied trust that information will not be shared with the other participants in the procurement procedure. Therefore there is no knowledge of which issues have been discussed and to which extend this has happened for all the contenders. Therefore there might be a risk that changes have been made that might create discriminatory situations. It is uncertain if negotiations will be perceived as harmful to the procedure in the search of the market price.

It might even be submitted that not only are negotiations not detrimental to keeping the competitive edge in a procurement procedure, but they are actually improving the competitive element since the bids will be more competitive after correcting discussions between the parties.<sup>21</sup> There is no reason to think that this is not also the case in procurement situations. If this in fact is the case it would underline that also competitive procedures that allow negotiations should be considered in compliance with the state aid requirements.

If the use of the market operator principle indicates that pre-contractual procedures similar to those most commonly used by private market operators would be preferred then negotiations would be a natural ingredient in the precontractual situation. This does not always seem to be the case according to the Commission's statements in different contexts. The Commission doesn't seem to be consistent in its approach to procedures involving negotiations. In the Decision N 149/2006, Ireland, the Commission stated in regard to

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<sup>21</sup> It has been submitted, however, that post award price negotiations are disallowed, see Jayant Mehta: *State aid and public procurement in PPPs – two faces of the same coin?*, European Public Private Partnership Law Review, 2007, p. 144.

the negotiated procedure that outcome of such a complex procedure might confer an economic advantage to the successful bidder. At the same time the Commission has seen the use of the competitive dialogue as sufficient to ensure the market price.<sup>22</sup>

### **5.4.2 The Award Criteria**

It seems obvious that the criteria for awarding the contract is of interest when investigating the elements of procurement procedures that might influence the chances of reaching the market price. The award criteria attract a lot of attention within the procurement regime and important questions are raised in every procurement: which criteria can be used?, how to use them?, etc.

Public entities procuring according to the Procurement Directive can award the contract to the tenderer on the basis of two award criteria: the lowest offer or the most economically advantageous offer.<sup>23</sup>

The overall nature of the two accessible award criteria is that they both contribute to give the best possible price in two different set-ups. There should be no doubt that the award criteria lowest price will often result in a price that is in accordance with the market price. The most economically advantageous offer is a bit more complex, and price will play different roles depending on the importance given to the price by the procuring entity. When using the most economically advantageous offer a number of issues might be included for the collective assessment of the submitted bids, e.g. price, quality of the subject of the contract, time of deliverance, design, environmental qualities of the product in question, etc. Regardless of

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<sup>22</sup> Commission Decision N 46/2007, Welsh Public Sector Network Scheme.

<sup>23</sup> Directive 2004/18 Article 53.

the sub-criteria used and of the balance among these, the award of a contract when using this award criteria should always result in a market price – the market price for a purchase of a product of a certain, pre-decided quality.

Despite the fact that the market price seems to be found through the use of the most economically advantageous offer, the Commission raises doubt as to whether this award criteria in general would comply with the conditions in state aid and case law.

In N 525/2001, Ireland Cluster Incubator Scheme, para. 3.3.2. the Commission made the following statement in regard to quality elements:

“If perfectly carried out, a tendering process should ensure that there is no distortion of competition between bidders, even if the measure is still sectorally selective. However, since there is in the present case a qualitative assessment of each project, a discretionary element is introduced in the selection of the developers and the awarding of the grant. As a result, this tendering process may selectively favour certain firms by granting them aid and may distort competition.”<sup>24</sup> (emphasis added)

It is submitted by the Commission that one of the important considerations when contemplating whether the market price will be met is that the level of discretion might be decisive. When awarding a contract subject to the criteria of the most economically advantageous offer the awarding entity will often have some discretion as to how to balance and use the different sub-criteria. If this is the case, then it might be difficult to unite a procedure based on the most economically advantageous tender with the expectation of an award without the discretion of the public entity.

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<sup>24</sup> In other cases the Commission has accepted the use of the economically most advantageous offer, e.g. Commission Decision N 46/2007, Welsh Public Sector Network Scheme and Commission Decision N 264/2002, London Underground Public Private Partnership.

Furthermore, it seems out of proportion to exclude procurement procedures that allow for the inclusion of qualitative issues. Quality can easily be included in an award decision and still support a market price. This is the basis for the award criteria the most economically advantageous offer.

### ***5.4.3 Do Procedures Outside the Procurement Directive Comply with the Requirement of a Procurement Procedure?***

As it was shown above, even in highly regulated and structured procedures like those found in the Procurement Directive it is to some extent unclear and/or unlikely that they would all meet the conditions set forth in e.g. Altmark. The most commonly applicable procedures (the open and the restricted procedures) will probably be in accordance with the presented characteristics of procurement procedures. It is more uncertain, however, exactly which other contracting procedures will be enough to meet the procedural conditions.

The Procurement Directive only covers certain contracts. Contracts with a low contract value, concession contracts and contracts on certain services fall (at least partially) outside the scope of the Directive. In such cases the only legal framework on the formation of public contracts is the general principle found in the EC Treaty, particularly the principles of transparency and equal treatment. These principles do not directly subscribe any specific procedural obligations and this gives the public entity substantial discretion as to how to carry through the purchase. A very interesting question is whether the EC Treaty principles governing public procurement will satisfy the conditions set forth in Altmark, paragraph 93 or in N 264/2002, London Underground. The ECJ has had the chance to pronounce on this issue in a number of cases. The first cases were C-275/98, Unitron, and C-324/98, Telaustria. In both cases the ECJ stated that there indeed are obligations when the contract falls

outside the scope of the Procurement Directive the principles of equal treatment and transparency. Based on the case law following *Unitron* and *Telaustria* the primary obligations might be summed up to include the following: the need to ensure that there is some kind of publicity regarding the public contracts and that all (potential) tenderers subsequently will be treated in the same manner. Primarily this means that a contract must be published in a suitable media and with the necessary content to give the potential tenderers the possibility to make an assessment of the contract in question and thereby evaluate whether or not the contract is of interest. This requires knowledge of the subject of the contract, of the award criteria and other criteria relevant to the competitive procedure, and of course knowledge of the procedure of the competition (e.g. if there will be conducted negotiations, the time limits for submitting offers, etc.).

It has been pointed out in some cases that an important part of a procurement procedure that is legitimate according to the state aid rules is that the contract is publicised in a proper manner.<sup>25</sup> According to the Commission's own interpretive communication on the Community law applicable to contract awards not or not fully subject to the provisions of the Public Procurement Directive it is "only" required that publicising is made on the internet, e.g. on a web page of the public authority.<sup>26</sup> This might not be in accordance with the state aid requirement.<sup>27</sup>

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<sup>25</sup> See Christian Koenig and Susanne Kiefer: Public Funding of Infrastructure Projects under EC-State Aid Law, *European State Aid Law Quarterly*, 2005, p. 417.

<sup>26</sup> OJ 2006/C 179/02, section 2.1.2.

<sup>27</sup> It seems as though the mandatory publication in the Official Journal is not always enough, see N 264/2002, *London Underground*, where the legitimacy of the publication appeared to depend on prior indicative notices

The Commission has had the opportunity to interpret the fourth condition of Altmark in the case N 475/2003, Ireland. The case concerned public service obligation in respect of new electricity generation capacity for security of supply and the Commission accepted the chosen procedure as in accordance with the Altmark criteria. Overall the Commission noted that the process used was transparent and competitive which would ensure that the lowest possible price was delivered.

In more detail the procedure was as follows: A notice was published in advance in the Official Journal of the European Communities. Subsequently the invitation to tender was published at the national level, in the internet page of the regulator and was made available at all the operators that had previously expressed an interest on the basis of the notice published in the Official Journal to ensure that every potential bidder could present its candidature.

The procedure had two phases. The first phase consisted in a selection of technically suitable offers based on transparent and objective criteria defined beforehand, such as the capability of the candidate to be linked to the Irish network, either directly in Ireland, or, if abroad, in a way that ensured that the capacity was available to Ireland.

The second phase consisted in evaluating the price offered by the bidders. Price computation was based on an objective transparent method defined beforehand. The purchaser selected the candidates that had offered the lowest price until it reached the requested capacity limit. The procedure contained no margin of negotiation, and the purchaser could not select candidates in a discretionary way.

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(PINs) which were announced before the mandatory publication, see para. 82. If a mandatory publication in the Official Journal might not be enough the mere announcement on a homepage will probably be insufficient to fulfil the state aid requirement.

In assessing the procedure according to *Altmark*, the Commission pointed out it had to verify whether the procedure would “allow for the selection of tenderer capable of providing those services at the least cost to the community”. It was not sufficient just to acknowledge that there were used procurement rules. The Commission made a point of the fact that the tender in question did not leave any discretionary margin to the public authorities as to the choice of the winners. Finally, the Commission concluded that the fourth condition of the *Altmark* judgement was fulfilled.

It must be presumed that the most procurement procedures living up to the standards set by ECJ case law will also in most cases meet the standards of *Altmark* case law. In some situations, however, the requirements established in procurement case law allow for a very modest procedure, announcing the contract exclusively at a national level with only a very few essential information regarding the contract and the competition. It is doubtful if such procedures fulfil the *Altmark* conditions. On the other hand it is doubtful whether such contracts will have much Community interest and if the state aid rules would come into play.

## **5.5 A Critical View on the Relation between State Aid Rules and Public Procurement**

This article shows that two of the core remedies to keep and optimize competition within the public sector are not synchronized, and this might prove harmful to the search for better competition in or by the public sector.

When looking at the approach chosen by the Commission we see the signs of a somewhat unclear drawing. It does not seem to be quite clear exactly which requirements the Commission is going to establish for complying with the *Altmark* requirements or when a procurement procedure is considered to be according to e.g. N 264/2002, *London Underground*. Furthermore, the same might be said about the approach from the part of the ECJ. The only apparent

lesson seems to be that there is no automatic congruence between the Procurement Directive and the state aid case law.

It could be submitted that this approach to public procurement procedures within a state aid framework is leading to unnecessary and bureaucratic practices. The easiest and practically sound solution would be to accept the procurement procedures found in the Procurement Directive, the Utilities Directive and in the case law from the ECJ for contracts outside the scope of the Directive. By choosing such an approach there will be loss of precision in regard to specific state aid assessments since the accepted procedures might not in all circumstances lead to the exact market price.

The contracts will, however, be the result of a competitive procedure and be awarded by criteria that primarily have focus on the financial aspect of the contract. Contract prices will probably not be significantly different from the market price. This is consistent with the Revenue Equivalence Theorem developed in auction theory which in short states that the end result in regard to price will be the same (or close to the same) independent of which procurement procedure (type of auction) that is used.<sup>28</sup>

The practical comfort of being able to use the familiar procurement procedures from the Procurement Directive is one thing. Another thing is the benefit of legal certainty and convergence between two major regulatory regimes with basically the same goals: to ensure the exclusion of protectionism and favouritism from the public sector.

Needless to say: an automatic acceptance of the procurement procedures found in the Procurement Directive should of course only include those procedures that actually establish a competitive base for the contract. Some procedures, predominantly the negoti-

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<sup>28</sup> See Paul Klemperer: *Auction theory: Theory and Practice*, p. 2. See also William Vickrey: *Counterspeculation, Auctions and Competitive Sealed Tenders*, *Journal of Finance*, 1961, p. 8-37.

ated procedure without a formal notice<sup>29</sup>, do not establish a competitive situation and should therefore be disregarded in a state aid context. This would be an obvious result of the requirement of an open procurement procedure.

If the requirements are different in public procurement law and state aid law respectively, it would also imply that a public entity in order to comply with both sets of rules would be caught in a very difficult situation, since practical considerations would have to be discarded in order to fulfil two different sets of procurement procedures in order to satisfy the two sets of rules. Even if one procurement procedure would satisfy both regulatory regimes it might be necessary for the public entity to modify their desired procurement design in order to fulfil the rules.

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<sup>29</sup> Procurement Directive Article 31.

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### **2003: The Pros and Cons of Low Prices**

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