National Competition Policy
and
"Green" Strategies of Growth

The Impact of Environmental Policies on Competition and Competition Policy

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Summary

In this article we use the notion of "National Competition Policy" as a unifying framework for the assessment of the legislative and institutional structures that promote the existence of effective competition *in* and *for* the product and services markets and services. Firstly, we provide a review of the theoretical and empirical literature which examines the relation between competition and competitiveness. Then, we note why and how a National Competition Policy becomes even more important when the country applies a strategy for "green" growth. Finally, we illustrate the ways in which a number of environmental policies and measures can hinder competition.

1. Introduction: Competition, Competitiveness and Growth

The ability of a country to achieve sustainable growth in the medium term is called by economists "Competitiveness". A large body of literature indicates that, high levels of competitiveness require high competition intensity.

There are *direct* and *indirect* ways of measuring competition in a market. When we refer to the direct ways we mean the measurement of the structural

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characteristics and the performance indices of the market, such as the degree of concentration and firm's profitability. On the other hand, the indirect ways, have to do with the effect of the various policies and regulations on competition.

At the same time, the positive effects generated by competition can be direct, such as price reduction and quality improvement and indirect, through the increase in firms' innovativeness. This means that competition is necessary for **low prices** and **high quality** of products and services but also very significant for **high productivity** and for high and sustainable **growth rates**.

The effects of competition on growth, market liberalization and innovativeness have been examined in many theoretical and empirical studies. For example, Nickell[2] (1996), Nickell et. al.[3] (1997), Blanchflower and Machin[4], (1996), Bloom and Van Reenen[5] (2007) proved that competition improves the productivity of firms. Competition also implies easy entry and exit from markets. Many studies confirm the positive impact on the level and growth rate of productivity, at the level of sector and country, of the liberalization of trade and of markets. Such studies are: VanWijnbergen and Venables[6] (1993), Baily and Gerbach[7] (1995) and Nickell (1996), while an OECD study, with evidence from 6 countries concludes that 10-40% of the rate of growth of productivity is due to "firm turnover". Finally, competition generally improves **innovativeness. A** relevant paper is that from Blundell et.al.[8], (1999). The main reason is that in markets with high competition intensity this drives firms to innovation in order to "escape" the effect of competition on their profit (escape competition effect). Perhaps this is the most significant factor in the effect of

[2] Nickell, S., 1996. *Competition and corporate performance*. Journal of Political Economy 104, pages 724–746.

[3] Nickell, S., Nicolitsas, D. and Dryden N., 1997, *What makes firms perform well?*, European Economic Review, Vol. 41, Issues 3-5, pages 783-796.

[4] Blanchflower, D. and Machin, S., 1996, *Product Market Competition Wages and Productivity: International Evidence from Establishment-Level Data*, Annales d'Économie et de Statistique, pages 219-253.

[5] Bloom, N. and Van Reenen, J., 2007, *Measuring and Explaining Management Practices Across Firms and Countries*, Quarterly Journal of Economics, Vol. 122, No. 4, pages 1351-1408.

[6] Venables, A.J., Van Wijnbergen, S., 1993, *Trade liberalization, productivity, and competition: the Mexican experience*, mimeo, Centre for Economic Performance, London School of Economics.

[7] Baily, M.N. and Gersbach, H., 1995, *Efficiency in manufacturing and the need for global competition*. Brookings Papers on Economic Activity (Microeconomics), pages 307–347.

[8] Blundell, R., Griffiths, R., Van reenen, J., 1999, Market Share, Market Value and Innovation in a Panel of British Manufacturing Firms, Review of Economic Studies, Vol. 66, issue 3, pages 529-554.

competition on growth. It is worth stressing that innovativeness allows firms to increase their profit and to grow in an environment of low inflation.

Recent empirical studies have, also, examined the impact of indirect measures of competition intensity, particularly the impact of various state policies/regulations that reduce the intensity of competition, making use of a number of indices like indices of the «**intensity of regulatory intervention**» in product markets (see Nicoletti et al.[9] (1999)). These studies confirm the positive impact of competition on innovativeness and show that a high intensity of regulatory intervention in product markets has especially negative impact on the rate of productivity growth when a country is not near the «technological frontier», because this impedes the **adoption of new technologies**.

Finally, more recent studies have examined the impact of environmental policies, associated with green (low-carbon) growth strategies, on competition and the implications for competition policy - for example the “Competition Policy and Green Growth, 2010” report by Nordic Competition Authorities, on which the second part of this presentation is based.

These studies are motivated by the strong and growing policy emphasis on the development of green growth strategies, which is reflected on the fact that ministers of 34 countries at the OECD Ministerial Council meeting of June 2009 endorsed a mandate for the OECD to develop a Green Growth Strategy. In turn, the above report examines the challenges that Competition Authorities face in respect of the shift towards green growth.

The results from this analysis clearly show that **National Competition Policies** need to take into account this shift towards green growth.

[9] Nicoletti, G., Scarpetta, S. and Boylaud, O., 1999, *Summary indicators of product market regulation with an extension to employment protection legislation*, OECD Economics Department Working Papers, No.226.

2. *The meaning of National Competition Policy*

The National Competition Policy (NCP) includes **Competition Policy** in the narrow sense – that is, the Competition Law, which prohibits and deters firm behavior/practices that distort and lessen existing and / or potential competition (various dominant firm practices, cartels and some horizontal and vertical mergers).

However, this is certainly NOT enough for creating conditions of effective competition in markets. In order to create such conditions a modern legal and institutional framework is required with particular emphasis on the **independence of the Competition Authority**, on the principle of competitive neutrality and on effective enforcement procedures.

In addition, it is necessary to have measures, policies and institutions for the creation of free entry and exit conditions in markets, through the abolishment of laws and regulations that distort and hinder competition and create **regulatory burden** and through the reduction of **corruption**.

Finally, one more characteristic that NCP should include for the preservation and promotion of efficient competition are measures for the development and proliferation of a **culture of competition** – so that the competitive spirit imbues the whole economy.

The importance of NCP lies in the benefits that Competition Policy generates. For example, as Ph. Lowe, the Director-General of DG COMP stated in 2007: «…Competition Policy plays a very significant role in the strategy for Growth and Employment adopted from 25 EU countries, in the frame of the review of the 2005 Lisbon strategy». Furthermore, as the (former) EU Competition Commissioner Kroes (2008) has noted, between 2004-8, the decisions of DG COMP of the EC on Cartels led to direct and indirect benefits to consumers of over 24 billion euro. Equally important were the benefits from the decisions related to the abuse of dominance and anti-competitive mergers. A typical example of the effect of market liberalization and deregulation can be seen in European air transport, between 1992 – 2002, where there was an increase in travel frequency of 78% while prices fell by 66%!

In a recent article, that also contains a good review of the empirical studies related to the impact of CP on growth, Buccirossi et.al. [10] (CEPR, 2010) examine extensively the impact of an index of the quality of Competition Policy (the Competition Policy Index, CPI) on Total Factor Productivity growth for 22 sectors in 12 countries of OECD in the period 1995 – 2005. They find a significant positive impact of CPI and show that the relation can be interpreted as a causal one. As they note concluding: "Our results provide support for the argument that investing resources in competition policy is beneficial to the long-term performance of a country's economy". Other studies such as Krakowski M. [11] (2005), Dutz M & A. Hayri[12] (1999), Mateus A.[13] (2010), Jenny F. [14] (2008), confirm this result.

Although effective Competition Law enforcement is important, the other aspects of a NCP are equally or even more important. Such aspects are the abolishment of the government regulations that hinder competition and the reduction of corruption. Absent these, competition COULD NOT function satisfactorily.

In relation to this, it is known that governments intervene in markets not only in cases where significant market failures occur but in a lot of other cases as well. For example, markets with sufficient competition intensity have frequently undergone excessive regulation. These regulations usually take the form of entry restrictions and price controls. The social cost from these regulations (**Regulatory Burden**) can be very important.

There are various examples of results from empirical studies:

-About 20% of the reduction in the increase of the rate of growth of labor productivity in the USA in 1970's compared to that in the period 1958-1965 was due to the increase of regulations in the mid 1960's.

-According to the OECD report (2000), deregulation of markets would lead to an increase in GDP of about 5% to 6% in France and Germany and 10% in Greece.

Another basic component of NCP should be the confrontation of **Corruption**.

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[10] Buccirossi, P., L. Ciari, T. Duso, G. Spagnolo and Cr. Vitale, 2009, *Competition Policy and Productivity Growth: An Empirical Assessment*, Centre for Economic Policy Research, Discussion Paper No. 7470.

[11] Krakowski M., 1995, *Competition Policy Works: The Effect of Competition Policy on the Intensity of Competition – An International Cross – Country Comparison*, HWWA, Discussion Paper 332.

[12] Dutz, M.A., Hayri, A., 1999, *Does more intense competition lead to higher growth?*, CEPR, Discussion Paper No. 2249.

[13] Mateus A., 2010, *Competition and Development: What Competition Law Regime?*, available at SSRN.

[14] Jenny F., 2008, The CFI Decision in Microsoft: Why the European Commission's guidelines on abuse of dominance are necessary and possible, Competition Policy, Vol.-, issue 2, p.1-10.

As is shown in recent studies, corruption generates social costs MAINLY due to the fact that it acts as a very high entry barrier (bureaucrats choose the height of entry barriers in order to maximize their income from bribery). Recent empirical research has shown that corruption is the most important entry barrier for new firms – even more important than financial factors, taxation and government regulations (see, for example, Campos, Estrin and Proto[15] (2010)).

We can now turn more specifically to the implications of green growth strategies for NCP.

3. Competition Policy and Environmental Policy (EP)[16]

Below we suggest that formulating and enforcing a NCP is even more important when the country applies an **Environmental Policy which aims at "green" growth**. There are significant relations between Competition Policy and Environmental Policy – especially between Competition Policy and the "Green Growth" strategies which have been advocated by many countries in recent years.

But, <u>while competition policy may be regarded as highly supportive of environmental policy the reverse is not true</u>.

As already mentioned, Competition Policy has a very important role to play in the context of the shift towards green growth strategies.

To begin with, conditions of effective competition can support substantially the achievement of environmental targets in the framework of a well-designed environmental strategy for "Green Growth". This is so given that under conditions of effective competition prices reflect accurately the social marginal cost of environmental externalities and provide the right incentives for the reduction of environmental pollution and for investments on "green technologies". Moreover, effective competition, with low entry barriers, also ensures that there are incentives for innovation and that environmental targets are achieved with the most cost effective way.

[15] Campos N., S. Estrin and E. Proto, 2010, *Corruption as a Barrier to Entry: Theory and Evidence*, CEPR, Discussion Paper No. DP8061.

[16] As mentioned above this section is based on the "Competition Policy and Green Growth, 2010" report by Nordic Competition Authorities

However, **<u>there are many environmental policies and measures that can hinder competition</u>** and it is crucial that the NCP recognizes and takes into account these effects. The application of environmental policies can hinder competition in various ways. These can be broadly grouped into two categories: a) raising market concentration and entry barriers and b) through collusive practices. We consider each in turn:

a) Raising market concentration and entry barriers

1. Compliance to environmental regulations seems to favor larger firms as these firms face lower per unit costs of compliance (see for example, "Environmental Regulation and Competition", OECD, 2006). This suggests that substantial fixed costs are associated with compliance. As a result environmental regulations increase the Minimum Efficient Scale of production and, thus, the degree of market concentration. This inevitably reduces competition.

2. Incumbent firms with market power may support and lobby for stricter environmental standards than those necessary, in order to "raise the costs of smaller existing rivals and of potential competitors" and thus enhance their market power – despite of the fact that, as a result, they themselves face higher production costs.

3. Often, incumbent firms face less stringent environmental standards than firms that are starting production. An important reason for this is that it tends to be more difficult / expensive to improve the environmental characteristics of production facilities afterwards than to build them up to the standard in the beginning.

   Recognizing this extra cost, regulators often use so-called <u>"Grandfathering" policies</u> i.e. impose less stringent environmental standards on incumbent firms.

   These policies create barriers to entry to potential new entrants, thus reducing competition and raising the market power of incumbents.

4. Another reason that entry barriers can be raised is that environmental regulations increase the sunk costs (e.g. all the time spent on procedural matters and red-type is sunk cost) of market entry as well as the exit costs – thus again reducing competition intensity.

5. In the specific cases where direct emission taxes are imposed it is usual that they lead to an increase in market concentration and reduced competition, as in those cases larger firms find it more advantageous to invest in pollution reducing equipment and pay less tax than small firms do.

b) Collusive practices

We now turn to the second category, i.e. the ways environmental policy can hinder competition through collusive practices.

Successful environmental policies improve, ceteris paribus, social welfare and so can be used to defend horizontal agreements that would be otherwise deemed restrictive under competition law. However restrictive practices can lead to significant reductions in consumer welfare and certainly they cannot be defended merely by pointing to some unspecified and unquantified social good. To do so would render competition policy completely ineffective.

Thus, if environmental policies create social gains these should be taken into account by Competition Authorities through the requirement of significant "efficiencies" as defined in competition law. Implicit here is a clear recommendation for policy makers on how to make competition and environmental policy compatible and increase overall economic efficiency.

Bellow we present examples of horizontal agreement concerns:

6. Concerning the implementation of <u>Emission Trading Schemes</u> – in EU this is regarded as one of the cornerstones of EU climate policy – it is often advocated that emission permits should be auctioned and that there should not be any preferential treatment.

Here, auction design is very important for promoting efficient pricing and avoiding collusion. Collusion would result in too low prices for the permits, leading to lower incentives for innovation in "clean technologies" and to lower government auction revenues than those that reflect the real economic value of the emission permits.

The Competition Authorities have an important task to detect and deter collusive practices before, during and after the auction process.

7. Public Procurement is generally regarded as an important tool for securing growth and employment. An example and proof of its importance is the fact that in Nordic countries public procurement accounts for 16% of GNP. Public procurement is now seen as a tool for public bodies to implement green policy. When public bodies introduce environmental criteria in public procurement it is called Green Public Procurement (GPP).

   Today, about 20 EU member states have adopted a National Action Plan for GPP to be used to promote markets for green goods.

   <u>However it is important that GPP is used only for goods that have a substantial impact on the environment AND for which the external effects are not already internalized by other regulatory instruments</u>, since:

- GPP can have a negative impact on competition because it can lead to the participation and the submission of offers of much fewer firms – those that satisfy the (new) environmental criteria – thus raising also the likelihood of collusion in the bidding process.
- Prices to the procuring entity will tend to rise as a result of the above reduction in competition and/or as a result of firms' facing increased costs in order to satisfy the (new) environmental criteria.

8. Environmental agreements between firms – e.g. expressed through joint commitments to contributing to the attainment of a sector-wide environmental target – may serve as a tool to engage in a disguised cartel (and they can be in breach of Competition Law, as, for example, of article 101 TFEU of the EU).

9. In the very important sectors of recycling and waste management environmental authorities often support sector-based agreements (green schemes) among the firms which may cause substantial problems to competition.

   A typical green scheme would be a horizontal agreement set up to comply with environmental obligations related to recycling or returnable products. Such schemes can extend to entire industries and usually comprise a complex set of arrangements which may be either horizontal or vertical or both.

   As noted in the Nordic CAs report (2010) [Section 5.2], green schemes could raise competition concerns related to (a) sensitive information exchange and commonality of costs that would facilitate collusion in product markets (b) bundling of demand for collection and sorting services and (c) the pricing and fee structure.

In the light of all the above, Competition Authorities have a very important role to play in the application of green growth strategies. They should be able to identify and to analyze environmental regulations which may negatively affect competition. Moreover, in collaboration with the environmental authorities, they should assess the effects on competition of the environmental policies and regulations and they should compare the environmental benefits with the social cost that may arise from the hindering of competition.

The **OECD Competition Assessment Toolkit (2006)** offers very useful instructions for Competition Authorities and other (sector-based regulatory) Authorities concerning the revision of environmental regulations in order to minimize the risk of negative effects on competition.

4. Conclusions

Environmental policies can have a significant impact on competition and therefore they have very important implications for the formulation of National Competition Policy and the enforcement of competition law.

For the moment these significant impacts of green growth strategies do not seem to be carefully identified and assessed by Competition Authorities in most countries.