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**Product Market Competition  
and Economic Performance  
in New Zealand**

**Annabelle Mourougane,  
Michael Wise**

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## ABSTRACT/RÉSUMÉ

### **Product market competition and economic performance in New Zealand**

The paper examines the current state of competition in a number of sectors that are important for the economy. Because of the country's small size and isolation, the analysis focuses on barriers to entry, investment and external trade, rather than some standard indicators of competition stance. The competition law and institutions are generally well-conceived, although high-profile litigation about mergers and market-power problems has stretched their capacities and until recently, diverted attention from enforcement against price fixing. Overall, markets appear to function well in New Zealand, but progress towards liberalisation seems recently to have lost momentum. In particular, improvement could be made in three main areas: in the energy sector, lifting current barriers to investment and developing forward markets are necessary to ensure the economy will be able to cope with long-term challenges; in telecommunications markets, concerns have been mounting regarding high prices and slow deployment of broadband; and in the public sector, there is scope for further use of private delivery for public services and reducing state ownership, especially in potentially competitive markets. Some adjustments to the regulatory framework and policies in a number of other sectors would also be beneficial. This Working Paper relates to the 2005 OECD *Economic Survey of New Zealand* ([www.oecd.org/eco/surveys/nz](http://www.oecd.org/eco/surveys/nz)).

*JEL classification:* K20, K21, H4, L50, L9, L94, L96, Q1, Q4

*Keywords:* Competition policy, electricity, natural gas, telecommunications, privatisation, airlines, trade, agriculture, broadcast, banking, professional service, retail trade.

\* \* \*

### **Concurrence sur les marchés de produits et performance économique en Nouvelle-Zélande**

Cet article examine l'état actuel de la concurrence dans un certain nombre de secteurs importants pour l'économie. L'analyse est axée sur les obstacles à l'entrée, à l'investissement et au commerce extérieur, plutôt que sur des indicateurs types de l'intensité de la concurrence en raison de la faible superficie et l'isolement du pays. Le droit de la concurrence et les organismes connexes sont généralement bien conçus, même si des contentieux notoires en matière de fusions et des problèmes de pouvoir de marché ont fortement sollicité leurs capacités et, jusqu'à une date récente, détourné l'attention de la lutte contre les ententes sur les prix. Au total, les marchés semblent bien fonctionner en Nouvelle-Zélande, mais le processus de libéralisation a apparemment marqué le pas ces derniers temps. En particulier, des améliorations sont possibles sur trois grands fronts : dans le secteur de l'énergie, il faut supprimer les obstacles actuels à l'investissement et développer les marchés à terme pour permettre à l'économie de relever les défis de long terme ; sur les marchés des télécommunications, le niveau élevé des prix et la lenteur du déploiement du réseau à large bande suscitent des préoccupations grandissantes ; enfin, dans le secteur public, on pourrait recourir davantage à la prestation privée de services publics et réduire les participations de l'État, surtout sur les marchés potentiellement concurrentiels. Des ajustements du cadre et de la politique de la concurrence seraient également bénéfiques dans plusieurs autres secteurs. Ce Document de travail se rapporte à l'Étude économique de l'OCDE de la Nouvelle-Zélande, 2005 ([www.oecd.org/eco/etudes/nz](http://www.oecd.org/eco/etudes/nz)).

*Classification JEL :* K20, K21, H4, L50, L9, L94, L96, Q1, Q4

*Mots clés :* Politique de la concurrence, électricité, gaz naturel, télécommunications, privatisation, transports aériens, commerce, agriculture, média, secteur bancaire, professions libérales, commerce de détail.

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## **Product market competition and economic performance in New Zealand**

by

**Annabelle Mourougane and Michael Wise<sup>1</sup>**

New Zealand has been an OECD leader in implementing far-reaching liberalisation in most sectors. This has contributed to the country's strong growth and increase in employment over the last five years. At the same time, labour productivity growth has been only average, and in particular well below that in Australia. Much of the difference can be accounted for by lower productivity growth in the manufacturing sector, which may reflect insufficient competitive pressures in some product markets. Moreover, progress towards a more liberalised environment seems to have lost momentum recently, with more state involvement and a switch from light- to heavier-handed regulation in a number of sectors, including energy and telecommunications. This contrasts strongly with mounting evidence in the literature that competition can be an effective way to boost investment and productivity (see Annex 1).

Against this background, this paper starts by reviewing the overall environment for competition in the economy before assessing the framework of competition legislation and its enforcement. The article then seeks to identify barriers to entry and investment in selected network industries and sectors, with a special focus on electricity and telecommunications. The paper also looks at the scope for increasing private delivery in the public sector. A final section presents some policy recommendations.

### **Some indications of the strength of competition**

Assessing the state of competition in a small, open and remote economy such as New Zealand's is a challenging task, and the usual tools and framework cannot be directly applied (Box 1). For instance, indices of concentration that are widely used in large economies are of limited interest, as the presence of few players in the market may simply reflect minimum scale and efficiency considerations.<sup>2</sup> Rather, the

- 
1. The authors are staff at the OECD. This paper draws on material originally produced for the *OECD Economic Survey of New Zealand* published in July 2005 under the responsibility of the Economic and Development Review Committee. The authors are indebted to Peter Jarrett and Deborah Roseveare for comments and drafting suggestions. Helpful comments were also provided by Mark Blackmore, Peter Bushnell, Val Koromzay, Andrew Dean, Michael Feiner, Darryl Jones, Jens Høj, Wolfgang Hübner, Joseph Konvitz and David Wood. Special thanks go to Françoise Correia and Mee-Lan Frank for excellent technical assistance.
  2. An example is the Herfindahl-Hirshman Index, which is used in some countries to screen merger proposals. It is a function of the number of firms in the market and their market shares.

emphasis should be on barriers to entry and how they affect firms' behaviour. Indeed, if barriers to entry are low, the threat of entry by a new firm or expansion by an existing firm will be credible. An incumbent firm will perceive that pricing above competitive levels will attract entry and therefore will refrain from anti-competitive behaviour.

**Box 1. Competition in a small, open and remote economy: some issues**

The essential characteristic of small countries is that their non-exporting firms are limited by the size of their local markets. This will have an effect on three types of efficiency (Evans and Hughes, 2003):

- *First*, allocative efficiency may be difficult to attain, as markets can support only a few firms in industries where scale is important. In this situation incumbent firms may be able to raise prices above competitive levels, leading to an inefficient allocation of economic resources across sectors. Small markets can also impede the ability of firms to achieve minimum efficient scale, implying higher unit costs. This seems to be the case for New Zealand. Indeed, New Zealand has higher industry concentration than the United States, the United Kingdom, Sweden and Australia (Arnold *et al.*, 2003), and there is some evidence that in a significant number of industries demand is small relative to the minimum efficient scale.
- *Second*, productive efficiency or x-efficiency *i.e.* the ability of firms to produce output at minimum resource costs can also be weaker if the threat of entry of competitors is not credible.
- *Third*, small markets affect the incentives to innovate and invest — so-called dynamic efficiency. This will be particularly important for industries specialised in new technology, as innovation and the resulting prospects of earning economic rents play a major role in these industries.

As a consequence, in small economies there will be a tension between the paucity of firms in many industries and the fact that these firms are often operating below optimal scale. These tensions could even be accentuated when markets are geographically fragmented, as in New Zealand. Indeed, this can lead to the presence of even smaller geographically distinct markets within the economy.

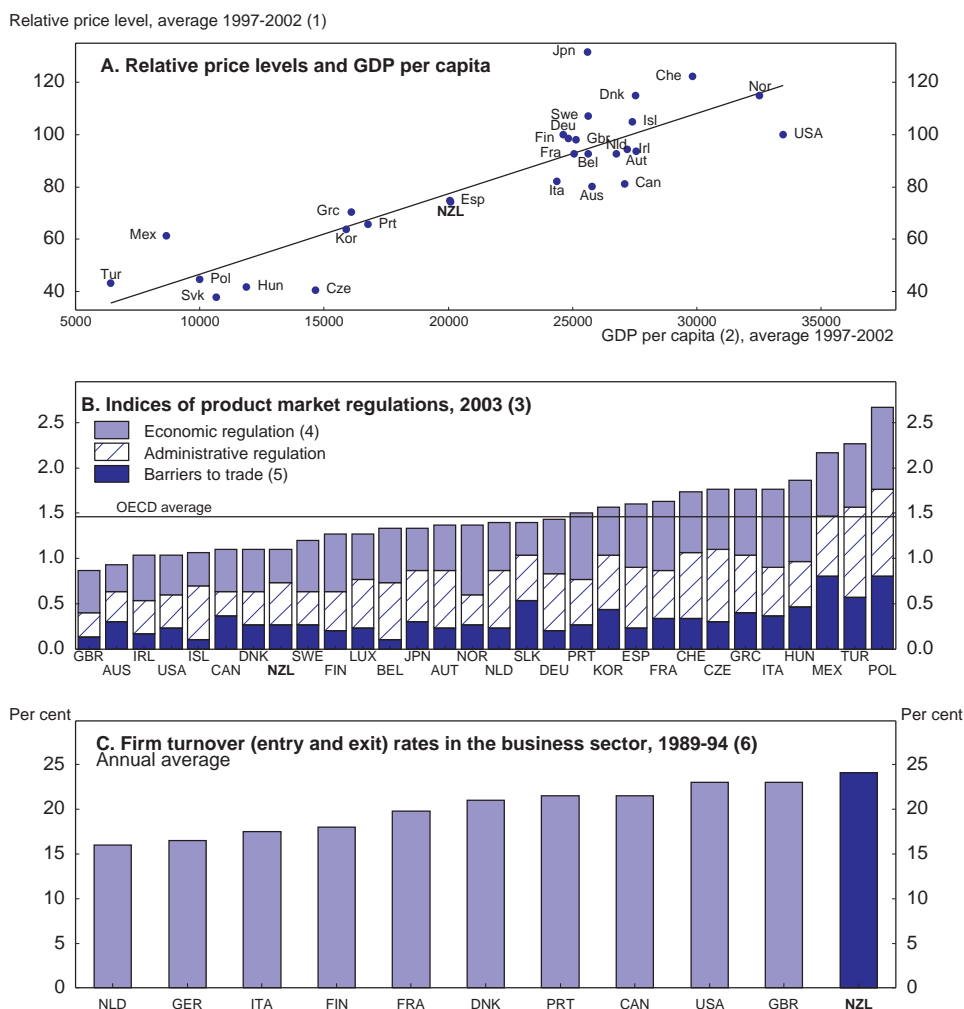
The key way to circumvent the disadvantage of size is to increase exports (thereby improving the ability of firms to achieve economies of scale) and imports (thereby providing increased competition). Imports appear to have a relatively greater impact on competition in small economies, while domestic entry regulation — achieved through competition law or regulatory policies — has a greater impact on competition in large countries (Hoekman *et al.*, 2001). As a consequence it is especially important in small economies that trade and investment policies are integrated with competition policy.

Harmonisation of competition law can be a useful tool to help to develop international trade. However, such processes can also lead to pressure on small countries to adopt the laws and regulations focusing on market power that are in place in larger economies and may be unsuitable for small economies (Gal, 2002). Therefore, moves toward co-ordination are probably more useful when based around an agreed set of principles, rather than rigid harmonisation of rules.

The NZ economy is also geographically isolated. Indeed, using gravity models, it is found to have the most remote position of all OECD countries (Evans and Hughes, 2003). Such isolation will affect the transport and transactions costs of international trade *vis-à-vis* other countries, even though these have fallen over time. It may also have implications for competition laws, as it aggravates the existing tension between concentration and scale.

Although most indicators are subject to measurement errors and should be interpreted with great care, a number of standard measures suggest NZ markets are well-exposed to competition. Relative aggregate price levels are low by international standards, and even slightly lower than predicted by a simple relationship explaining relative price levels as a function of GDP per capita (Figure 1). This could signal that strong competitive forces are at work in NZ markets, but other factors may also have an impact on prices.

Figure 1. Indicators of competition



1. Purchasing power parities divided by the exchange rate, USA = 100.
2. In US\$, converted with PPPs.
3. The restrictive index scores range from 0 to 6. The higher the score, the greater the restrictions.
4. Includes barriers to competition and state control.
5. Includes trade and FDI restrictions.
6. Manufacturing sector for the United Kingdom and 1995-2000 for New Zealand.

Source: Conway *et al.* (2005), OECD Economic Department Working Paper, No. 419; Bartelsman *et al.* (2003), OECD Economic Department Working Paper, No. 348; Mills, D. and J. Timmins (2004), New Zealand Treasury Working Paper 04/11; and OECD National Accounts database.

Product market regulation is less burdensome in New Zealand than in other countries, with quicker and fewer procedures for registering or closing a firm (Djankov *et al.*, 2002; World Bank, 2004). Associated compliance costs are not reported to be a major issue (Alexander *et al.*, 2004), and there are no regulatory impediments for a firm either to downsize or to become larger (McMillan, 2004). More generally, OECD indices of overall product market regulation indicate that New Zealand is one of the most liberal economies and has shown even further improvement from 1998 to 2003, consistent with the trend

observed for the OECD as a whole.<sup>3</sup> However, the recent pace of liberalisation appears to have been slower than in other economies. This may reflect the already low level of restrictions in the late 1990s, as liberalisation started earlier than in the other OECD countries in a number of sectors, notably telecommunications and transport.

Regulation, in particular low administrative barriers to entrepreneurial activity, can have a direct impact on firms' entry and exit rates (OECD, 2003b). Entry and exit rates of firms are higher in New Zealand than in a number of OECD countries and, in particular, higher than in countries with relatively low barriers to entry such as Canada and the United States.<sup>4</sup> This high turnover suggests that markets are not overly restricted.

Foreign Direct Investment (FDI) restrictions, as measured by the OECD indicator of overall barriers, are slightly above the OECD average (Figure 2). To a large extent this reflects screening requirements, which are much less restrictive than a hard ceiling on foreign ownership. Removing the screening component from the indicator would place New Zealand amongst the 10 countries with the lowest barriers. Recent changes have been in the direction of easing these restrictions, and the government has put forward proposals to lower FDI restrictions in real estate in late 2004. Nevertheless, as in most OECD countries, foreign ownership restrictions still exist in international airlines, as a way to protect the national carrier's access to traffic rights obtained through bilateral air services agreements.

### **Competition legislation and enforcement**

An integrated conception of competition policy motivated New Zealand's major reforms of the 1980s, one of which was a comprehensive revision of New Zealand's general competition law, the Commerce Act. Since 1998, New Zealand has enacted sector-specific regimes for telecoms, electricity, dairy products and consumer credit. In some cases, these moves toward specific rules disclose some dissatisfaction with the pace or the outcome of the process for applying general principles. But for the most part these regimes have been created in an approach consistent with the original paradigm of generic and integrated oversight. Overall, the result resembles common practices elsewhere, although the sector regimes are tied more closely to the general competition authority than in many other countries. Under the Commerce Act, controlling monopoly pricing in a sector begins with an investigation by the competition enforcement body, the Commerce Commission. Generally, the remedy will be implemented through rules pursuant to additional legislation, rather than orders under the Commerce Act itself. The Commerce Act continues to apply, and the sector regulators for telecoms and electric power are members of the Commerce Commission, albeit with some independent powers.

The scope of exclusions from competition law is generally consistent with what is found in other Member countries, as is the fact that sensitive sectors may succeed in getting special treatment. On the positive side, most traditional exemptions for agricultural producer boards have ended; however, in the dairy industry, the board has been replaced by a regulated near-monopoly in processing. After the Commerce Commission refused to permit the two largest processors to merge, special legislation authorised the combination and gave the merged firm a time-limited sole right to access the country's tariff rate quotas imposed abroad. Most other economic regulations were removed, but a new regulatory system had to be established, administered by the Commerce Commission, to protect the interests of domestic

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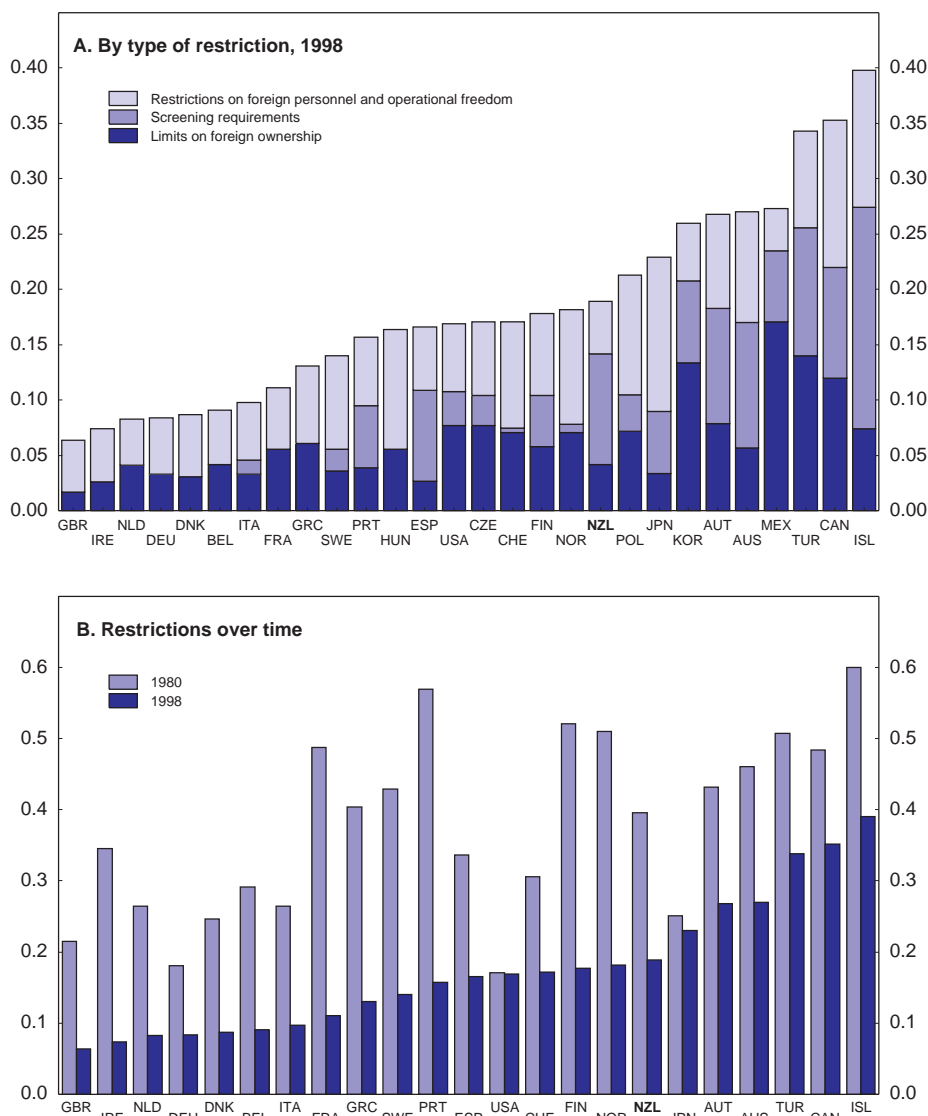
3. These indicators have been recently updated (OECD, 2004a). They are based on detailed data collected from Member countries. Summary indices are computed by aggregating detailed regulatory indicators with weights from factor analysis.

4. However, it should be noted that this rate includes mergers and acquisitions and thus cannot be considered as "true firms' creation or destruction". Moreover, data for New Zealand are for a different time period (Mills and Timmins, 2004).



suppliers and consumers in the face of this *de facto* near-monopoly. The Dairy Industry Restructuring Act 2001 imposes behavioural constraints on Fonterra, which apply in addition to the general constraints contained in the Commerce Act. The practical effects of this *ad hoc* substitute for the application of general competition law on the market-place remain somewhat unclear and merit further examination. In transport, policy consistency would be promoted by eliminating the Minister of Transport’s special powers about restraints on competition in international air carriage and international ocean shipping, or at a minimum ensuring that the Commerce Commission is consulted in their application. An unusual exemption gives trade associations an exemption from the *per se* prohibition against price fixing (if the number of members is large enough). These associations are not, however, exempt from the generic prohibition against agreements substantially lessening competition. Although the Commerce Act contains measures that could limit abuse, it would be simpler just to eliminate this provision.

Figure 2. FDI restrictions<sup>1</sup>



1. The indicator ranges from 0 (least restrictive) to 1 (most restrictive).  
 Source: Golub (2003), OECD Economics Department Working Paper No. 357.

The principal goal of competition policy in New Zealand is efficiency. The total-surplus welfare standard<sup>5</sup> that the Commerce Commission applies may be particularly appropriate for a small, remote but open economy, since it internalises an incentive to make exporting industries more productively efficient, while providing implicitly for dynamic efficiency. Agreements or mergers that lead to greater efficiency or other public benefits can be authorised if the benefits outweigh the anti-competitive effects. However, the process can be elaborate and expensive and the result may belie the aspiration to base decisions on economic analysis. After a long process at the Commerce Commission, reviewing courts are asked to resolve inconsistent assumptions underlying econometric models for quantifying effects on allocative inefficiency, while the quantification of other claims is even more uncertain. Unquantifiable, but admittedly legitimate, claims are relegated to a tie-breaking role. The court panel deciding these cases may include an economist or other lay members, who may be particularly valuable in dealing with technical aspects of economic modelling. The lay member acts merely as an advisor to the judge, who has ultimate decision making authority, to mitigate the risk that the lay experts become *de facto* decision-makers and hence shapers of policy.

Because high-profile litigation about mergers and market power problems has demanded a large share of the Commerce Commission's attention recently, only a few cases have addressed horizontal collusion. New Zealand's success in addressing horizontal collusion will depend on the success of the recently strengthened leniency programme introduced in November 2004, coupled with effective sanctions, and the development of trans-Tasman enforcement co-operation. The Commerce Commission has already had some parties come forward with information following the introduction of its Leniency Policy and is dealing with five major cartel investigations. The Commerce Act provides for substantial civil fines against firms and individuals, but fines actually imposed have not approached those that are now being meted out in many other jurisdictions. Yet, the prospect of substantial penalties, and thus a substantial incentive, is a necessary foundation of an effective leniency programme. Under the Commerce Commission's recently revised programme, the Commission promises not to fine the first member of a cartel to apply; however, others who confess and co-operate later may also receive significant reductions. Thus, it is not clear whether the programme has enough asymmetry to destabilise cartels. Consistency and co-ordination with leniency programmes in other jurisdictions, especially with the Australian Competition and Consumer Commission, will be important because of the close integration of their economies. But formal legal arrangements currently make it difficult for the New Zealand and Australia enforcement agencies to co-operate effectively by exchanging information that has been obtained through their information-gathering powers and to use those powers to respond to a request for investigative assistance from each other. Measures to permit such information flows would have to include means to ensure against unauthorised use and disclosure of confidential or protected information. The government's recent initiatives to strengthen the ability of the Commerce Commission to provide investigative assistance and share information with overseas competition regulators will assist in this regard. Legislation to affect this change will be introduced shortly.

### **Regulatory policies at the sectoral level**

New Zealand has undertaken wide-ranging liberalisation in most sectors, and its experience is likely to be informative for other countries that are at an earlier stage of the deregulation process. Although there is a broad consensus that its domestic markets function well overall, regulatory policies in service sectors vary in scope, and there appear to be some pockets where competition could be improved. This

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5. That is, in balancing efficiency benefits against anti-competitive effects, the Commerce Commission considers the total, net effect on both producers and consumers, not just the market-power effects of lower output and higher prices. Thus, a merger or transaction that increased market power would be permitted if it led to efficiencies such as lower operating costs that were greater than the deadweight losses, even if producers retained all of those benefits in the form of higher profits.

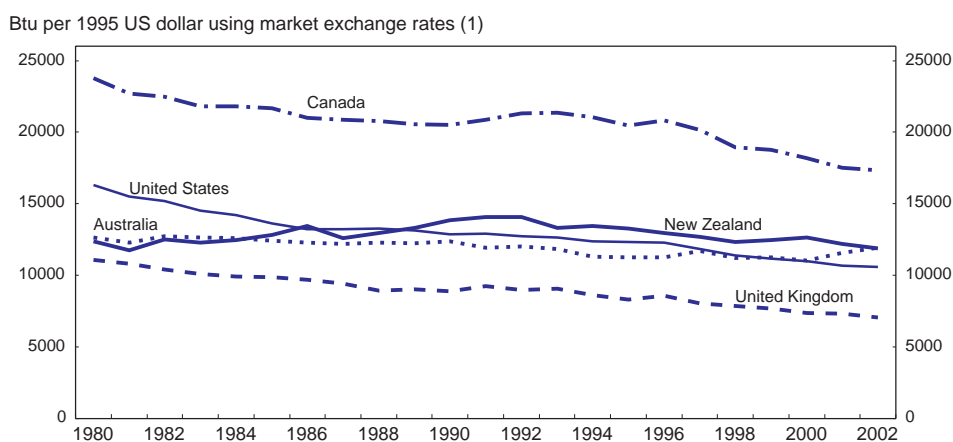
section reviews a number of areas that are important for the New Zealand economy, with a special focus on energy and telecommunications.

***Energy: will the current arrangements be flexible enough to address long-term challenges?***

The electricity system in New Zealand is heavily dependent on hydro resources with a limited storage capacity<sup>6</sup> and because of distance, it is isolated from other countries' grids. Hence it is vulnerable to seasonal energy shortages, which are difficult to predict. Such episodes have already happened in 2001 and 2003 and were characterised by very volatile spot prices.<sup>7</sup> Long-term projections of the country's energy supply suggest this vulnerability will heighten over time: world demand for oil keeps increasing and prices are volatile; known domestic reserves of gas are declining, in particular with the depletion of the Maui field; and alternative sources of energy appear limited given current technology, as environmental concerns have discouraged the country from developing coal and nuclear generation.

At the same time energy consumption is growing by about 2% per year, and economy-wide energy intensity remains high, even higher than in the United States (Figure 3). There is room to improve energy efficiency, especially in the commercial, transport and residential sectors (Ministry of Economic Development, 2004a). Against this background, the government released in 2000 the National Energy Efficiency and Conservation Strategy and set up targets for improving energy efficiency and increasing the use of renewable sources. However, energy efficiency appears to have increased by only 1% overall between March 2001 and March 2003, a lower rate than what would be needed on average to meet the

**Figure 3. Energy intensity**  
Total primary energy consumption per dollar of gross domestic product



1. A British Thermal Unit (BTU) is the amount of heat energy needed to raise the temperature of one pound of water by one degree. 1Btu = 1 055 joules.

Source: US Energy Information Administration, International Energy Annual (2002).

6. Water storage for hydro generation is limited to the equivalent of about six weeks of normal hydro generation (Ministry of Economic Development, 2004a).
7. However, a possible alternative explanation could be that the price volatility reflected some asymmetry in information flows about short-term capacity, because although anyone can observe and assess water storage, the stocks of other fuels, notably coal, may only be known to the generator concerned. Thus, prices may have been driven to some extent by perceptions about looming shortages rather than an underlying physical gap.

target gains of 20% by 2012.<sup>8</sup> These disappointing results can be explained by structural factors such as the country's high concentration of raw material processing, but also by low energy prices that have reduced the incentive on users to use energy more efficiently. Even if further progress is made, rationalising the demand side of the market will only delay the need for new energy generation capacity and improvement in production efficiency, not eliminate it. It would therefore be worthwhile to investigate whether there is scope to increase efficiency on the supply side by injecting further competition in the market, removing potential barriers to investment and entry and developing a more liquid forward market.

### *Electricity*

New Zealand started liberalising its electricity market earlier than many OECD countries. Until the end of the 1980s, the electricity sector was completely regulated. Between 1987 and 2001 it was progressively deregulated, with the creation of retail and wholesale markets.<sup>9</sup> Only light-handed regulation was applied to areas where competition appeared to be weak. However, since the beginning of the current decade, regulatory changes have been toward greater intervention in the sector, which is mostly state-owned (Box 2).

The main challenge for the sector will be to ensure sufficient investment in generation and in the transmission grid in the context of rising energy consumption and long-term supply concerns. A necessary condition to foster investment in a small and isolated energy sector is to ensure sufficient information on firms' investment plans is available to market participants. The Electricity Commission is required to publish at least every two years a document providing relevant information on investment opportunities.<sup>10</sup> Indeed, this will lower the risk of a firm being left with superfluous assets if another energy generator unexpectedly increases its capacity and the market moves into excess supply.

Uncertainties about the current and future regulatory environment seem to inhibit investment in the sector, and the central question is how to address these barriers (Murray and Stevenson, 2004; Price Waterhouse Coopers, 2004). In early May, the government announced that the carbon tax, which has a major impact on the relative economics of different energy sources, would be set at NZD 15 per tonne. This has removed one major short-term uncertainty, but a number of others remain and market participants may decide to keep their investments on hold until they are clarified:

- The framework substantially changed in 2003 with the creation of the sectoral regulator, the Electricity Commission. But there are still unresolved questions about how the Electricity Commission will operate and how it will interpret the security of supply policy.
- The Resource Management Act (RMA) significantly lengthens the planning phase of any project. Uncertainties also arise from the variation in approaches adopted by different local councils implementing the RMA, which may affect the expected rate of return. Planned changes to the RMA may lower these obstacles to investment, but the government will need to ensure that this happens.

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8. These data should however be used with great care, given their lack of reliability (EECA, 2004).

9. Some 70% of New Zealand's total electricity volume is traded through the wholesale market, with the remainder covered by bilateral contracts made directly between generators and consumers (Dong-Wong, 2004).

10. The first draft Statement of Opportunities was released in May (Electricity Commission, 2005).

## Box 2. Overview of the electricity sector

### *Structure of the market*

New Zealand's electricity sector has four main components:

- *Generation* (electricity production stations). Four main generation companies produced around 90% of output in December 2003 and three of these are state-owned enterprises (see Box 5).
- *Transmission* (the high voltage network known as the national grid). It is owned by a public *de facto* monopoly Transpower.
- *Distribution* (companies that provide local low voltage electricity lines to connect consumers to the wider grid). These lines companies are *de facto* local monopolies that sell their distribution or lines services to retailers who manage the electricity supply agreements with end consumers. There are some 28 distribution firms and they are publicly listed companies, local authority-owned or local community-owned trusts.
- *Retail* (companies that buy wholesale electricity from the generator companies and sell it to end consumers). They purchase distribution services on behalf of their consumers.

The Electricity Industry Reform Act 1998 separated electricity distribution services from generation and retail and was intended to promote effective competition among generators and among retailers. It limited cross-ownership between distribution assets and either generation or retailing activities to a maximum of 10%, and most distributors sold their retailing business to large generators. Currently, only 5% of retailers are not vertically integrated.

### *Regulatory framework*

The current system has the following main features:

- Price surveillance of transmission and distribution businesses (the so-called lines business) is under the responsibility of the Commerce Commission and done through a system with two thresholds: a price-path threshold and a quality threshold. In effect, these thresholds are a screening mechanism to identify firms whose performance may warrant future examination and possible control. Lines businesses are also required to disclose information concerning their business, such as profits, costs, asset values, and price (including terms and conditions of supply).
- A sector-specific regulator, the Electricity Commission was established in September 2003 to oversee New Zealand's electricity markets. It also has the task of establishing a decision-making process and a pricing methodology for investment in the transmission grid, improving demand-side participation in the wholesale market and ensuring consumer protection. General consumer protection laws also apply.
- After two episodes of supply shortage, the regulator's traditional objective of efficiency has been complemented by a security of supply objective. The Electricity Commission is required to ensure the security of electricity supply in a "one in 60" dry year<sup>1</sup> by contracting for reserve energy and requiring information disclosure by generators. Some of these costs will be financed by a levy on the industry.

### *Mixed evidence on the state of competition*

No new retailers have entered the market since the winter of 2001 (Hansen, 2004), which could suggest weak competition. There is evidence of a slow migration of consumers away from the incumbent retailers, indicating some increase in competition (Ministry of Economic Development, 2004b). On average, prices on the wholesale markets are estimated to be above the long-run marginal costs of generation, which may suggest some use of market power, although a number of other factors — scarcity of generation assets and uncertainties regarding long-term developments and their impact on long-run costs — have certainly also affected price developments (Murray and Stevenson, 2004). Moreover, this result should be interpreted with caution because uncertainties over gas supply and site-specific costs of renewable technologies render the estimation of a well defined forward marginal cost curve very difficult.

1. There should be enough reserve generating capacity so that only a drought severe enough to occur on average only once in 60 years would result in a shortfall of available supply.

- The present system for allocating property rights by resource consents may not be optimal, particularly for water (see Box 3) and in particular, there is a risk that existing rights held by the incumbent resource consent holder could be diminished. These uncertainties have been only partially clarified by the Ministry for the Environment and until the current review of alternative mechanisms has been completed and a new framework put in place, incentives to invest in new hydro generation will be weak.

### Box 3. Review of water allocation rights

Growing demands for fresh water and declining quality in some areas led the government to establish a Water Programme of Action in 2003 to examine all aspects of water – cultural, economic, environmental and social, including water allocation and use. This programme is part of the Sustainable Development Programme of Action and is coordinated by the Ministry of Environment and the Ministry of Agriculture and Forestry.

Responsibility for water management is currently delegated to regional councils through the Resource Management Act (RMA). Anyone wishing to take or use fresh water must apply for resource consents. They are issued on a 'first come, first served' basis to applicants that can demonstrate they have a reasonable need for water and can meet the environmental sustainability requirement of the RMA. They can last between one and 35 years, and the custom has been to renew them when they expire. Water permits can be transferred, but in practice it rarely happens, despite a growing demand for transfer consents.

In June 2004, the Ministry for the Environment identified a number of problems in the current system:

- The system encourages very little strategic planning to cope with increasing demand for water.
- The system is administratively complex and inconsistent in its outcomes.
- Most regional plans provide limited evaluation of where water would be most valued for environmental, social, cultural and economic reasons.
- The first-in first-served system does not lead to an efficient allocation system where there is insufficient water to satisfy all demands.
- There is little use of the ability to transfer and reallocate water.
- There is no incentive for technical efficiency.
- The length of consent may imply tension between certainty and flexibility.
- Opportunities for Maori to participate in the process are restricted.
- There is a very small pool of people with appropriate skills working on water issues.

In December 2004, the government put forward for public consultation a package of possible actions, covering a full spectrum of approaches including regulatory and market-based approaches, public education, and building skills and knowledge of those involved in water management.

*Source:* Ministry for the Environment (2004) and Ministry for the Environment and Ministry of Agriculture and Forestry (2004).

- Some characteristics of the current regulatory framework for transmission are also likely to have a negative effect on investment, not least because transmission and generation are to some extent substitutes for supplying electricity.<sup>11</sup> The previous regulatory model for transmission investment was based on contracts with users, but no investment took place because of a number of

11. For instance, increased supply to Auckland consumers could be provided either by installing new generation capacity in the Auckland region or by upgrading in the transmission grid (and transporting electricity from other regions).

problems, including free-riding. However, although the present regulations may lead to more investment, decisions may still be distorted across the sector as a whole. By regulation, the transmission company, Transpower, has less costs and risks associated with securing approval of investment than other firms. Moreover, the current transmission pricing system, with charges levied by regulation rather than by contract, also creates rigidities. The Electricity Commission is currently looking at pricing methodology for investment in transmission as well as alternative transmission options, but given the complexity of the tasks, this process is likely to be time- and resource-intensive and may delay investment decisions.<sup>12</sup>

Concerns have mounted relating to the increasing role of the government in the sector (Price Waterhouse Coopers, 2004). In August 2004, the government agreed with Genesis, a State Owned Enterprise (SOE), to underwrite its fuel-supply risk to develop a gas-fired electricity plant. A year before, the government had already intervened with the construction of the Whirinaki reserve energy plant by the private company Contact Energy. Both decisions were taken to provide greater security of supply, and the government has declared these agreements were a response to very particular circumstances and cannot be expected to be repeated in the future (Hodgson, 2004). Still, they have sent mixed signals to the market and may have been an obstacle to private investment. Moreover, some evidence has been found that, contrary to the SOE Act, the government has accepted lower expected returns from its investment than would be required by a private shareholder (Auckland Uniservice Limited, 2004). Overall, the perception of unfair competition between private investors and SOEs may have increased. Privatisation of these assets may address this perception and lower this uncertainty (see below).

Extensive vertical integration is likely to limit competition among generators and among retailers and the forward electricity market is currently illiquid and lacks transparency (Hansen, 2004). Vertical integration between generators and retailers is one way for companies to manage price risks in the wholesale market and therefore reduce their need to trade from the forward markets. But in principle, a liquid and transparent forward market for electricity would enable market participants to manage their risks and also facilitate competition in the retail market. It would also provide price information for large consumers and clearer long-term price signals to guide investment in new generation. In addition, a transparent process for forward prices would send the Electricity Commission early warning signals about future supply problems and make it easier to manage potential crisis situations. Against this background, the Electricity Commission has been given the task to promote hedge markets (Ministry of Economic Development, 2004c). Moreover, in January 2004, the four largest generators/retailers created an energy hedge market to trade standardised derivative contracts, although so far transactions have been few.

A broad range of measures could enhance the transparency and increase the liquidity of the forward market, but first, a better understanding is needed of the role of vertical integration and the extent to which the small size of the underlying physical market limits the potential for extensive trading. Splitting up generation and retailing could improve competition in the retail market and enhance investment and would be particularly beneficial in case of very low competition in the retail sector. A less extreme approach would be to favour the entry of independent retailers, while at the same time allowing vertical integration when it provides a better outcome in terms of efficiency and profits (Hansen, 2004). Another possibility could be to create blind markets for hedges, in which buyers and sellers transact with third parties, and to encourage firms to trade in these markets. In addition, Chinese walls (similar to those that exist in Nordpool, the Nordic electricity market) could be imposed on generators so that their retail businesses do not have access to more information than their competitors. But the introduction of Chinese

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12. In April 2005, the Minister of Energy extended the deadline for the approval of the Grid Update Plan from September 2005 to mid-2006, to enable a thorough assessment of Transpower's proposals of a new grid upgrade, including benefits and costs of the grid proposal and of other alternatives, as well as environmental effects.

walls is more costly and harder to put in place than simply splitting up the vertically integrated firms and the benefits and costs of each approach would need to be thoroughly investigated. Other measures such as encouraging large consumers to hold hedges (for instance, by granting exemptions from the reserve energy levy) would also help increase the liquidity of the market.

### *Natural gas*

Gas industry reforms began in 1987 and the sector was largely privatised. The government is still a party in the Maui gas contracts, although the effective purchasers are the major gas users. Over the 1990s, legislation injected competition in the gas market through the termination of exclusive franchise arrangements, introduced information disclosure regulation<sup>13</sup> and removed price control (the 1992 Gas Act and the 1997 Gas Information Disclosure Regulations). The industry is characterised by its high concentration in production (one company controls almost 90% of the production) and vertical integration in some parts of the industry.

The sector will have to cope with major structural changes in the next decade. Indeed, the main production area, the Maui field, which has provided about 80% of the nation's needs for two decades, is now expected to be depleted by around 2007. Exploration for new reserves increased in 2004, despite uncertainties about the carbon tax, spurred by the rise in gas prices and encouraged further by a series of new measures announced in June 2004. At the same time, the two largest power generators – Genesis and Contact Energy – started investigating whether importing liquefied natural gas (LNG) would be a cost-effective option for generation to replace the expected shortfall in New Zealand gas supplies. Future gas supplies will thus be drawn from a number of smaller fields or from imported LNG, rather than one dominant field as is currently the case. This will require more flexible trade arrangements than those currently used. In particular, restrictions on access to transmission pipelines need to be closely re-examined.<sup>14</sup> Moreover, there is a need to develop protocols, standards and data management processes and define data requirements for the management of gas flows across the wholesale market (ACIL Consulting, 2001; Ministry of Economic Development, 2004d).

As in the electricity sector, recent developments have increased regulation of the sector. *First*, self-regulation has been replaced by a co-regulatory model in order to prepare the transition to a post-Maui era. This model is supported by the industry, and the operation and costs of the regulatory body will be directly borne by the industry participants. Moreover, the industry body would have a comparative advantage over a central regulator in assessing the costs and benefits to industry of alternative rules, as it will be able to leverage off the knowledge and experience of industry participants. *Second*, the Commerce Commission has proposed direct price control of two companies, Vector and Powerco, in response to complaints of abuse of monopoly position. Although such a measure can have some benefits, including reductions in excess returns and increased productivity, they may also have indirect costs by reducing service quality, distorting investment decisions and perpetuating productive inefficiencies. It would be preferable to introduce a surveillance system with price thresholds, similar to the one that exists for the electricity lines business, which would be more flexible and less distortionary. This alternative has also been proposed by the Commerce Commission.

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13. Six categories of information are requested: line charges; contracts; pipeline capacity; line charge pricing methodology; financial statement and performance measures; and methodology for allocation of cost and revenues.

14. The Maui pipeline does not offer open access, but an open access scheme to the Natural Gas Corporation (NGC) transmission pipeline is provided by its asset owners.



***Telecommunications: How should competition in termination rates and broadband be stimulated?***

New Zealand was one of the first countries in the OECD to start deregulating its telecommunications sector. The market was opened to entry in 1989, and Telecom New Zealand was sold to wholly-owned subsidiaries of Bell Atlantic Corporation and Ameritech Corporation in 1990. All the major competitors in the market today are privately owned. Following a period of self regulation, the 2001 Telecommunications Act restructured the telecommunications regulatory regime by providing for greater industry-specific regulation. It established a Telecommunications Commissioner within the Commerce Commission who is in charge of resolving disputes over access to certain regulated services and allocating the cost of the Telecommunications Service Obligations (TSO) including the “Kiwi Share” (Box 4). He is also required to make recommendations on a number of issues and may act alone or with two other Commission members. A review of the Act is underway with the aim of fine-tuning and of clarifying the current legislation.

Despite these early reforms, prices in many categories of telecommunications are still unsatisfactorily high. Annual charges for the OECD composite basket of services for both business and residential users remain amongst the highest in the OECD countries (Figure 4). To some extent, this reflects issues of measurement, as residential telephone service prices are estimated to be lower when using a comparison basket of services that more accurately reflects New Zealanders’ typical usage (Ministry of Economic Development, 2004e). One potential reason for this disappointing performance could be that operators charge high price for some services (for business or international calls) to compensate for the costs they face because of the free local option established in the Kiwi Share. However, cross-subsidisation is estimated to be small in New Zealand.

Evidence on the state of competition in the mobile market is mixed. Mobile phone charges are very high by international standards: indeed they are the most expensive in the OECD for high and medium users, though there is no evidence that network costs in New Zealand should be different from other countries. Moreover, the market is highly concentrated with only two main competitors (Telecom New Zealand and Vodafone). A number of significant barriers may deter or delay entry in the market: obligation to have demonstrated plans to build a national network to have access to regulated national roaming, high fixed costs due to low population density and rugged terrain and the absence of number portability (though this is expected to be available by 2007). At the same time, there are significant movements in market share (with Vodafone now having a higher market share than the incumbent), increasing market penetration and investment in new technologies such as 3G networks.

**Box 4. The Kiwi Share**

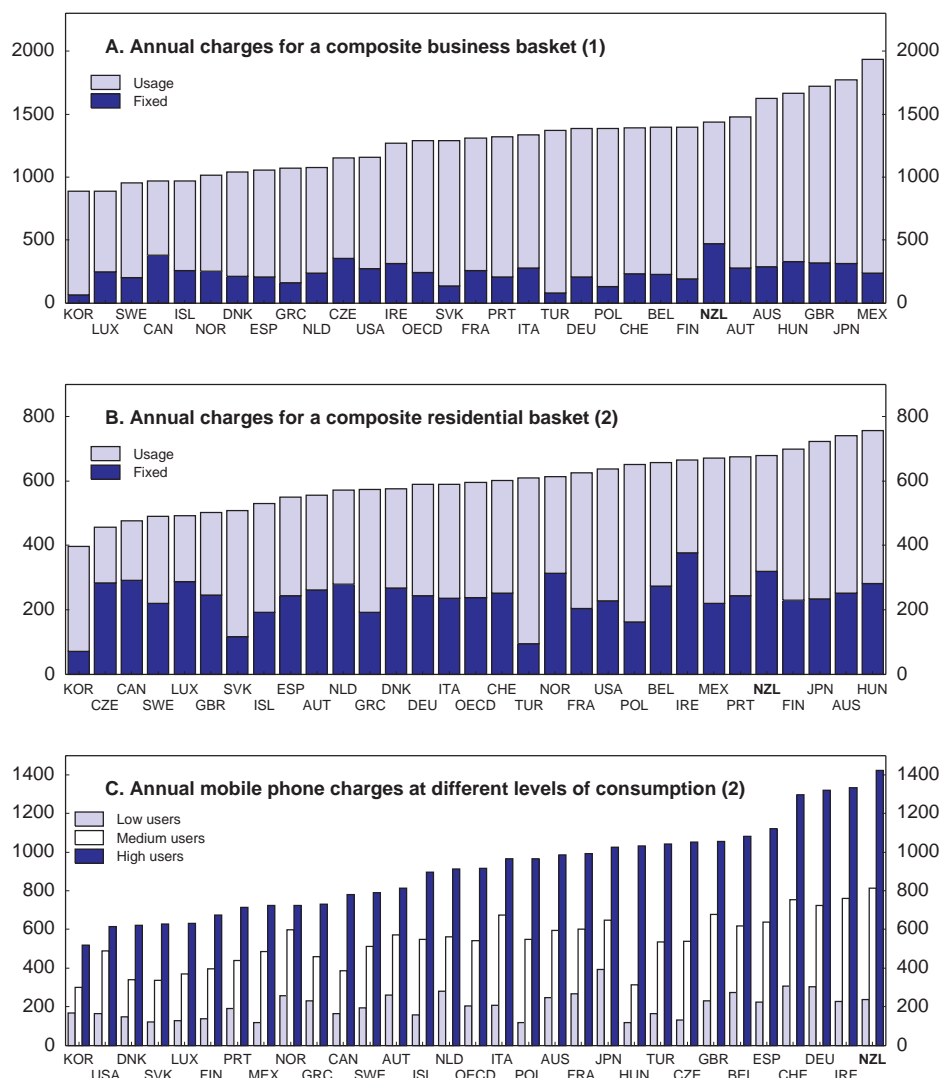
The Kiwi Share was established when Telecom New Zealand was privatised in 1990 and is essentially a contractual agreement between the Crown and Telecom that enables the government to meet certain social objectives in telecommunications. It was renegotiated in 2001 to incorporate changes in the telecom environment. The updated Kiwi Share ensures that virtually all New Zealanders are able to access basic telephony and Internet services.

Specifically, Telecom's Constitution requires it to:

- Maintain a local free-calling option for all residential telephone customers;
- Limit the rate of residential telephone rental price increases so that the pre-GST standard rental will not increase in real terms from that applying at 1 November 1989;
- Ensure that the line rental for residential (phone) users in rural areas be no higher than the standard residential (phone) rental; and
- Continue to make ordinary residential telephone service as widely available as at the date of adoption of the (Kiwi Share) Articles.

*Source:* Ministry of Economic Development.

Figure 4. Telecommunications prices in OECD countries  
US dollars, August 2004



1. Excluding VAT.
2. Including VAT.

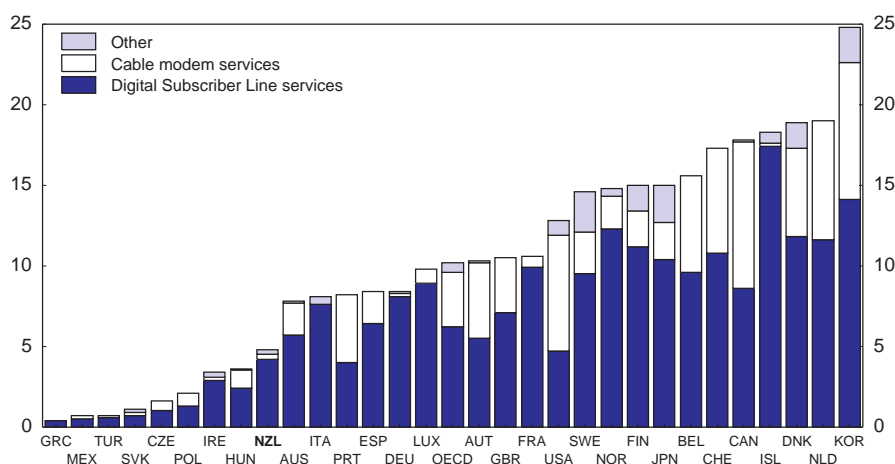
Source: OECD, Communications Outlook database.

The price of residential and business users' fixed-to-mobile calls is significantly higher than in other OECD countries and has recently become a source of concern (Ministry of Economic Development, 2004c). This stems mostly from the lack of competition in mobile termination charges. This situation is common in OECD countries where the caller pays for calls to mobile, as mobile subscribers care only about prices of the calls they make (OECD, 2004b). A number of different approaches have been adopted in OECD countries to address these issues: in the United States and Canada, the receiving number contributes to the costs of both incoming and outgoing calls. This arrangement may have led to more competition because charges are paid by the end user who also chooses the network operator. Other countries such as Australia or the United Kingdom have chosen to extend their regulations to mobile termination charges. In June 2005, the Commerce Commission recommended to the Minister of

Communications that the termination of fixed line voice calls on a cellular telephone network should be regulated. However, in order to avoid any delay in 3G investments, regulations are being proposed on existing non-3G networks only. The proposal relies on a cost-benefit analysis of a regulated reduction in termination charges that includes an allowance for an increase in mobile price, and finds an increase in the consumer surplus (Commerce Commission, 2005). However, it is extremely difficult to quantify the detrimental effects of termination rates' regulation on mobile price. The amplitude of these effects depends on the state of competition in the mobile phone market, for which evidence is mixed. Moreover, the regulation of termination charges should be designed so as to minimise the potential uncertainties and distortions it could generate.

The uptake of broadband internet access is amongst the lowest in the OECD (Figure 5), particularly for households.<sup>15</sup> It has increased in 2004, but at a slower pace than in most other OECD countries. This cannot be explained by being at an earlier stage of the diffusion process of broadband compared with other countries, as New Zealand was one of the first OECD countries to offer commercial broadband services in 1996. Moreover, broadband availability compares favourably with other OECD countries. The rollout of broadband has even been spurred recently in remote areas by government subsidies to ensure that all schools and communities benefit from broadband by the end of 2004 (Probe Project). More recently, the 2005 Budget provided NZD 24 million over four years for the Broadband Challenge. It is part of the Digital Strategy and of the government's goal to be in the top quarter of the OECD for broadband uptake by 2010. It aims to promote high-speed capacity for regional centres and their businesses and to make broadband available for small communities.

Figure 5. **Broadband subscribers per 100 inhabitants**  
December 2004



Source: OECD, Communications Outlook database.

15. The definition of broadband usually varies across Member states, but the term generally applies to "always-on" services that are considerably faster than the basic rate ISDN which operates at 128 kbps. This definition may soon be out-of-date, as a significant number of operators in OECD countries now provide speeds higher than 512 kbps (OECD, 2003c).

The low uptake can be explained by a combination of factors (the first two being the most important):

- Relative prices favour dial-up over broadband. Indeed, there is evidence that broadband prices are relatively high by international standards.<sup>16</sup> Moreover, residential dial-up is very cheap, reflecting low ISP cost. Although prices have moved down rapidly in recent months, dial-up and broadband prices have still not fully converged.
- Limited availability of cable access (except in Wellington) and a geographical profile that constrains its expansion. This differs markedly from Korea, Canada, the Netherlands and the United States where cable represents a significant share of broadband connections.
- Good quality and availability of dial-up services.

So far the low uptake of broadband does not appear to have been an impediment to growth, as internet penetration has been high. The NZ authorities have indicated their desire to favour broadband deployment, as broadband communication is expected to become increasingly important with the development of electronic commerce and the delivery of services such as public health or education through the Internet. Development of new technologies is also likely to increase demand for the higher bandwidth capacity of broadband. Moreover, in the case of New Zealand, there is evidence that the dial-up market is approaching maturity and that dial-up users are migrating toward more efficient technologies, including broadband (Howell, 2003).

A range of demand and supply side initiatives have been used in OECD countries to support broadband. Direct financial supports such as tax incentives, low-interest loans and subsidies have been common, but they can inhibit competition and distort investment decisions. The implementation of unbundling policies that took place in many OECD countries in 2000-01 was an important regulatory initiative facilitating the development of broadband. However, New Zealand did not follow this trend. Following recommendations from the Commerce Commission, the government decided not to require full unbundling of the local loop in May 2004 but recommended an unbundled partial bitstream service.<sup>17</sup> This choice was criticised by some on the grounds that it was not supported by a sound cost-benefit analysis and revealed the dominant role played by the incumbent (Small, 2004). Still, mandatory unbundling is not the only way to achieve competition in the retail market.<sup>18</sup> Nor is it clear that complete unbundling has in fact resulted in more competition in the retail and wholesale markets or enhanced investment and innovation, as illustrated by the experience in the United States, Canada, the United Kingdom and Germany (Hausman

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16. The price of business services is high due to the heavy data transmission charge per megabyte (Ministry of Economic Development, 2004c). Broadband prices are average for residential services, but mostly because of caps on usage.

17. This allows broadband competition on Telecom's wires at a maximum level of 128 kbps upstream and minimum level of 256 kbps downstream. Moreover, Telecom has been given six months to provide unbundled partial private circuits. In April 2005, the Commission issued a draft determination on bitstream suggesting that Telecom should provide a bitstream access service to TelstraClear with a non rate-shaped downstream speed up to the maximum capacity of the line infrastructure. The Commission also recommended that Telecom be given six months to develop a satisfactory unbundled partial private circuits (UPC) service offering. The Commission stated that if a suitable outcome did not emerge in that time then the Commission considered that it would be appropriate to re-evaluate the merits of regulated unbundling of a partial private circuit service. Subsequently the Commission monitored Telecom's development of a UPC service and informed the Minister of Communications that regulation was not required at this stage.

18. One example is the increasing number of cable television providers in the US voice and high-speed data markets.

and Sidak, 2004). In any case, the emergence of alternative technologies such as wireless local loops, cable, fibre, satellite and Ethernet is likely to play an increasing role and reduce the relative importance of local loop unbundling in the future. It could be argued that the current regulatory framework actually encourages the emergence of new technologies that do not rely on the copper wire connection. New Zealand's small size might even be an advantage by providing operators with an opportunity to pilot new products before launching them on a larger scale in other countries.

In the specific case of New Zealand, one pre-requisite would be to investigate the sources of the low uptake and subsequently take the appropriate measures to stimulate broadband developments. Overall, the most constructive role for the government would be to limit itself to creating the right incentives to draw private firms into broadband deployment. In addition, given that broadband technologies are likely to develop rapidly in the coming years, measures need to be based on sound and systematic data analyses to avoid the risk that a regulatory intervention to support a particular delivery mechanism creates inefficiency in the market overall.

***Public sector: resuming the privatisation process and making more use of market-based principles***

After having implemented a large-scale privatisation programme, there has been a reversal of policy toward increasing public ownership since 2001. This change in direction contrasts with the trend observed in other OECD countries, where privatisation activities have continued, though at a slower pace. Currently, the government still owns a significant portion of commercial businesses assets: SOEs and Air New Zealand had total assets of NZD 15.3 billion (approximately 10% of GDP) in June 2004 (Treasury, 2004). Although the overall share is relatively low compared with other OECD countries (OECD, 2005), public ownership is particularly important in potentially competitive industries such as electricity (Box 5). Other SOEs operate in agricultural services, postal service and land management.

**Box 5. Government ownership in selected industries**

Public ownership is mostly concentrated in strategic and infrastructure sectors. It has also increased in a number of commercial sectors since the beginning of the decade.

*Electricity:* The transmission grid connecting most of the major power stations is operated by Transpower, which was established as a stand alone SOE from ECNZ in 1994. The most important generation firms, Genesis Power Ltd, Meridian Energy Ltd and Mighty River Power Ltd, were created in 1999 and are also owned by the government. The only private player in generation is Contact Energy, which was privatised in 1999. Overall, this sector represents about ¾ of total SOEs assets (including Air New Zealand).

*Airlines:* In 2001, the government announced a rescue package for Air New Zealand, which had experienced financial distress, and bought new equity. The government holds around 80% of the company's shares.

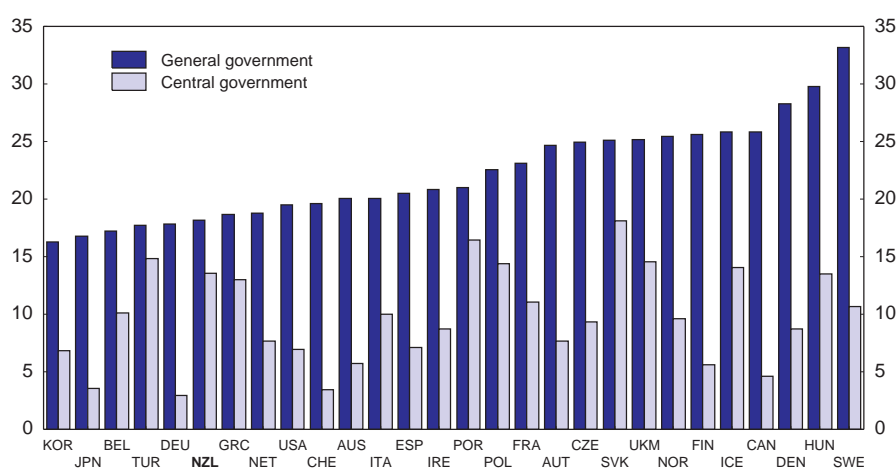
*Railways:* After having bought the Auckland railway corridor from Tranz Rail to support a regional initiative to reduce traffic congestion in 2001, the government purchased the national rail network and the associated infrastructure in 2004. An agreement was signed in July 2003 with the private company Toll Holding, giving it exclusive access rights to the network for freight services. The government is committed to investing NZD 200 million over four years on upgrading the track and replacing worn-out parts of the network. Toll will undertake up-front capital spending on rolling stock of NZD 100 million.

*Banking:* A publicly-owned bank, Kiwibank, was created in 2002. It is a subsidiary of the state-owned New Zealand Post. The bank was set up ostensibly for commercial reasons, but subsidiary public policy objectives included trying to foster lower fees and stimulate competition in the sector, although there was little evidence of weak competition (see Annex 3). The government made a one-off investment to fund the establishment of the bank, while New Zealand Post made additional investments, representing a total NZD 138 (for the period 2002 to 2005). The bank has just reported its first profits.

Since the 1986 State Owned Enterprise Act, SOEs in New Zealand have been expected to function like private enterprises and achieve a commercial rate of return. However, empirical evidence from a broad range of countries indicates that on average, private firms achieve higher efficiency than state-owned companies and that privatisations improve firms' financial health and enhance capital investment (Megginson and Netter, 2001). At the same time, privatisations have been found to increase consumer welfare (Gonenc and Maher, 2001) and to have a positive impact on multi-factor productivity (Nicoletti and Scarpetta, 2003). Moreover, although in principle SOEs should operate under the same market conditions as private firms (for instance, they are not exempt from New Zealand competition law), there is a risk that markets perceive SOEs as benefiting from special advantages due to their government ownership. The Genesis episode (see above) has reinforced this perception and undermined the credibility of the SOE model. Against this background, resuming the process of privatisation is likely to be a fruitful avenue and facilitate the smooth functioning of markets.

Another way to improve performance is to use market-type mechanisms such as outsourcing or Public-Private Partnerships in the delivery of public services. In New Zealand, government agencies are responsible for their own purchasing procedures within a policy framework based on principles of value for money and open and effective competition (Ministry of Economic Development, 2002). Advisory services to purchasers are provided by the Industry Capability Network (ICN) and are reported to be helpful (Ministry of Economic Development, 2004f). Moreover, government tenders are listed in a password-protected website. As a result, government procurement is generally open and transparent: central government procurement is liberalised, while local government procurement is largely non discriminatory, though price differences exist in some local government activities (APEC, 2003). To increase transparency further in February 2004 the government defined notification requirements for government departments to the ICN, so that information about government purchasing needs is readily available to industry. However, the size of the government contestable procurement market was one of the lowest amongst the OECD countries over the 1990s (Figure 6). Since then, the use of market-type mechanisms has increased in New Zealand as in other OECD countries, but it remains secondary compared

Figure 6. **Government procurement market**  
Total expenditure, per cent of GDP, 1990-97 average or latest available year



Source: Audet (2002), OECD Journal on Budgeting, Vol. 2, No. 3.

to the dominant traditional role for government provision (OECD, 2004c). Making more use of these mechanisms would introduce competition among different suppliers in areas where the government was previously the monopoly provider. This is likely to improve efficiency, reduce costs and, in some cases, raise quality. In particular, there are a number of areas where international experience shows the successful use of market-based principles for the supply of government services.

A first area is the outsourcing of employment services. Contracting-out of active labour market policy measures already exists in New Zealand, as in many other OECD countries, but thus far it has been for the most part limited to training and job-creation programmes. By contrast, outsourcing was applied to the placement and reintegration functions of the Public Employment Service in Australia in the late 1990s and more recently in the Netherlands (Grubb, 2003). So far, the sole New Zealand experience is through a pilot programme, the Outcome Based Funding (OBF).<sup>19</sup> The overall assessment is that experience with private job-placement agencies has been globally positive, with generally better employment outcomes (see Annex 2). However, special care should be taken in the design of these arrangements, as less favourable effects for hard-to-place workers were also observed.

A second area is opening up all areas of personal injury insurance to competition. This is an area that has successfully been left to the private sector in many countries. Currently, the Accident Compensation Corporation (ACC) is the monopoly public insurer. The portion of the scheme that covers workplace accidents was opened up to competition in July 1999. Five private insurers entered the market. Despite some promising initial results – prices dropped, especially for large- and medium-size enterprises – the new government re-instituted its monopoly over the scheme in 2000, arguing that private companies may have set premiums at unsustainably low levels to attract business. At the same time, no formal evaluation was done to justify this decision.

A third area is the provision of prison services. Private prison providers were permitted in New Zealand from the mid-1990s up until recently, and an Australian private management company had a contract to run Auckland Central Remand Prison. However, although no overall evaluation of this single experience had been undertaken, the government decided in 2003 that prison services would be henceforth provided exclusively by the Department of Corrections. This move contrasts with some international evidence that private prisons can generally provide both lower costs and better services and that opening up prison services to competition could encourage the publicly managed prisons to operate more efficiently (National Audit Office, 2003; Blumstein and Cohen, 2003). Such arrangements exist in a number of countries, including Australia, Canada, the United Kingdom and the United States.

### ***In a number of areas, competition appears stronger than in other OECD countries***

In many sectors (described below), the forces of competition appear to work well in New Zealand (see Annex 3). Most of the time, the country uses efficient tools to ensure an appropriate balance between liberalisation and social objectives. However, as experienced in the energy sector, public intervention has been increasing in some industries. Moreover, some adjustments may be needed in some areas.

- The *transport sector* appears to have been one of the least restricted amongst the OECD countries in the late 1990s. Despite early reforms, special competition policy regimes continue to apply in international air carriage and international ocean shipping. Moreover, there has been increasing state ownership in the transport sector since 2001, especially airlines and railways. Foreign

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19. This programme was implemented in five regions from August 2001 to December 2002. Private contractors provided placement services and were rewarded for the outcomes they achieved.

investment is also expressly limited in international air carriers,<sup>20</sup> restraining the development of competitive markets and strong international linkages. It protects Air New Zealand's access to traffic rights negotiated through most bilateral air service agreements,<sup>21</sup> but the government has endeavoured to re-negotiate agreements to replace the "substantial ownership" restriction by a "principal place of business" or "place of incorporation" criterion to define the designated carriers (Bradbury, 2004). This policy is welcome and should be pursued more broadly so that FDI restrictions on international airlines can be fully removed. An even better alternative would be to negotiate this change at a multilateral level through the International Civil Aviation Organisation.

- Regulation is currently very light-handed in the *broadcasting sector*, and the industry is to a large extent self-regulated by the relevant industry groups. However, since the beginning of the decade, broadcasting policies have moved towards more public intervention and the government is willing to reinforce further the role of public broadcasters (Ministry for Culture and Heritage, 2005). In 2003, TVNZ was restructured into a Crown company with a Charter requiring it to feature certain types of programmes to strengthen national identity, educational performance and civic participation. Moreover public funding for broadcasting has grown by more than 70% from 1999-2000 to 2003-04, with decisions often taken on a case-by-case basis to support particular initiatives, increasing the perception of political interference in the sector. Thus, the government's decision to review the current funding mechanisms and determine an appropriate level of public funding is welcome.
- Restrictions are low and price competition is strong in most *professional services* in New Zealand, in particular engineering and architecture (OECD, 2000; Nguyen-Hong, 2000). Restrictions have been relaxed for accountants and are now very low by international standards. The situation is somewhat less favourable for legal services, stemming from prior residency requirements and, more importantly, from restriction on incorporation designed to protect consumers. But these concerns can be addressed by other means, for instance by the use of professional insurance.
- The *retail sector* is one of the most liberal in the OECD, with very few restrictions posing any constraint to market entry. Despite this favourable context, there has been some concern that recent labour market legislation, in particular the Holiday Act, may have been particularly detrimental by increasing labour costs. This may hamper future performance, in spite of liberal product market regulations.
- The *agriculture sector* has moved from heavy anti-competitive regulations at the beginning of the 1980s (with price controls, price and income supports) to almost full liberalisation. Producer support has been the lowest in the OECD countries for more than 15 years, even though it has marginally increased in the last few years (Figure 7). Moreover, the country has deregulated most marketing boards and major restructuring of the dairy sector took place in 2001 with the

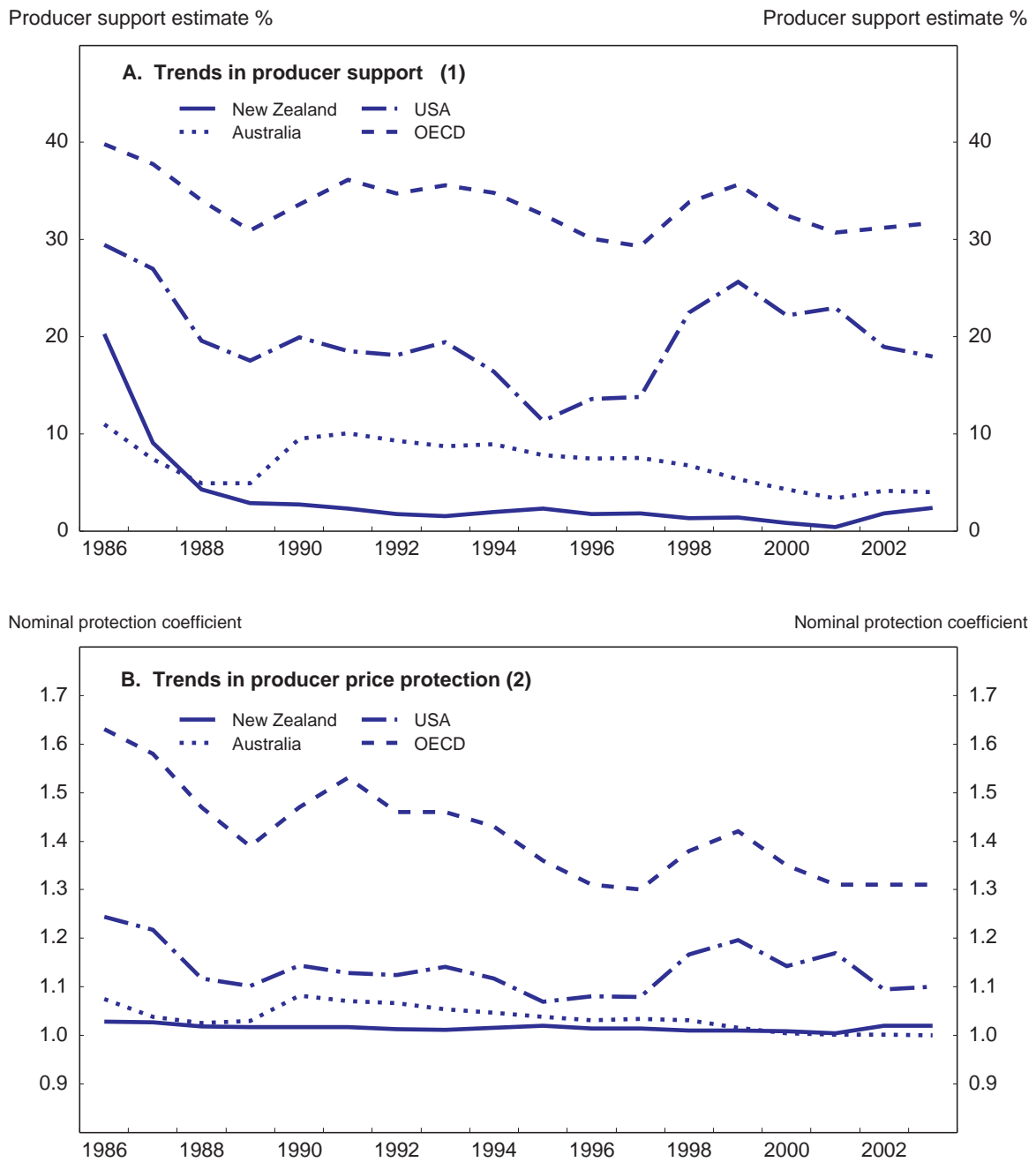
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20. The maximum allowable level of foreign investment in Air New Zealand Ltd is 49% foreign ownership, or 35% by foreign airlines or airline interests, or 25% by any one foreign airline or airline interest. There are separate arrangements for airlines operating within the Australian-New Zealand Single Aviation Market only.

21. Under these agreements, other countries can deny operating authorisations (*e.g.* landing rights) to Air New Zealand if the airline is not able to demonstrate that it is substantially owned and effectively controlled by NZ nationals.



Figure 7. **Agricultural support**



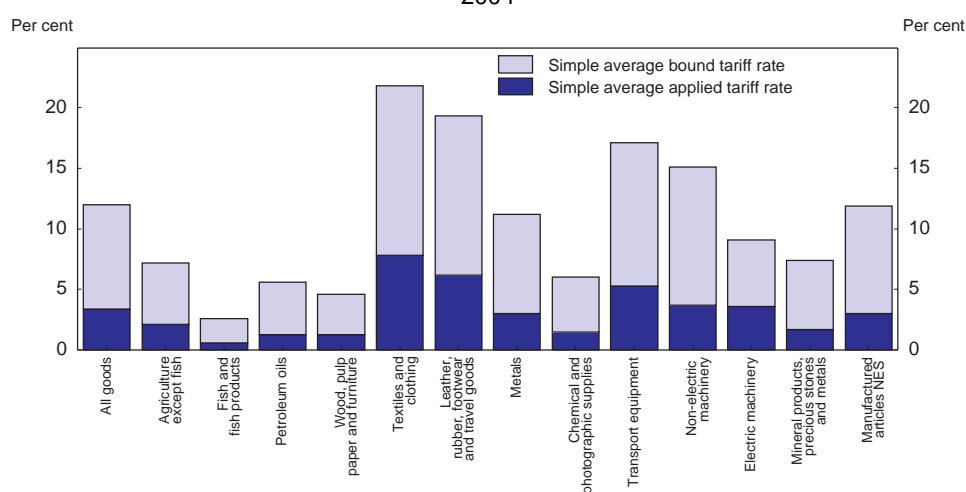
1. An indicator of the value of monetary transfers to agriculture resulting from agricultural policies. It is presented as a share of the total value of production at domestic producer prices.
  2. The nominal protection coefficient (NPC) is a measure of market protection defined as the ratio between the average prices received by producers and border prices.
- Source: OECD, PSE/CSE database.

creation of a near-monopoly Fonterra.<sup>22</sup> Preliminary evidence suggests that Fonterra has achieved technical efficiencies and reduced costs (Ministry of Agriculture and Forestry, 2004). However, there have been some concerns about the company's high share price and milk payouts. Fonterra has simplified its capital structure and introduced some flexibility for suppliers to increase milk supply without having to purchase matching shares. As for the export market, Fonterra has been given control over access to New Zealand's country-specific dairy product tariff quotas to restricted overseas markets. Fonterra's exclusive quota rights expire between 2007 and 2010 and the government is considering new policy for their allocation beyond this period.

### Trade

The overall domestic environment is favourable to external trade: New Zealand does not impose non-tariff measures for industry protection purposes and average applied tariffs are below the OECD average (Figure 8). Remaining restrictions are expected to diminish over time. Indeed, after a freeze from 2000 to 2005, tariff reductions will resume in July 2006.<sup>23</sup> These changes are welcome and certainly go in the right direction. Still, the process of phasing out tariffs could easily be bolder, and the government could signal its intention to gradually reduce tariffs to zero. Moreover, the government has pledged support to the Textiles, Carpet, Footwear and Apparel (TCFA) sector of NZD 1.1 million over the next two years, to complement the NZD 2.3 million package announced in the 2004 budget. These measures are intended to help the sector cope with short-term transition costs associated with lower tariffs and a potential trade agreement with China. But such subsidies should be limited both in time and quantity to minimise the negative impacts on consumers and other producers, as well as the efficiency cost to the economy as a whole.

Figure 8. Tariff rates  
2004



Source: APEC 2004 individual action plan.

22. The Dairy Industry Restructuring Act has the following main features: the Dairy Board's statutory marketing privilege was revoked and the export sector liberalised; the two largest co-operatives, New Zealand Dairy Group and Kiwi Co-operative Dairies, were authorised to merge to form Fonterra Co-operative Group Limited. In this context, it has been necessary to regulate open entry and exit of shareholders and milk suppliers to Fonterra to ensure competitive pricing in the market for raw milk. Little entry has been observed in the market since 2001. In April 2005, however a new dairy export company, Synlait, was created.
23. Tariff rates of 5 to 7.5% will be reduced to 5% in 2008 and maintained at that rate until 2009. Higher tariff rates of 17 to 19%, which apply in the textiles and footwear sectors, will be gradually reduced to 10% by 2009.

## **Conclusion and priorities for policies**

This paper has underlined the specificity of the small and isolated New Zealand economy, and its implication for competition policy and regulations. The country has been a leader in deregulating a range of sectors that were previously shielded from competition. Still, competition could be made more effective in a few areas.

The first area where improvements could be made concerns the competition legislation framework. The authorities should:

- Authorise the Commerce Commission to exchange information and co-operate in enforcement matters with its counterparts elsewhere, particularly with the Australian Competition and Consumer Commission by ensuring that the government's decision in this matter are reflected in the law.
- Devote more resources and attention to preventing horizontal collusion, and apply sanctions and the leniency programme vigorously.
- Eliminate the exemption that allows trade associations to recommend prices.
- Examine the marketplace effects of the dairy processing near-monopoly, including actual entry and competition in the affected markets, the allocation of the foreign quota rights and the effectiveness of the regulatory system.
- Eliminate the special regimes concerning restraints on competition in international carriage of goods by air and international ocean shipping, or provide for the Commerce Commission to be consulted in their application.

Further action is also needed in several sectors to improve the functioning of markets, even though major liberalisation reforms may have already been implemented. In particular, it would be helpful to:

- Remove current regulatory uncertainties perceived by market participants in the electricity sector by clarifying the situation regarding water property rights and the mandate of the Electricity Commission, in particular for the security of supply. The government also needs to make sure that risks of long delays in project approval and variation in local councils' approaches are effectively reduced by planned changes in the Resource Management Act.
- Assess the relative costs and benefits of splitting up vertically integrated generators and retailers or imposing Chinese walls. Identify the sources of the electricity hedge market's under-development and, depending on the results, take appropriate measures to favour its expansion.
- Re-examine restrictions on accessing natural gas transmission pipelines and define a set of conventions and protocols to favour exchanges in the wholesale market.
- Set up a surveillance system in the natural gas sector with price thresholds, similar to the one that exists for the electricity lines business, rather than direct price control.

- Assess the state of competition in the phone mobile market. Address the lack of competition in the call termination market by regulating termination charges and seek to minimise uncertainties and distortions such regulation could generate.
- Investigate the source of the low uptake in broadband and, depending on the results, take the appropriate measures to favour its development.
- Resume privatisation, in particular in potentially competitive sectors, and make more use of market principles in the delivery of publicly funded services.
- Pursue the policy of renegotiating bilateral international airlines agreements to replace the “ownership” criterion by a “principal place of business or a place of incorporation” criterion for the designation of the national carrier.
- Remove restrictions on incorporation for legal services.
- Announce a complete and rapid phase-out of all tariffs and limit subsidies to the Textile, Carpet, Footwear and Apparel sector.

Given New Zealand’s low level of producer supports in the agriculture sector, its capacity to compete successfully on the world markets could be dramatically enhanced by the successful completion of the Doha round.

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## *Annex A1*

### **Literature on competition and economic performance**

This annex reviews recent evidence from the literature on the positive link between competition and economic performance, focusing on cross-country analyses. More detailed surveys, especially for papers prior to 2002 and country case studies, can be found in Ahn (2002) and Nicoletti and Scarpetta (2003).

Table A1.1. **Selected cross countries studies on competition and economic performance**

Authors	Scope	Results
Nicoletti <i>et al.</i> (2001)	OECD countries	Anticompetitive product market regulations have significant negative effect on non-agriculture employment rates.
OECD (2003a)	OECD countries	Negative direct effect of product market regulations on productivity, whichever indicator is considered.
Bayoumi <i>et al.</i> (2004)	United States and euro area	Greater competition produces large effects on macroeconomic performance, as measured by standard indicators. It may also improve macroeconomic management by increasing the responsiveness of wages and prices to market conditions. Finally, greater competition can generate positive spillovers to the rest of the world through its impact on the terms-of-trade.
Bassaini and Ernst (2002)	OECD countries	Positive impact of deregulation on R&D activity.
Nicoletti and Scarpetta (2003)	OECD countries	Strict regulation hinders the adoption of exiting technologies, possibly by reducing competitive pressures, technology spillovers, or the entry of new high-tech firms. At the same time, by enhancing incentives and competitive pressures, both privatisation and entry liberalisation are estimated to have a positive impact on productivity.
Alesina <i>et al.</i> (2003)	OECD countries	Significant positive impact of regulatory reforms aimed at strengthening competition on investments in services industries like transport (airline, road freight and railways) and telecommunication.
Gual and Trillas (2004)	37 countries including 22 OECD countries	Positive effect of entry policies on network penetration and a negative effect of regulatory independence on productivity in the telecommunication sector, although the results are not always robust.
Scarpetta and Tressel (2002)	18 OECD countries	Anti-competitive product market regulations are negatively associated with productivity performances.
Bartelman <i>et al.</i> (2003)	10 OECD countries	Deregulation has a positive impact on the expansion of successful firms.

## *Annex A2*

### **Private core employment services in selected OECD countries**

This annex describes the design of the privatised regimes of core employment service – focusing on placement – that have been recently implemented in many OECD countries. A summary of the main assessments for countries where is available is also provided.

#### **Australia has developed the most competitive models for placement services...**

A contracting-out system, the Job Network, was introduced in Australia in 1998. The public one-shop for social benefits Centrelink takes care of the (tax-financed) unemployment benefit payments, profiles the job seekers and refers them to a private provider. The private providers are contracted by the Department for Employment and Workplace relations centrally, even though there are separate contracts for each of the 137 Employment Service Areas. Contract periods usually last around three years. The selection of providers is based on two criteria: the capacity to deliver services and the capacity to achieve outcomes. Prices are set administratively and are thus no selection criteria for new providers.

#### **... while reforms in most European countries have been more limited**

In most European countries (the main exception being the United Kingdom), the public employment service monopoly was abolished in the mid-1990s. However, competition between public and private provider is still imperfect: private providers often require a licence to operate and are subject to a number of regulations (Table A2.1).

Amongst the European countries, the Dutch model is certainly is more developed and has tended to a fully private market similar to the Australian system. The institutional design has been modified in 2003 and includes a general reallocation of responsibilities between the public and the private sector. Private providers are selected in a tender on the grounds of experience, offered outcome rate, price and methods. Providers offer a total price that consists of three parts: action plan, trajectory and post placement. The United Kingdom makes mostly use of contracting-out for large-scale projects. The more important is Employment Zones. It is focused on 13 areas with high unemployment rates and on long-term unemployment only.

#### **Evaluations are incomplete but seem to point to globally favourable outcomes**

In most countries, the lack of data collection, and sometimes the fact that the changes are too recent, render evaluation difficult. Some assessments have however been undertaken for Australia and the Netherlands, the two countries that have adopted the more competitive approach as well as for the UK Employment zones. The OBF pilot project has also been evaluated.

Table A2.1. **Private providers in European countries**

Country	End of public monopoly	Regulation
Austria	1994	Private providers must obtain a business licence and authorisation from the Federal Office for Social affairs. Only employers may be charged a placement fee.
Belgium	2003	Private agencies require a licence and can not ask or accept fees from job seekers.
Denmark	1990	The activity of private agencies is not subject to regulations
Germany	1994	Since March 2002, licences are not required but in most cases private providers can still not make job seekers pay for their services.
Finland	1994	The only restriction is that private providers may not charge employees for placement services.
France	2004 (but private providers existed before)	Private providers need a licence to operate and can not ask job seekers to pay for services.
Italy	1997	The Law was modified in 2001 and in 2003. All the private agencies are subject to the same rules, whatever their function on the labour market is. A licence is required to operate.
Netherlands	1998	Private agencies must obtain a licence before starting operations. The fees of private placement agencies are paid by employers.
Spain	1994	Non-profit private placement agencies are authorised. They need a licence and have many requirements in terms of information disclosure <i>vis-à-vis</i> the public PES.
Sweden	1993	Private agencies' services are paid by employers.
United Kingdom	Always existed	Since 1994, no licence given from the Ministry is required. Agency can not make job seekers pay for their services. The Minister determines their functioning rules.

Source: International reform monitor.

The key conclusions that emerged from these reviews are<sup>1</sup>:

- There is evidence that employment outcomes are higher under a contracting-out regime, but the difference with a traditional placement service is found to diminish overtime. Reductions in unit costs of employment assistance have sometimes been achieved. Competition has also foster efficiency and employers and job seekers' satisfaction is reported to have increased.

1. These conclusions are drawn using analyses from Brutel (2004), Johri *et al.* (2004), Ramasamy and Boer (2004), Productivity Commission (2002).

- However, there can be large variations in outcomes and results have been much less favourable for hard-to-place job seekers. Moreover, the strong focus on outcomes has also led to a decrease in schooling and training for the job seekers. Innovation by providers was limited.

Overall, while the outcomes plead for the use of private service delivery, care needs to be taken in the design of outcome-based frameworks. In particular, there should be mechanisms that ensure services are delivered equitably to all job seekers.

### Annex A3

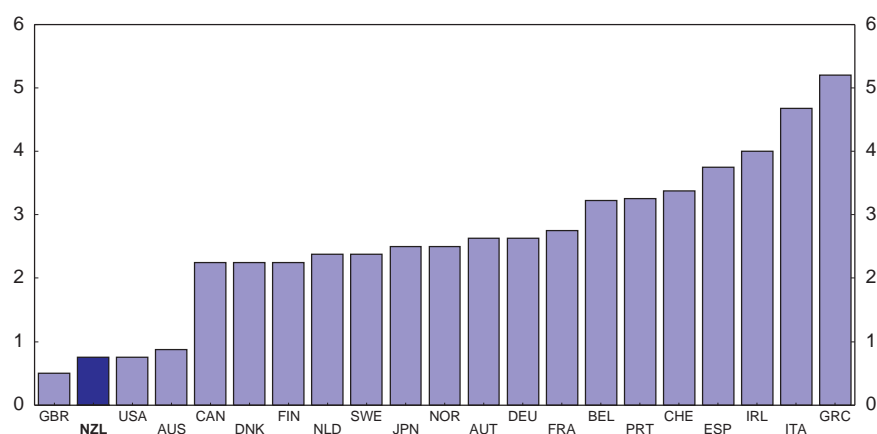
## State of competition and progress of reforms in selected sectors

### Transport

The transport sector appears to have been one of the least restricted amongst the OECD countries in the late 1990s, and the only major change since that period has been an increase in public ownership (Figure A3.1). This low level of restriction is the result of a series of reforms that started in the early 1980s:

- *Airlines:* Domestic air services have been effectively deregulated since 1983. In 1986, the overseas investment restrictions on foreign ownership of domestic airlines were lifted. New Zealand's three major international airports and a number of provincial airports have been progressively restructured as limited liability companies. In 1998, the Government's shares in Auckland and Wellington International Airports and some provincial airports were sold. By contrast, the government rescued Air New Zealand in 2001 and since then has been the principal owner of the company. Since the mid-1990s, open skies agreements have been reached with several partners, including the United States and Australia. In 2001 New Zealand initiated the first pluri-lateral open skies agreement (the Multilateral Agreement on the Liberalisation of International Air Transport includes the United States, Singapore, Chile, Samoa, Brunei, Peru, Tonga and New Zealand).

Figure A3.1. Restriction index in transport  
1998



1. Simple average of air, rail and road transport.  
Source: OECD, PMR database.

- *Railways*: In September 1993, the core business of the government's Railways department was sold to a consortium of New Zealand and overseas interests. In 2000 there was a significant restructuring of the business which included the outsourcing of core business functions, such as track and rolling stock maintenance. In 2003, the government concluded an accord with Toll Holding for access rights and investments on the network and it bought the infrastructure in 2004.
- *Roads*: In 1983 the Transport Amendment Act began deregulation in freight transport. The quantitative road transport licensing system was replaced by a qualitative system in 1984, and the 150 kilometres trucking restriction began to be phased out.<sup>1</sup> Entry to road transport became totally unrestricted in October 1986.
- *Shipping*: Cabotage on coastal shipping was freed up in 1995. Foreign vessels are also permitted to compete on the previously regulated trans-Tasman routes. The country has exemption for liner shipping price fixing arrangements, as is common elsewhere as well.

## Ports

Given the dependence of the New Zealand economy on trade, it is important to ensure that the port industry performs efficiently. Ports operate under both industry-specific and general competition laws. A number of individual ports are characterised by vertical integration of port companies into the provision of operational port services, but the latter arrangements can be justified by efficiency considerations. Overall, ports are generally competitive, and market power of individual ports is limited. NZ ports compare very favourably with their foreign counterparts on efficiency, prices and quality of services (Charles River Associates, 2002).

## Broadcasting

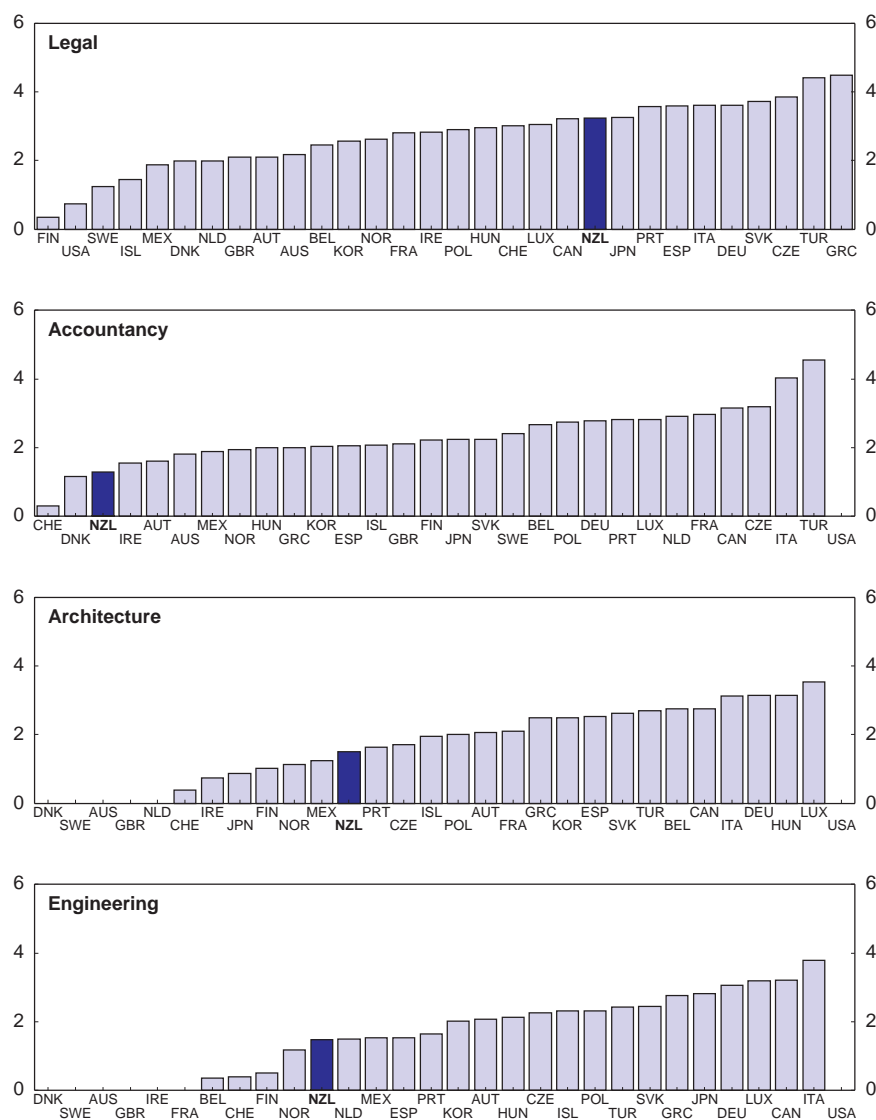
The broadcasting sector was restructured in the late 1980s and the 1990s with a number of privatisations and the removal of foreign ownership restrictions in 1991. Regulation is currently very light-handed, and the industry is to a large extent self-regulated by the relevant industry groups. Voluntary targets ensure that an increasing amount of local content – *i.e.* material that is both predominantly made in New Zealand and reflective of local identity and culture – is broadcast.<sup>2</sup> The promotion of Maori culture and language is obtained through the use of reserved licences. This differs strikingly from the use of compulsory quotas or foreign ownership restrictions in some OECD countries for cultural objectives. Moreover, New Zealand is now one of the only advanced country that does not have cross-media ownership restrictions. Standard competition rules for market dominance in the media sector are a safeguard against limiting the number of owners and voices in the media.

## Professional services

Restriction indices for accountants, architectural and engineering services suggest that New Zealand is one of the least restrictive countries in the world (Figure A3.2). Most of the restrictions are barriers to establishment, while barriers to ongoing operations are very low. The most common barrier to entry is a residency requirement.

- 
1. In order to protect railways against increasing road competition, a restriction on the length of the haul for road freight was introduced in 1936. This restriction, which applied to almost all goods, was increased to 150 kms in 1977.
  2. According to the Television Local Content Report, which is produced annually by NZ On Air, the major TV channels exceeded the agreed transmission targets for 2003. Radio broadcasters also collectively exceeded their target in recent years and appear to be on track for a target of 20% music content on NZ commercial radio by 2005.

Figure A3.2. Domestic restrictions in professional services<sup>1</sup>  
2003



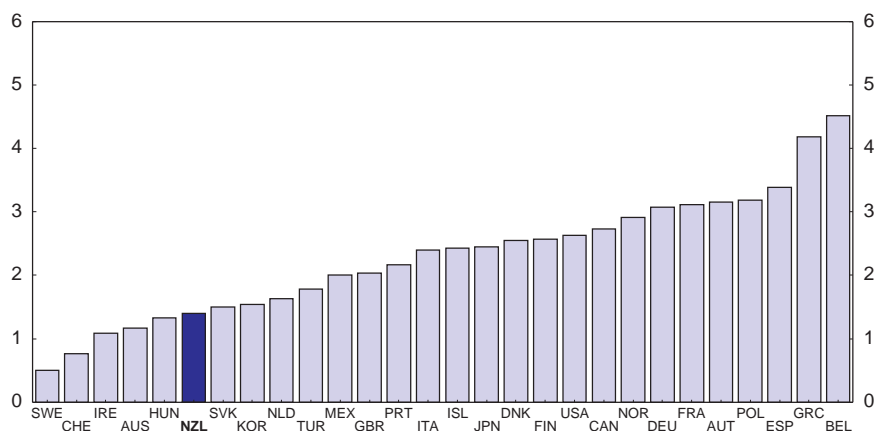
1. The restrictive index scores range from 0 to 6. The higher the score, the greater the restrictions. Source: OECD, PMR database.

## Retail trade

The retail sector is one of the most liberal in the OECD, with very few restrictions posing any risk to market entry (Figure A3.3). For instance, zoning regulation is much less stringent than in other OECD areas, there are no specific restrictions to the establishment of large outlets. Shop opening hours are among the least regulated in the world, and retailers can open at any time on any day except Christmas Day, Good Friday, Easter Sunday and Anzac Day morning.



Figure A3.3. Regulation in the retail industry in OECD countries<sup>1</sup>  
2003



1. The restrictive index scores range from 0 to 6. The higher the score, the greater the restrictions.  
Source: OECD, PMR database.

Progress toward an even more open trading environment is being made, and the few remaining restrictions are gradually being phased out. For instance, retail pharmacies were partially deregulated in September 2004, and new legislation removed the physical divide required when pharmacies operate within other stores. Moreover, the number of pharmacies that could be owned by one pharmacist was raised from one to five and the maximum shareholding a non-pharmacist can have in a pharmacy increased from 25% to 49%, while pharmacists can now invest in an unlimited number of pharmacies (as opposed to one before).

### Banking sector

Since 1984, the financial sector has undergone a process of comprehensive deregulation, in particular with the removal of interest-rate and other controls. The sector is currently very concentrated: 85% of the New Zealand banking sector is owned by four Australian banks. Despite these oligopolistic conditions, the sector does not seem to suffer from major lack of competition and contestability (Smith and Tripe, 2001). In particular, transparency in operations is sufficient; the regulatory requirements for operating a bank do not appear overly onerous; and many markets for borrowing and lending money seem to meet the workable competition standards (NZIER, 2002).<sup>3</sup> Since 2002, the presence of the Kiwibank, a subsidiary of New Zealand Post, is reported to have helped to lower fees and promote efficiency in the market according to the Reserve Bank (Marsh, 2005), even though it has a market share of less than 1%. This well-functioning nature of financial markets, along with the favourable macro-economic outlook, mitigate the risks of instability in the system in the event that one of the main banks were to close. These risks are estimated to be low in the short term (International Monetary Fund, 2004).

3. One area of concern could be that the credit card market could lack competition and the no-surcharge rule for credit cards may distort competition between alternative payments systems (NZIER, 2002; Chandran *et al.*, forthcoming). However, it remains uncertain whether these concerns are sufficiently significant to warrant intervention, and similar situations arise in many countries.

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