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IN THIS ISSUE

Property Rights and Regulation

Regulatory regimes may affect property rights in ways that have a substantial impact on economic growth and efficiency. But this point is often overlooked by politicians and regulators when they consider alternative approaches to regulation. The ISCR's Neil Quigley has been exploring the nature of property rights; and here he looks at the impact that regulatory choices may have on property rights.

EDITORIAL

PHOTO: IMAGE SERVICES

Neil Quigley is Pro Vice-Chancellor (International) and Professor of Economics, Victoria University of Wellington. He holds a PhD from the University of Toronto (1986) and is also a Research Associate of the Institute for Policy Analysis at the University of Toronto. Professor Quigley has an international reputation as a specialist in banking, insurance, and issues relating to regulation and competition policy. He has provided advice on strategy and policy, as well as litigation support to firms and officials in Australia, Canada, and New Zealand.

Politicians and regulators seldom appreciate the impact that their choices may have on property rights or, more importantly, on the link between property rights and economic performance (efficiency).[1] Regulation does not overturn ownership as it is popularly conceived, but it may have a dramatic effect on the bundle of property rights that provide the economic foundations of the concept of ownership and the incentives for the efficient use of an asset.

Ownership

All societies have a system of property rights – including mechanisms by which existing property rights can be enforced, existing property rights amended, and new property rights allocated.

The fundamental difference between different political and economic systems, as well as between alternative approaches to regulation, can often be most clearly encapsulated in the differences in their views about property rights. Such views include the relative distribution of rights between the state and private sector, and the sanctity of the rights allocated to the private sector.

Holders of property rights have defined rights to use a scarce resource. Property rights provide a basis for a common understanding of the rights of use and for legal enforcement of that understanding. The efficiency of investment decisionmaking is promoted by property rights, as these reduce uncertainty about the ability of an investor to appropriate the rewards from their investment.

Ownership may be defined to mean that a person or group of persons controls a significant bundle of property rights, including some of the following rights:

- to use the resource (to realise income or otherwise)
- to exclude others from using the resource
- to acquire any future property rights that might be associated with the asset
- to transfer control of this bundle of rights to others.

Each of these rights can, in principle, be separated from the others, and the alienation of some rights may not affect ownership as it is popularly (or legally) understood.

The ability to exclude or allow others to exercise the same right – simply by withholding or providing permission – may be the most fundamental right defining ownership, even when it is transferred. For example, a perpetual real-estate lease allocates a lessee use-rights over the land in perpetuity, but does not change the ownership of the land. Thus ownership is defined by the ability to own (or to trade for fair compensation) the right to use the land. It is not defined by the actual right to use the land in itself.

Uncertainty about the retention or enforceability of property rights reduces their value. More importantly, uncertainty about the retention or enforceability of property rights may have a dramatic impact on the efficiency with which resources are allocated by decisionmakers in society.

The impact of uncertainty will be greatest in respect of long-lived assets such as land and infrastructure, where the expected return *to page 2*

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required by rational investors may be substantially increased by uncertainty relating to the retention or enforceability of property rights. In the case of infrastructure, the cost to society may be increased by a common second-round effect of shortfalls in maintenance and investment resulting from uncertain property rights – that is, the view that further regulation, explicit government direction of investment, or (in the extreme) nationalisation, will be required to provide for appropriate levels of investment.

Where the alternative of providing secure and clearly defined property rights for private investors is feasible, it will certainly provide for greater efficiency than public-sector decision-making.

Efficiency

Economists have long recognised that property rights may be undermined by regulation. Thus, while it may have its origins in a desire to address perceived problems in the functioning of a market economy, regulation also has the potential to reduce efficiency. If the threat of regulation is present (and the history of regulatory enforcement suggests that confiscation of existing property rights is a likely outcome if regulation is imposed) then investment in new technologies, services, and infrastructure assets will be impaired. And if property rights are undermined by regulation, any short-term static efficiency benefits may be overwhelmed by welfare losses in the longer term.

The key difference between heavy-handed regulation and light-handed regulation is in its treatment of property rights. Light-handed regulation, through the use of generic competition law, preserves all legal property rights of the firm. Heavy-handed regulation on the other hand goes beyond restrictions on, and penalties for, the exercise of market power: it provides regulators with a mandate to 'promote competition'. While this mandate may be interpreted in a variety of different ways in different contexts, it is often interpreted as providing a mandate to confiscate the property rights of the regulated firm.

Regulated access to incumbents' facilities

Among modern approaches to regulation, the approach with the most significant but least recognised implications for property rights is the requirement for infrastructure assets to be shared with or leased to competitors at regulated prices.[2] As will be clear from the above discussion, this form of regulation amounts to a confiscation of the property rights providing for exclusive use – even though it does not overturn ownership as such.[3]

The introduction of such regulation in New Zealand and other OECD countries has rarely been associated with the payment of compensation appropriate to the property rights that are confiscated. So the regulated firm will not be indifferent between ownership of an asset for its own exclusive use and ownership of an asset that it may be required to share with or lease to others.

Indeed the absence of compensation may extend to regulatory prices for shared or leased use that fail to recognise certain risks and costs, which are: the risks carried by the regulated firm as the residual owner of a sunk investment in network infrastructure; and the costs associated with providing competitors with an option to use the asset (if it is attractive to do so) and to invest in their own network (if it is not). This will in turn deter the incumbent from making worthwhile investments and thus substantially impair dynamic efficiency.

Market power and property rights

Regulators confronted with concerns that their policies may adversely affect property rights have been known to observe that 'market power is not a property right'. This is, of course, correct in the sense that all serious economic analysis of property rights recognises that to be exercisable property rights must be legally enforceable.[4] The literature on the economics of property rights does not support the preservation of property rights associated with criminal activity. Nor does it support competition through means such as torching competitors' assets.

The regulators' observation, however, misses two important points.

First, the justification for mandatory sharing and leasing is the promotion of competition – whereas it is only the exercise of market power (not the possession of it) that is legally punishable under competition law. There is an important distinction between incentives associated with the imposition of penalties for illegal activity and incentives associated with the confiscation of an incumbent's property rights in an attempt to remedy states of the world in which competition is deemed to be inadequate.

Second, mandatory sharing and leasing of assets results in uncompensated confiscation of existing or future property rights; and thus it necessarily has implications for economic performance which must be built into any intellectually credible analysis of the costs and benefits of regulation.

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1 This article owes a considerable debt to Professor Harold Demsetz' outstanding article on 'Property Rights' in *The New Palgrave Dictionary of Economics and the Law* vol 3 pp144–155.

2 For the purposes of this article, I assume that the regulator can identify and implement the efficient price for sharing or leasing, although of course this assumption is unlikely to be validated in practice.

3 The same issues arise for access-regulation of land where 'investment' should be broadly construed to include environmental enhancement.

4 Property rights in illegal activities may be enforceable, but they are not legally enforceable. The value of these rights will thus be lower, reflecting the higher cost of illegal enforcement mechanisms.

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To *Speed*, or Not to *Speed*?

Speed limits serve an important purpose in helping keep our roads safe. But sometimes a little speeding goes a long way, says Richard Frogley.

Increased speed raises the risk of a vehicle being involved in an accident and, if an accident does occur, renders the vehicles' occupants more likely to die or be seriously injured. The effects of speed also extend beyond just the drivers who choose to speed and the passengers who choose to travel with them: vehicles travelling at higher speed increase the likelihood and severity of accidents for other road users.

In 2002, 404 people died in motor vehicle accidents in New Zealand, and a further 1730 were hospitalised for more than three days.[1] Almost all of these accidents could have been avoided by enforcing a low enough speed limit, say 20 km/h, but most motorists would agree that the inconvenience and costs of enforcing this would be too great a price to pay. Setting the speed limit is about striking the right balance between convenience and safety for all road users.

Setting a speed limit involves judgement. A reduced speed limit leads to fewer accidents, but it comes at a cost of increased travelling times and inconvenience.

At slow speeds, an increase in pace can create a big saving in travel time at minimal extra risk. When the initial speed is already high, however, travelling faster makes a much smaller impact on travelling times – but it can increase the chance of an accident dramatically. An increase in speed from 20km/h to 40km/h halves the time it takes to travel any given distance, at minimal risk in most circumstances. An increase in speed from 100km/h to 120km/h cuts travelling time by a sixth, but increases the risk of an accident significantly more.[2] The ideal speed limit is the point at which the benefits of travelling faster are outweighed by the costs of the extra risk created.

Of course, in reality, both the benefits and the extra risk of travelling faster depend on the particular situation. Ideally, the speed limit would reflect all factors that affect the risk of additional speed – driver experience, weather conditions, light conditions, time of day, traffic conditions, and the type and location of the road. The 'ideal' speed limit for a new driver on a wet day would be less than for an experienced driver on a dry day. But such a system is impractical to specify and enforce. So, with a few exceptions, speed limits generally vary only by the location of the road.[3]

A single speed limit also ignores the individual circumstances and urgency under which an individual may be travelling. For example, the law already allows an ambulance to speed in order to get to a heart attack victim who needs urgent medical assistance. Similarly, we allow a fire engine to speed in order to prevent damage to a warehouse full of valuable merchandise. Although all speeding involves some risk, in these circumstances the speed is justified by the benefits of arriving quickly. Similarly, there may be situations where a private citizen would obtain a large benefit if they travelled faster than the speed limit. One example might be a person running late for a flight to Los Angeles.

Without a speed limit, drivers take too little account of the costs their speed imposes on other road users and so they drive too fast.[4] This behaviour is discouraged by fining drivers who exceed some predetermined speed limit. But while the speed limit may be right on average, it isn't calibrated to every situation. Penalties for speeding should be high enough to discourage speeding, but not so severe as to discourage drivers who would benefit greatly from faster travel.[5]

The conclusion then is that, for motorists, speeding is sometimes efficient. Of course it's also efficient for the police car that catches you to pull you over and give you a ticket.

1 National totals from the Land Transport Safety Authority (www.ltsa.govt.nz).

2 Accidents that do occur are also more severe. According to the LTSA, death is twice as likely in a collision at 120km/h as at 100km/h.

3 One exception is the Ngauranga Gorge in Wellington, with electronic signs projecting a speed limit that varies with traffic and weather conditions (www.ltsa.govt.nz/publications/rsnz/2000/2000_nov_04.html). A simpler example is the special speed limit of 20km/h when passing a stopped school bus.

4 The current no-fault liability scheme exacerbates this problem and illustrates policy interdependence. A US study estimates that no-fault liability increases road fatalities by 6%. Applying this to New Zealand would suggest 24 additional road deaths in 2002. All things equal, higher speeding fines are efficient under no-fault liability.

5 Since risk increases more than proportionally with speed, so should fines (and they currently do so). Since penalties should be greatest when risk is greatest, demerit points for moderate speeding offences are questionable. Demerit points impose a greater penalty on frequent drivers, which is undesirable unless they are more risky per kilometre driven.

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Vive La Difference!

The relationship between Parliament and the courts has always been an interesting subject, at least since the end of the seventeenth century. The two bodies have different functions and a different place in our society – and the Rt Hon Sir Duncan McMullin, a former judge of the High Court and Court of Appeal, emphasises the need to preserve these differences.

GUEST ARTICLE

The separation of powers in both the United Kingdom and New Zealand subscribes to a form of government under which it is accepted that there are three main sources of governmental power – the legislative arm (Parliament), the executive arm (which includes Cabinet), and the judicial arm (the courts) – and that to concentrate more than one of these functions in a single body or person may pose a threat to democracy. This form of government reflects the separation of power which has long been the hallmark of the Westminster style of government.

Because government members in a modern parliament reflect the thinking of the Cabinet in its legislative programme, the separation between the Cabinet and Parliament is less distinct. But the division of function between the courts and Parliament and the courts and the Executive remains sharp.

The security and independence of judges from the Crown was established by the Act of Settlement passed in England in 1701. The same independence and security of tenure of office applies in New Zealand. A judge of the High Court and Court of Appeal can be removed from office only upon a resolution of Parliament on the grounds of the judge's misbehaviour or incapacity to discharge his or her judicial function.

PHOTO: IMAGE SERVICES

The bounds of criticism

This separation of powers has been observed in a number of ways. There is a convention that members of Parliament (MPs) and judges should not meddle in the functions of each other. This convention is one of long standing, although it has never been committed to writing. There is also a convention that judges should refrain from politically partisan activities and utterances, and that they should be careful not to take sides in matters of political controversy.

Members of the Executive, including the Cabinet, are expected to preserve a reciprocal restraint when commenting on the actions of judges, although, if they are criticised by a judge, they are not obliged to remain mute and, if a judge makes politically controversial remarks, a robust answer can be offered.

As individuals, backbench MPs are strictly not subject to the restraints that apply to ministers; but it is desirable that they should observe them.

There is a long-standing rule of the House of Parliament, Standing Order 114, which provides that an MP may not use offensive words against Parliament or against any member of the judiciary. There are good reasons for this convention: the courts and the judges are one of the primary defences for the individual against the arbitrary and autocratic exercise of power. If politicians are to establish a practice of making attacks on the judiciary, or making statements that judgements of the courts will be disregarded, eventually they may diminish the authority and standing of the courts.

Ministerial criticism can also place the courts under unfair and improper pressure to make decisions which conform to such pressures. While one is confident that judges are able to resist such pressures, it is intolerable that such pressures should be applied at all.

Unfortunately, these conventions have not always been observed by ministers of the Crown in New Zealand. One can only assume that they did not know of them; or, if they did, that they chose to ignore them. Criticisms of the courts and of judges are not infrequently made in Parliament. Fortunately, however unfair the criticisms may have been, judges have not demeaned themselves by answering them.

There is nothing, nevertheless, to prevent members of the public criticising the courts provided that they abstain from imputing improper motives to judges and that they do not themselves act from motives of malice. As long ago as 1936 the Privy Council, in making this point, said: 'Justice is not a cloistered virtue; she must be allowed to suffer the scrutiny and respectful, even though outspoken, comments of ordinary men.'

Nearly 70 years on, criticisms by the public seem to be the order of the day. This is not surprising – particularly in the area of the sentencing of offenders where society is not always agreed on what should happen to persons

convicted of criminal offences. Some members of the public press for sentences that 'fit the crime'; others favour restorative justice.

Public criticism in this area is legitimate. But it should always be remembered that the judge who tries the case and sentences the offender will have a far greater knowledge of the relevant circumstances and the individuals involved, both victim and accused, than members of the public whose knowledge is generally limited to what they hear or read through news media accounts, often necessarily abbreviated and sometimes quite sensationalised.

Moreover, if a judge is wrong in a sentence imposed, that sentence can be appealed against – by either the offender or the Crown, or by both.

Parliamentary sovereignty

Parliament, it has been said, can deem black to be white and white to be black for the purposes of a statute. If it does so, however unrealistic this may seem, the courts can do nothing about it. This sovereign power of Parliament arises from the fact that any Act of Parliament requires the assent of the Queen or her representative and so a statute, once enacted, is deemed to be speaking in the Queen's name. Accordingly, if the courts decide a case in a particular way, Parliament can pass legislation to prevent a similar decision being given in any future case dealing with similar facts. This has long been accepted.

It has been said that the willingness of judges in our system to accept without question the authority of a controversial Act of Parliament means that the judges are subordinate to Parliament. This is not so in the United States, where statutes can be struck down as unconstitutional. But in New Zealand it is for Parliament alone to decide what legislation will be passed.

However, once a political decision has been made in favour of a change in social or economic policy, and that decision has been expressed in legislation, it is for the judges alone to decide on the extent of the rights and duties which the legislation creates.

Making the law

It follows from this that Parliament is the only legislator. But from the moment Parliament has expressed its will in a statute, that will becomes subject to the interpretation put on it by the judges.

It is a matter of record that a great deal of the law of this country has been made in this way by the courts. Judges make law whenever they decide cases under various statutes; they flesh out the bare bones of the statute. This is not surprising because Parliament simply cannot provide for every contingency or factual situation with which a court may be confronted in the cases in which a particular statute comes to the courts for decision.

Apart from the law made by judges in interpreting statutes, much of the law of this country finds its source in the common law – that is, law which has been made by judges in the courts over the centuries and developed and reshaped to meet new and changing situations. Even some of the statutes passed by Parliament do no more than gather up in a code the common law as it has been developed over centuries in the courts. New Zealand's Crimes Act 1961 (NZ) is an example of this. A famous English lawyer, Sir James Stephen, was commissioned in the nineteenth century to produce a New Zealand criminal code to be enshrined in a statute. He produced a code which later became the Crimes Act 1908 and later the Crimes Act 1961. Oddly enough, the English did not adopt this code and some of the English criminal law is still founded in the common law.

So it is wrong to say, as parliamentarians sometimes do, that judges do not make the law; that they only declare it. Judges have long since been effective lawmakers and will continue to perform this function.

A further point should be made about the lawmaking powers of Parliament. It is that the right to make laws rests with Parliament and not with the Cabinet or any minister of the Crown. The late Sir Robert Muldoon learned this to his cost in 1973. When the National Government was elected in 1972 Sir Robert, without parliamentary backing, announced that employers need no longer make any contributions to the superannuation scheme then in force. This action was challenged in the courts. The Chief Justice at the time, Sir Richard Wild, held that Sir Robert's action was in breach of the Bill of Rights 1689 and therefore invalid. Legislation suspending the operation of the Superannuation Act had later to be passed by Parliament.

Finally, and contrary to the claims of some MPs, Parliament is not the highest court of the land. Nor, indeed, is it a court in the accepted form. It does not act on legal principles; it is

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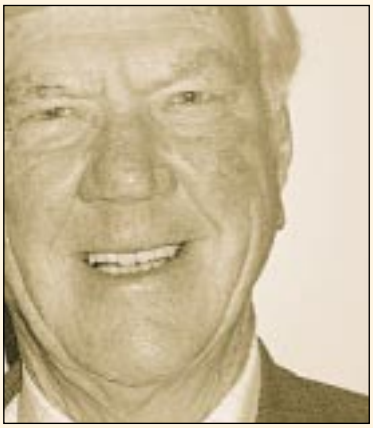


Sir Duncan McMullin was educated at the Auckland Grammar School and the University of Auckland. He practised in Hamilton as a barrister and solicitor for fifteen years and as a barrister for five years. He was appointed as a judge of the Supreme Court (now the High Court) in 1970 and as a judge of the Court of Appeal in 1979. He was made a Privy Counsellor in 1980; he was knighted in 1987 and sat on the Privy Council for a term in that year. Sir Duncan retired from the Court of Appeal in 1989. Since that time he has acted as an arbitrator and mediator in commercial disputes. He has also been chairman of the Wanganui Computer Centre Policy Committee, and chairman of the New Zealand Conservation Authority. Since 1996 he has been chairman of the Market Surveillance Committee of the New Zealand Electricity Market.

Courting the Environment

The Environment Court is a critical component of New Zealand's institutional structure for allocating resources and managing conflicting demands. It plays a pivotal role in the framework for establishing property rights (such as consents and appeals relating to plans) and impingements on those rights (such as appeals relating to individual resource consents). Over time, Environment Court decisions provide both incentives and information to those who manage resources. Richard Hawke from Victoria University's Earth Sciences here follows on from his earlier article (in *Competition & Regulation Times* April 2003) and describes outcomes and processes of Environment Court decisions.

The Environment Court explicitly adjudicates between competing uses of resources. These are not one-off decisions but are repeated in principle. From October 1991 to the end of May 2002, the Environment Court and other courts (for example the High Court) made 4986 decisions related to environmental law in New Zealand. Two important subsets of these decisions were: those cases referring to Section 120 (the section of the Resource Management Act which relates to resource consents); and cases referring to the First Schedule Clause 14 (the section which relates to council plans).[1]

Environment Court cases are filed in Auckland, Wellington, or Christchurch. These three centres maintain separate registers which, from 2001 and 2002, allow an approximate indication of the time taken from filing to determination. A large proportion of cases (53%) take at least two years for determination. To understand the time involved, it is important to assess what type of cases are lodged, what type of cases go to trial, and what happens at trial. This information reflects and influences both plaintiff and defendant behaviour, and also the processes of the court.

Effects on case resolution

Plaintiff win-rates at trial have been used, together with the percentage of filed cases actually proceeding to trial, to interpret the ability of parties to assess the quality of their case and the likelihood of winning.[2]

Prior to litigation, the settlement process acts as a filter on filed cases: a case avoids litigation and is settled if the plaintiff's settlement demand is less than the defendant's offer. According to Department for Courts' records, 4108 'Section 120' cases have been filed and only 1904 (46%) actually went to trial; whereas 3406 'First Schedule Clause 14' cases were filed and only 1088 (32%) went to trial. Hence the court may be suffering a backlog of cases because many of the cases filed never appear in front of a judge for determination. The extent to which this is a problem depends on whether the backlog has severely altered the number of cases filed and the outcomes of cases.

Resource-consent cases

The total number of resource-consent cases ('Section 120' cases) over the period was 1397. The number and the type of case decided each year has been variable (Figure 1).

On average over the period, 60% of resource-consent cases were classified as consent issues; in any one year, however, the figure varied between 45% and 80%. Interestingly, the number and percentage of procedural cases (approximately 25%) has remained high.[3]

Almost all the appellants were individuals (50%) or businesses (43%) and in almost all cases (1367 out of 1397 cases) the respondent was a council (Figure 2).

The outcome of each of the resource-consent cases was categorised as 'win', 'loss', and 'win with conditions imposed by the court'. Of all cases, only 5% to 13% in each year (9% on average) were actually 'won' by the appellant. However, an additional 14% to 38% (28% on average) were 'won with conditions imposed by the court' (Figure 3).

In cases involving points of procedure, there was not really a winner – and so the actual number of such cases 'won' by appellants is

Figure 1: Number of resource-consent cases decided each year, by case

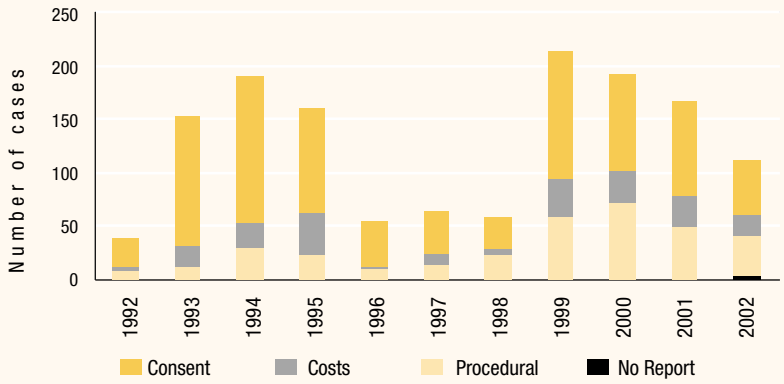
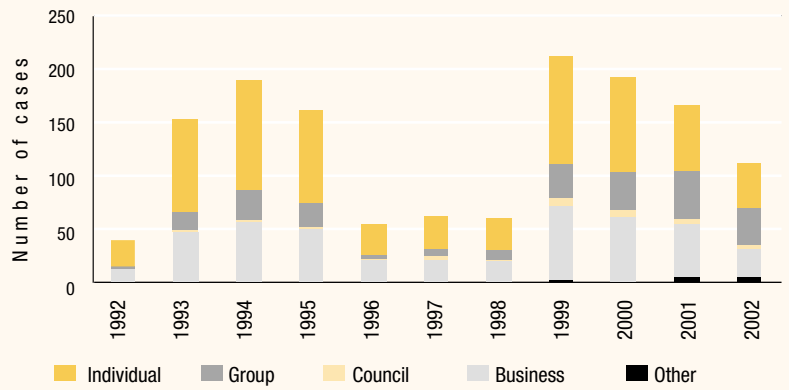


Figure 2: Number of resource-consent cases decided each year, by appellant type

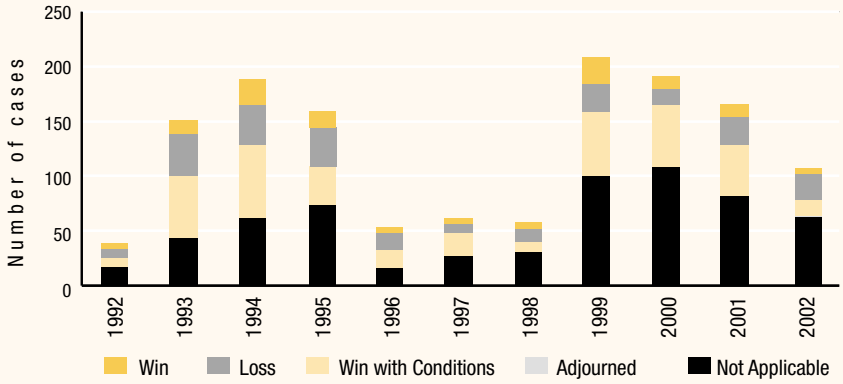


difficult to quantify and has been noted in Figure 3 as 'not applicable'.[3]

There were 211 cases decided in Auckland that could be categorised as 'win', 'loss', or 'win with conditions' (46% of all cases there). In Wellington, the number was slightly higher: 219 cases (51%). Christchurch's was higher still: 326 cases (67%).

In Auckland, 21% of the cases that could be categorised were 'won'; in Wellington the figure was 20%. But only 12% of such cases in Christchurch were 'won'. Similarly, there was variation in the percentages of such cases 'lost': 45%, 42%, and 17% for Auckland, Wellington, and Christchurch respectively. In Christchurch the vast majority of cases (71%) were 'won with conditions imposed by the court'.

Figure 3: Number of resource-consent cases decided each year, by outcome



Council-plan cases

The total number of council-plan cases ('First Schedule Clause 14' cases) over the period was 699. The majority of these cases (68%) were plan changes sought by a council, but there was also a significant number of cases involving points of procedure.

The distribution of council-plan cases across the three main centres was quite different from that of the resource-consent cases: for Auckland, Wellington, and Christchurch the numbers were 191, 125, and 366 respectively.

The outcome of each of the council-plan cases was categorised into 'won', 'won with conditions imposed by the court', 'won by consent between the parties', or 'lost'. Only 9% of the cases were actually 'won' by the appellant (which is the same percentage as for resource-consent cases). Another 9% of cases were 'lost'. The majority of cases (48%) were 'won by consent between the parties'. Thus, in most council-plan cases, the result was a change in the plan – either because the case was won or because the situation was resolved between the parties.

Towards a verdict

The considerable length of time taken for cases to be determined, and the high percentage of cases determined after negotiation by the parties or conditions imposed by the judge, represents a half-way house between pure adversarial and consensus regimes.

The pure 'consensus' approach has problems associated with it. The first problem is one of definition: what is consensus? It has been called 'whatever you can get away with', and it certainly can be a definitional morass. Second, it may not be easy to obtain effective participation because of the nature of the different parties and the costs of their participation. Third, the differences between the parties in many environmental conflicts may be so great, and the common ground so small, that the process is very slow and the potential for manipulation, abuse, and co-optation is high.[4]

From an environmental point of view, it is not clear that mediation will yield long-run positive benefits: mediation often involves 'give' on both sides – and so the possibility of incremental decline in environmental quality may be higher than under a winner-take-all adversarial system.[5]

Cases under the Resource Management Act (RMA) have particular characteristics. The existence of multiple parties may make it difficult to reach a negotiated settlement, especially for parties who have repeat applications. The Act's open and relatively new process admits those with limited understanding and makes it difficult to estimate 'case quality'. There is also an unequal balance between what the plaintiff would gain and what the applicant would gain following the judgement (especially as the onus is on the applicant). Furthermore, parties' trial costs are unequal.

The structure underlying the RMA attempts to strike a balance between decentralised decisionmaking and centralised planning. A decentralised approach that combines issue-specific legislation with an ad hoc approach to what is permitted is undesirable as a mechanism. On the other hand, a centralised process that encourages each resource-management decision to be a one-off game does not lead to optimal outcomes – nor does it fit well with the complex linkages evident in the environment.

What is needed is a decisionmaking process that can obtain efficiency gains from being able to accurately measure demand while ensuring that the value of options and alternatives are systematic, considered, and acted upon.

The RMA includes references to mediation (Sections 99 and 268); and at trial the Environment Court emphasises solutions modified by conditions in a way that mimics mediation. While this process is time consuming, it does provide for external effects to be considered systematically in a process that enables decentralised decisionmaking by firms, individuals, or local organisations. The trick will be for the process to learn from its experiences, and to evolve into one that demands fewer resources.

1 The recently released Ministry for the Environment report *Reducing the Delays – Enhancing New Zealand's Environment Court* has highlighted the Environment Court's increasing workload and the time taken for case determination. The analysis was largely qualitative, not quantitative.

2 J Waldfogel. 1995. 'The Selection Hypothesis and the Relationship between Trial and Plaintiff Victory' *Journal of Political Economy* 103(2) pp229-260.

3 Understanding this is a matter of ongoing work.

4 D Pellow. 1999. 'Negotiation and Confrontation: Environmental Policymaking through Consensus' *Society and Natural Resources* 12 pp189-203.

5 P Kahn. 1994. 'Resolving Environmental Disputes: Litigation, Mediation, and the Courting of Ethical Community' *Environmental Values* 3 pp211-228.

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If the River runs Dry...

PHOTO: NICK SERVIAN/PHOTONEWZEALAND.COM

As populations grow and demand for clean water increases, the allocation of scarce water resources becomes an increasingly important task, even in New Zealand's relatively water-rich environment. In the first of a series of articles on water, Kevin Counsell wades straight into the deep end to review water-allocation practices both here and overseas.[1]

Water in New Zealand is generally considered to be abundant. Indeed, many areas receive comparatively high rainfall and there are numerous lakes, rivers, streams, and underground aquifers throughout the country. But rainfall is not evenly spread – neither geographically nor throughout the year. In addition, growing population and income has resulted in increased demand and competition amongst users, and this puts an increasing strain on New Zealand's water resources.

Recent examples are everywhere: the Auckland water crisis in 1994; the drought affecting farms and vineyards in Marlborough in 2001; the effect of low lake-inflows on the generation of electricity in 2001 and 2003; and the growing competition, between irrigation and hydro-electric generation uses, for Waitaki River water in South Canterbury.

These examples are part of a similar trend worldwide. They lead to the simple conclusion that effective management and allocation of water is, increasingly, a vital part of a well functioning economy.

Many other countries have developed or are developing methods to deal with the problems arising from increasing competition for water resources. The key aspects of many of these arrangements are: the way that rights to use water are defined and allocated between competing users; and the institutions that are put in place to enable wise allocation.

New Zealand's approach

In New Zealand the right to take or use water is defined by a process legislated by the Resource Management Act (RMA).

Regional councils and unitary authorities are the key institutional players in the allocation of these rights. They set out plans which guide the granting of resource consents to take or use water (water rights). In order to gain a water right, a potential water user must undergo a rigorous process which includes consulting with affected parties and ensuring that the use or taking of water has no significant adverse effects on the environment.

A major problem with this process is that water rights are allocated on a 'first-in first-served' basis. The first user who can satisfy any objections to their water right (and prove there are no adverse environmental effects) will be granted a water right despite the competing claims of other potential users.

Why is this a problem? Well, turning to economics terminology, the 'first-in first-served' allocation does not achieve allocative efficiency. This means that, when water is allocated to the first user to apply for the water right, it is not necessarily allocated to a use that has the highest value to society. It is possible that the user is taking the water away from a use which is more 'worthwhile' (in terms of the value of that use to society).

The 'first-in first-served' approach could be significantly improved if there was some mechanism that allowed water users to trade their allocated water rights. In this way, initial allocations would be of lesser importance and water rights could be shifted to higher-value uses. While the RMA does allow water rights to be traded within the same catchment, there are significant barriers to trading water in New Zealand – such as granting water rights for specific uses, and water users retaining their option to use water at a future date (by holding on to their water right rather than trading it).[2]

Other approaches

Water is considered a precious commodity in drier countries such as Australia and the western regions of the United States. As a result, these (and other) countries have developed approaches for dealing with issues similar to those being experienced in New Zealand. Such approaches include ensuring that water rights are well-defined, and reducing barriers to the trading of water rights. There is also a move towards developing institutional arrangements that facilitate investment in water-supply assets.

Australia, for example, is currently in the midst of a period of significant reform of its water sector. According to a recent issue of *The Economist,*[3] Australia 'takes the top prize for sensible water management'. Initiatives introduced by Australia's reforms include separating water rights from land rights, and allowing the trading of water rights. Trading in Australian water markets has allowed water to be moved to irrigators who produce higher-valued crops, and to irrigators who have more efficient irrigation technology.

Australia has also reformed the institutions underlying its water sector. There is now a clear separation between the role of managing and allocating water, and the role of actually supplying water to its final users. Government organisations were responsible for both roles in the past: now they are split into government departments that allocate water rights, and institutions (typically government-owned corporations) that supply water to household, industrial, and commercial users.

England and Wales took this approach one step further in 1989, when water suppliers were fully privatised. There are now around 25 private companies supplying water to final users, and they face stiff regulation of prices and anti-competitive behaviour. The privatisation system has resulted in improvements in water quality, water-supply infrastructure, and delivery services – improvements that have been accompanied by significant price increases. Such price increases are not necessarily a consequence of privatisation, however. Scotland, for example, has had to raise prices above those in England and Wales in order to improve its water-supply services, despite its services being provided by a government-owned utility.[4]

Water reform is not confined to western countries. Chile has been a world leader in deregulating its water sector and allowing the market to allocate its water resources. Some have argued, however, that Chile has allowed its water sector to become a little too 'free' and has overestimated the benefits that markets can deliver.[5] Water rights in Chile are free to acquire and may be transferred regardless of the effect the transfer has on other water users. Rights also have no expiry or renewal date, and holders have no obligation to use the water that they are entitled to.

The way that water rights are defined is also an important feature of many overseas water sectors. Water is a particularly uncertain resource, subject to the whims of the weather; other countries have found ways to deal with this uncertainty and give water users more security. For example, in Colorado, water rights are defined in a priority system by the date of the water right. The first user to obtain a water right is granted high-priority status and is able to extract water in times of scarcity, but lower-priority water users must cease their extractions. This approach, combined with a market that allows users to trade different-priority water rights, enables water users to manage the risk associated with water uncertainty while still ensuring allocation to the most highly valued uses.

Lessons for New Zealand

Obviously New Zealand is not Australia, England, Chile, or Colorado in either its water or legal and institutional characteristics. So it is wrong to assume that the right framework for water allocation in New Zealand can be found by replicating other countries' arrangements. Yet these countries illustrate that there are some basic principles of good water-management that could improve New Zealand's current system.

Freeing-up barriers to the trading of water rights and allowing markets to develop is one basic principle. As markets mature in other countries, they are beginning to generate benefits to water users. Although the implementation of water markets can be difficult, markets would help New Zealand solve the problem arising from the failure of the 'first-in first-served' mechanism to allocate water to its highest-valued use.

Establishing effective institutions is also an important part of an efficient water sector. Many countries have been reluctant to follow England and Wales in implementing full-scale privatisation, and it is likely that privatisation would be controversial in New Zealand. Nonetheless, other arrangements (such as setting up Local Authority Trading Enterprises or franchising water-supply services out to private enterprise) may be feasible and, on the evidence, desirable.

Ensuring security of supply is also important. Prioritising water rights allows users to manage the risk inherent in an uncertain resource like water. It also gives users security – they know that the water will be available and hence they are able to make long-term investment decisions based on this knowledge.

While New Zealand does not have the water-scarcity problems of other countries, we still need to manage this precious resource carefully to the best advantage of society. We can learn from international experience by developing both effective institutions and ways to define and allocate water rights.

Water allocation is not a problem that will simply solve itself. New Zealand needs to start working towards a more effective framework for the water sector – so that, if the river runs dry, we won't be left thirsting for our most precious natural resource.

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1 A full version of a paper on water-allocation practices is available on the ISCR website (www.iscr.org.nz).

2 A number of barriers to the trading of water rights were identified in: Lincoln Environmental. 2001. *Attitudes and Barriers to Water Transfer.* Ministry for the Environment (http://www.mfe.govt.nz/publications/water/attitudes-and-barriers-to-water-transfer-dec01.pdf).

3 John Peet. 'Liquid Assets' in 'Priceless: A survey of water' *The Economist* July 19th-25th 2003 pp13-15.

4 John Peet. 'Private Passions' in 'Priceless: A survey of water' *The Economist* July 19th-25th 2003 pp5-6.

5 For example: Carl Bauer. 1997. 'Bringing Water Markets Down to Earth' *World Development* vol 25 no 5 pp639-656.

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FREE ISPs:
Another Battle in the Wired Wars

The New Zealand telecommunications experience to 2001 uniquely illustrates the process of competition in a network-services market characterised by technological change and minimal regulation. Annemieke Karel analyses the episode of free internet services in the context of strategic interaction between telecommunication operators.

The brief history of New Zealand's free internet service providers (ISPs) is a story of regulatory constraints and contractual choices in a dynamic economic environment.

During the 1990s the face of telecommunications was changed: new technology provided new uses, as well as different applications of old uses (for example, in voice communication). In particular, the growth of the internet between 1994 and 1999 took many players by surprise. Such changes increased competition; they also increased the need for networks to interact. And such was the speed of change that its effect could not be anticipated by any player.

In New Zealand, telecommunications regulation requires the incumbent operator to offer free residential local calls; and local calls tend to originate on the incumbent's network. Many of these calls, however, terminate on competing networks.

The interconnection agreement

The substantial growth in minutes-of-use during the 1990s led to increased demand for interconnection among network operators. For this reason, and to reduce the risk and uncertainty stemming from lack of information about the future in the face of rapidly changing technology, the main network operators entered into interconnection agreements. A five-year interconnection agreement between the major players determined that networks charged each other a certain sum per minute for terminating calls that originated on the other's network.

Under this arrangement, however, the parties faced the risk that unforeseen future developments such as new pricing regimes or technological changes could cause the contract to turn out disadvantageous to them. One way in which the parties could reduce this risk was to breach the

contract by credibly claiming a violation of the 1986 Commerce Act.[1] Indeed, only months after signing its interconnection agreement with the incumbent Telecom, one of the competing networks (Clear) started to withhold payments: it claimed that Telecom's discount regime was in violation of the Commerce Act.[2]

Exploiting the margin

During the dispute, the surge of internet traffic increased the number of one-way calls from (mainly) households to the network where their ISP was located. This created an arbitrage possibility that could benefit the competing network: by stimulating one-way traffic from the incumbent network to their networks, competing networks (mainly Clear) could gain additional interconnection-termination revenues.

One option was for competing networks to convince ISPs to operate on their networks (rather than on the incumbent's) by offering them part of the additional interconnection-termination revenues. And this was what happened. Provided with such a financial incentive,[3] the ISPs stimulated the amount of one-way calls from households on Telecom's network to the ISPs located on the competing networks. The termination revenues received by the competing networks and assigned to ISPs encouraged the latter to offer free internet services – and so led to the emergence of so-called 'free ISPs' such as I4free, Zfree, and Freenet. This in turn attracted more customers – that is, more one-way calls – and more revenues.

Such arbitrage possibilities are limited to the time period covered by the interconnection agreement. As soon as the agreement ends and the incumbent is no longer required to pay termination fees to competing networks, the ISPs lose their main source of income and are consequently no longer able to offer free internet services.

In New Zealand, however, the heavily paying incumbent (Telecom) decided not to wait until the end of the agreement. Instead, it created a special-access package that provided strong financial incentives for ISPs to buy a Telecom access number within a certain number range (all

cont'd from page 10 starting with a given prefix, in this case 0867). That number range was excluded from the interconnection-termination payments regime, because all calls within it originated and terminated on Telecom's Intelligent Network.[4]

The longer-term outcome of this experience was an agreement to establish 'bill-and-keep' arrangements, where one network did not charge another for terminating calls.

Creative destruction

The 'free ISPs' episode illustrates the dynamic force of competition: both Telecom and the competing networks were able to find ways of benefiting from a rapidly changing environment.

Despite the apparent turmoil, customers continued to be served. Indeed, the effect of the interconnection agreement on cost structures – and its effect in creating 'free ISPs' – are likely to have enhanced consumer welfare.[5] It is to be hoped that there is room for this sort of 'contractual' competition in the more highly regulated telecommunications industry we now have.

1 L T Evans and Neil C Quigley. 2000. 'Contracting, Incentives for Breach, and the Impact of Competition Law' *Journal of World Competition* 23(2) pp74-79.

2 It is still not certain which contractual provisions constitute a breach of the Act and what behaviour would be held by the courts to be anti-competitive.

3 The revenues received by some free ISPs amounted to approximately NZ$500,000 per month (W Toddun, personal communication, 22 November 2002).

4 Some doubt the legality of these actions, and aspects of them are before the High Court.

5 A Karel. 2003. *The Development and Implications of Free ISPs in New Zealand.* Institute for the Study of Competition and Regulation (http://www.iscr.co.nz/documents/free_isps.pdf).

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If the NZRFU study concludes that privatising the Super 12 teams would provide tangible benefits, however, then the form of ownership matters. Private ownership by rich individuals is clearly inferior to share ownership.

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guided by the political thinking of the day. Therefore it is quite wrong of MPs, when they enact legislation which effectively alters the law as interpreted by the courts, to claim that they are entitled to do so because Parliament is the highest court in the land. It is not.

This point may be no more than an academic one. But the danger is that if the public come to believe that Parliament is the highest court in the land, they may also think that a statute which interferes with a decision of the courts in a particular case is simply a revision of an incorrect decision by an allegedly higher judicial authority – that is, Parliament – rather than an act of pure legislation. In passing legislation which makes the law as declared by the courts inapplicable in the future, Parliament is not acting as a court. It is acting as a legislative body.

Getting the balance right

There is no need to seek a contest between Parliament and the courts. What is desirable is a relationship in which each recognises the place of the other.

Such a relationship is not likely to be fostered by the passing of legislation which interferes with existing judgements reached through the courts' application of legal principles, or which effectively precludes citizens from resorting to the courts to have a dispute decided on its merits and according to legal principles. Nor is it likely to be fostered by criticism of court decisions made because they do not reflect the thinking of an individual MP or the party he or she represents.

As Professor L Jaffe, in *English and American Judges as Lawmakers*,[1] has said: 'Courts and legislatures are in the law business together and should be continually at work on the legal fabric of our society.'

There is a place for each. There is little point in constitutional sparring for positions of strength or advantage, an activity in which the public will find neither amusement nor satisfaction.

1 Louis Levethal Jaffe. 1969. *English and American Judges as Lawmakers.* Clarendon Press, Oxford.

THE RUGBY SALES PITCH

The New Zealand Rugby Union, according to a recent report, is thinking about privatising the Super 12 teams. John McMillan, currently at Stanford University's Graduate School of Business, ponders this news from an international perspective.

Pele, the great soccer player, a few years ago campaigned for a change in the ownership of Brazil's soccer clubs. The owners ran the clubs as their personal fiefdoms. Corruption was rife. There were accusations that the clubs bribed referees, and even that the clubs were conduits for laundering the profits from drug trafficking.

Despite Pele's prestige and position – he was at the time the Minister of Sports – the clubs mustered enough support in the Congress to kill his proposed reforms.

Now the New Zealand Rugby Football Union (NZRFU) is hoping to privatise the Super 12 teams. In what would be the biggest shake-up of rugby's administration since the game turned professional in 1995, the NZRFU envisages selling the teams for $5 million to $8 million each. If it comes about, this proposal will bring to New Zealand rugby what is in effect Brazil-style ownership.

Private ownership of sports teams is the norm in the United States. The experience there, while less extreme than in Brazil, does not exactly provide a strong case for having teams owned by millionaires.

The system works to the advantage of no one but the owners. The fans suffer. Players are bought and sold with no regard to fan loyalties, and teams move from city to city at the owners' whim. Coaches, fearful that they will be fired if their team suffers a few losses, impose risk-free boring tactics.

The team owners play their cards close to their chests. They are reluctant to reveal their revenues, for fear of weakening their bargaining position vis-a-vis player salaries. Secrecy is needed also for their dealings with the cities in which they operate.

In 1991 the Texas Rangers baseball team, recently acquired by a new set of owners, threatened to move out of the city of Arlington (thus ending baseball there) unless the city built a new taxpayer-funded stadium and granted the team the rights to use it in perpetuity. The city caved in, increasing its sales tax in order to generate the US$191 million to pay for the stadium.

One of the owners, having paid US$600,000 for his stake, sold it for US$15.4 million. This happy owner was budding politician George W. Bush.

In England, the elite rugby clubs are owned by millionaires. The outcome is hardly an advertisement for privatisation.

The club owners have engaged in nonstop bickering with the Rugby Football Union, England's governing body. Most of the clubs are reportedly not covering their operating costs – because, they claim, of the high salaries they are paying their players. This would seem to be an admission of their own business ineptitude.

Public ownership – a better model

A better model for team ownership than English rugby, arguably, is English soccer. About 19 English soccer clubs are stockmarket-listed companies. The shares in teams such as Manchester United, Tottenham Hotspur, and Newcastle United are publicly traded.

Fans can, if they wish, buy a piece of their club. This gives them a say in its running. More important, the listing requirements of the stock exchange create transparency. Management must provide investors with reliable information about the company – information that is unavailable in a privately held company.

In the United States, the National Football League does not allow clubs to be publicly traded. Ostensibly this prohibition arises from a fear that share-owners will be more interested in profit than on-field success. But the real reason, probably, is a fear of transparency.

Pele's proposed remedy for Brazilian soccer's ills was public ownership, which he believed would bring better management.

The NZRFU is to be applauded for engaging in the current wide-ranging investigation of its organisational structures. It is timely to make a detailed study of rugby's administration – both its problems and its opportunities.

But the current system of community-based teams has served New Zealand well over the years, and should not be discarded lightly. It is more oriented to regional communities than privatised teams probably would be. It is doing a good job of fostering young talent.

To judge by their on-field performance – seven championships out of eight have been won by New Zealand teams – the Super 12 teams are being run effectively.

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