5. Competition Policies and Competitiveness – A View from the Literature and the Case of Argentina

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ABSTRACT

Competition policy contributes to improve economic performance through increased innovation, productivity and investment. In this chapter, different dimensions of competition policy are discussed, such as classical anti-trust regulation as well as competition advocacy initiatives in infrastructure and other industries. Argentina is singled out here as a case study, because the need for an effective competition policy had become particularly pressing during the period of the currency board when a major increase in the relative prices of the non-tradable sector occurred. Up to 1999, competition policy in Argentina was limited to resolving private claims of anti-competitive behaviour. Thereafter, competition institutions were reinforced and have been playing an increasingly active role in competition advocacy, notably in regulatory reforms of non-tradable sectors. This trend is illustrated by several case studies (electricity distribution, postal services and telecoms, among others).

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Introduction

Over the past decades the emphasis in reforms in emerging economies has shifted from macro-reforms to microeconomic reforms. The former mainly aim at overall stabilisation, while the latter focus on the rules and institutional developments prone to foster market competition, by reducing barriers to entry and enhancing market transparency.

Today there is a wide consensus that market competition benefits economic performance in the long run by encouraging efficiency through productivity gains and increased incentives for innovation.[1] Institutional design and regulatory reforms focus increasingly on fostering competition in economies where privatisation has been a dominant trend as well as in countries where public ownership (control) remains an important feature (*e.g.* France and UE competition policy). In this framework, competition policy is increasingly understood as a set of policy instruments rather than the traditional anti-trust approach. Regulatory reform, an intensive area of policy making in the recent period, has been developed in the framework of a competition policy approach. This trend in the content of regulatory reform and practice emerges strongly in European countries.

This chapter first describes the two main fields of competition policy: competition law enforcement and competition advocacy. It then discusses how competition policy improves economic performance in the light of the findings of theoretical and empirical research. Lastly, it presents a short overview of the competition policy in Argentina and concludes with some final observations related to this experience.

What is competition policy?

Competition policy can be seen as a set of tools and criteria to organise market structures pursuing welfare improvement. Competition policy (CP) can be split into competition law enforcement and competition advocacy.

Competition law enforcement

Competition law generally aims to prevent or remedy business actions or situations that constrain market forces, cause economic harm and weaken economic performance. Competition law enforcement prevents economic agents in the market from distorting the competitive process through various kinds of anti-trust torts such as agreements with other companies or unilateral actions designed to exclude actual or potential competitors. Law enforcement is an important tool to encourage competition and market efficiency since price-increasing horizontal and vertical cartels and

monopolies either cannot be spontaneously corrected through market mechanisms, or the correction will take too long and impose social costs on market participants.

Competition law embodies different instruments that are conventionally categorized as either structural or behavioural (conduct). The structural instruments relate to mergers and monopolies or dominant firms. These components relate to business behaviour such as price-fixing and other collusive agreements, vertical restraints, and the abuse of dominant market position. The conduct-oriented components can be divided into two sub-categories: "agreements" which concern relationships and agreements among otherwise independent firms, and "monopolization or abuse of dominant positions" concerning actions by a single firm with certain economic position.

Competition laws have taken different stances to safeguard market competition. Most contemporary competition laws treat naked agreements to fix prices, limit output, rig bids, or divide markets very harshly. In most OECD member countries, price-fixing and similar forms of collusive arrangements, such as bid-rigging are *per se illegal*.[2] In other areas of business conduct, such as vertical restraints (resale price maintenance, tied selling, exclusive dealing, and geographic market restrictions), *the rule of reason* is generally applied; this means that the lessening of competition can be accepted depending on specific situations. Stringency in vertical restraints differs by countries.

As for the structural provisions of competition policy, the presence of monopoly or dominant firm position is not *per se illegal* in OECD countries. However, specific types of conduct are prohibited. Abuse of dominance and monopolies are categories that concern the conduct and circumstances of dominant firms and monopoly. Laws against monopolies are typically aimed at exclusionary tactics such as predatory pricing, by which firms might try to obtain or protect monopoly positions. Laws against abuse of dominance address the same issues, and may also try to address the actual exercise of market power, for example, pre-emption of scarce raw materials or distribution channels.

Merger control tries to prevent the creation, through acquisitions or other structural combinations, of undertakings that could have the incentive and ability to exercise market power. There are disagreements on the objectives and instruments in the treatment of mergers. In the case of horizontal mergers, competition authorities watch either the increase in market power or economic efficiency, or both. Some countries place more emphasis on economic efficiency than concentration or market share of firms while other countries put more emphasis on concentration. What is

evaluated and considered important is the post-merger conduct of firms and their ability to exercise market power through price increase or stable pricing. Mergers that, while perhaps reducing competition, may lead to efficiency gains are exempted. Most systems specify procedures for pre-notification to enforcement authorities in advance of larger, more important transactions, and special processes for expedited investigation, in such a way that problems can be identified and resolved before the restructuring is actually undertaken.

Competition advocacy

Governments must also advocate competition by lowering barriers to entry, promoting deregulation and market-friendly regulation, as well as trade liberalisation and non-distortionary government intervention. Government policies, institutional arrangements and private restrictive business practices often reduce competition. Thus, the competition authority must also participate more comprehensively in the formulation of its national economic policies, which could adversely affect competitive market structure, business conduct, and economic performance.

The advocacy role of the competition authority is apparent in the process of regulatory reform based on competition principles. Regulatory reform that permits and encourages reliance on market forces can enhance competition, lower costs of entry or expansion, and produce more competitive and efficient industry structures. Amongst the major benefits of regulatory reforms to consumers and to producers are lower prices and higher output, often in the form of greater variety, higher quality, better service, and new products. For reform to be successful, it should be built on a firm foundation of competition policy. Regulatory reforms that foster competition consist of two main fields: enhancing market structures promoting entry incentives, expansion and market access as well as eliminating conduct restrictions on competition.

Removing constraints to market entry is usually a critical step toward enhancing competition. Thus the simplest competition-enhancing reform is one that lowers or completely removes regulatory barriers to entry and expansion, including constraints on entry through international trade. However, it is not the simplest reform from a political economy perspective as it affects the interest of incumbents that may have considerable political clout. Cases of reform failure rooted in the political economy dimension abound. An example of a regulatory barrier is licensing requirements that set excessive hurdles or even give incumbent firms the power to veto new entrants. Greater freedom of entry and exit tends to reduce concentration after a once-protected monopoly is exposed to competition. In

telecommunications, for example, the appearance of competitors has reduced the market share of the former monopoly holder. Rules that mandate services or prevent firms from leaving a market also inhibit competition. Firms will be reluctant to enter if they fear they will be forced to stay despite losses. A barrier to exit creates a sunk cost, and thus the prospect creates a barrier to entry. Part of reform in the surface transport sectors has been to permit railroads and trucking companies to change or even stop their services to destinations depending on whether the traffic could support profitable operations.

Reforms that fail to address entry in a comprehensive manner will tend to fail. Eliminating price regulation without eliminating entry controls, for example, may leave prices non-competitively high, or innovation disappointingly sluggish, if the incumbents find that they face no competitive threat. Privatising a monopoly without uncoupling its parts into more competitive structures does not resolve the problem of monopoly. Providing free entry and promoting more competitive structures are not enough in themselves; it is also necessary to prevent collusion and other non-competitive conduct. Thus relevant aspects of business behaviour are also often the direct objects of reform. Ending unnecessary price controls is equally a fundamental and direct pro-competitive initiative. In several countries, for instance, a path-breaking reform in the oil sector has often been the abolition of official price controls. Where some form of price regulation to deal with natural monopoly is needed, it should be designed to maximise the responsiveness to economic incentives, consistent with preventing monopoly abuse.[3]

Competition advocacy can be informal or, preferably, have an explicit, statutory basis. "Advocacy" of regulatory reform is a key activity of competition agencies in OECD countries. Even when the enforcement and policy divisions are separated, the former has often (informally) contributed to regulatory reform decisions. A wide array of advocacy activities of competition authorities exist in OECD member countries (Box 5.1).

Box 5.1. **Advocacy activities of OECD countries**

The Australian Competition and Consumer Commission submits reports to other commissions and departments, makes appearances before Parliamentary committees, and has seconded staff to other offices.

In Canada, the Competition Bureau offers policy and legislative advice within its own Department, gives advice to other Departments on request, does research into emerging problems, participates formally in regulatory proceedings, and submits reports to committees.

The German Bundeskartellamt concentrates on enforcement, but has also prepared formal statements on legislation at the Ministry's request. In important reforms, such as those of electricity and telecommunications, staff of the Bundeskartellamt has testified in Bundestag committees and hearings.

In Japan, the Fair Trade Commission has used its right of consultation to ensure that bills do not contain elements contradictory to the Anti-monopoly Act or to competition-related policy objectives of regulatory reform.

In Mexico, the Federal Competition Commission is a member of the inter-ministerial privatisation commission. In addition, it submits official statements to other bodies.

In Norway, the Competition Authority presents research reports on regulatory issues at formal hearings and submits other presentations through its Ministry. The agency may intervene in regulatory proceedings on its own initiative, typically in response to complaints from market participants about regulatory barriers to entry.

The Polish Anti-monopoly Office (AMO) judges all draft normative acts, and its president participates in meetings of the Cabinet and the Government's Economic Committee. Sometimes the Parliament approaches the AMO for advice. Informally, enterprises often complain about anti-competitive regulations to AMO. It may in turn discuss the problem with the relevant ministry, and suggest reforms.

Source: OECD Report on Regulatory Reform (1997).

Competition policies and economic performance

A view from the literature[4]

While there is broad consensus that competition increases static efficiency, there is an on-going debate on whether competition is necessary for dynamic efficiency and growth. Standard microeconomics demonstrates the value of competition resulting in static allocation and productive

efficiencies. However, one of the main contributions of competition to development is the incentive to be dynamically efficient (Bresnahan, 2001; Ellig, 2001). Recent advances in economic theory also stress the importance of the mechanisms that promote efficiency in the long run (a dynamic perspective).

Traditionally, efficiency analysis was based on static welfare comparisons (Harberger, 1954), showing that resource allocation is optimal when agents take their decisions using market information. Harberger's famous "triangles of surplus" constituted a major piece of economic policy. Economic theory built around this conceptual framework focused on allocative efficiency. A feature of this approach is the hypothesis of atomistic agents. While this is a necessary condition of the perfect competition model, it also deserves attention for competition policy practice. Basically, atomistic competition means absence of market power: no one can affect the model's parameters (prices). But in practice atomistic competition means a large number of competitors, which turns out to be a more stringent condition than absence of market power.

Contestability theory (Baumol *et al.*, 1982) showed that perfect competition efficiency results may also be attained under monopoly conditions (one firm). The key question becomes the absence of entry and exit barriers, rather than the presence of a large number of small agents.

This approach to the role and effects of competition on static efficiency has been subject to criticism, mainly based on the assumptions of perfect information (no asymmetries) and costless transactions. Vickers (1995) argued that competition under information asymmetries is far from being fully understood and that the results, typically analysed through principal-agents models, are ambiguous. If incentives are misaligned, the cost functions are not necessarily minimised and efficiency may be harmed.

Another critical view of perfect competition models comes from transaction cost economics (Williamson, 1975, 1985). The point made is that transactions among independent agents are possible if the cost of organising them is low relative to other ways of organising economic activity. The costs of searching information, organising transactions, writing contracts, and enforcing them, are taken into account by agents. These costs are supposed to be zero by standard perfect competition models. Thus, not only production costs matter for efficiency, but also transaction costs should be considered.

Other critics focus on the relationship between competition and incentives to invest. Competition has usually been seen as an environment where economic rents disappear. In this case, it has been argued, there would be no incentives to innovate.[5] Simple models assume perfect capital

markets, so that the Modigliani-Miller theorem applies and the innovation path is determined by the total net present value of monopoly rents from innovating. Product market competition in these models is unambiguously negative.

Recent research, however, challenges these theories. Endogenous growth literature has focused on the effects of corporate governance on innovation and growth. Nickell (1996) and Blundell *et al.* (1999) report positive correlations between competition, productivity growth and innovation. Aghion *et al.* (2002) have shown an inverse-U relationship between product market competition and patenting activity in the case of UK firms. Too much competition may harm innovation as much as too little competition may do. Carlin *et al.* (2001), report that growth of sales is related to the number of competitors with an 'elasticity of demand' indicator. Firms with competitors fighting for a market share have shown faster growth rates in sales than those with no competitors. This line of research points to more subtle effects that drive investment decisions, showing that although some decisions are positively correlated to competition, the net effect is ambiguous.

In this new generation of models, innovation depends not only on future rents, but also upon the difference with pre-innovation rents (incremental profits). In Aghion's model, competition could finally boost innovation and growth because firms are trying to "escape competition". This effect is more evident in "neck-and-neck" industries, in which oligopolistic firms have no competitive advantages. The point is that competition may reduce current rents faster (neck-and-neck) than future rents increase incremental profits that justify R&D expenditures in order for a firm to become a leader.

Ellig (2001) mentions complementary views about the dynamic effects of competition: Schumpeterian, Austrian, evolutionary, path dependence and the resource view of the firm. All of these theories express basically the same idea: market power is not necessarily a consequence of anticompetitive behaviour, and concentrated markets may produce efficient outcomes when innovation, network effects and specialised resources (like knowledge) are involved.

These findings are at the core of the discussion in the anti-trust arena of the United States and Europe nowadays. Many authors draw attention to simple rules of anti-trust or traditional approaches about how markets work in the "new economy".[6] In some industries, concentration is a natural consequence of technical progress and the way competition works, so punishment could be a misleading strategy. One interesting issue is that under certain conditions, like technology uncertainty, firms compete for the market through network effects and externalities. Competing standards in

electronic services or high-tech industries seem to reflect this behaviour. Evans *et al.* (2001) argue that little static competition in industries could hinder vigorous dynamic competition.

This point may be relevant for developing countries. Concentration measures are not a necessary condition for intervention and sometimes are less relevant as most practitioners may think. Small markets and scale economies naturally admit few players. So the relevant question in terms of competition is whether there are barriers to entry or any other condition that weaken the minimum threshold of contestability in that market. Gal (2002) and Winograd (2003) discuss the case of competition policies and institutional design in small open economies. Competition is not necessarily a process entailing a large number of players. This point is important as regulatory reforms have often been guided by the prejudice that "more is better than a few".

Empirical findings

There are many empirical studies linking competition with changes in productivity. Comparative case studies of selected industries in the United States, Japan and Europe (Baily, 1993; Baily and Gersbach, 1995) show that global competition with best-practice producers enhances productivity. Nickell (1996) and Disney *et al.* (2000) used several indicators of competition in productivity regressions and found that competition increases productivity levels and growth.[7]

Competition law enforcement

The negative impact of anti-competitive conduct on consumers and economic efficiency is difficult to measure. Some very crude estimates of the overall social costs of monopolies have been made (*e.g.* Posner, 1975).[8] More precise evidence is available for individual cases.

Cartels raise prices above their competitive level, reduce output and labour productivity. Consumers pay higher prices or forgo the cartelised products. Fourteen case studies done by competition agencies in OECD countries showed that cartel overcharges varied between 5 to 65 per cent, with the median being around 15 to 20 per cent (OECD, 2002). OECD (2003) illustrates that the international trade of 16 large cartel cases exceeded USD 55 billion. Historical studies also point to the economic damage caused by cartels. For example, in the United Kingdom price fixing was common in three-quarters of British industry until the adoption of the Restrictive Practices Act in 1956; these cartels reduced annual labour productivity growth by 0.8 percentage point (OECD, 2002).

Resolving other anti-trust torts, such as vertical constraints and abuse of market dominance, also increases consumer welfare, productivity and innovation. For example, following the recent abolition of resale price maintenance for manufactures of certain pharmaceuticals in the United Kingdom, supermarkets reduced prices by between 25 and 50 per cent (OECD, 2002). Competition law enforcement may also prevent damage caused by abuse of dominance, such as predatory pricing, exclusive dealing and tying which can deter market entry. It should be stressed that, except for cartel conduct, a case-by-case approach is needed.

Restructuring monopolies and safeguarding structural reform

Competition law enforcement can help restructure monopolies, bring innovations and huge price cuts. For example, in the United States the Sherman Act of the 1970s helped restructure the national telephone system. The 1984 divestiture initiative separated manufacturing, long distance, and local services operations of the US telephone system. The reforms led to price cuts of long distance toll and international services by 17-50 per cent during the 1984-96 period (OECD, 1999). Fierce competition may have stimulated further innovations, such as fibre optics.

Competition law enforcement is also a fundamental component of successful structural reforms. Co-operative behaviour or dominant positions induced by regulation will not simply disappear because of less regulation. Delivering a strict application of competition law is very important. The enforcement of competition law should apply to any anti-competitive action that can undermine reform.

Competition law should be applied to all sectors of the economy. Many sectors claim, however, their own particular set of competition rules or competition enforcement authority, on the grounds of their *uniqueness*. One should be very cautious with the introduction of sector-specific competition laws or enforcement agencies as they may adopt an approach to competition that is overly congenial to the industry's traditional mode of operation instead of promoting the competitive regime that regulatory reform typically aims at. Sector-specific agencies may also resist the pro-competitive thrust of reform because of self-interest. Indeed, an agency whose chief purpose is to regulate an industry may have incentives to ensure its own survival by keeping regulation in place.[9] Capture problems may also tend to emerge more frequently under these institutional arrangements. Success and failure in pro-competition initiatives highlight the critical role of institutional design and political economy arguments in the development of regulatory reforms, in particular in the relative political clout of incumbents (firms and unions) versus potential new entrants and consumers.

Competition advocacy

Many studies on OECD countries illustrate the positive effects of competition advocacy leading to more competition, higher efficiency, lower costs of entry and expansion, and more competitive and efficient industry structures (Ahn, 2002). The United States has been a leader in competition-based structural reform (see Annex 5.A1 for more details). Two fundamental regulatory features of the United States are the *pro-competitive policy stance of regulatory regimes* and the openness and contestability of regulatory processes.[10]

Economic reform based on competition enhances economic performance, resulting in gains in labour and capital productivity, and lower prices due to lower operating costs. Moreover, labour, capital and total factor productivity increased. Reforms stimulated firm restructuring which in turn also improved productivity. Regulatory reform also contributed to increase capital productivity. It favours the introduction of new technology, such as fibre optic and digitalised networks in telecommunications. It forced firms to eliminate excess capacity, as in electricity.

Gains in reformed sectors spill over to other sectors, either through demonstration effects or because the reformed sectors supply important inputs. Improved, unbundled, and customised services permitted customers to improve productivity. Guaranteed delivery time in transportation facilitated more efficient supplier-producer relationships such as just-in-time inventories. Development and application of sophisticated pricing, routing and logistical software in formerly regulated sectors had important demonstration effects in other sectors. And their pioneering developments reduced the costs and improved the quality of new technologies, facilitating their adoption in other industries.

Regulatory reform by increasing competition also improved the dynamic allocation of resources and investment, possibly also leading to long-term gains in productivity. Pro-competition initiatives in the financial sector have also improved the functioning of capital markets, increasing the efficiency of investment. In the US case, the combined size of reformed sectors is relatively small – 5 per cent of GDP – but the benefits of productivity growth in those sectors may have contributed to improvements in productivity performance in the economy as a whole.

Regulatory reforms also may have significant macroeconomic effects. They may lower prices, benefiting both business and final consumers. Lower input prices may in turn lower output prices. Lower prices and greater price flexibility in turn may have contributed to price stability. In most reformed sectors, employment has increased in the long run after initial

declines due to restructuring. Moreover, employment has been reallocated to more efficient firms within the sector. Increased output and income in the reformed sectors also may raise output and employment in the rest of the economy.

Competition policy in emerging countries

Developing countries, even those with a relatively small private sector, may benefit from the enactment of anti-trust legislation and the creation of a competition agency in various ways:[11]

- A competition agency may become a centre of expertise in anti-monopoly policy and can help to develop deregulation, privatisation, and restructuring plans that could improve the functioning market economy.
- Competition law enforcement improves the performance of state enterprises by subjecting them to clearly defined principles concerning avoidance of abuse, dominant position or other anti-competitive actions.
- Competition law enforcement can help the state agencies - procurement - to obtain better goods and services at lower prices while compelling enterprises to strive for greater levels of efficiency.
- Competition law enforcement can fight guild-type policies prevalent to local service, which resist social and economic changes thus leading to enhance competition and efficiency gains.

In most Latin American countries, although progress has been made through reforms during the past decade, competitive market structures still have to be implemented through competition policy. Most countries have had legal frameworks since the seventies (Chile), or eighties (Argentina, Brazil, among others) and they are trying to foster institutions related to competition policy (CP). But they lack the institutional strength and reputation that characterise these instruments in OECD countries. The process is difficult and needs a better understanding of the challenges involved. Moreover, excessive distortionary regulation still persists in Latin America.

Policy objectives include the reform of market regulations, eliminating them where unnecessary, the design of incentive mechanisms to reduce price frictions apart from the more traditional anti-trust policies – control of mergers to prevent the development of monopolies and control of anti-competitive conduct. Following Lachmann (1999): "*In developing countries*

competition policy has to comprise the provision of a favourable climate for competition and the development of competitiveness".

The case of Argentina

From anti-trust to competition advocacy

Argentina set up a Competition Law and a specialised competition agency (*Comisión Nacional de Defensa de la Competencia*, CNDC) in the early eighties. In the mid-90s, competition policy started as a policy tool. The most salient case of this period was related to the country's biggest firm, the oil company *Yacimientos Petrolíferos Fiscales* (YPF). However, even though extensive privatisation took place in the 1990s,[12] competition policies were not a fundamental element of the political agenda, and effective initiatives were rare and non systematic. Under the new government taking office in 1999, competition policy acquired more importance, becoming a first order tool of economic policy aimed at enforcing better market regulations. Furthermore, under the fixed exchange rate regime established in 1991 – and, hence, the low degrees of freedom to respond to changes in relative prices – the role of competition policy became crucial: it was one of the few policy instruments available to gain efficiency and international competitiveness.

The need for a better institutional framework in competition policy prompted the government in 2000 to evaluate the preferred design in an environment with structural institutional fragility. A decision was taken to develop a multiple agency model in regulation with the objective of inducing a certain degree of competition for reputation between regulators aimed at reducing the incentives for capture.

The immediate antecedent of legislation regarding competition policy in Argentina is Law 22.262 (August, 1980).[13] This norm established that all conducts that limit, restrict and distort the normal functioning of markets are to be analysed by the CNDC. This law mentions, but does not define "general economic interest", a concept linked to what economists refer to as total surplus. The law that created the CNDC failed to define the proper place of this agency in the institutional hierarchy and the necessary degree of independence. Moreover, the legislation did not regulate mandatory *ex-ante* mergers and acquisitions control. Nevertheless, the CNDC decisions contributed to the growth of CP as an instrument.

A new law passed in 1999 (Law 25.156 and Decrees 1019/99 and 85/2001) introduced *ex-ante* control of merger and acquisitions. Further provisions defined more precisely the limits of the legislation and made possible its application (Resolution 40/2001). This law was complemented

in 2001 by a Decree (396/2001) establishing limits to economic operations that needed *ex-ante* control. The latter piece of legislation was aimed at a more focused use of the existing resources on highly relevant M&A, excluding second order operations that drain scarce human capital and unnecessarily increase transaction costs (and opportunities for corruption).

In 1999 the new government created a higher instance, the Secretary for Competition and Consumer Affairs – *Secretaría de Defensa de la Competencia y Del Consumidor* (SDCyC). The CNDC was made dependent on this agency, thus establishing a clear hierarchy. The multiple agency scheme was developed by the creation of the Tribunal of Competition - *Tribunal de Defensa de la Competencia (TDC)*. This tribunal was endowed with financial and jurisdictional autarchy and autonomy and was assigned to investigate and punish conduct that could damage general welfare. In this new institutional design, SDCyC could operate as a complement to the TDC (in line with the UK model). This "double agency" model has several advantages over a single agency scheme, if higher aggregated administrative costs. First, each agency exerts control over the other. It is expected that the SDCC will act like an attorney and the TDC like a judge. This scheme has proved to work well in many countries, including the United States. Second, a two-agency scheme minimises the probability of capture, by increasing the cost of capture and benefiting from competition in the reputation of the regulators. Third, both agencies work towards the same goal and can, in a way, "compete" for better results.

Until the reform of the legislation instituted in 2001, too many operations had to be revised by the CNDC. This produced a congestion of administrative procedures that ended up in some operations being approved tacitly or stuck in the middle of the process. Furthermore, less operational time was left for the relevant M&As. With the new scheme, the TDC does not have to deliberate *ex-ante* on operations that are not of prime economic importance. Thus, the government expected that the CNDC would become more efficient.[14]

The experience of Argentina reveals two main stages in establishing a functional CP. The first lasts until 1999 when CP was limited to react to private claims. For instance, acting against anti-competitive behaviour occurred only after a private company raised the case against another company, and never *ex-officio*. The second stage started at the end of 1999. The newly established SDCyC decided to press ahead with intensive and pro-active competition policies, *i.e.* deciding *ex-officio*. After the 1999 reform of the legislation, regulatory issues were tackled more efficiently. This is well illustrated by the case of Endesa in electricity as well as other technically – and politically – complex anti-trust and regulatory initiatives (see below).

With the successful intervention of the SDCyC in the case of electricity companies, this agency became crucial in settling regulatory issues regarding public utilities, as well as many other instances (telecommunications, postal services, airports and ports).

Competition advocacy and regulatory reform

With the creation of the SDCyC and its active role, regulatory reforms in electricity, credit card systems, football, postal services, telecommunications, were quickly approved. The following is an overview and a brief summary of actions developed in the years 2000-01.

Electricity distribution

The Argentinean energy market was privatised and modernised in the nineties. Reforms in the electric sector included the vertical separation of generation, transport, distribution and commercialisation. As transport was divided into regional monopolies, distribution was structured in the same way. In distribution, by regulation, the metropolitan area of Buenos Aires was divided into two halves and independent monopolies were established using a *yardstick* competition approach. The two privatised companies were named Edesur and Edenor, for the southern and northern areas respectively.

The Spanish firm Endesa was a major shareholder of Edenor in partnership with the French company EDF and Astra, an Argentine oil company later sold to Repsol-YPF. Edesur was controlled by the Chilean energy conglomerate Enersis. In 1997 Endesa bought Enersis, inheriting the control of Edesur. The latter company thus turned into a major shareholder in both distribution companies of the metropolitan area of Buenos Aires.

In 2000 the competition authority, the SDCyC, decided to launch an active competition initiative to separate Endesa's property in the two firms through a disinvestment operation. When Endesa became a major shareholder in both companies, the fundamentals of the regulatory framework based on yardstick competition were jeopardized.

How would economic interests be affected by the concentration of control in the distribution and commercialisation markets? This operation raised issues such as access to the distribution network for third parties, and the reinforcement of the proper incentives for the sustainability of the electrical sector. After an investigation, the SDCyC recommended that Endesa's property be separated, leaving it to Endesa to decide in which company it would keep its participation and in which company it would sell.

This recommendation initiated a new phase in regulatory reforms in Argentina giving rise to a new approach in regulation and competition

policy, as well as bringing a significative gain in reputation for the newly created agency. Since then, most regulatory reforms required the participation of SDCyC and increased the chance of applying CP principles. The SDCyC's participation in regulatory reform policies has transformed the way most people involved understand the scope for CP. Regulatory reforms in the postal sector illustrate this point.

Postal services

The public postal operator in Argentina was privatised in 1997. The privatisation process consisted of a concession with a universal service obligation covering the whole nation and a few regulated prices like simple letters and small packets.

One of the main concerns in the sector was the emergence of growing competition in the ultra-rapid services like messengers and corporate segments given the absence of (legal and technological) barriers to entry. This competition eroded part of the financing mechanism implicit in the universal service obligation and the tariff structure of the new private operator.

In 2000 the discussion concentrated on setting up a new regulatory framework that could be consistent with the needs of the official operator and the main competitors. The main operator *Correo Argentino* alleged that the situation was not sustainable and proposed the establishment of entry barriers that would limit the work of small companies in messengers markets as well as more rigorous controls over the rest of the companies. Additionally, the main operator lobbied for restrictions imposed on the rest of the operators (its main competitors) and the setting up of reserved areas of business (stamp emission, for instance) for the main operator, where regulatory (legal) guarantees would be established. All these arguments were based on a very ambiguous and debatable regulation framework. The other operators competing directly with *Correo Argentino* also lobbied for entry barriers but tried to avoid restrictions in the competition arena with the latter. Indeed, a very *natural* political economy of market regulation.

By mid-2000 *Correo Argentino* announced a merger with OCASA, the second company in the market. This initiative was the result of a financial crisis of the main operator whose debt to the government amounted to more than USD 200 million. *Correo Argentino* and OCASA submitted the operation to the CNDC as required by the prevailing Law of defence of Competition.

The CNDC rejected the merger based on welfare considerations. The operation would have reinforced a position of market dominance, and the

CNDC argued that the companies had not given evidence that the merger would produce any efficiency gains. Market information did not support the thesis of *ruinous competition*. As Table 5.1 shows, after privatisation production expanded almost 30 per cent between 1997 and 2001 and prices declined (Table 5.2). The contraction of activity in 2001 was due to the economic slowdown (CNC Annual Report, 2002).

Table 5.1. **Postal services in Argentina – Physical output**

Services		Number of units (000s)				
		1997	1998	1999	2000	2001
Postal services	Letters	611 090	651 255	750 508	772 648	750 183
	Corporate services	149 263	166 365	204 956	223 390	195 487
	Credit Cards dispatches	2 297	3 570	4 406	5 355	4 737
	Legal letters	5 261	5 676	6 080	7 026	7 034
	Banking clearing	4 165	4 048	2 964	3 126	2 735
	Newspapers and magazines	21 006	27 089	45 209	33 104	23 138
	Parcels	4 832	6 068	5 109	7 005	7 958
	Couriers	1 330	1 649	1 629	1 188	1 179
	Total	801 814	868 767	1 021 512	1 052 945	992 457
Telegraphic services		7 287	7 809	7 620	6 843	6 741
Monetary transactions		3 472	3 630	3 280	3 254	3 153
Total		812 373	880 199	1 032 962	1 063 043	1 002 351

Note: items do not add up to totals as minor services are not shown.
Source: CNC (2002).

Table 5.2. **Postal services in Argentina – Prices**

Year	Average price $[1]	Variation (annual change in per cent)	Consumer price index (annual change in per cent)	Average real price (1993=100)[2]
1993	1.28		7.4	100.0
1994	1.33	3.9	3.9	100.1
1995	1.23	-7.5	1.6	91.1
1996	1.18	-4.1	0.1	87.3
1997	1.07	-9.3	0.3	78.9
1998	1.11	3.7	0.7	81.3
1999	0.96	-13.5	-1.8	71.6
2000	0.84	-12.5	-0.7	63.1
2001	0.82	-2.4	-1.5	62.6
1993-2001		-35.9	9.9	-37.4

1. Calculated by CNC as an average of certain types of standard services. Nominal prices are in pesos. Recall that from 1991 to 2001 the exchange rate parity was fixed and constant.
2. Deflated by the CPI.
Source: CNC and authors' calculations.

The SDCyC argued that erecting barriers to entry meant regulating through instruments independently of results. This approach was an important break-through that challenged the established consensus. In contrast with SDCyC, the regulator (*Comisión Nacional de Comunicaciones*) was inclined to accept a heavier regulatory burden, a *classical* reaction of sectoral regulators and potential vested interests in the process. A more complex and somehow arbitrary (discretionary) regulatory framework enhances the role and legitimacy of the sectoral regulator. The SDCyC proposed a competition-based neutral approach to universal service financing. The regulatory framework developed by the SDCyC addressed the compulsory universal service and its costs – leading to intensive lobbying for distortionary barriers to entry-based regulation – through the design of a fund with contributions from all players proportional to their income as is currently applied in the telecoms industry. This proposal of regulatory reform did not reach the approval stage in Parliament, but the consolidation of excessive market power in the hands of one player was avoided by refusing the merger.

To sum up, the interventions of SDCyC and CNDC contributed to improving the debate as to what should be the best regulatory policy for the postal sector. First, arguments leading to stringent (distortionary) regulations to improve business performance of the main operators were defeated. Second, the proposal to impose entry barriers restricting informal and illegal operators was rejected. The SDCyC argued that increasing the barriers to entry would only aggravate the problem of informality in the market. The solution was to improve the regulatory technology to control operators without lessening competition.

Telecommunications

The role of SDCyC in the telecom reforms was different from that in the reform of postal services. In the former the regulator incorporated several tools of competition policy in the regulatory framework (mainly essential facilities use). The role of SDCyC was to strengthen and drive the reform process while promoting a rational use of pro-competitive instruments to attain dynamically efficient regulation.

Decisions that affect economic interests should be appreciated beyond their mere economic purpose (Noll, 1989). In telecommunication, as in other sectors, all parties try to protect their own interests. During regulatory reform, lobbying may be very intense as reforms may affect the future market structure and thus expected rates of return of incumbents and potential entrants. Reforms in well developed political systems need to be based on negotiations and public discussion to sustain the whole process.

The telecommunications reform in Argentina is an illustration of this case. Its main objective was to eliminate all entry barriers and to stimulate the erosion of monopoly rents by implementing the essential facility principles. The SDCyC focused on the analysis of the long-run effects of the reform, bringing international experience in telecoms liberalisation from a competition policy perspective, as well as inducing all parties to engage in transparent negotiations.

While the shared goal of the reform was to open the market, the Communications Secretariat and the SDCyC debated on the use of instruments. Many regulators view market liberalisation as an instrument to maximise the number of operators rather than welfare.[15] From a competition policy perspective, this approach is questionable as the number of players is endogenous and the objective function should maximise aggregate welfare (Kahn *et al.*, 1999).

The international experience in the telecoms industry suggests that an aggressive use of the essential facilities doctrine may not lead to better market outcomes (NERA, 2000). In Argentina, the sectoral regulator expected lower concentration ratios and larger participation of small players through the elimination not only of legal entry barriers but also of economic and structural barriers. The first proposal in place declared almost all network elements as essential facilities without carrying out a rigorous market analysis.[16]

In the face of this initial approach of the sectoral regulator, the SDCyC intervened favouring a regulation that would be sustainable in the long run. The trade off between maximum competition in the short run (regulator's approach) and long run efficiency (competition policy approach) needed to be carefully considered. Under the regulator's approach, instant competition would erode rents and make the industry more efficient. But in presence of economies of scale and scope the number of players is finite and the market characterised by a non-atomistic industry structure.[17] It should be noted that the instant erosion of rents may foster exit, but not necessarily entry.

Despite the political need and pressures for a swift reform, the development of a regulatory framework required a consistent microeconomic foundation. The latter would take into account both the need for opening the market in the short run (lowering prices as an immediate effect) as well as considering the incentives to invest in the long run, using the essential facility principle correctly.

The implementation of the essential facility propositions contributes to the proper understanding of the economics of regulation in practice. The owners of the network try to block the use of its facilities by third parties (the so called *open access* scheme), based on property rights and investment

incentives arguments. But access is rather a matter of use than a problem of property. The main argument for open access is that social benefits from competition cannot be internalised by the firm acting as a profit maximiser. Competition leads to lower prices but also provides variety, thus improving welfare.

If regulation favours *unbundling*, the question remains as to how far the regulator should go. In telecoms, international experience shows that regulators went as far as they could (European Union, United States, and small economies like Australia and Argentina). The implementation required intensive political, technical and legal resources since the incumbents reacted strategically by delaying implementation. In all these countries, regulatory reforms in telecommunications were very time consuming.

The fact that parts of the telecommunications network may not be economically duplicable is not a sufficient condition to impose the essential facility rules. A market definition problem needs to be solved first (see ITU, 2002 and Gual, 2002). The enforcement of the unbundling of parts of the network should be based on economic foundations rather than legal arguments.

The competition approach emerges as the best tool to respond to the fundamental questions of regulation in practice: CP integrates demand and supply conditions, with both sides of the market being relevant for a proper design of open access rules. This procedure prevents policy makers from making two types of errors. The first one is to overshoot: declaring essential facilities where market conditions suggest that demand and supply substitutability are present, for example through alternative technologies. This consideration could be very important in corporate markets. The second type of error is that of not declaring essential facilities where competition is impossible and anti-competitive behaviour may emerge. In telecommunications, the second error has been less frequent than the first one. The SDCyC did not succeed in incorporating these criteria into the Decree 764/2000 of telecom regulation.

Newspapers and publishing

In 1945, newspaper and magazine distributors in Argentina were assured territorial exclusivity of their shops – the Law 12.921 prevented competition in the same region or area. Moreover, this Law established a set of regulatory restrictions like a margin over the total shop sales or revenue. This type of anti-competitive regulation had been popular in many countries in the post-war period. In the metropolitan area of Buenos Aires the wholesale distribution of magazines and newspapers was concentrated in an

independent private body called Magazine Distribution Centre (MDC) comprised of publishing companies along with representatives of the two stages of distribution in this market – distribution networks and shops or retail "kioskos". The distributors (each supplying a number of shops or retail stores) acted as monopolists in a given area, supplying final stores, the latter with a certain market power depending on the size of their area. Licences for entry were jointly regulated by the MDC and the Ministry of Social Security and could not be cancelled. The MDC had wide powers, including that of restricting the circulation of a magazine. The latter was a credible threat when an editor developed an alternative retail distribution scheme or a subscription system that led to bypassing the established network. The MDC could also manage the allocation of risk among the different participants by implementing the rule of plain devolution of unsold newspapers and magazines. The editors had to run all the risk of unsold stock. Concerning the distribution of business margins, according to industry information, editors got half of the final price, and the other half was attributed to the distribution network.

The regulation then in place for the retail stores or "kioskos" granted a perpetual right of operation to an individual (not a company) with no right of transfer to third parties, whereas no individual had the right to run more than one store. Thus, regulation simultaneously forced an atomistic market at the retail level, while guaranteeing a cartel in the upper stages of distribution. The number of stores was close to 5 000 in the metropolitan area of Buenos Aires and La Plata (population, 5 million). Entry restrictions at this end of the sales market were decided by an entity under the direct control of the shop owners. As in the upper stage of distribution, the incumbents were regulating entry.

The regulatory framework established in 1945 prohibited magazine and newspaper retailers to develop other activities. Customers could not buy at night because retail regulation imposed a closing time of 8 p.m., except for a few shops in Buenos Aires. But in spite (or because) of the heavy regulatory burden, high levels of informality and illegal sales points developed.

In 1999, a regulatory reform, aimed at fostering competition and greater transparency, was undertaken:[18]

- Elimination of entry restrictions;
- Elimination of privileges such as territorial exclusivity and prohibition of multi-purpose shops including magazine and newspaper retail;
- Assessment of possible anti-competitive behaviour.

The underlying principles of these reforms were that competition increases welfare, and that entry barriers generate inefficiencies and do not prevent but increase informality. The benefits of the reforms were:

Direct advantages:

- Modernisation of distribution and retail channels incorporating supermarkets, gas stations, small business and other types of distribution induced by competition, including automatic machines;
- Wider coverage areas for distributors and the elimination of sale time restrictions;
- Lower retail costs due to economies of scale and scope.

Indirect advantages:

- Creation of new job opportunities, including for autonomous workers wanting to become retailers;
- Development of a transparent (costless) market for the transfer of property rights;
- Better environment for tax auditing by the state administration;
- Improved opportunities for independent editors opening access to a larger client base at lower cost;
- Increased freedom of expression and diversity of opinion.

The case of the newspaper industry shows that the application of CP principles in regulatory reforms may induce large benefits. Initially both entrepreneurs and trade unions feared that competition would cause the loss of market share and jobs, but in the course of reform strong arguments emerged that deregulation would promote the expansion of the retail sector, broaden the freedom of customers and thus improve welfare. The resistance of incumbents to reform based on the rationale of CP is not unusual and should not be neglected. The political economy of successful reforms needs to anticipate the reactions of the relevant players. While deregulation may hurt some businesses, it improves the conditions for others, and creates room for new entrants leading to welfare gains through product variety.

Condominiums in Buenos Aires

The administration of condominiums is carried out by independent companies or by the proprietors in the building. The parties agree by contract to delegate some authority to the administrator or manager. This

relationship has many features of a typical principal-agent problem. The manager possesses relevant information on costs and the incentive to carry out the job, while the neighbours lack the same set of information without incurring sizeable costs. The *condomini*, the principal, are represented by a Council or a collegial body who is in charge of auditing the manager's activity.

As the principal-agent theory suggest, the asymmetry of information may cause market distortions due to misaligned incentives. Managers may not be as efficient as they should be from the point of view of the Council. A typical example of potential dispute is the level of monthly maintenance expenses.

In Argentina, the SDCyC noticed that consumers' representatives – as well as non-governmental organisations – complained against significant and unexplained differences in the level of maintenance expenses between condominiums.

A project was launched to study the determinants of the expenses of the condominiums in Buenos Aires. The SDCyC set up a web-based system aimed at weakening the information asymmetry by comparing different parameters considered "reasonable" explanations of "true" expenses levels. The first step was the determination of these parameters. Using official information on the location and characteristics of buildings of more than five floors, the SDCyC used a randomly generated data base of 1 035 cases. The second step was to estimate econometrically the relevance of every parameter and then to select the most relevant and statically consistent estimators of a hypothetical expense, given some characteristics.

The study revealed a very significant dispersion in the levels of expenses and – as expected – the particular relevance of a certain number of variables. These results could be used for a manager or a Council participant to estimate how far the expenses were from the "standard level" predicted by the model. The simple model was freely accessible for the population on the web and produced an intense debate with the almost *furious* reaction of the incumbent condo administration firms.

Competitive systems are based on information symmetries and on the wide access at low cost of this information for large numbers of decision makers. This study revealed that there is room to improve the supply of relevant information and thus market transparency simply by choosing the correct variables and showing the results appropriately.

Concluding remarks

In this paper discussed the impact of competition policy on economic performance. It has been argued that competition policy should be understood as a set of policies that go beyond classical antitrust regulation. Regulatory reforms should also be considered in view of the competition policy approaches. In line with these propositions we have reviewed the two main policy areas, namely competition law enforcement and competition advocacy.

The recent experience of Argentina was then analysed, which is an interesting case of competition policy among emerging economies. If trade openness in a small economy has contributed to foster a more competitive environment, active competition policies were only developed in recent years in an extensive range of markets and resorting to a diverse set of instruments. The initiatives extended from infrastructure sectors to more unusual markets such as newspaper distribution and expenses of condominiums. The infrastructure sectors (airlines, energy, railways, telecom, toll highways, water distribution, etc), were privatised in the 1990s, but in many cases the regulatory frameworks were deficient and rigorous competition policies were not adopted. Under a regime of fixed exchange rates with reduced degrees of freedom to respond to sharp changes in relative prices, the role of active competition policies gained particular relevance.[19]

Competition policies imply the identification of ill-functioning markets and measures to improve them, even if slowly. But the development of effective competition policies and a competition culture leading to sustainable long term welfare gains require skilled human capital as well as credible institutions. The political will to develop both is a necessary condition. A long term effort is required to establish robust competition as a fundamental of the business environment. The threat of competition or its effective action tends to bring innovation and greater efficiency as well as a continuum of business changes that produce losers and winners in the market place. It is thus clear that the political economy of competition policies cannot be neglected if one wants to maximise its probability of success.

As the case of Argentina shows, competition policy is a complex and diverse set of policies contributing to the better functioning of markets, reducing barriers to entry, fostering business best practice and market transparency that go beyond the standard approach such as anti-competitive conduct and the control of mergers and acquisitions. Every sector of the economy should be considered a candidate for a regular monitoring of its

competitive environment, and this paper highlighted active regulatory reform in infrastructure as well as rigorous competition initiatives to enforce existing rules in a country with a long history of rather weak institutions. In these infrastructure markets with complex regulation it was stressed the need to complement traditional regulatory practice with consistent competition rules. This approach can be foreseen as the new policy to deal with the potential benefits of competition in these markets, where natural monopolies may still be present in certain areas (*i.e.* energy distribution, water supply).

Argentina experienced a severe economic and financial crisis in the years 2001-02, with a sharp contraction of output and a significant rise in inflation. In an environment of macroeconomic instability the conduct of competition policies, that inevitably require systematic and rigorous fine tuning, is a difficult challenge. The urgency of stabilisation drains most of the political energy and when conflicts of objective and interest emerge, competition policy may loose the battle in the policy arena. This is more likely to be the case when institutions are weak.

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Annex 5.A1. Competition advocacy in the United States

Air transport

Route regulation was phased out in 1981 and fare regulation in 1983. Although there was no evidence of scale economies, this was originally motivated by 50 per cent lower fares in unregulated intra-state markets. Reform led to total price decline of 33 per cent to 20 per cent from deregulation mainly by removing pre-reform large cross-subsidies from long to short-haul routes. The largest price declines occurred in long-haul and high-volume city routes for which 80 per cent of the fares fell; reducing annual consumer expenditure by USD 30 billion by 1996.

Noticeably, safety performance improved despite the price cut. Moreover, flight frequency increased. Although employment fell by 7 per cent immediately after the reform, it increased again (by around 40 per cent until 1996) in response to lower fares. Cost reduction was obtained through wage cuts: earnings of flight attendants and pilots fell by 39 per cent and 22 per cent, respectively, between 1983 and 1992.

Efficiency and productivity also increased since seat-occupancy, especially on long-haul routes, increased from 55 per cent at the beginning of reforms to 70 per cent in 1996. Another gain from reform was the move from point to point to hub and spoke networks. Reforms also spurred innovation in information technology in pricing and computer reservation systems which helped to maximise loads and revenues. As a result, TFP increased fast, reaching 15 per cent in the early years after the reforms. The industry structure also changed after reforms: at first the number of effective competitors declined and concentration increased, but later effective competition increased by 70 per cent in long-distance and by 2 per cent in short-distance routes.

Road transport

Price collusion was curtailed by rate bureaux through regulatory changes that culminated in the Motor Carrier Act of 1980. Before that time,

rate bureaux had been permitted under an anti-trust exemption. The United States also eliminated restrictions on entry by territory and type of product. After the reform, service prices fell by 25 to 11 per cent through 1982, 75 to 35 per cent by 1995, especially due to large reductions in high volumes and large shippers. The annual savings in 1996 were estimated at USD 18 billion. In spite of price reductions there were improvements in service time and reliability.

Average wages fell by 1 to 4.5 per cent, while those of union workers dropped 10 per cent. Employment declined in LTL ("less than truck load") while it rose in TL ("truck load") and net gain in employment reached 16 per cent through 1990. Overall the reform led to the modernisation of the truck load industry. By 1996 operating costs fell by 35 per cent (LTL) and 75 per cent (TL) even though increased customised service costs partly offset productivity gains in volume service. The result was the increased pace of innovation in the use of information technology to maximise routing efficiency and track shipments. Information technology leads to development of third-part freight analysts and brokers through very complex analysis of shipper distribution patterns. Finally, there were significant changes in industry structure: a tenfold decline of large LTL trucking firms and increased competition from UPS, Federal Express, and 175 per cent increase in the number of TL carriers through greater concentration in the largest and more competitive firms.

Rail freight

Rail freight was reformed by the Staggers Rail Act of 1980. This Act eliminated rate regulation except for maximum tariffs on "captive bulk commodities". This is admitted because railroad had monopolistic power in providing services for "captive bulk commodities" against other transports. Contracts by shippers were completely deregulated and the suppression of low-density routes was permitted. This reform was driven by low rates of return, and low service quality. The reform was expected to deliver higher tariff rates, higher profits and greater investment.

In contrast with original expectations, prices declined by around 7 per cent at the beginning, 39 per cent by 1990 and 50 per cent by 1995. Larger price falls occurred in high value, non-bulk commodities. The reform allowed rail companies to compete in these areas. The annual savings were estimated to amount to USD 12 billion in 1996. There was steady improvement in service quality: *i.e.*, more frequent departures on high volume routes, volume discounts and services tailored to cost. Employment fell by 41 per cent. Wages significantly increased until the late 1980s, but substantially abated later on with declining labour demand.

By 1990, track usage intensity increased by 54 per cent as low density uneconomic routes were abandoned. Reform led to huge productivity gains: annual labour productivity growth doubled and total factor productivity TFP gains tripled in the 1980s. Total costs dropped by almost 60 per cent, of which about two-thirds can be attributed to deregulation. The industry structure also changed, as mergers resulted in four large Class 1 firms, while the entry of many small firms helped to create small systems on track abandoned by large companies.

Telecommunications

Being an international pioneer in this sector, the United States introduced the famous 1984 divestiture act, which split AT&T into one long-distance company and seven local operating companies. The reforms addressed the problem of monopoly profits, potential savings of long distance toll charges, and large cross-subsidy of local, residential calls. Following this reform, the number of important long-distance carriers increased. As a result, most benefits occurred in long-distance, international and mobile communications markets.

Together with a significant decrease in prices of long-distance toll and international services, the quality of service also improved; access to service improved, the percentage of calls completed increased. The reform also spurred technical innovation. Optic fiber and digitalised networks were more rapidly introduced. Automation and computerization of operator and directory services accelerated along with higher R&D expenditures. The reform also had an impact on industry structure. The AT&T's market share of long-distance calls fell from 68 per cent in 1984 to under 50 per cent in 1997, with Sprint and MCI accounting for most of the residual market. The seven RBOCs, GTE and other local exchange companies control virtually 100 per cent of local services in their regions.

Other fields

Other areas, such as electric power, natural gas distribution, and financial services, were also substantially reformed. These reforms mainly introduced more competition in the respective markets even though the specific policies and tools differed. For example, in the electricity industry, competition in power generation is the principal aim. In gas distribution, the goal is to create open access to interconnected grids by brokers and distributors. As in other sectors, the reforms brought improved service quality along with lower operating and maintenance costs.

Annex 5.A2.
Empirical findings on link between competition and economic performance

Country (sample period)	Samples	Main findings	Researchers
Selection effect			
United States – 1977,1982,1987	All manufacturing and selected service industry (auto repair shops)	Reallocation of outputs and inputs from less productive to more productive plants makes a significant contribution to aggregate productivity growth.	Foster, Haltiwagner, and Krizan (1998)
– 1963, 67, 72, 77, 82, 87 (census), – 1972-88 (annual survey)	23 manufacturing industries (plant-level data with firm-identification)	- Growing output share in high-productivity plants is a major factor in the productivity growth of an industry - Plant closure is frequent even within successful and growing industries.	Bailly, Hulten and Campbell (1992)
Netherlands (1980,1991)	All firms with more than 10 employees.(8859 in 1980, 8388 in 1991)	Net firm turnover contributes a third of the 3 per cent annual growth of labour productivity. This is because exiting firms are much less productive than the average firm	Bartelsman, Leeuwen, and Nieuwenhuijsen (1995)
Korea (1990 -98)	All plants with 5 or more employees in mining and manufacturing industries	Plant entry and exit effects accounted for 45 per cent of aggregate productivity growth during cyclical upturn (1990-95) and 65 per cent during cyclical downturn (1995-98)	Hahn (2000)
United Kingdom (1980-92)	Around 143 000 establishments	-Exit of less efficient plants, entry and growth of more efficient plants accounts for 50 per cent of labour productivity growth and 90 per cent of TFP growth over the period. - Plants with below average productivity are more likely to exit	Disney, Haskel Heden (2000)
Productivity Growth and Innovation			
United States (1952-91)	Telephone Industry (AT&T Long lines and 8 regional companies)	Both the estimation of TFP growth and the analysis of shifts in cost functions show a markedly faster change in efficiency in the effectively competitive market than for the local monopolies.	Gort and Sung (1999)

Source: Ahn (2002).

Notes

1. Non-linearities in the relationship between competition and innovation highlighted by Aghion *et al.* (2002) will be reviewed in the third section.

2. Against the general consensus, however, different legal and economic standards have been adopted to attack price-fixing agreements. In Australia, Germany, and the United States, for example, price-fixing is *per se* illegal and subject to criminal penalties. In Canada, although such agreements are treated as criminal acts, they must affect a substantial part of the market. In Spain, Sweden, and the United Kingdom, a rule-of-reason standard is applied to judge the legality of price-fixing agreements.

3. Competition policy analysis has pointed toward methods, such as price caps or RPI-x, that encourage relative prices to respond to changes in costs directly, rather than through the thick filter of the regulatory process.

4. For links between competition and development, see: Ahn (2002), Lachmann (1999) and Rey (1997).

5. The term innovation is used here as an indicator not only of technological change but also for the introduction of new products (Aghion *et al*., 2002).

6. Evans and Schamalensee (2001).

7. Based on a sample of 676 UK firms over the period 1975-86, Nickell (1996) found strong evidence that competition (measured by increased numbers of competitors or by lower levels of rents) led to higher productivity growth. Using a more recent and much larger data set of around 143,000 UK establishments over the period 1980-1992, Disney *et al.* (2000) show that market competition significantly raised levels and growth rates of productivity.

8. Posner estimated the social cost ratio in proportion to sales turnover in the United States around 14 per cent in medical services, 13 per cent in optical industry, 19 per cent in transport, 20 per cent in oil refinery, and 20 per cent in airlines.

9. Transportation deregulation in the US offers examples of sector-specific agencies applying the general competition law inconsistently. Though originally charged with ensuring competition, the US Interstate Commerce Commission and the Civil Aeronautics Board became a means for maintaining cartels. For several years after the US airline industry was deregulated, jurisdiction over airline mergers remained with the Department of Transportation, rather than the anti-trust agencies. The Department approved several combinations leading to significant market power in several city-pair markets despite vigorous objection from the anti-trust authorities. The same recently happened in the case of a railroad merger approved by a special Board within the US Department of Transportation. In Australia, the general jurisdiction competition agency is slated to become the residual "regulator", in order to avoid the problems inherent in relying on sector-specific enforcement bodies.

10. The pro-competition policy stance in the United States ensures that regulations are based on market principles. Regulation has usually been used to establish conditions for competition rather than to replace competition. This pro-competition policy stance was based on strong competition institutions. The openness and contestability of regulatory policies weaken information monopolies and the powers of special interests, while encouraging entrepreneurship, and the continuous search for better regulatory solutions.

11. Since the early 1990s, there has been an accelerated world trend toward the adoption and strengthening of legislative measures designed to create and promote a market economy. The four key policy measures have been privatisation, restructuring, deregulation (including elimination of price control) and adoption of competition legislation.

12. During the 1990s, the government undertook an extensive and rapid programme of privatisation of state firms, in a large number of sectors of the economy such as, electricity, oil, postal services, telecom, transport, water distribution, etc. The political economy of these reforms and its popular support in the 1990s can only be understood considering the previous history of state provision of services in Argentina. The decades' long experience was predominantly unsuccessful with severe deficiencies of governance, low productivity, overstaffed firms and serious problems of corruption and capture. State-owned companies' huge structural deficits had a significant negative impact on the macroeconomic performance of the country. Given the initial conditions, thus, privatisation rapidly improved performance and services in a number of sectors of the economy, such as energy and telecom. In certain cases, such as electricity, the reduction of prices was also significant, contributing to lower input costs and thus to competitiveness. See Larrain and Winograd (1996) and Celani and Winograd (2003). In other sectors, such as highways, postal services, and transport, the results of privatisation were

not satisfactory. In the privatisation of airports, no consideration was given to the rationale of potential competition in the industry.

13. There were two previous laws passed by the Congress: Ley N° 11.210, (1923) and Ley N° 12.960 (1946). The first one was intended to fight against trusts integrated by meat processing firms and the second was a review of the former.

14. It should be noted, however, that given the fact that the thresholds for M&A controls are fixed in nominal pesos, the inflationary burst experienced since the collapse of the convertibility regime and the sharp devaluation of 2002 has progressively increased the number of operations subject to official review. To address this problem, the adjustment or indexation of thresholds' values could be envisaged.

15. The use of the unbundling obligation is interesting in this regard. For a critical assessment of the US Federal Communications Commission's (FCC)'s regulation and its likely impact on welfare see Hausman *et al*. (1999) and Jorde *et al*. (2000).

16. For adequate application of pro-competitive measures in telecommunications, see ITU (2002), Jauk, (2000), and Australian Competition and Consumer Commission (1999). Recently the FCC changed some the requirements of unbundled network elements for local carriers (FCC 03-36, August, 2003).

17. For a discussion of creating effective competition in telecom markets, see Shepherd (1998).

18. Resolution MEyOySP N°416/99.

19 The growing role of competition policies in Europe in the recent period may also be linked to the restricted set of macroeconomic policy instruments at the national level.

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