

Frances, Jane

Working Paper

Institutions, Firms and Economic Growth

New Zealand Treasury Working Paper, No. 04/19

Provided in Cooperation with:

The Treasury, New Zealand Government

Suggested Citation: Frances, Jane (2004) : Institutions, Firms and Economic Growth, New Zealand Treasury Working Paper, No. 04/19, New Zealand Government, The Treasury, Wellington

This Version is available at:

<https://hdl.handle.net/10419/205559>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



<https://creativecommons.org/licenses/by/4.0/>



Institutions, Firms and Economic Growth

Jane Frances

NEW ZEALAND TREASURY
WORKING PAPER 04/19

SEPTEMBER 2004



THE TREASURY
Kaitohutohu Kaupapa Rawa

**NZ TREASURY
WORKING PAPER
04/19**

Institutions, Firms and Economic Growth

MONTH/YEAR

September 2004

AUTHOR

Jane Frances
PO Box 3724
Wellington 6008
NEW ZEALAND

Email jane.frances@treasury.govt.nz

Telephone +64-4-471-5007

Fax +64-4-472-4942

ACKNOWLEDGEMENTS

NZ TREASURY

New Zealand Treasury
PO Box 3724
Wellington 6008
NEW ZEALAND

Email information@treasury.govt.nz

Telephone +64-4-472 2733

Website www.treasury.govt.nz

DISCLAIMER

The views, opinions, findings, and conclusions or recommendations expressed in this Working Paper are strictly those of the author(s). They do not necessarily reflect the views of the New Zealand Treasury. The Treasury takes no responsibility for any errors or omissions in, or for the correctness of, the information contained in these working papers. The paper is presented not as policy, but to inform and stimulate wider debate.

Abstract

This paper reviews the literature on institutions and explores the ways in which institutions can influence economic growth, with a particular focus on how institutions affect the use that firms make of human capital to improve their productivity. It discusses the influence of underlying institutions, such as law and order and secure property rights, on the general environment within which the economic activities of production and exchange takes place. It also explores the influence of activity-specific institutions, such as labour market institutions, on firm decisions about resource use and innovation and through these on economic activity and economic growth.

JEL CLASSIFICATION

D00 - Microeconomics – General
D20 - Production and Organizations - General
J24 - Human Capital Formation; Occupational Choice; Labor Productivity
K00 - Law and Economics - General
L51 - Economics of Regulation
O40 - Economic Growth and Aggregate Productivity - General
P00 - Economic Systems - General
Z13 - Social Norms and Social Capital

KEYWORDS

institutions; human capital; regulation; norms; firms; economic growth, New Zealand

Table of Contents

Abstract	i
Table of Contents	ii
List of Figures	ii
List of Tables	ii
1 Introduction	1
2 Institutions and economic activity	2
2.1 Geography, policies and institutions.....	2
2.2 Firms and institutions.....	3
3 Underlying institutions	4
3.1 Social environment	4
3.2 Formal institutions.....	6
3.3 New Zealand’s underlying institutions	10
4 Activity-specific institutions	12
4.1 Differences between underlying and activity-specific institutions.....	12
4.2 Institutions, firm productivity and human capital.....	13
4.3 Institutions and resource allocation	15
4.4 Institutions, transactions and governance	16
4.5 New Zealand’s activity-specific institutions.....	17
5 Resource use with firms	18
5.1 Labour	18
5.2 Capital	23
5.3 Land and other natural resources.....	26
6 Transactions and governance	28
6.1 Product markets.....	28
6.2 Corporate governance	31
7 Conclusions	35
7.1 New Zealand’s institutions: areas for further work	36
References	37

List of Figures

Figure 1 – Institutions and economic activity	4
Figure 2 – Resource allocation within firms	16
Figure 3 – Transactions between firms	17
Figure 4 – Flexibility of labour regulations.....	23
Figure 5 – Restrictiveness of product market regulations.....	31

List of Tables

Table 1 – Labour market regulations	19
-------------------------------------------	----

Institutions, firms and economic growth

1 Introduction

Institutions include all the formal and informal conventions that shape the political, economic and social behaviour of the members of a society. They encompass not only basic institutions such as social norms and the rule of law, but also more specific institutions such as governance arrangements for entities such as firms, and regulations applying to various markets (IMF 2003). Political and economic institutions are underlying determinants of the incentive structure and economic performance of a society (North 1990, 1994).

Institutions based on first order economic principles (such as the protection of property rights, competition, and appropriate incentives) underpin long run economic growth (Rodrik 2003). While it is possible for such economic principles to be reflected in many different types of institution across countries, the empirical evidence suggests that the quality of economic institutions affects the level of GDP *per capita*, the growth of GDP *per capita* and the volatility of growth (Acemoglu, Johnson and Robinson 2001, Easterly and Levine 2003, Hall and Jones 1999, New Zealand Treasury 2004, Rodrik, Subramanian and Trebbi 2004). The evidence suggests that the quality of institutions has a robust and significant indirect relationship to growth via its effect on the volume of investment. In particular, better quality institutions reduce red tape and rent-seeking activities and (more weakly) improve the efficiency of investment by enforcing well-defined property rights (Aron 2000).

One route through which institutions can influence economic growth is through their effects on firms and the efficiency with which they operate. Institutions, such as property rights and contract law, shape the regulatory and economic environment within which firms operate. They also influence the firm's internal decisions and its productivity. Financial market regulation, for example, can affect the availability and price of capital while intellectual property regulation can affect the design and price of products. Institutions also affect firms' decisions on their use of inputs, including human capital. Labour market regulation designed to protect workers can encourage investment in the human capital of workers but can also reduce the incentives for firms to hire new workers.

Institutions and the ways they can affect economic activity are described in section 2 of the paper. The fundamental social, political and economic institutions that underlie all relationships are discussed in section 3. The remainder of the paper covers institutions that are specific to particular activities of firms. Section 4 describes how these institutions can affect firm decisions and productivity. Sections 5 and 6 describe the key institutions

and discuss their implications for human capital and firm productivity. Conclusions are drawn in section 7.

2 Institutions and economic activity

Institutions encompass formal rules such as laws and regulations and informal conventions such as mores and customs. These conventions shape the behaviour of members of a society as well as expectations about behaviour. They determine the types of activities that are encouraged or prohibited as well as the rewards and sanctions associated with undertaking these activities. Institutions govern activities in all spheres of society, including economic activity. North (1991) suggests that institutions provide the incentive structure of an economy and that, as the structure evolves, it shapes the direction of economic growth towards growth, stagnation or decline.

2.1 Geography, policies and institutions

Three underlying forces that are thought to drive a country's economic growth: its geography; its economic policies; and its institutions. There is debate about the relative importance of each in terms of their contribution to economic growth, but there is general agreement that well performing institutions are associated with economic growth.

Geography affects the potential of a country to grow through its location relative to other countries and its endowment of natural resources. Easterly (2003) notes that theories on a country's geography/endowments suggest that the environment directly influences the quality of land, labour and production technologies. Geographical features may also limit a country's opportunities for accessing large economic market, such as, in New Zealand's case, its distance from its markets.

The economic policy view does not consider historical legacies to be particularly important, believing that historical settings can be easily reversed. It emphasises current knowledge about economic development and political forces rather than history or factor endowments. This view holds that sound macroeconomic policies, openness to international trade and the absence of capital account controls will tend to foster long-run economic success.

Proponents of the importance of institutions hold that the formal and informal practices that a country has developed to guide interactions between the members of a society affect the ease with which economic activity can take place. Institutions that are seen to support a country's economic development include institutions that protect private property rights and the operation of the rule of law, lead to low levels of corruption and facilitate all private interactions rather than protect a small elite.

The broad environment (including factor endowments, social arrangements and colonial power) has powerful effects on the sorts of institutions that evolve. Historically, geographic characteristics have often had an impact on the nature of a country's institutions. Countries with hospitable climates often led to settlement by colonists and attendant institutions that supported the economic development of a country (Easterly and Levine 2003). Countries that were less geographically hospitable instead tended to see "extractive" institutions implemented that supported the removal of economic resources from the country to the colonial power. The quality of a country's institutions, as introduced by European colonisers, tended to be lasting or exploitative depending on the

suitability of the country for European settlement (as measured by mortality rates) (Acemoglu *et al* 2001). A study by Engerman and Sokoloff (2003) found that geography seems to have played a greater role in determining the institutions adopted by colony countries than the particular country they were colonised by.

In considering the effects of geography, Easterly and Levine (2003) conclude that geography/endowments explain cross-country differences in economic development but only through their impact on institutions. Policies do not explain cross country differences once the impact of endowments on institutions and on economic development have been controlled for. Thus, correcting bad policies without correcting the institutions will bring little long-run benefit.

The IMF (2003)¹ notes that there are important interactions between institutions and economic policies, with the quality of institutions influencing the strength and sustainability of policies and *vice versa*. The interplay between these two drivers is important for economic growth but it makes it difficult to identify their individual contributions.

Rodrik, Subramanian and Trebbi (2002) found that the quality of institutions is most important in driving economic growth, with geography and policy having, respectively, weak and negative effects on economic growth. Sachs (2003) disagrees in regard to geography. He notes the direct effects of geography on production systems, human health and environmental sustainability and looks specifically at the relationship between the prevalence of malaria and GNP per capita. He concludes that “there is good theoretical and empirical reason to believe that the development process reflects a complex interaction of institutions, policies and geography.” (2003: 9).

2.2 Firms and institutions

There are four principal categories of institutions that shape the economic activity of firms (Williamson 2000). They are conventions in the social environment such as customs, norms, and social networks; formal institutions such as the polity, judiciary, bureaucracy; the “rules of the game”, especially those related to property; institutions governing the “play of the game” such as transactions between firms and the governance of transactions, especially contracts; and institutions related to resource allocation and employment within firms.

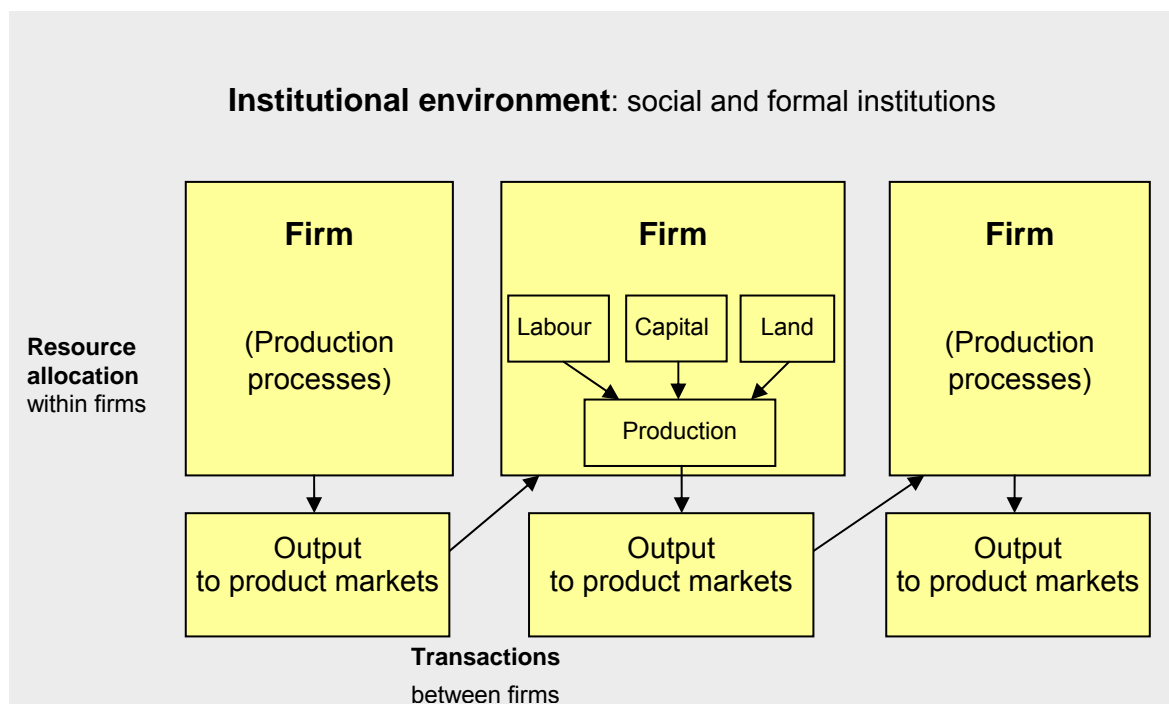
Both formal and informal institutions provide the underlying environment in which economic activity takes place. The effect they have is broad, affecting all aspects of economic activity, and long term, as they change very slowly. By shaping the environment for economic activity, these institutions influence the level of income a country can attain.

Specific institutions govern the activities carried out by firms in the course of producing output and engaging in transactions with others. The institutions associated with these activities affect firm decisions about using resources and undertaking transactions. These introduce structure into the operation of markets in order to improve the way in which they function. Institutions at these levels directly affect economic activity and therefore economic growth.

¹ This study covers 94 countries split into 25 advanced countries and 69 developing countries. It shows that advanced countries still stand to gain higher incomes from improvements in institutional settings. While the magnitude of the increase is less than that which could be achieved by developing countries, it would nonetheless reflect an increase in real GDP per capita of roughly 40%. See p106-107 IMF (2003).

This paper considers in turn the underlying institutional environment, institutions affecting firm resource allocation decisions and institutions influencing firm decisions about entering into transactions. The relationship between institutions and firms are illustrated in Figure 1.

Figure 1 – Institutions and economic activity



3 Underlying institutions

The underlying social environment and formal institutions determine the fundamental conditions that operate in a country, affecting all facets of business. The social environment can shape attitudes towards economic activity, while underlying formal institutions can influence the incentives for investment and exchange.

3.1 Social environment

The social environment includes the values, customs, norms, culture and social networks that exist in a society. These factors are often cultural, religious or moral in origin and as a result are generally longstanding. The social environment can influence the informal rewards and sanctions associated with different behaviours. They can influence economic activity through affecting the aspirations that individuals hold and the attitudes firms take towards risk. Factors affecting social relationships, such as trust, provide the basis on which parties can expect to interact (Klein 1997, Offer 1997).

All behaviour, including economic action, takes place in a network of interpersonal relations. Firms operate in markets where information is exchanged through the price mechanism. Any exchange, however, depends greatly on trust. There is a strong relationship between the general level of trust and economic activity within a society. If people did not trust one another, economic activity would be greatly impeded as firms use more costly methods (sometimes illegal) to ensure exchange. Trust can thus both reduce

the transaction costs of exchange and ease the burden on the formal institutional system (New Zealand Treasury 2001).

Granovetter (1985) suggests that the density of networks of social relations amongst business people affects the types of business relationships and activities they undertake. Economic actors avoid malfeasance most effectively by dealing with those they trust. That trust is produced and maintained by social relations, and formal institutions or sanctions that provide assurances against malfeasance are rarely used. In repeated transactions it is reputation, rather than the impersonal legal system, that ensures individuals will deal honestly with one another (Ellickson 1986, 1991). In a wide variety of situations, people not only succeed in resolving their conflicts without recourse to law, they do it by informal mechanisms that work considerably better than the formal legal system.

The social environment influences the accumulation of human capital in a number of ways. It can influence the value placed on acquiring education and training, the extent to which knowledge is transferred between people and the ability of individuals to adopt new technology. People's social environment (consisting of their family, friends, neighbourhood and colleagues) largely determines their abilities to adopt new knowledge (Delsen and Schonewille 1999).

An individual's relationships with friends, family and acquaintances and associated norms of reciprocity can be viewed as an asset, social capital, that has value both for the people in the network and often for those outside it (Putnam 2000). It can be called on in a crisis, enjoyed for its own sake and/or leveraged for material gain but may also involve costs such as nepotism and peer pressure (Woolcock 2001).

Social capital can contribute to economic growth by making it easier to create new knowledge (ie, augment human capital) and to transmit ideas and information, particularly information that is tacit (Grafton, Kompas and Owen 2003). The greater the degree of interchange between social groups the more adaptable, resilient and productive the community is likely to be. Social barriers that inhibit communication between groups will tend to raise the costs of interchange of knowledge and ideas, and lessen the ability of the society to withstand adverse shocks. Rodrik (1999) suggests that countries with low levels of social conflict and with institutions that are able to mediate social conflicts experience more resilient economic growth than countries with weak institutions of conflict management.² At the same time, the level and type of social capital in a community can be influenced by existing formal institutions and the role of government, influencing the contribution social capital can make to economic growth (Woolcock 2001).

The institutional setting both underpins the development of social relationships such as trust, and is formed in the context of the social relationship between people. Values, customs, norms and culture influence both the nature and effectiveness of formal institutions. Formal institutions are most effective when they reflect what is seen to be appropriate behaviour and are well adapted to the underlying culture and ethics of a society (Haucap 1998). As a result, institutions that are effective in one country do not always translate well in another. In particular, picking up institutional arrangements that work in one country and applying them in another will not necessarily lead to economic growth (IMF 2003).

² Rodrik uses indicators of income inequality and ethnic fragmentation to proxy social conflict and indicators of the quality of governmental institutions, rule of law, democratic rights and social safety nets to proxy the strength of institutions of conflict management.

Social cohesion, the commitment of members of a society to its institutional arrangements, is also promoted when formal institutions reflect social norms (Petrie 2002). A particular set of values, customs and norms are not necessarily held by all members of a society, particularly where distinctive groups exist within the society. For example, different ethnic groups within a society may operate with different social structures. Petrie points out that norms can be established by a dominant group as a means of promoting behaviour that serves their interests. Where formal institutions align more with the social conventions of one group than with those of other groups, broad social cohesion will be more difficult to achieve.

A country's formal institutions reflect its social institutions, its history and other factors peculiar to that country. Differences in what is valued by countries will thus lead to variety in institutions. Very different institutional settings, even where they reflect first order economic principles such as security of property rights, can be reasonable substitutes for each other and there are no particular institutions, narrowly defined, that are indispensable for economic growth (Engerman and Sokoloff 2003). At the same time, institutions are not the only factor important for growth – countries with similar institutions can do quite differently in any given time period (Freeman 2000).

As well as determining the underlying social context within which economic activity takes place, the social environment can also have more direct effects on firms. They can influence transaction costs through reducing search costs (through social capital) and monitoring costs (through trust) (Rupasingha, Goetz and Freshwater 2000) and shaping firm attitudes towards risk taking and uncertainty (Baptista 2004) and entrepreneurship (Beugelsdijk and Noorderhaven 2004). They can influence the level of innovation taking place in firms by encouraging the diffusion of knowledge and best practice between firms (through social capital) (New Zealand Treasury 2001). Culture and values can also influence the degree to which a country regulates economic activity, for example controlling new firm entry, and therefore the investment opportunities available to firms (Baptista 2004).

3.2 Formal institutions

Formal institutions, both underlying and specific, provide the context within which firms operate. Property rights and contract enforcement can be seen as “market creating” institutions, without which exchange cannot occur (Rodrik 2003).

Underlying institutions such as the constitution and rule of law contribute to political stability, prevent corruption, enhance public sector efficiency and protect private property rights from misappropriation by private parties or government.³ More specific institutions include legislation and regulations and organisations that create and enforce them, such as government agencies and the legal system.

Formal institutions become more important, relative to informal institutions, the more the scope for market exchange broadens and deepens, possibly because establishing formal institutions has high fixed costs but low marginal costs while informal institutions involve high marginal costs (Rodrik 2003). Increased specialisation and the division of labour may also make formalising political, judicial and economic rules worthwhile (Aron 2000).

Societies with weak institutions not only grow more slowly in the long run, but experience greater volatility (Acemoglu, Johnson, Robinson and Thaicharoen 2003). Strong

³ See Aron (2000) for a survey of measures of underlying political, social and economic institutions.

institutions are associated with high levels of real *per capita* income since they shape overall conditions for investment and growth (IMF 2003). For example, where corruption and appropriation of private property are common, the potential returns on investments are reduced and possibly eliminated altogether. Political control of resources may also limit the extent to which firms can secure the inputs they need for production. Formal institutions also influence the balance of diversionary (rent-seeking) and productive activities in society (Hall and Jones 1999). Countries with a history of institutions that support productive activities such as capital accumulation, skill acquisition, invention and technology transfer produce much higher levels of output per worker.

Formal institutions include the political (those that determine the structure of the state and the procedures of the political decision-making process) and economic (those that determine property and contract rights and thereby reduce transaction costs) (Borner, Bodmer and Kobler 2004).

3.2.1 Political institutions

Political institutions shape the political process that produces legislation and regulation. They also determine the legal system and coordinate the processes that create and enforce the law. Political institutions therefore produce economic institutions and determine their quality. Institutions like democracy and social protection legitimise market outcomes and ensure their endurance. Political institutions can support a market economy by shaping and safeguarding property rights and making the market compatible with social stability and social cohesion (Borner *et al* 2004, Rodrik 2000).

Political institutions tend to reflect the interests of those in power and can therefore produce economic institutions that are redistributive or productive (Granovetter and Swedburg 1992). Where a particular group has control over political processes and/or economic resources it may ensure that institutional arrangements enable it to maintain this control rather than improve efficiency.

The IMF (2003) has found that countries where Europeans settled in large numbers have sustained greater economic development than countries where they empowered a local elite. In the latter group of countries the institutional emphasis has been on maintaining the power and wealth of the elite.

Limiting the power of different segments of society to subvert institutions to their own interests, may therefore be important for economic growth. For effective institutions, the state should be strong enough to specify good property and contract laws and must be committed to enforcing them, even when this means constraining itself from violating these laws for its own ends (Borner *et al* 2004). Djankov, La Porta, Lopez-de-Silanes and Shleifer (2002) consider when it is appropriate to enable government to control the activities of such groups. They suggest that for New Zealand, a country with strong law and order and no powerful elite, protection of property rights should generally be left to the courts to manage.

As fundamental institutions are longstanding, they tend to change slowly, but occasionally windows of opportunity to effect broad efficiency-enhancing reform arise (Williamson 2000). Civil wars, occupations, perceived threats, economic breakdowns, military coup and financial crises can provide such opportunities. In the absence of such events, change will be slow to achieve. The nature of the political power structure will shape a country's institutions and thus economic growth (Acemoglu, Johnson and Robinson 2004). At the same time, existing economic institutions affect the distribution of resources (which

in turn affects political power and political institutions) and the gains to be made from changing the status quo. The development of economic institutions can thus be seen as endogenous. As Rutherford (2001: 190) notes, “institutions shape economic behaviour and outcomes and are themselves shaped by economic, political and ideological factors”.

While there are links between economic growth and political institutions, it is not necessarily clear that political institutions cause economic growth (Aron 2000). Glaeser, La Porta, Lopez-de-Silanes and Shleifer (2004) suggest that investments in human and social capital lead to economic growth, which leads to better political institutions, which then have second order effects on economic growth. They suggest that higher human and social capital leads to more benign politics, less violence and more political stability. This in turn brings about greater security of property and economic growth. Secure property rights support investment in human and physical capital and these can be achieved under dictators as well as democracies. Countries that emerge from poverty can accumulate human and physical capital under dictatorships and are more likely to improve their institutions when they became richer. Neither Aron nor Glaeser *et al* rule out political institutions as an influence on economic growth but raise questions about the methodologies used in previous literature to measure institutions and their impacts. However, they reiterate the importance of economic institutions, ie, secure property rights, for investment and economic activity regardless of the role of political institutions.

3.2.2 Economic institutions

The role of political institutions in the creation of economic institutions means that economic institutions will not always be designed in ways that aim to maximise economic growth. However, the distribution of political power can change over time as the political and economic environment change and create an appetite for efficiency-enhancing change in economic institutions.

The feasibility of introducing and sustaining good institutions is determined in large by the country’s existing institutional framework and the way in which it distributes political power within the country. As a consequence, institutional reform can be difficult to spur. It may take a domestic crisis or external pressure to drive institutional change or it may be a slow evolution as gradual change in underlying social institutions drives change in political and economic institutions. Profound institutional change and development may need to be made slowly to ensure that the system created is compatible with social institutions and to ensure that it can be effectively enforced (Aron 2000). In more developed countries, change is likely to be less fundamental as many of the necessary institutional settings will already be in place.

For change in economic institutions to be successful it is important to consider the feasibility of introducing and sustaining good institutions, to understand what successful market based institutions deliver, to recognise the appropriate form institutions should take, and to understand what can be done to spur institutional reform (New Zealand Treasury 2004).

The development of economic institutions can be fostered by three broad types of policy mechanisms identified by the IMF (2003). Competition and trade openness may help to weaken vested interests and lead to demands for institutions that are suitable for a wide variety of transactions. Greater transparency and better information can help reduce corruption, increase government effectiveness and improve policy development. Conditionality for international economic agreements and associations can help to break through domestic impediments to reform.

There are a number of ways of characterising efficient economic institutions. Good economic institutions can be defined as those that provide security of property rights and relatively equal access to economic resources to a broad cross-section of society. Such economic institutions would reduce pressures to seek change to political institutions and thereby future economic institutions. The quality of both formal and informal institutions can also be assessed in terms of their respect for contracts, property rights, trust, and civil freedom (Aron 2000). Successful market based institutions should also improve certainty about the outcomes of economic activity.

Property rights and contract enforcement improve the environment for economic activity by reducing the transactions costs faced by firms. As Coase (1960) suggests, institutions matter when there are transaction costs. Since transaction costs, that include all the costs of doing business, are ubiquitous, institutions always matter. North (1994) notes “When it is costly to transact, then institutions matter. And it is costly to transact.”

Uncertainty about whether a firm will receive its expected return from an exchange with another party gives rise to transaction costs. It is not possible to anticipate in advance all the circumstances that may affect an agreement. It is not always possible to determine whether the parties to an agreement are acting honestly or opportunistically. Risks also arise from outside the agreement where parties that are not involved in an exchange (such as the government) can take some or all of the profits or assets involved in the exchange.

Firms encounter transaction costs when they attempt to reduce their uncertainty about the outcomes of an exchange. Uncertainty is reduced by rules around property rights and contract enforcement that increase the likelihood of expected outcomes. These institutions provide assurance for firms that they will maintain ownership of assets they have invested in and will receive their due from an exchange with another party.

All countries have economic institutions and their quality determines the level of transaction costs facing firms. Institutions can reduce the level of transaction costs if they improve the information available to firms and make bargaining, monitoring and enforcement easier. As North (1991) notes, effective institutional arrangements provide comfort that the gains of trade are realisable. Institutional arrangements that lead to a greater shared understanding of the grounds for trading and to greater confidence that those grounds would be enforced reduce the efforts that firms need to make to manage risks, allowing them to focus more on production and exchange.

Property rights provide protection of assets held by an individual or firm against expropriation by others. They ensure the firm maintains control over the returns to the assets it has invested in. Economic institutions that allow property rights to be secured enable people to keep the returns on their investment, make contracts, and resolve disputes (Djankov *et al* 2002). Such security encourages people to invest in themselves and in physical capital, and therefore fosters economic growth. This security will also provide firms with the confidence to invest in human capital to improve the productivity of labour and as a complementary investment to physical capital.

In modern societies property rights are defined and enforced by the state. However, the greatest risk of expropriation comes from the state, often through uncompensated regulation (Epstein 1985, 1999). Countries with greater constraints on politicians and elites, and more protection against appropriation by these powerful groups, have substantially higher income *per capita*. When there are no checks on the state, on politicians or on elites, private citizens do not have the security of property rights

necessary for investment (Acemoglu and Johnson 2003). Nevertheless, governments do face pressure not to violate the rules set for their own purposes (Rodrik 2003).

Without reliable property rights enforcement, firms will tend to be small scale, to use low-capital technology, and to have short-term horizons (Aron 2000). Investment in human and physical capital is especially sensitive to the security of property rights, because of the long time period involved (Borner *et al* 2004). If property rights are improperly defined or left ambiguous and unenforced, resources will be wasted as people try to capture or defend their claims to resources (Saleh 2004).

Institutions that enforce contracts provide assurance to firms when they are negotiating an exchange that their interests are protected, should the agreement not be fulfilled. Contract enforcement addresses some of the uncertainty inherent in open market transactions. Sophisticated contracts can facilitate complex transactions, involving multiple parties, covering long time periods and requiring interrelated projects and deliveries (Saleh 2004). Without effective enforcement, potentially valuable exchange might be forgone.

While contract enforcement institutions can reduce uncertainty, they can increase transaction costs in other ways. Defining and enforcing contracts is not costless. Firms face costs associated with commissioning lawyers and spending time in court, where this becomes necessary to resolve a contractual dispute. Firms may choose not to pursue the completion of a contract if it would be more costly for them to do so than it would be to find another solution or to walk away. Thus, effective institutions are those that give firms confidence that contracts can be enforced in a timely and costly manner.

The origin of the law seems to matter. Djankov, La Porta, Lopez-de-Silanes and Shleifer (2002) found that common law is better able than civil law to provide protection against both the private expropriation of property (achieved through government controls that provide law and order) and public expropriation of property (achieved through controls over government).⁴ The greater legal formalism of the civil law tradition has higher costs of enforcing contracts, longer delays in courts and results in lower perceived fairness and efficiency of the judiciary system (Acemoglu and Johnson 2003).⁵

3.3 New Zealand's underlying institutions

New Zealand's underlying institutions are seen to be broadly robust, providing a strong basis for economic activity. New Zealand is a parliamentary democracy following the Westminster model. Its legal framework is based on the common law system that originated from Britain. Petrie (2002) suggests that New Zealand's institutional heritage gives it reason to be confident of the basic soundness of its underpinning institutions.

A distinctive New Zealand institution is the Treaty of Waitangi, which has come to be recognised as the founding document for relations between British colonisers and Māori at

⁴ In comparison to civil law, common law tends to be characterised by greater independence of judges, greater importance placed on juries and greater reliance on broad legal principles such as fiduciary duty to resolve disputes. Civil law makes greater use of control and oversight of lower level judicial decisions through superior review. Civil law countries tend to exhibit heavier government intervention in economic activity and greater corruption with no greater benefits in terms of social and economic outcomes.

⁵ Acemoglu and Johnson (2003) find that property rights institutions have a major influence on long-run economic growth, investment and financial development while contract enforcement institutions appear to affect the form of financial intermediation and the form of regulation, but have more limited effects on growth, investment and the total amount of credit in the economy.

the time of significant colonisation in 1840.⁶ The status of the Treaty and the nature of its obligations are a source of ongoing public debate. Social attitudes towards the legitimacy and ongoing relevance of the Treaty of Waitangi to such things as the governance of public organisations, and as a driver for settling historical claims have varied over time and between different groups. This is a process that will continue to generate tensions and to stretch the basis on which groups and communities interact with each other.

Ambiguity around interpretations of the Treaty has led to ambiguity about property rights in some areas, which have at times become the focus of social conflict. While difficult, such conflict is to some degree inevitable in any complex society, particularly one that is characterised by ethnic diversity. Contemporary interpretations of the Treaty have evoked public debate around its application to the question of property rights, particularly the nature and extent of any rights and interests that have not been extinguished, and the degree to which these impinge or otherwise on privately held or publicly administered property rights. The benefit of the Treaty is that it provides a framework for considering and dealing with conflict.

Petrie (2002) suggests differences of view on Treaty settlements reflect, in part, the presence of competing norms within New Zealand on appropriate governance models. Norms related to democratic accountability for resources at the national level may not sit comfortably with the desire by Māori for greater autonomy and different norms of governance of the assets that they receive by way of compensation for past grievances. The key issues for Māori and the Crown are to create structures that reflect the fluidity of the Māori social processes, enable efficient allocation decisions and fair distributional processes, reshape governance arrangements to reflect changing circumstances and further develop skills related to governance and participation (New Zealand Treasury 2001).

To some degree, concerns about the Treaty of Waitangi are conflated with concerns that are not institution in nature and relate to public expenditure on programmes to improve outcomes for Māori, who are, as a group, overrepresented in lower socio-economic groups. Concerns have arisen about the equity of focusing on ethnicity as a basis for targeting government funding as well as the probity of some government programmes administered by or on behalf of Māori.

New Zealand generally scores well in international assessments of its political institutions, legislative framework and economic institutions. IMD International ranks New Zealand 9th out of 60 countries in terms of the transparency of government processes, 4th in terms of the independence of the public service from political interference, 4th on the absence of bribing and corruption and 12th in terms of political stability. Transparency International ranked New Zealand second in its 2002 Corruption Perceptions Index and it has been ranked no lower than third since the index began in 1996 (Henderson, Cave and Petrie 2003). The World Economic Forum (2003) ranked New Zealand 4th in terms of public institutions in the Global Competitiveness Report⁷, including rankings of 4th in terms of

⁶ The Treaty of Waitangi covered issues of governance of/sovereignty over New Zealand, property rights of Māori over land and resources, and the rights of Māori as British subjects. These issues have been subject to significant discord over time, driven by differences in the meaning of Māori and English texts of the Treaty, other developments in settler governance (such as the establishment of a parliament for settlers), and conflicts over land ownership. The Treaty of Waitangi Act 1975 re-established the role of the Treaty of Waitangi in New Zealand's legal system and has been the basis for settlements of Māori grievances over land or other resources taken in breach of the Treaty of Waitangi. See www.treatyofwaitangi.govt.nz for a history of the Treaty of Waitangi.

⁷ The Global Competitiveness Report evaluates the economic competitiveness and growth potential of 102 countries based on available data combined with surveys of local business executives and entrepreneurs and their perceptions of the business environment. This report considers the macroeconomic climate, public institutions and technological progress. Overall, the report ranks New Zealand 14th out of 102 countries.

corruption and 5th on contracts and laws. In the Economic Freedom of the World, Gwartney and Lawson (2004)⁸ assess the legal structures and security of property rights around the world and score New Zealand's system at 9.0, with 10.0 being the best possible score. The World Bank (2004)⁹ looks at the ease or difficulty of enforcing commercial contracts and finds the complexity of contract enforcement to be low in New Zealand, involving a relatively simple process that takes a very short time to complete.

In terms of the consequences of social institutions for economic activity, the International Institute of Management Development, or IMD International (2004)¹⁰, ranks New Zealand 24th out of the 60 economies in its World Competition Yearbook in terms of whether the values of a society support competitiveness. This suggests that New Zealanders may not place an especially strong emphasis on economic activity and competitiveness.¹¹

4 Activity-specific institutions

The formal institutions discussed in the previous section provide the general environment in which business takes place. Once property rights and access to economic resources are defined for a country, economic activity, i.e., production and exchange, can be undertaken with greater confidence.

Formal institutions also exist to support the specific activities involved in firm production and exchange decisions. The types of activities these institutions govern include employment, investment in physical capital and use of land and natural resources (production); competition and corporate governance (exchange).

4.1 Differences between underlying and activity-specific institutions

There are some differences between the underlying and activity-specific institutions that mean they operate somewhat differently, in terms of the scope and longevity of their effects.

4.1.1 Scope

Like underlying formal institutions, activity-specific institutions are introduced to reduce transactions costs or to achieve political objectives. However, activity-specific institutions address outcomes that are specific to particular markets rather than economy-wide.

⁸ Gwartney and Lawson (2004) prepare a report for the Fraser Institute called the Economic Freedom of the World that ranks 123 countries in terms of the consistency of their policies and institutions with economic freedom, ie, whether they provide an infrastructure for voluntary exchange and protect individuals and their property. This draws on the Global Competitiveness Report and the International Country Risk Guide, which provides information on financial and political risks for international investors. Overall, the report ranks New Zealand 3rd out of 123 countries.

⁹ The World Bank assesses data on five key aspects of doing business: starting a business, hiring and firing workers, enforcing contracts, getting credit and closing a business. New Zealand rates well in each of these areas of business regulation on the factors (such as timeliness, cost, flexibility, efficient and complexity) that are assessed.

¹⁰ The International Institute of Management Development produces the World Competitiveness Yearbook, which ranks 60 countries and regional economics on their ability to create and maintain an environment that sustains the competitiveness of enterprises, based on economic performance, government efficiency, business efficiency and infrastructure. Overall, it ranks New Zealand 18th out of the 60 economies.

¹¹ This seems to be borne out by research conducted by the Growth and Innovation Advisory Board where New Zealanders ranked factors such as quality of life, quality of education, quality of the natural environment and race relations ahead of factors such as potential to increase personal wealth, level of economic growth and business opportunities. See www.giab.govt.nz for further details.

Activity-specific institutions contribute to growth where they reduce externalities or opportunistic behaviour in particular markets. Externalities can arise when people engaged in economic activity do not have to take into account the full costs of their actions. For example, where land users pollute waterways that flow through their land this affects the use that those downstream can make of that water. Opportunistic behaviour may arise where one party has information that is not available to another or where there are imbalances of market power, as can arise in employment relationships.

Like underlying institutions, activity-specific institutions will reflect a country's social institutions. The form institutions take will depend on factors like a country's preferences for equity and opportunity, what would work with existing institutions in other areas and the degree to which the country is economically developed (Rodrik 2003). If a country's preferences for equity and opportunity are not reflected in the institutions adopted this may reduce compliance with the requirements of an institution.

In general, each activity-specific institution deals with a market that is a subset of the economy. There will be interrelationships between different activity-specific institutions where they intersect or overlap. Where a new institution does not fit well with the existing institutional framework it may undermine compliance by creating complexity and uncertainty. Freeman (2000) notes that an institution may affect outcomes differently depending on the other institutions that operate around it. He notes that an institution, eg a trade union, may operate in different ways in different legal and economic environments.

4.1.2 Longevity

Activity-specific institutions change more frequently than underlying institutions. To ensure institutions remain efficient and relevant over time, they need to be able to adapt to changing circumstances. Rodrik (2003) suggests that while institutions matter for economic growth, it is how they adapt to change that is most crucial for economic growth. In this way, he sees the role of institutions in economic growth as similar to that of technology. The capacity for adaptation of settings is more important than the continuance of any particular settings.

Adaptability may be built into institutional settings to some extent, but will also require countries to change their arrangements when they become obstacles to economic growth. To ensure economic growth is maintained over time and to ensure an economy remains resilient against shocks, a cumulative process of institution building is necessary (Rodrik 2003). Institutional change can be seen as endogenous to the growth process as changes accompanying growth, such as changes in technology and preferences, drive further changes in institutional form (Engerman and Sokoloff 2003).

4.2 Institutions, firm productivity and human capital

Economic growth comes from an increase in the production and exchange activities undertaken by firms. Institutions governing these activities will therefore directly affect a country's potential economic growth. Improvements in firm productivity drive economic growth and there are three components to firm productivity:

- a) productivity gains within firms, owing to more efficient use of existing resources and investment in factor enhancements;

- b) firm entry and exit, where new, more productive firms are established and less productive firms leave the market; and
- c) more productive firms increasing market share compared to less productive firms.

4.2.1 Productivity gains within firms

Productivity within firms is optimised in two ways: by using available resources in the most efficient way and by being innovative. This involves combining amounts of labour, physical capital, land and other natural resources of appropriate quality to produce the most output possible¹².

Labour productivity (output per worker) is one component of firm productivity. Labour productivity improvements can come through multifactor productivity improvements (the efficiency with which labour and capital are used) or growth in the capital-labour ratio. Improvements in multifactor productivity come through eliminating slack in the use of resources, adopting more efficient technologies and increasing innovative effort. Improvements in the capital-labour ratio mean that more capital is available to individual workers. Labour productivity changes as the quantity and quality of other resources change. Investments in human capital enhance labour productivity where additional skills and knowledge enable workers to produce more with the same level of resources.

Firm productivity can also be increased through innovation. Innovation can be embodied as new physical capital technology, new ideas about production processes or changes to the products being made. Innovation will change the nature of the resources needed by the firm and will lead to changes in the ideal resource mix. Innovation that is embodied in new physical capital will often require less labour in the production process, but requires the labour that is used to be more highly skilled to operate new technologies. Innovations technology may allow greater quantities or higher value products to be produced with the same level of resources, increasing the firm's productivity. Durbin (2004) notes that studies of firms utilising advanced technologies conclude that such firms tend to employ a more skilled and highly paid workforce and tend to be more productive than other firms prior to the adoption of new technologies. He notes that new technologies are more likely to be used by abler and better paid workers.

As well as assisting with the adoption of new technology, human capital is a factor in the creation of new technologies. Firms that wish to be innovative will invest in human capital to generate innovations within the firm.

Durbin (2004) notes that institutions can affect the levels of innovation arising from entrepreneurial activity. He notes that regulations can influence the availability of business opportunities for entrepreneurs, the costs of pursuing them and the returns from doing so.

4.2.2 Productivity gains through changing industry composition

Economy-wide productivity is optimised in a dynamic market environment that allows and encourages firms to be created, to grow or to shrink depending on their productivity. As noted above, firm productivity is driven by resource allocation and innovation. The pressures present in an industry for a firm to allocate resources efficiently and to be innovative will determine how dynamic the market is. Such pressures stem from the

¹² This paper refers to productivity in outputs, but the principles hold also for productivity in services.

degree of competitiveness in an industry and the extent of discipline that corporate governance exercises over the activities of managers within firms.

The more pressure there is to innovate to gain market share and remain in the industry, the greater the investment in human capital firms are likely to make. Scarpetta and Tressel (2004) find that investment in human capital impacts positively on productivity growth in all industries.

4.3 Institutions and resource allocation

Institutional settings will influence decisions made by firms about the factors of production they employ and how they deploy them. Institutions affect the attractiveness of the different resources by changing their availability, flexibility and cost. While firms need a minimum amount of each or some of the factors, they have discretion over how much of each they will use in total.

The effect of institutions on the relative attractiveness of the factors will lead firms to change the mix of resources they use. For example, institutions governing the employment of workers will affect the availability, flexibility and cost of labour and thereby firm decisions about hiring labour and investing in human capital. However, institutions governing the use of physical capital, land and other natural resources can also affect firms' decisions about labour. These institutions may constrain firms more or less in their production decisions than institutions governing the use of labour, altering the relative attractiveness of labour as an input.

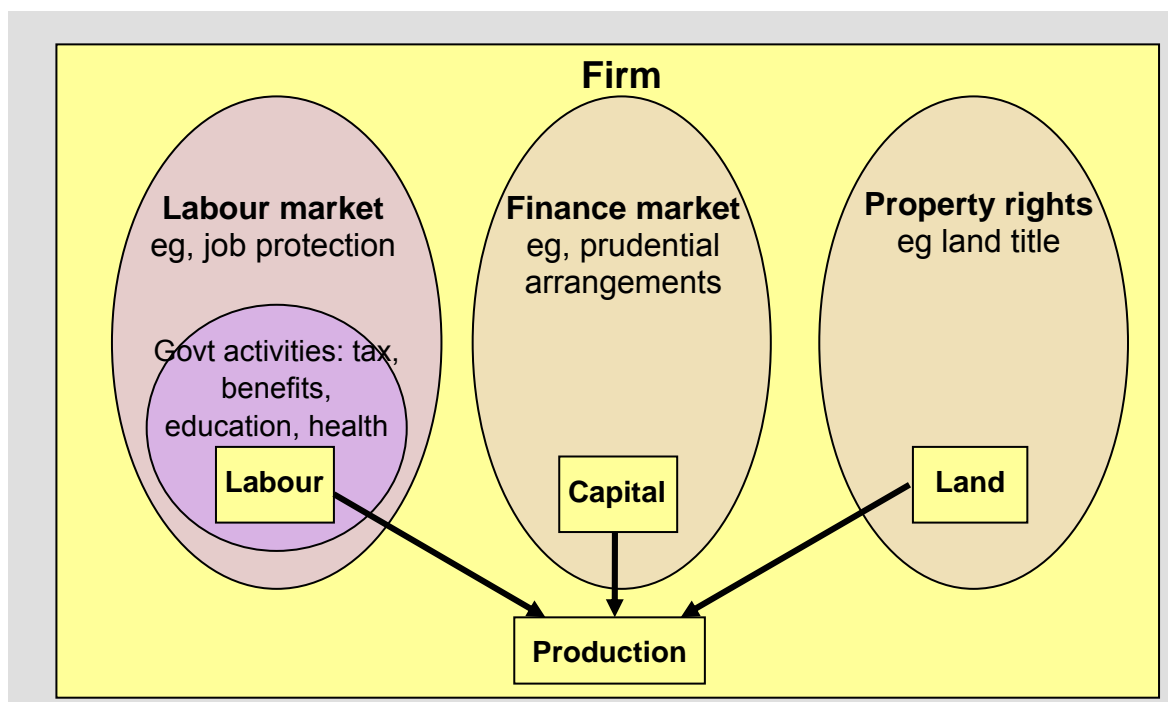
To maximise economic growth, institutions ideally enable the factors of production to flow to where they will generate the greatest return. Institutions will lead firms to change from what would be an optimal mix in an unconstrained environment to what is optimal given the constraints introduced by institutions. If one factor becomes relatively less attractive because institutions make it more costly, where possible firms will substitute other resources for it.

The overall effect of institutions on the use of or investment in particular factors is not a straightforward relationship. Institutions introduced to address issues related to one factor of production can have implications for the use of other factors, which may not have been an intention of the institutional change.

The extent to which institutions influence the relative attractiveness of the factors will therefore affect the levels of investment that firms make in each of the factors. For example, stricter labour regulations may make labour less flexible and more costly, which may lead firms to make greater use of physical capital in their production processes. However, greater use of physical capital may require greater investment in the human capital of the firm's workers.

Figure 2 illustrates the effect of institutions on resource allocation.

Figure 2 – Resource allocation within firms



The effect of institutions on the use of labour, capital and land and other natural resources is discussed in section 5.

4.4 Institutions, transactions and governance

Firms transact with each other to sell their products or to buy inputs into their production processes. As discussed earlier, there are costs associated with transactions, which may deter firms from transacting if the costs are too high. Firms exist to reduce transaction costs. Coase (1937) explains the costs of transacting as the cost of discovering what the relevant prices are and negotiating and concluding a contract for each exchange. Key transaction costs include information, monitoring and uncertainty.

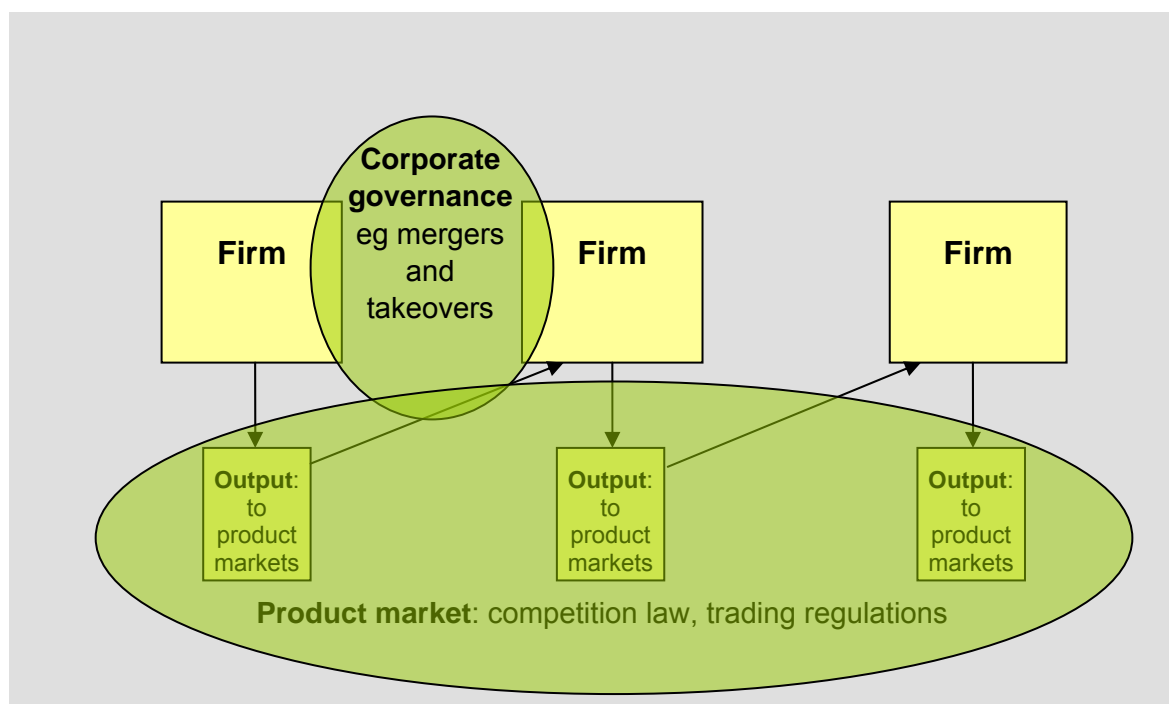
Resource owners will create a firm if they can coordinate resources and produce output at a lower cost within the firm structure than they could acquire inputs for on the open market.

Institutions influence transaction costs and therefore the establishment of firms. They influence the number, size and structure of firms that are established in a market. They affect the relative attractiveness of within firm activities and between firm transactions by changing the costs associated with these two means of organising production. Property rights and contract enforcement institutions determine transaction costs, corporate governance institutions influence agency costs, and product market institutions determine firms' access to markets.

Institutions that result in higher transaction costs may discourage the creation of new firms, increase the size of existing firms and reduce transactions, if it is less costly to undertake exchanges within the firm. However, if property rights and contract institutions reduce transaction costs, they provide a pressure on management to improve the efficiency of their production processes, to avoid outsourcing of their functions and loss of their jobs.

The influence of institutions on transactions between firms is illustrated in Figure 3.

Figure 3 – Transactions between firms



The effects of product market and corporate governance institutions are discussed in section 6.

4.5 New Zealand's activity-specific institutions

New Zealand's activity-specific institutions are rated highly in international comparisons. In the World Competitiveness Yearbook, IMD International (2004) rank New Zealand 9th out of 60 countries for its business legislation, which covers institutions related to labour, capital and product markets. In the Economic Freedom of the World, New Zealand is ranked 4th in terms of its business regulation (again, related to labour, capital and product markets). McMillan (2004) suggests that New Zealand's labour markets and financial markets seem to be doing their job and that there is no need for more or for less government action.

5 Resource use within firms

This section discusses institutions related to the use of the factors of production – labour, capital, land and other natural resources.

5.1 Labour

Labour market institutions govern the interactions between firms needing labour and workers supplying their labour. The institutions aim to improve the operation of labour markets by addressing information problems faced by employers and workers to ensure balance in the market power of employers and workers and to provide insurance against the risk of unemployment. They aim to encourage greater commitment between workers and employers.

The existence of labour market institutions provides both employers and workers with greater certainty about their rights and obligations in the labour market relationship. They place requirements on employers that can encourage workers to take up jobs by providing protection against unfair treatment. These requirements can also help employers by providing clarity on the grounds and processes for employment separation. This can reduce the level of legal action between employers and former workers.

While labour market institutions have positive implications for employment relationships, they can also have negative consequences. They can reduce the availability and flexibility of labour and increase its cost to firms while reducing employment opportunities for workers. In the short term, this may reduce the returns to firms associated with employing workers and increase the returns to workers. In the long term, it may reduce employment levels.

The effect that institutions have on the use of labour by firms will depend on the nature of the particular institutions a country adopts. Institutions will introduce a degree of rigidity into labour market interactions, the effects of which can range from contributing to certainty to being overly prescriptive. Very prescriptive institutions may be time-consuming and costly to comply with and may limit the ability of firms to adapt to changing environments and economic shocks.

This does not imply that complete flexibility in the labour market is necessary for economic growth. While institutions can constrain employers in terms of their resource allocations, firms are likely to have some capacity to absorb excess staffing and labour costs. It is unlikely that they would need to be able to completely reduce their labour force as part of maximising their resource mix under normal operating circumstances. Firms in different industries are also likely to require different levels of flexibility, so the effect of labour market institutions will vary across industries.

Labour market regulations can be classified as employment protection, contracting, minimum wages, collective bargaining and non-wage terms and conditions. The regulations enhance the security of workers' employment tenure, ensure workers receive minimum levels of payment and working conditions in exchange for their labour and by provide workers with processes for negotiating these terms and conditions with employers. Labour market regulations are described briefly in Table 1 below.

Table 1 – Labour market regulations

Regulation	Description
Employment protection	Cover aspects of the employment relationship related to: hiring: e.g., the kinds of contracts permitted, rules favouring the hiring of certain groups; and firing: e.g., requirements for severance and advance notice of termination, redundancy procedures, rules for mass layoffs.
Contracting regulations	Provide rules for employing “non-standard” workers, i.e., employees on fixed-term contracts and temporary agency workers. Can involve setting limits on the occupations where non-standard workers can be employed and the maximum duration for employment.
Minimum wages	Set a floor for what employers can pay employees. Can also specify who is covered, differentiation across different groups, rules about inflation adjustment and the process for setting the level.
Collective bargaining	Refers to processes of setting terms and conditions of employment between employers and coordinated groups of employees (i.e., unions).
Non-wage terms and conditions	Relate to safety requirements, working hour restrictions, leave requirements and mandated contributions to social security funds.

5.1.1 Resource allocation

These requirements can make labour less flexible or more costly and therefore less attractive to firms compared to other factors of production (although this will depend on what restrictions are imposed by institutions governing the use of other factors).

Employment protection rules protect workers by requiring employers to meet certain requirements before they can dismiss workers. This reduces the flexibility that firms have in terms of their labour force, leading employers to be reluctant to hire workers if they are not able to dismiss them when the labour is no longer needed or if doing so involves costly severance payments. Employment protection reduces flows into and out of employment and increases the duration of joblessness (Addison and Teixeira 2003, Lazear 1990).

Minimum wages can increase the cost of producing a given level of output and make production less profitable, reducing the incentives for firms to expand production. However, some alternative models of the labour market where firms have some wage-setting discretion and where workers have little bargaining power, predict neutral or even positive employment effects from minimum wages. (Betcherman, Lunistra and Ogawa 2001).¹³

Collective bargaining can lead labour to be more costly and less flexible. Unions can reduce labour productivity by requiring unnecessary jobs to be done or requiring necessary jobs to be done in an inefficient manner (Maloney 1998).

Where labour market institutions lead to a resource mix that is more costly from the firm’s perspective, they may choose to substitute other factor inputs for labour over time. This may mean firms do not invest in the human capital of their workers, if labour is seen as

¹³ Card and Krueger (1995) also found an increase in employment in the U.S. fast-food industry following an increase in the minimum wage, although their methodology and result were challenged by Neumark and Wascher (2000).

too inflexible. Alternatively, labour productivity can improve as a result of a resource shift, if the productivity of the remaining workers is increased by extra physical capital or other resources. Firms may choose to enhance labour productivity by investing in the human capital of a reduced workforce to make full use of the resources substituted for labour.

While labour market institutions can reduce the flexibility or increase the cost of labour, they may also improve the quality of the input from labour which can offset the reduction in flexibility and cost and make a positive contribution to firm productivity. Where labour market institutions create an environment that is conducive to greater collaboration between workers and employers, they can improve the quality of contribution workers make to the firm, e.g., through playing an active role in the innovation process (Maloney 1998). An enhanced contribution from workers may significantly improve labour productivity and through this the productivity of the firm.

Collective bargaining can increase firm productivity where it is associated with better worker-employer relationships. Where collective bargaining provides greater “voice” for workers it can facilitate discussion and resolution of workplace disputes, leading to reduced job turnover and greater communication over productivity improvements. Job protection can also improve the contribution that labour makes to production. Nickell and Layard (1999) find that substantive employee participation, where employees have some degree of autonomy in decision taking, is associated with productivity growth. They suggest productivity improvements often depend on the cooperation of workers or on their ideas and suggestions. These will be withheld if individuals feel their jobs are at risk as a consequence. Substantive participation can require more training and this is only worth providing if the employment relationship is long-term.

Overall, the effect of labour market institutions on firm productivity via changes in labour productivity will depend on how the institutions affect the relationship between workers and employers and whether improvements in the quality of labour’s input increase productivity more or less than they increase the cost and inflexibility of labour.

5.1.2 Innovation and human capital

Labour market institutions will influence the share of the returns from an innovation that accrue to the firm as profits and to labour as higher wages. The share accruing to workers from greater productivity will depend on the strength of their bargaining power, which is determined by institutional arrangements and demand for their skills in the labour market. Firm investment levels can be reduced where unions are able to capture some the rents associated with these investment (Nickell and Layard 1999).

Implementing an innovation often requires moving to a new optimal mix of human and physical capital. Acquiring a different range of skills is not simply a matter of reducing the number of workers but changing in the composition of the firms’ workforce in terms of its human capital characteristics. Labour market institutions such as job protection and unionisation can make the adjustment of employment arrangements associated with shifting to a new technology difficult or costly, particularly in industries where there is limited scope to expand production (Bassanini and Ernst 2002, Scarpetta, Hemmings, Tressel and Woo 2002). Unions may slow down the introduction of new technology and work place practices where these undermine the bargaining strength of union members, although when a union embraces new technology or work practices it can enhance their contribution to productivity growth (Nickell and Layard 1999).

With job protection and unionisation, the relationship between workers and employers is more permanent. To get the most out of the workforce that they have, firms are more likely to invest in their human capital. However, where the current labour force is not well suited to acquiring the human capital required, labour market institutions may hinder innovation. The effect of labour market institutions may depend on the technological characteristics of the sector in which firms operate. In low-tech industries, high firing costs may lead to higher adjustment costs with negative effects on innovation and technology adoption while the effect on high-tech industries depends on the nature of the technology employed (Scarpetta and Tressel 2004). Countries with high firing costs tend to specialise in innovations that improve the efficiency of the production of existing goods rather than innovations that lead to new goods. Where technological progress arises from further innovations following a trajectory, rather than innovations that require shifts in the type of physical and human capital used, investing in the internal labour force can be an effective way to overcome high firing costs (Scarpetta and Tressel 2004).

5.1.3 Productivity

Of the labour market institutions, the most significant in terms of their effect on productivity are likely to be job protection regulations and unionisation. They will limit firm resource flexibility and may limit the returns that firms can capture through innovations. However, they can also increase the quality of labour's input into the production process. The overall effect of a country's labour market institutions will depend on the extent to which they encourage productivity enhancing or diminishing behaviour. This may be influenced by institutions in other areas, such as product markets, that maintain pressure on firms to look for efficiency and innovation opportunities and that influence the technological characteristics of the industries operating in a country.

At the national level, Nickell and Layard (1999) suggest that labour market institutions appear to have a strong association with unemployment, some association with labour input and a weak association with productivity growth. Freeman (2000) notes that differences in the labour market institutions that exist among advanced countries have significant distributional effects, but weaker and uncertain effects on efficiency outcomes. He suggests that while wage setting institutions reduce inequality in economic rewards they have modest effects on efficiency outcomes as interventions in advanced capitalist economies rarely give unions significant power over a critical part of the economy.

Flexible labour market institutions may be most useful in allowing a country to adjust to economic shocks while minimising the effects on output. The IMF (2003) notes that when labour markets are more competitive, the economy reacts more quickly and smoothly to changes in interest rates, which means smaller changes in interest rates, and therefore output, are necessary to stabilise inflation in the face of shocks.

5.1.4 Government activities affecting the supply of labour

As well as institutions in the labour market, there are other governmental factors that affect the labour market through their impact on labour supply. Government activities such as taxation, benefit provision, public education provision and public health provision determine the quantity and quality of labour that is available. These influence the decisions of workers to supply their labour and to invest in their own human capital.

5.1.5 New Zealand labour market institutions

Many of New Zealand's labour market institutions are set out in the Employment Relations Act 2000 (ERA). The ERA was enacted to unwind some of the changes to labour markets brought in by the Employment Contracts Act 1991 (ECA), although it does not return fully to the previous institutional settings. In general, it promotes collective bargaining and provides for unions to play a greater role in the employment relationship.

A study of the short term impacts of the ERA was published by the Department of Labour in November 2003 (New Zealand Department of Labour 2003). The study finds that the Act has had little impact on most employees, particularly those in small workplaces. There has been little change in the extent and coverage of collective bargaining and increases tend to be in areas where there is existing and historical union coverage, such as the public sector. There has been little increase in levels of union coverage as a proportion of the workforce. Further assessment of the ERA would be useful after it has been in place for longer, especially as amendments to the Act are currently being considered by Parliament.

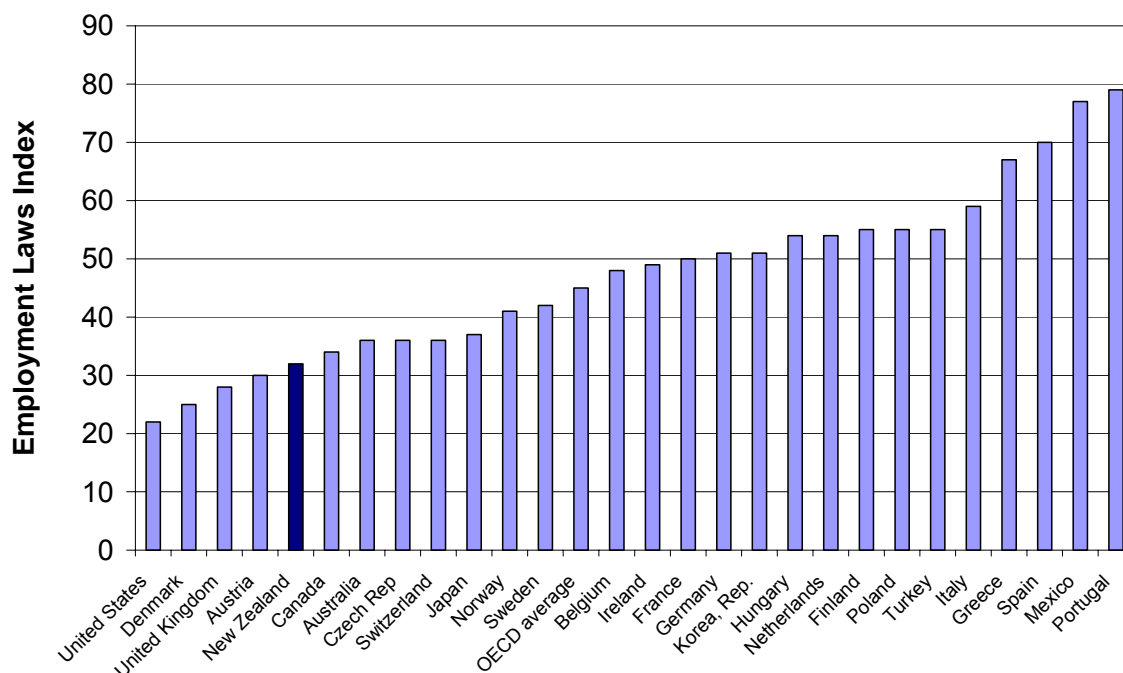
Analysis carried out by Maloney (1998) on the impact of the introduction of the ECA provides some interesting insights into how institutional change can affect resource allocation by New Zealand firms. Maloney found that the ECA reduced union density and through this increased output and utilisation of labour but reduced productivity. The greater availability of labour led employers to utilise labour more intensively rather than to invest in physical or human capital. The reduction in unionisation after the introduction of the ECA made labour relatively more available and cost effective as a factor of production than physical capital. This led to labour contributing more to economic growth through labour utilisation than through labour productivity.

A number of changes are being made to other regulations such as holiday and parental leave entitlements. These changes may reduce the flexibility of the labour market and negatively impact on growth if they restrict the flexibility of firms in their resourcing decisions. However, in terms of their impact on costs, the literature suggests that non-wage terms and conditions tend to be accommodated through adjustments to wages and may therefore be neutral for labour costs and productivity growth.¹⁴

Overall, New Zealand's labour market institutions are relatively flexible compared to those of many other countries. McMillan (2004) suggests that, compared to other countries, the levels of job creation and destruction exhibited in New Zealand imply its labour markets and economy has a considerable degree of adaptability. The World Bank (2004) benchmarks the business regulations of 133 countries and ranks New Zealand 10th in terms of the flexibility of hiring, firing and the conditions of employment and 5th of the OECD countries, as shown below.

¹⁴ Nickell and Layard (1999) report studies that find that mandated workers compensation insurance, inclusion of maternity coverage in company health insurance policies and parental leave entitlements are factored into wages with no adverse employment effects. However, they note others that find that environmental protection and health and safety regulation have reduced employment in small firms. Overall, they find that there is very little evidence on the impact of terms and conditions on productivity growth and no evidence of negative effects.

Figure 4 – Flexibility of labour regulations



Source: World Bank

5.2 Capital

Financial market institutions oversee the operation of the financial system.¹⁵ These institutions affect the availability of finance by influencing the confidence that savers and lenders have in the financial system.

Institutions need to protect the soundness of the financial system and ensure that financial organisations do not undermine the functioning of the market. Capital markets are particularly sensitive to the problems of asymmetric information and high transaction costs and are prone to fail in environments without the appropriate legal and regulatory institutions (Saleh 2004). A sound financial system provides savers and lenders with confidence that their funds are adequately safeguarded within the system by establishing a framework of rules on the obligations of financial organisations as well as setting parameters around the types of activities they can engage in and consequences for non-compliance.

Institutions also need to protect the freedom of financial organisations to exercise professional judgement about investment opportunities and provide savers and lenders with financial products with a range of risk/return profiles. Institutions that allow for flexibility enable financial organisations to invest in projects where there are high levels of uncertainty and high potential returns. The level of uncertainty associated with the returns to innovation is high, particularly with inventions, as little is known in advance that can indicate their likely success (Tong and Xu 2004).

Institutions that effectively balance the flexibility available to financial organisations while providing savers and lenders with confidence in the stability of the financial system are

¹⁵ See Claus, Jacobsen and Jera (2004) for a review of the literature on finance and economic growth.

particularly important for the development of new technologies and the contribution they can make to economic growth. Confidence in the financial system ensures funds are generally available for investment in an economy while flexibility ensures that some of these funds are available for innovative ventures.

Firms in an open economy can access finance internationally if they are not able to access them domestically. However, the availability of international finance is likely to be affected by the quality of financial institutions within the country, meaning that restrictions on the availability of finance may still exist.

5.2.1 Resource allocation

Financial market institutions that are either too weak (do not ensure the stability of the financial system as a whole) or too strong (overly restrict the flexibility of financial markets) are likely to reduce the funds available to firms for investment. In such cases, firms will have to use different, and potentially suboptimal, combinations of inputs to produce their output. For example, where a firm needs a large injection of financial capital to purchase physical capital, institutions that undermine the availability of capital or increase its cost will make the purchase of physical capital more difficult. In these circumstances, firms may attempt to substitute other factors for physical capital. Alternatively, they may choose not to expand operations in ways that require more physical capital.

5.2.2 Innovation and human capital

The availability of financial capital will determine the opportunities for innovation that firms can take up. Thus, institutions that improve the availability of finance can enable firms to increase productivity by expanding operations or introducing innovative improvements. Financial institutions play a role in the growth process because they are important to the provision of funding for capital accumulation and the diffusion of new technologies (OECD 2003).

Firms often adopt new technology embedded in new plant and machinery in the process of increasing physical capital. The adoption of new technology can contribute to greater firm productivity by increasing the output each worker can produce. The application of new technology often requires complementary investments in human capital, leading to increases in labour productivity and thereby higher firm productivity. Advances in technology often have strong links with education, meaning education makes a contribution to growth via innovation (OECD 2003).¹⁶

Firms will undertake innovation only when the return on the investments in physical and human capital is greater than the cost of the investments. This may not be the case if financial market institutions make finance too costly to obtain or if labour market institutions mean labour receives more of the benefits of investments than the firm.¹⁷ In such instances, firms may not undertake projects that could otherwise be beneficial to lenders, workers and firms.

¹⁶ OECD (2003) uses the average number of years of schooling of the population from 25 to 64 years of age as a proxy for the stock of human capital.

¹⁷ Kleiner and Ham (2002) note that decisions about making capital investments in foreign countries are somewhat sensitive to the industrial relations climate.

5.2.3 Productivity gains across firms

Financial market institutions influence the productivity of a country's overall capital investment as well as productivity at the individual firm level. Financial systems that are more developed may have a greater capacity to channel resources towards projects with higher returns (OECD 2003).

McMillan (2004) notes the importance of financial market institutions for assisting firms to grow. Firms need finance to grow and they are unable to obtain this if financial markets are underdeveloped from a lack of market-supporting institutions. McMillan notes that if information sources are lacking and investment uncertainties are prevalent, banks may be reluctant to lend to small firms, preventing them from growing into medium-sized firms. He also notes that information asymmetries for shareholders means that savers/lenders may be reluctant to buy stocks, meaning that the stock market may be less active than it could be and that firms may be unable to acquire the capital they need. This can prevent medium-sized firms from becoming large firms.

5.2.4 New Zealand capital institutions

New Zealand's financial market institutions mainly rely on information disclosure from financial market participants. While there is mandatory public disclosure of financial and prudential information, there is no deposit insurance or government guarantee of banks. In the banking sector, there are low levels of active regulation. New Zealand relies on more active interventions being carried out in other jurisdictions where the banks operating in New Zealand are domiciled.

New Zealand's labour market institutions in combination with its financial market institutions have had an impact on physical capital accumulation in New Zealand. Institutions in both areas were changed significantly during the 1980s and 1990s. Treasury (2004) suggests that New Zealand's low capital/labour ratio may be due to changes in capital and labour regulations leading firms to utilise more labour relative to capital.

The World Bank (2004) gives New Zealand the highest possible rating for its protection of creditors in its Doing Business measures and IMD International (2004) ranked New Zealand 7th out of 60 countries in terms of the adequacy of the legal regulation of its financial institutions for financial stability. McMillan (2004) notes that on measures of investor protections, New Zealand protects its savers/lenders at least as well as most other industrialised countries¹⁸.

McMillan notes that promising small firms appear to be able to attract the capital and other resources they need to grow in New Zealand. IMD International ranks New Zealand 11th out of 60 on the availability of access to its capital markets.

¹⁸ McMillan uses an indicator developed by La Porta, Lopez-de-Silanes, Shliefer and Vishny that measures the wedge between a firm's cashflow rights and control rights. The closer the wedge is to zero, the smaller the deviation from the ideal of one-share-one-vote. Country averages are 1% in the U.S., 10% in the U.K., 5% in Australia, 8% in N.Z. He also discusses a summary measure of investor protections compiled by the OECD, with a higher number meaning stronger protections. Scores ranged as follows: U.S. 0.42, U.K. 0.86, Australia 0.60, France -0.61, Germany 0.23, New Zealand 0.66.

5.3 Land and other natural resources

The institutions that affect the use of land and other natural resources most are those that define property rights over these assets. Property rights determine the access to and use of resources that can be made by individuals or groups. This includes specification of how they may transfer the property rights to others.

The nature of the property rights related to a particular resource depend on whether people can be excluded from using the resource (excludability) and the number of people that can use the resource concurrently (rivalness). Property rights can be broadly categorised as private property (generally excludable and rival); common property (group members have the right to exclude non-members); public property (owned by all, but with access and use controlled by the state); and open access property (where no one has the right to exclude anyone).

Open access property is typically inefficiently over-exploited; a problem termed by Hardin (1968) the “tragedy of the commons”. Without any institutional constraints, a negative appropriation externality arises where an individual uses the resource ignores the impact on the resource and on others. The result is a “rush” as individuals compete to appropriate the resource before anyone else does. Institutional responses to the overexploitation problem include the development of rules to regulate the capture of the resource stock, such as first-come first-served rules to minerals, and rules to regulate the capture of flow, such as riparian rights to water, estover (pasture) turbarry (peat) and piscary (fish). The development of the Individual Transferable Quota (ITQ) based management systems for fish in New Zealand is a response to an overexploitation system common in fisheries (Newell, Sanchirico and Kerr 2002).

Common property institutions typically include rules that prescribe who may use and benefit from the resource and what use may be made of the resource. Alienability is typically limited. Examples include village grazing areas, tribal fishing areas. In New Zealand, many of the resources owned collectively by Māori have common property characteristics. Common property institutions can lead to efficient resource use in some circumstances, generally where there are economies of scale in resource use; there are low transaction costs in monitoring and enforcement and the economic and social environment is stable (Ostrom 1990).

However, common property can also result in inefficient use (Cheung 1970). There is the possibility of opportunistic behaviour by individuals who might, for example sell the resource without the consent or knowledge of the other common owners. Common ownership increases the transaction costs of obtaining agreement among owners eg, for use or alienation; dilutes the incentives for any individual to husband or invest in the resource (others will benefit); discourages uses that may be more valuable but where monitoring of inputs and outputs is more difficult; reduces the ability to use the resource efficiently eg, to aggregate resources and increases fragmentation of title among successors (exacerbating the problem). Common ownership also reduces the ability to use the resource as security ie, it increases borrowing costs (Anderson and Lueck 1992). (De Soto 2001) considers that a lack of formal institutions of private property that prevents natural and physical capital from being used efficiently is responsible for the lack of economic development in many countries of the world.

In general, private property rights can be expected to result in efficient and sustainable resource use, since owners enjoy both the costs and benefits of their resource use decisions. The maximum economic value can thus be drawn from resources when private property rights are clear and well-defined.

However, private property rights may conflict with the rights of others. Pollution is the classic example of a resource allocation problem that arises because property rights are poorly defined. For example, air pollution arises because there are no clear defined property rights to air. Cars and factories can therefore emit smoke at no cost to themselves without regard to the impact on others.

Creating clearly defined property rights is a “first best” solution to the problem of externalities (Coase 1960). Alternatives include taxation and regulation. Private property rights are thus typically limited in some respect, often by regulation that proscribes use. The proscription may be intended to limit or prevent externalities that negatively affect others. While such regulation may be imposed with the objective of fostering the efficient use of resources, they can in some cases lead to inefficient resource use. Heller’s (1998) notion of anti-commons describes resources for which multiple parties have the right to prevent use or prevent changes in use. The result is the “tragedy of the anti-commons” where the fragmentation of veto rights creates incentives to hold-out and raises the transaction costs of agreement about efficient resource use.

Property rights legislation will contribute most to economic growth where it facilitates the use of land and natural resources by those who can use the resources most productively. Ideally, institutions will ensure that long term considerations of sustainability are taken into account when determining property rights over resources. Generally, those that value resources most are those that can obtain the greatest economic value from them. Non-economic factors (eg, cultural and spiritual values) play an important role in the use of land and other natural resources, but in order for efficient resource decisions to be made, those who enjoy the non-economic aspects of resources should also bear the costs.

5.3.1 Resource allocation, innovation and human capital

The quality of property rights around land and natural resources will affect the level of investment in such assets. Effective property rights institutions provide clear guidance on what property rights are, how to obtain them and the costs of ignoring them. Effective property rights institutions decrease the cost of sourcing finance for investments in land and natural resources as they decrease the uncertainty around the returns of the investment. Clearly defined property rights improve certainty about the returns from investment and so improve the value of investing in these resources. They can also reduce the cost of investing, by minimising the cost of obtaining property rights and reducing the legal costs incurred in gaining certainty about the validity of property rights. Clear property rights therefore improve the ability of firms to expand their productive capacity through innovative use of land and natural resources.

The effect that this has on investment in human and physical capital is uncertain. Unclear property rights could see firms substitute investment in human or physical capital for investment in land or natural resources. However, where firms have clear property rights over land, they are likely to also make investments in human and physical capital to complement their investments in land. In general, a firm’s overall productivity is likely to be reduced where the quality of its investments in one factor is compromised and it is not able to make full use of all its resources.

5.3.2 New Zealand natural resource institutions

The key piece of legislation related to the use of land and natural resources in New Zealand is the Resource Management Act 1991 (RMA). The purpose of the RMA as specified within the Act is to promote use of natural and physical resources for social, economic and cultural wellbeing in a manner that sustains the potential of these resources to meet the reasonably foreseeable needs of future generations. The RMA governs the use of land (including building on land), water, soil and air.

Business groups have expressed a number of concerns about the RMA and its impact on potential productivity. They are concerned that the process involved in obtaining resource consents under the RMA can be expensive and uncertain in terms of the decisions that will be reached about applications and the time involved in processing applications. They suggest that it is also a barrier to infrastructure developments that are essential to business, e.g., power generation and transmission, roading and water use. The government is undertaking a review of the RMA to be completed in September 2004, considering how to achieve the right balance of national and local interests, improve the design and process for local policy formulation, improve the consent decision making process, improve mechanisms for deciding who can use natural resources and support measures for building capacity and promoting best practice and implementation in local authorities.

A different resource management issue arises from the collective ownership structure of Māori land and whether it achieves a balance between protecting land from alienation and enabling land to be managed as a commodity for sustainable economic development (New Zealand Treasury 2001). Change to institutions in this area, particularly mechanisms for achieving control and financing, could allow greater returns to Māori land owners.

New Zealand's environmental laws are ranked very poorly in terms of their impact on competitiveness by IMD International (2004). New Zealand is ranked 60th out of 60 countries in terms of whether the compliance requirements of environmental laws hinder competitiveness. At the same time, New Zealand is ranked 11th in assessments of whether pollution problems that affect the economy (ie, the impacts of pollution are low compared to those of many other countries). The rankings in the Yearbook are based on survey responses rather than actual costs, so they reflect the perceptions of local business people rather than the relative level of costs associated with environmental laws in New Zealand relative to those in other countries.

6 Transactions and governance

Institutions governing product markets and corporate governance influence the nature of the markets in which firms buy and sell products.

6.1 Product markets

Product market institutions will influence the establishment of firms by shaping the markets within which firms operate. As such, they determine the scope for transactions to take place and the gains that firms can expect to achieve in return for meeting transaction costs. Product market institutions determine who can establish firms and how this must be done. The regulations include processes related to entry to and exit from markets

(e.g., procedures required to start a business and processes for filing for bankruptcy), restrictions on firms from entering particular markets (e.g., restricted numbers of licences or permits to operate, border controls) and operational requirements on firms (e.g., price setting controls).

Product market regulations affect firm productivity by influencing the level of competition in product markets and therefore the pressure to be efficient and innovative. Product market regulations that protect firms from competition encourage inefficient business practices as firm survival is not immediately threatened by inefficiency (OECD 2002). This allows for a suboptimal use of factor inputs and affects incentives to innovate and adopt efficient production techniques.

Product market institutions also affect industry productivity by determining the makeup of an industry or the market share of market participants. These institutions increase productivity where they encourage greater participation by productive firms and less by firms that are not as productive.

6.1.1 Resource allocation

Regulations that restrict entry into a market or limit the number of firms that can operate will reduce the number of employers in an industry. Restrictive product market regulation decreases employment as there are fewer firms to hire workers, which strengthens the incentives on incumbent workers to seek protection of their jobs (Koeniger and Vindigni 2003).

Cross-market influences in labour markets can be generated by uncompetitive institutions operating in product markets. Without competition, firms are able to set prices rather than being subject to the price set by the market. There is less pressure to be cost efficient in production as excess costs can be passed on to consumers. Market restrictions enable firms to appropriate excessive profits and workers within the firm will seek a share of these profits. Nickell and Layard (1999) note that union wage mark-ups are higher in firms with greater market power. Unions are able to secure a portion of the higher rents achieved by firms protected by product market restrictions.

Inefficiencies in resource allocation created by uncompetitive markets may be exacerbated by any inefficiencies that arise as a result of labour market institutions. Firms will have less flexibility over the use of labour and, facing little pressure to control prices, can pass any associated costs on to consumers.

6.1.2 Innovation and human capital

Product market institutions have implications for the innovation potential of firms and the economy. Where they generate markets with low levels of competition, there is little pressure to innovate to secure greater market share and therefore little incentive to invest in human capital as a source of or complement to innovation.

Even where product market institutions in general create a competitive environment, individual institutions can undermine innovative activity. For example, the absence of bankruptcy laws can reduce investments as such laws limit the risks faced by individual investors. Scarpetta *et al* (2002) suggest the contribution that product market regulations make to innovation and technology adoption depends on the conditions they create for the birth and expansion of innovating firms as well as for the exit of obsolete ones. Restrictions on market entry and exit undermine innovation because they inhibit the

dynamism of a market. Border controls can have a similar effect to domestic market controls in terms of market dynamism. International competition brings further pressure to innovate as well as exposure to new knowledge and technologies.

New firms often bring new ideas and technology and more efficient processes to the market. The effect of regulations on entry are especially important for productivity in industries where technology is rapidly evolving, such as information and communication technology (ICT) industries or industries that are characterised by high adoption of this technology (OECD 2002). New entrants to these industries play an important role in introducing new vintages of technology. Incumbents usually have a higher opportunity cost of adopting potentially superior technologies as the knowledge acquired to master the old technology is only partially transferable to the new technology (Bassanini and Ernst 2002).

Product market regulations also include the regulation and protection of intellectual property rights. Clear specification and strong enforcement of intellectual property rights support the appropriation of intellectual property by those generating it and thus encourage firms to innovate. If innovations are not appropriable there is little incentive to engage in innovative activities. However, to maximise innovation, intellectual property rights need to balance appropriation of benefits by the firms that generated the innovation with the possibilities that will arise from applying it to new technology.

Where a firm's rents are protected by restrictive product market regulations such as restrictions on entry to markets, they will not be driven to innovate even with protection of their intellectual property rights (Bassanini and Ernst 2002). The rents the firms would receive from engaging in innovation activities would not be significantly greater than those they would receive without the innovation.

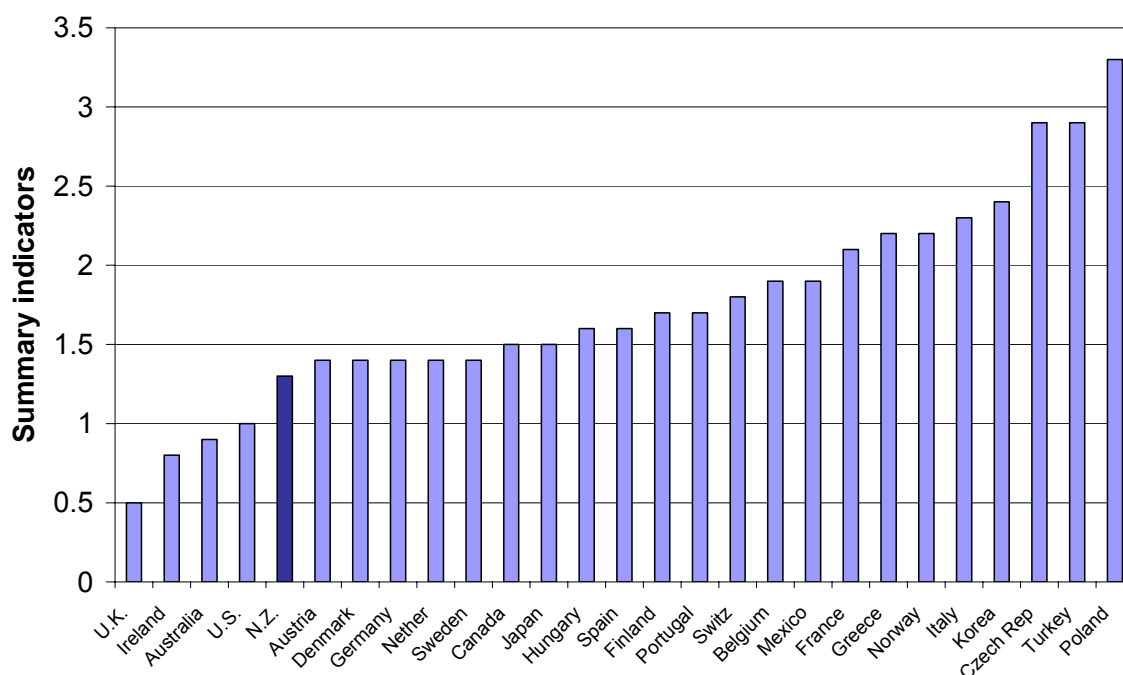
6.1.3 New Zealand product market institutions

New Zealand has substantially reformed its product market institutions. The government now plays much less of a role in regulating product markets than it has in the past, having reduced tariffs and done away with many interventions like subsidies, import licences and price controls.¹⁹ Market regulations now aim to support competition and efficiency in market operations.

Nicoletti, Scarpetta and Boylaud (1999) included New Zealand among the five countries with the least restrictive product market regulatory environments in the OECD, as shown in Figure 5.

¹⁹ New Zealand is currently considering what it will do with remaining tariffs after the current freeze on tariff removal ends on 1 July 2005. See <<http://www.med.govt.nz/buslt/tariffs/review/>> for more details.

Figure 5 – Restrictiveness of product market regulations



Source: OECD

Gwartney and Lawson (2004) rate New Zealand 5th overall in the Economic Freedom of the World index in terms of the economic freedom provided in product markets. This includes a ranking of 1st in terms of price controls (or lack thereof). IMD International (2004) ranks New Zealand 1st in the World Competitiveness Yearbook in terms of price controls, protectionism and subsidies not affecting economic activity.

McMillan (2004) notes that the costs of starting up a business in New Zealand are among the lowest in the world and the procedures for registering new firms are streamlined. IMD International (2004) ranks New Zealand 2nd for the number of days taken to start a business. The World Bank (2004) notes that it is relatively easy to open or close a business in New Zealand compared to other countries, with a system that is efficient and characterised by low costs and low complexity. It also notes that New Zealand's insolvency system is very efficient and requires no court involvement.

6.2 Corporate governance

Establishing a firm reduces the informational and contracting costs faced by resource owners in the open market. However, it does not eliminate costs, as the firm structure introduces some within-firm information, monitoring and uncertainty costs of its own (i.e., agency costs). Owners cannot be certain that their agents will pursue the objectives they wish them to, i.e., profit maximisation. Saleh notes that bargaining costs will be lower within the firm (for example, an employer need not negotiate with employees about undertaking specific tasks) but the costs of monitoring employees and obtaining information about aspects of the production process are not necessarily insignificant. There are a number of mechanisms that can mitigate these costs, including corporate governance, the market for corporate control and bankruptcy.

There are many conflicts of interest in firms with separation of ownership and control and where managers/shareholders are not liable for losses. La Porta, Lopez-de-Silanes, Shleifer and Vishny (1998) suggest that the legal system itself is a mechanism that allows investor rights to be protected. Furthermore, the legal system has a fundamental impact on the structure and functioning of the market which also acts as a discipline on managers.

More formally, the corporate governance system is a mechanism by which shareholders provide a discipline on management in order to maximise the value of the firm. Corporate governance mechanisms involve reporting and disclosure on matters related to management and board members, such as remuneration and responsibilities, declaration of relevant interests, provisions to limit insider trading, risk management processes, audit arrangements and relationships with stakeholders. Corporate governance mechanisms, while costly themselves, may reduce the prevailing agency problems and the induced agency costs. In other words, according to Shleifer and Vishny (1997: 737), “Corporate governance deals with the ways in which suppliers of finance to corporations assure themselves of getting a return on their investments.”

External agents other than shareholders may also effectively monitor and constrain managerial behaviour outside the corporate governance structure, for example through the stock market, bankruptcy or regulation.

The market for corporate control, including takeovers and mergers, also acts as a discipline on managers by external agents. A firm that is not performing up to expectations is an attractive target for a takeover. Where a firm is underperforming, its profits will fall and then its share price will fall. Shareholders will be more open to a takeover offer if a company is not performing well.

The threat of a takeover is a pressure external to the firm that provides a discipline on the activities of managers. The threat of takeover acts as an incentive on managers to perform well as management typically lose their jobs after a takeover. This is true whether or not a takeover offer has been made to shareholders because there is always the potential for an offer to be made. The threat of takeover aligns the interests of managers and shareholders by encouraging managers to maximise the returns to shareholders, which in turn encourages shareholders to resist takeover offers.

The market for corporate control can be seen as the “glue” that holds together the nexus of contracts that is the firm. When a firm is taken over, parts of the organisation may be sold off or established as stand alone entities. This implies that the agency costs associated with retaining resources within the firm had become too high and the new owners find it more cost effective to acquire those resources through the open market.

The degree to which the institutions governing the market for corporate control allow for takeover will influence whether the threat of takeover can place an effective discipline on management to perform. Regulation of takeovers and mergers can often focus on equity rather than efficiency objectives. Equity objectives involve the protection of consumers, minority shareholders, employees and other stakeholders. These considerations can affect the value of a takeover transaction to the acquirer and therefore reduce the extent to which takeovers contribute to improving management performance.

Other institutions may affect the capacity for changes in corporate governance. For example, competition law may prevent mergers and takeovers where a company is selling products in a non-competitive market. The prospect of corporate control providing greater discipline for firms operating in such markets would be particularly valuable, given

management in such firms face less pressure than their counterparts in more competitive industries to operate efficiently. However, mergers or takeovers of these firms is unlikely to improve these conditions and if anything will worsen them. Bittlingmayer (2000) notes that during most of the twentieth century, mergers, acquisition and control of corporations in the United States have been related to problems of monopoly and concentration of economic power.

6.2.1 Resource allocation, innovation and human capital

Resource owners will attempt to maximise their productivity and profitability through the method of coordinating resources that they adopt, either contracting in the open market or using the firm structure. Which method provides the greatest returns will depend on which delivers the greatest efficiencies. This in turn will depend on the relative imposition of transaction costs in the open market compared with the agency costs within the firm. This will be influenced by institutions governing corporate governance and market transactions.

Effective contracting institutions contribute to economic growth by improving the efficiency of transactions. They reduce the costs to firms of transacting with each other and provide an environment where firms can be confident about entering into contracting arrangements, undertaking innovations and investing in human and physical capital.

Effective corporate governance institutions contribute to economic growth by exerting discipline on management to maximise profits. Takeover, or the threat of takeover, can increase productivity and profitability if it increases management efficiency in resource allocation and encourages managers to look for innovative opportunities. Bittlingmayer (2000) notes that recent studies on firm productivity find that transfers of control over firms raise productivity and profits. Nicoletti and Scarpetta (2003) find that corporate governance and competition boost productivity growth. Effective corporate governance will encourage investment in human capital where this will enable management to improve profitability.

6.2.2 Productivity

Corporate governance is increasingly seen as a mechanism that promotes economic growth. However, while the relationship between corporate governance and growth is clear in theory, the relationship is difficult to establish empirically at the macroeconomic level, partly because the effect is difficult to measure and isolate (OECD 2004). Laws that protect investors differ significantly across countries, in part because of differences in legal origins and these differences in laws and their enforcement affect the ownership structure, dividend payout, availability and cost of external finance, and market valuations of firms (La Porta *et al* 1998).

Gugler, Mueller and Yurtoglu (2001) analyse the impact of corporate governance institutions, ownership structures and external capital market constraints on company returns on investment and they conclude that differences in firm performance are related more to the legal system than the firm's corporate governance arrangements.²⁰ Companies in countries with legal systems based on the common law earn returns on investment that are at least as large as the cost of capital.

²⁰ Gugler Mueller and Yurtoglu (2001) use a sample of more than 19,000 firms from 61 countries.

Klapper and Love (2002) examined governance arrangements in emerging markets and conclude that firm-level corporate governance matters more in countries with weak legal environments exhibiting little shareholder protection and poor judicial efficiency. In other words, the legal environment matters less for well-governed firms, which have less need to rely on the legal system to resolve governance conflicts.

At the firm level, the empirical evidence suggests that corporate governance is an important determinant of firm performance (see for example Gugler 2001). La Porta, Lopez-de-Silanes, Shleifer and Vishny (2000) find that strong investor protection is associated with effective corporate governance, as reflected in valuable and broad financial markets, dispersed ownership of shares, and the efficient allocation of capital across firms. Gompers, Ishii and Metrick (2003) found that firms with strong shareholder rights yielded annual returns that were 8.5% higher than those with weak rights.²¹ They also showed higher valuations, higher profits, higher sales growth and lower capital expenditures.

The impact of corporate governance on firm performance has been shown in a number of studies outside the US. Denis and McConnell (2003), in a survey of international corporate governance, conclude that strong investor protection permits the development of strong financial markets necessary for economic growth. A study of Korean firms showed that improving corporate governance practices can have a significant impact on the value of a company (Black, Jang and Kim 2003).²² Drobetz, Schillhofer and Zimmermann (2004), in a study of German firms, found a positive relationship between good governance arrangements in firms and firm value.

6.2.3 New Zealand corporate governance institutions

The practice of corporate governance is seen to be of a good standard in New Zealand, although ongoing consideration is given to how these can be improved to increase the information available to owners and the market more generally. The New Zealand Security Commission recently developed a set of principles for corporate governance to guide boards of directors related to ethical standards, board composition and performance, use of board committees, reporting and disclosure, remuneration of directors and executives, risk management, external audit processes, stakeholder relations and stakeholder interests. The New Zealand Stock Exchange recently reviewed its legal and regulatory framework to ensure the arrangements balanced the protection of market integrity with compliance costs. As part of upcoming reforms to securities trading law, changes will be considered for provisions related to insider trading, market manipulation, disclosure and penalties.

²¹ Gompers, Ishii and Metrick (2003) use a time series study of 1,500 US firms in the 1990s

²² This study is based on an index including shareholder rights, board of directors in general, outside directors, audit committee and internal auditor, disclosure to investors, and ownership parity. It showed that improving the index by 10 points results in a 5% increase in Tobin's q—the ratio of market value to book value of assets

7 Conclusions

Institutions affect the use firms make of human capital. They do so by influencing the resources that firms use and the innovations they undertake in their quest for greater productivity and thereby their need for human capital. Greater use of human capital can increase efficiency of resource use through improving labour productivity, which can lead to greater firm productivity. Human capital is also an important component of innovation and assists in the uptake of technology. Depending on whether or not institutions are efficiency enhancing in their nature, they will either lead firms to make full use of human capital or discourage firms from doing so.

Optimising the contribution of human capital to productivity requires a broad perspective on the institutions that can influence human capital formation and application. The most important institutions for economic growth are those underlying institutions that provide the broad environment for economic activity, especially those related to property rights and contract enforcement. These give firms the confidence to engage in production and exchange by reducing their uncertainty about whether they will receive the fruits of their economic activity. Such confidence provides a basis on which firms are willing to make long term investments, including investments in human capital.

Institutions that govern specific activities in the production and exchange of output will have impacts on economic activity that are more limited in scope, but still important. Where institutions lead to increased production and exchange they generate economic growth. Activity-specific institutions affect the efficiency of resource allocation within firms and transactions between firms. Institutions governing labour markets, financial markets and use of land and other natural resources will influence the extent to which firms can utilise these factors efficiently and innovatively. Institutions governing product markets and corporate governance will influence the pressures on firms to do so. Both the extent to which firms can utilise factors efficiently and innovatively and the pressure to do so will drive firm use of and investment in human capital.

Labour market institutions, particularly those related to job protection and collective bargaining, are likely to be significant in terms of their impact on the investment and use of human capital and on the levels of productivity achieved by firms. Their impact will depend on how the institutions affect the relationship between workers and employers and whether improvements they bring to the quality of labour's input increase productivity more or less than the degree to which they increase the cost and inflexibility of labour. The characteristics of institutions that enhance productive relationships between firms and workers is worth further exploration.

Institutions governing other factors of production will also influence the use of human capital. Financial market institutions that improve confidence in the soundness of the financial market will enhance the availability of finance to firms. This supports investment in physical capital and complementary investments in human capital, leading to increases in labour productivity and thereby higher firm productivity. Property rights particular to the use of land and natural resources influence the use that firms make of such resources and, depending on the confidence that firms have of gaining the returns from investments in natural resources, they could either substitute investment in human or physical capital for investment in resources or they may make complementary investments. To achieve greatest economic growth, property rights and financial market institutions would allow for the greatest potential utilisation of these factors of production.

Institutions related to transactions between firms influence the pressures on firms to be productive and to undertake innovations. Product market institutions that create competitive markets place pressure on firms to be efficient and innovative to maintain or increase market share. Corporate governance arrangements provide a discipline on firm management to maximise profits. Both types of institutions provide incentives to invest in human capital where it contributes to efficiency and innovation.

All of these activity-specific institutions can affect firm decisions in areas outside their domain. By way of example, labour market institutions can influence firm decisions about the use of capital where the relative impact of labour market and financial market institutions result in capital being more flexible, available and/or cost effective than labour. When new institutions are introduced, they can have consequences in other areas that may be unintended and may undermine productivity. Before introducing new institutions, assessment needs to be made of the cross-market impact of institutional changes in one area for resource use in other areas.

7.1 New Zealand's institutions: areas for further work

Overall, underlying institutions can be seen to have the most significant effect on economic growth because of the context that they provide for economic activity to flourish. In New Zealand, in many regards our underlying institutions provide an excellent environment for economic activity. One New Zealand institution that is the subject of ongoing public debate is the Treaty of Waitangi. The evolution of interpretations of the Treaty will have ongoing implications for economic growth given its bearing on property rights, resource use and social cohesion in New Zealand. Useful work could be undertaken to strengthen Māori social capability and governance (New Zealand Treasury 2001) and, among other things, align such work with the intended outcomes of the Treaty settlement process.

New Zealand's activity-specific institutions are also generally sound. However, there are some areas where they might be given further attention. Labour market institutions and the contribution that they can make to increases in productivity through improved relationships between employers and workers is an area that could usefully be further explored. Assessment of the impact on economic growth of the Employment Relations Act and recent amendments on the Act would be useful, once the provisions have been in place for a length of time, e.g. five years. Useful work exploring the implications for economic growth of New Zealand's financial market institutions and property rights over natural resources is already underway, although further consideration could be given to how institutions could be changed to unlock the productive potential of multiply owned Māori land. New Zealand's corporate governance and product market institutions are generally very efficient. Further work is underway to further strengthen corporate governance institutions and to consider future tariff levels.

References

- Acemoglu, Daron and Simon Johnson (2003) "Unbundling institutions." Cambridge MA, National Bureau of Economic Research, Working Paper No 9934.
- Acemoglu, Daron, Simon Johnson and James Robinson (2001) "The colonial origins of comparative development: An empirical investigation." *American Economic Review* 91(5): 1369-1401.
- Acemoglu, Daron, Simon Johnson and James Robinson (2004) "Institutions as the fundamental cause of long-run growth." Cambridge MA, National Bureau of Economic Research, Working Paper No 10481.
- Acemoglu, Daron, Simon Johnson, James Robinson and Yunyong Thaicharoen (2003) "Institutional causes, macroeconomic symptoms: Volatility, crises and growth." *Journal of Monetary Economics* 50(1): 49-123.
- Addison, John T and Paulino Teixeira (2003) "The economics of employment protection." *Journal of Labor Research* 25(Winter): 85-129.
- Anderson, Terry and Dean Lueck (1992) "Land tenure and agricultural productivity on Indian reservations." *Journal of Law and Economics* 35: 427-545.
- Aron, Janine (2000) "Growth and institutions: A review of the evidence." *World Bank Research Observer* 15(1): 99-135.
- Baptista, Rui (2004) "Culture, institutions and government attitudes towards new firm entry." Jena, Max Planck Institute for Research into Economic Systems, Group for Entrepreneurship, Growth and Public Policy, Discussion Paper 2004-39. <<https://papers.mpiew-jena.mpg.de/egp/discussionpapers/2004-39.pdf>>
- Bassanini, Andrea and Ekkehard Ernst (2002) "Labour market institutions, product market regulation, and innovation: Cross-country evidence." Paris, Organisation for Economic Co-operation and Development, Economics Department Working Paper No 316. <[http://www.oilis.oecd.org/olis/2002doc.nsf/linkto/eco-wkp\(2002\)2](http://www.oilis.oecd.org/olis/2002doc.nsf/linkto/eco-wkp(2002)2)>
- Betcherman, Gordon, Amy Lunistra and Makoto Ogawa (2001) "Labor market regulation: International experience in promoting employment and social protection." Washington DC, World Bank. <www.worldbank.org/wbi/labormarkets/courses/dc2003/proceedings/pdfpaper/module8gbalmo.pdf>
- Beugelsdijk, Sjoerd and Niels Noorderhaven (2004) "Entrepreneurial attitude and economic growth: A cross-section of 54 regions." *Annals of Regional Science* 38(2): 199-218.
- Bittlingmayer, George (2000) "The market for corporate control (including takeovers)." in Boudewijn Bouckaert and Gerrit De Geest eds *Encyclopedia of law and economics, volume iii. The regulation of contracts* (Cheltenham: Edward Elgar): Section V, Entry 5640.
- Black, Bernard, Hasung Jang and Woochan Kim (2003) "Does corporate governance affect firm value? Evidence from Korea." Stanford CA, Stanford Law School, John M Olin Program in Law and Economics, Working Paper No 237. <http://www.law.harvard.edu/programs/olin_center/corporate_governance/papers/2003.black.korea.pdf>
- Borner, Silvio, Frank Bodmer and Markus Kobler (2004) "Institutional efficiency and its determinants: The role of political factors in economic growth." Paris, Organisation for Economic Cooperation and Development, Development Centre.
- Card, David Edward and Alan B Krueger (1995) *Myth and measurement: The new economics of the minimum wage*. (Princeton: Princeton University Press).
- Cheung, Steven N S (1970) "The structure of a contract and the theory of a non-exclusive resource." *Journal of Law and Economics* 13(1): 49-70.

- Claus, Iris, Veronica Jacobsen and Brock Jera (2004) "Financial systems and economic growth: An evaluation framework for policy." Wellington, New Zealand Treasury, Working Paper No 04/17. <<http://www.treasury.govt.nz/workingpapers/2004/>>
- Coase, Ronald H (1937) "The nature of the firm." *Economica* 4(6): 386-405.
- Coase, Ronald H (1960) "The problem of social cost." *Journal of Law and Economics* 3: 1-44.
- Corcoran, Mary E, Sandra K Danziger, Richard Tolman, Kristin S Seefeldt, Daniel Rosen and Yunju Nam (1998) "Getting jobs, keeping jobs, and earning a living wage: Can welfare reform work?" Ann Arbor MI, Institute for Research on Poverty, University of Michigan, Discussion paper No 1170-98. <<http://www.ssc.wisc.edu/irp/pubs/dp117098.pdf>>
- Delsen, Lei and Mark Schonewille (1999) "Human capital and labour productivity: Integration of institutions and endogenous growth." Nijmegen, University of Nijmegen, Paper prepared for the the EALE conference, 23-25 September, Regensburg. <<http://econwpa.wustl.edu/eps/hew/papers/9908/9908001.pdf>>
- Denis, Diane K and John J McConnell (2003) "International corporate governance." *Journal of Financial and Quantitative Analysis* 38(1): 1-36.
- De Soto, Hernando (2001) "The mystery of capital." *Finance and Development* 38(1): 29-33.
- Djankov, Simeon, Rafael La Porta, Florencio Lopez-de-Silanes and Andrei Shleifer (2002) "Appropriate institutions." Washington DC, World Bank, Paper presented at conference "Appropriate Institutions for Growth", September 13. <<http://rru.worldbank.org/LogAndOpen.aspx?DocumentID=939>>
- Drobetz, Wolfgang, Andreas Schillhofer and Heinz Zimmermann (2004) "Corporate governance and expected stock returns: Evidence from Germany." *European Financial Management* 10(2): 267-293.
- Durbin, Sid (2004) "Workplace skills, technology adoption and firm productivity: A review." Wellington, New Zealand Treasury, 04/16. <<http://www.treasury.govt.nz/workingpapers/2004/>>
- Easterly, William and Ross Levine (2003) "Tropics, germs, and crops: How endowments influence economic development." *Journal of Monetary Economics* 50(1): 3-39.
- Ellickson, Robert C (1986) "Of Coase and cattle: Dispute resolution among neighbors in Shasta county." *Stanford Law Review* 38: 623-687.
- Ellickson, Robert C (1991) "Order without law." Cambridge, Harvard University Press.
- Engerman, Stanley L and Kenneth L Sokoloff (2003) "Institutional and non-institutional explanations of economic differences." Cambridge MA, National Bureau of Economic Research, Working Paper No 9989.
- Epstein, Richard A (1985) *Takings: Private property and the power of eminent domain*. (Cambridge MA: Harvard University Press).
- Epstein, Richard A (1999) *Natural resource law, property rights and takings*. (Wellington: New Zealand Business Roundtable).
- Freeman, Richard B (2000) "Single peaked vs. Diversified capitalism: The relation between economic institutions and outcomes." Cambridge MA, National Bureau of Economic Research, Working Paper No 7556.
- Glaeser, Edward L, Rafael La Porta, Florencio Lopez-de-Silane and Andrei Shleifer (2004) "Do institutions cause growth?" Cambridge MA, National Bureau of Economic Research, Working Paper No 10568.
- Gompers, Paul, Joy Ishii and Andrew Metrick (2003) "Corporate governance and equity prices." *Quarterly Journal of Economics* 118(1): 107-155.

- Grafton, R Quentin, Tom Kompas and P Dorian Owen (2003) "Productivity, factor accumulation and social networks: Theory and evidence." Dunedin, University of Otago, Department of Economics, Discussion Paper 03-04. <<http://www.business.otago.ac.nz/econ/research/discussionpapers/DP0304.pdf>>
- Granovetter, Mark (1985) "Economic action and social structure: The problem of embeddedness." *American Journal of Sociology* 91(3): 481-510.
- Granovetter, Mark and Richard Swedburg eds (1992) *The sociology of economic life*. (Boulder CO: Westview Press)
- Gugler, Klaus ed (2001) *Corporate governance and economic performance*. (Oxford: Oxford University Press)
- Gugler, Klaus, Dennis C Mueller and B Burcin Yurtoglu (2001) "Corporate governance, capital market discipline and the returns on investment." Berlin, Wissenschaftszentrum, Discussion Paper No FS IV 01-25. <<http://skylla.wz-berlin.de/pdf/2001/iv01-25.pdf>>
- Gwartney, James D and Robert A Lawson (2004) *Economic freedom of the world: 2004 annual report*. (Vancouver: Fraser Institute).
- Hall, Robert and Charles Jones (1999) "Why do some countries produce so much more output per worker than others?" *Quarterly Journal of Economics* 114(1): 83-116.
- Hardin, Garrett (1968) "The tragedy of the commons." *Science* 162: 1243-1248.
- Haucap, Justus (1998) "Institutions, development, and the human factor: The German 'miracle'." in Senyo BSK Adjibolosoo ed *International perspectives on the human factor in economic development*. (Westport CT: Greenwood): 11-28.
- Henderson, John, Shane Cave and Murray Petrie (2003) "National integrity systems: Transparency international country study report: New Zealand." Wellington, Transparency International - New Zealand.
- IMD International (2004) *World competitiveness yearbook*. (Lausanne: International Institute for Management Development (IMD)).
- IMF (2003) "World economic outlook: Growth and institutions." Washington DC, International Monetary Fund. <<http://www.imf.org/external/pubs/ft/weo/2003/01/>>
- Klapper, Leora F and Inessa Love (2002) "Corporate governance, investor protection, and performance in emerging markets." Washington DC, World Bank, Policy Research Working Paper No 2818. <http://econ.worldbank.org/files/13267_wps2818.pdf>
- Klein, Daniel (1997) "Reputation: Studies in the voluntary elicitation of good conduct." Ann Arbor MI, University of Michigan Press.
- Kleiner, Morris M and Hwikwon Ham (2002) "Do industrial relations institutions impact economic outcomes?: International and U.S. State-level evidence." Cambridge MA, National Bureau of Economic Research, Working Paper No 8729.
- Koeniger, Winfried and Andrea Vindigni (2003) "Employment protection and product market regulation." Bonn, Institute for the Study of Labor (IZA), Discussion Paper No 880. <<ftp://ftp.iza.org/dps/dp880.pdf>>
- La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer and Robert W Vishny (1998) "Law and finance." *Journal of Political Economy* 106(6): 1113-1155.
- La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer and Robert Vishny (2000) "Investor protection and corporate governance." *Journal of Financial Economics* 58: 3-27.
- Lazear, Edward P (1990) "Job security provisions and unemployment." *Quarterly Journal of Economics* 105(3): 699-726.
- Maloney, Tim (1998) *Five years after: The New Zealand labour market and the employment contracts act*. (Wellington: Institute of Policy Studies).

- McMillan, John (2004) "A flexible economy? Markets, entrepreneurship and productivity in New Zealand." Presented to workshop on 'Productivity: Performance, Prospects and Policies', July 28-29, Wellington.
- Neumark, David and William Wascher (2000) "Minimum wages and employment: A case study of the fast-food industry in New Jersey and Pennsylvania: Comment." *American Economic Review* 90(5): 1362-1396.
- New Zealand Department of Labour (2003) "Evaluation of the short-term impacts of the Employment Relations Act 2000." Wellington, Department of Labour.
<<http://www.dol.govt.nz/PDFs/ERA%20Evaluation.pdf>>
- New Zealand Treasury (2001) "Towards an inclusive economy." Wellington, New Zealand Treasury, Working Paper No 01/15.
<www.treasury.govt.nz/workingpapers/2001/twp01-15.pdf>
- New Zealand Treasury (2004) "New Zealand economic growth: An analysis of performance and policy." Wellington, New Zealand Treasury.
<<http://www.treasury.govt.nz/release/economicgrowth/nzeg-app-apr04.pdf>>
- Newell, Richard G, James N Sanchirico and Suzi Kerr (2002) "Fishing quota markets." Washington DC, Resources for the Future, Discussion Paper No 02-20.
<<http://www.rff.org/rff/Documents/RFF-DP-02-20.pdf>>
- Nickell, Stephen and Richard Layard (1999) "Labor market institutions and economic performance." in Orley Ashenfelter and David Card eds *Handbook of labor economics* (Amsterdam: Elsevier Science): 3029-3084.
- Nicoletti, Giuseppe and Stefano Scarpetta (2003) "Regulation, productivity and growth: OECD evidence." *Economic Policy* 0(36): 9-51, 54-69.
- Nicoletti, Giuseppe, Stefano Scarpetta and Olivier Boylaud (1999) "Summary indicators of product market regulation with an extension to employment protection legislation." Paris, Organisation for Economic Co-operation and Development, Economics Department Working Paper No 226.
<<http://www.oecd.org/dataoecd/21/13/1880867.pdf>>
- North, Douglass C (1990) *Institutions, institutional change and economic performance*. (Cambridge: Cambridge University Press).
- North, Douglass C (1991) "Institutions." *Journal of Economic Perspectives* 5(1): 97-112.
- North, Douglass C (1994) "Economic performance through time." *American Economic Review* 84(3): 359-368.
- OECD (2002) "Productivity and innovation: The impact of product and labour market policies." *Economic Outlook* 71(Chapter 7): 171-184.
- OECD (2003) "The sources of economic growth in OECD countries." Paris, Organisation for Economic Co-operation and Development.
- OECD (2004) "Corporate governance: A survey of OECD countries." Paris, Organisation for Economic Co-operation and Development.
- Offer, Avner (1997) "Between the gift and the market: The economy of regard." *Economic History Review* 50(3): 450-476.
- Ostrom, Elinor (1990) *Governing the commons: The evolution of institutions for collective action*. (Cambridge: Cambridge University Press).
- Petrie, Murray (2002) "Institutions, social norms and well-being." Wellington, New Zealand Treasury, Working Paper No 02/12.
<<http://www.treasury.govt.nz/workingpapers/2002/twp02-12.pdf>>
- Putnam, Robert D (2000) *Bowling alone: The collapse and revival of American community*. (New York: Simon & Schuster).
- Rodrik, Dani (1999) "Where did all the growth go? External shocks, social conflict, and growth collapses." *Journal of Economic Growth* 4(4): 385-412.

- Rodrik, Dani (2000) "Institutions for high-quality growth: What they are and how to acquire them." Cambridge MA, National Bureau of Economic Research, Working Paper No 7540.
- Rodrik, Dani (2003) "Growth strategies." Cambridge MA, National Bureau of Economic Research, Working Paper No 10050.
- Rodrik, Dani, Arvind Subramanian and Francesco Trebbi (2002) "Institutions rule: The primacy of institutions over geography and integration in economic development." Cambridge MA, National Bureau of Economic Research, Working Paper No 9305.
- Rodrik, Dani, Arvind Subramanian and Francesco Trebbi (2004) "Institutions rule: The primacy of institutions over geography and integration in economic development." *Journal of Economic Growth* 9(2): 131-165.
- Rupasingha, Anil, Stephen J Goetz and David Freshwater (2000) "Social capital and economic growth: A county-level analysis." *Journal of Agricultural & Applied Economics* 32(3): 565-572.
- Rutherford, Malcolm (2001) "Institutional economics: Then and now." *Journal of Economic Perspectives* 15(3): 173-194.
- Sachs, Jeffrey (2003) "Institutions don't rule: Direct effects of geography on per capita income." Cambridge MA, National Bureau of Economic Research, Working Paper No 9490.
- Saleh, Jahangir (2004) "Property rights institutions and investment." Washington DC, World Bank, Policy Research Working Paper No 3311.
<http://econ.worldbank.org/files/35738_wps3311.pdf>
- Scarpetta, Stefano, Philip Hemmings, Thierry Tresselt and Jaejoon Woo (2002) "The role of policy and institutions for productivity and firm dynamics: Evidence from micro and industry data." Paris, Organisation for Economic Co-operation and Development, Economics Department Working Paper No 329.
<[http://www.oecd.org/olis/2002doc.nsf/linkto/eco-wkp\(2002\)15](http://www.oecd.org/olis/2002doc.nsf/linkto/eco-wkp(2002)15)>
- Scarpetta, Stefano and Thierry Tresselt (2004) "Boosting productivity via innovation and adoption of new technologies: Any role for labor market institutions?" Washington DC, World Bank, Policy Research Working Paper No 3273.
<http://econ.worldbank.org/files/34838_wps3273.pdf>
- Shleifer, Andrei and Robert W Vishny (1997) "A survey of corporate governance." *Journal of Finance* 52(2): 737-783.
- Tong, Jian and Chenggang Xu (2004) "Financial institutions and the wealth of nations: Tales of development." Ann Arbor MI, William Davidson Institute, University of Michigan Business School, Working Paper No 672.
<<http://www.bus.umich.edu/KresgeLibrary/Collections/WorkingPapers/wdi/wp672.pdf>>
- Williamson, Oliver (2000) "The new institutional economics: Taking stock, looking ahead." *Journal of Economic Literature* 38(3): 595-613.
- Woolcock, Michael (2001) "The place of social capital in understanding social and economic outcomes." *Isuma - Canadian Journal of Policy Research* 2(1): 11-17.
- World Bank (2004) *Doing business in 2004: Understanding regulation*. (Washington DC: World Bank).
- World Economic Forum (2003) "Global competitiveness report." Geneva, World Economic Forum.
<<http://www.weforum.org/site/homepublic.nsf/Content/Global+Competitiveness+Programme>>