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Institutions and Agricultural Growth in Bolivia and New Zealand[A]

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Summary

This essay compares the experiences of agricultural development and overall development in two similar but very different countries: Bolivia and New Zealand. Similar since they both have small populations living from economies based on relatively abundant natural resources; and both are remote from the centres of the world economy. Both became largely self-governing in the first half of the nineteenth century; but there the similarities end, for today while New Zealand is a prosperous and relatively egalitarian society with high indices of human development, Bolivia remains poor and highly divided by class, ethnicity and region; a land of a few haves and many have-nots who live in unacceptable poverty.

To what extent can the different economic institutions that have evolved in the two countries explain these differences? Or are there other more powerful factors, including political institutions, that apply?

This essay addresses the question by looking at the agricultural development of the two countries since the early nineteenth century. In terms of performance, the New Zealand agricultural economy grew only modestly for most of the twentieth century, with fluctuations reflecting the changing fortunes of agriculture producing mainly for international markets. Over the last forty years, Bolivian agriculture has grown more quickly, thanks to a dramatic expansion of cultivation in the formerly remote and inaccessible eastern lowlands. Productivity gains in yields per hectare and returns to labour have been similar, although in the case of labour productivity from a very much lower base in Bolivia.

Overall economic growth over the last half century shows that while New Zealanders were roughly twice as well off by 2000 in real terms as they were in 1950, Bolivians had remained at the same average income levels; but growth in the two countries was not that different: in both cases, as small economies open to the world, there were variations resulting from external conditions – and both countries saw many years when average incomes fell. The difference was that in Bolivia there were more bad years, the fall was more severe, and in the good years progress was less rapid than in New Zealand. While Bolivia suffered from external shocks, internal events were also influential. Investment has clearly made a big difference: investment levels have been roughly twice as high, as a share of GDP, in New Zealand compared to Bolivia.

Moreover, in Bolivia what growth there has been since the late 1980s – when most years have seen growth – has made little difference to high levels of poverty. In an already highly unequal society, the drivers of growth in recent times – the oil and gas workings and the soybean fields of Santa Cruz seem to have created little employment and equally few linkages in the economy. Government has been unable to redistribute the wealth to spread the benefits.

Development of economic institutions has been markedly different in the two countries. From the early years of the twentieth century, most of the land of New Zealand has been owned and worked by many family farms of a scale limited to the area that the household, with a little extra labour at peak times and plenty of machinery, could manage. In Bolivia, land issues remain contentious, at least in the east, and take up much political debate and energy. Ownership of land is markedly uneven between the peasant smallholdings of the highlands and the settlement areas of the lowlands, and the large commercial farms that dominate the eastern lowlands.

Institutions for commercial intermediation were developed early in New Zealand on government initiative, and complemented by measures to lower risks of all kinds, and to create a broad consensus between labour, farmers, enterprise and government on economic and social policy. Collective action in agriculture has proved relatively easy. Dairying, producer of exports par excellence given the world class standards and costs achieved, is based on family farms and co-operatives for inputs and marketing.

In Bolivia, a lack of general trust in business is chronic. Paradoxically, members of groups that have little problem in combining for political defence and protest, appear to be unable to trust each other when it comes to a deferred transaction. Government has done little to promote institutions to overcome these obstacles. The wages of gross inequality are, it seems, pervasive mistrust and an inability to combine to useful economic purpose.

Although the differences in institutional development are sharp, it is not the institutions that that drive outcomes in these two cases: they are the results of deeper political and social forces. In Bolivia, an appealing hypothesis is that an economy where quick returns can be made from working minerals, oil, gas or unused fertile land; a state that is weak in delivering public services or promoting neutral institutions, but which can nevertheless allocate property rights and maintain order in the face of gross injustice; and a society of longstanding divisions sharply divided by class, ethnicity and region; combine to produce a political and social culture of rent-seeking, where control of the state to promote narrow and partisan interests is the route to prosperity. The malaise contains feedback loops: efficient economic institutions other than the rights to property are a low priority; while injustice and inequality contribute to political turmoil that undermines the few institutions that work.

The contrast with New Zealand is striking; but it is not as if these islands had a straight run to their current condition: by the 1860s land tenure was unequal, similar to that of Bolivia at the same time. While circumstance – the collapse of wool prices in the late nineteenth century that undermined the large sheep estates, the dense bush of North Island that required much labour and time to clear, and refrigerated shipping that made dairying an option and ushered in an era of profitable agricultural exports that has formed the backbone of the New Zealand economy – contributed to the division of the estates

in the late nineteenth century; the state was determined to prevent land concentration and to promote relatively small owner-operated farms. Government policies were crucial, and they reflected the outcome of democratic debate in a country where all men held the vote from 1879 and women as well from 1893. The political imagination of New Zealand at the time saw progress in owner-operated, family farms, not in large estates with a subordinate class of agricultural labour.

On the other side of the southern Pacific, things were different. During the 1870s in Bolivia, in a breathtakingly perverse development, the state actively worked to help the landowners take away the land of the indigenous peasantry – and this at a time when farming was anything but a profitable option. In a highly unequal society where less than a tenth of the population had the vote and a universal franchise was to await 1952, the self-serving political vision was that progress lay with the settler elites. This particular land legislation was one of an endless series of measures started at least 300 years earlier that entrenched inequality, largely along ethnic lines.

The story told here develops two main themes. One is that of path dependency: once decisions have been taken at critical moments, subsequent choices narrow and self-reinforcing mechanisms tend to drive events in particular directions; but this should not be taken as a story of inevitability: critical junctures and ruptures do occur as politics, driven as much as anything by an imagination of what could be.

Path dependency directs attention to the longer term. New Zealand is a prosperous society today unlike Bolivia, not because New Zealand ever found the elixir of rapid economic growth. On the contrary, and to the frustration of some of its citizens over the last sixty years as the country has slipped down the OECD league table of incomes, the New Zealand economy has grown slowly; but it has done so for at least 150 years, with interruptions – as a small, open economy exporting commodities it can be buffeted by world markets – but none of them that serious. The cumulative result is prosperity.

A second theme follows from these thoughts: in these cases, it is political development that sets the context of degrees of equality that then result in particular economic institutions and the ways they function. In economic terms, if there is an intermediate level between politics and economic growth, it is more a matter of investment climate, of which the economic institutions form part and perhaps make manifest, than of the institutions themselves.

If there is a policy implication from this comparative study, then it is that while institutions matter it is the context in which they are formed that matters more. The creation of an investment climate, in the full sense of the term, has to be the goal. This has become something of a Holy Grail in recent writing about economic growth, for which it is unlikely there will ever be a universal recipe; but clearly if there is one single difference between the historical experiences examined here it is fairness and the construction of a mature political accord that allows investment and innovation over the long term.

Contents

1. Introduction

Today the differences between Bolivia and New Zealand are only too clear, as the stark statistics of Table 1.1 show. In Bolivia, 65% are poor, living on US$1 a day or less; in New Zealand only 9% can be considered poor, and even that is relative to other New Zealanders rather than to an absolute level. Gross domestic product (GDP) per capita, in purchasing power parity (PPP), is estimated at US$2,817 for Bolivia, while in New Zealand the equivalent figure is almost ten times higher, US$27,785. Moreover, Bolivian income is wretchedly distributed: a small fraction of rich take the lion's share leaving the majority living in or close to poverty. New Zealand, in contrast, has a relatively equitable distribution of income. Similar differences appear when looking at indicators for health and education.

It is clear by any count that, in the 183 years since Bolivia gained independence in 1825 and the 168 years since the Treaty of Waitangi (1840) that effectively marks the beginning of New Zealand as a modern state, the fortunes of the two countries have been very different. Yet the two countries share several characteristics. They are both small in terms of their population and economies. Both have large areas of arable land relative to their populations, agriculture is an important activity, and a substantial fraction of the population lives in rural areas. They are both remote from the main concentrations of population and economy in the world. They are both settler economies: countries that have seen large numbers of European immigrants[1] arrive, subjugate the indigenous population, and take political power and control of the economy.

Table 1.1: Bolivia and New Zealand compared

	Bolivia	New Zealand
Land area, '000 km^2	1,089	269
Population, M	9.1 (2007 est.)	4.3 (end 2007 est.)
• Rural population, %	38%	28%
GDP per capita, nominal, US$	1,422	30,234
GDP per capita, PPP, US$	2,817	27,785
Inequality, Gini coefficient	0.60 (2002)	0.36 (1997)
Poverty, %		
• Total	65%	9.2% (1989/95)*
• Rural	82%	
Life expectancy, years, male, female, 2005	62, 66	77, 81
Infant mortality, per 000, 2005	52	6
Under-five mortality, per 000, 2005	65	7
Adult illiteracy, %	13	
Human Development Index, 2007	0.695	0.943

* = % of population with incomes under 50% of the median

But there the similarities end. Key differences include:

- geography – Bolivia is landlocked, in part highly mountainous making access to the outside world difficult; while New Zealand consists of long narrow islands where there is usually ready access to a port. Bolivia has had abundant resources of minerals, oil and gas whereas New Zealand has had limited mineral wealth;
- history – from 1825 onwards Bolivia was independent, with few links to its previous colonial master, Spain; whereas for more than a century after Waitangi New Zealand was closely tied to the United Kingdom in trade, finance and culture; and
- society – in Bolivia the indigenous population, although suffering a drastic decline in their population after the Spanish conquest, have always made up a large fraction, close to a majority,[2] of the population, whereas in New Zealand the Europeans who arrived in numbers after 1840 rapidly outnumbered the Maori who today make up around 15% of the population.

In comparing the two countries, there is one more twist to the story. Whereas New Zealand is relatively homogenous regionally in economy and society, in Bolivia there are well marked historical and social differences between the highlands of the west of the country where some two-thirds of the population live, and the lowland plains of the north and east of the country. In the highlands the Spanish conquistadores of the sixteenth century found a well-established agricultural economy and society united under Inca

1 In the case of Bolivia some of these arrived having spent several generations in neighbouring countries auch as brazil and Argetina.

2 The fraction of Bolivia's population that is indigenous is a matter of some contention. In the Census of 2001, some 62% of the respondents considered themselves to be so; but other government statistics put the proportion at just under 50%

rule. In the lowlands, on the other hand, the indigenous population was sparse, consisting of dispersed and separate groups of hunters, gatherers and itinerant farmers and, as in New Zealand, settlers came to outnumber the indigenous and seized control of much of the land. In what follows in this essay, the contrast is not just between two countries, but also between the highlands and lowlands of Bolivia, allowing in some respects a three-way comparison.

Questions and hypotheses

Why have the two countries developed so differently since the first half of the nineteenth century? Focusing primarily on the record of agricultural development and its contribution to economic growth and poverty reduction, this essay addresses the question looking at the role of institutions to the processes and outcomes seen, and tries to compare their influence to those of other factors.

What follows is largely exploratory in that it attempts to take into consideration a wide range of issues so as not to miss out on potentially important explanatory factors. Some precision is lost as a result.

Since this piece is a historical analysis with institutions at the centre, it aims to contribute to debates in the historical-institutional tradition. Two sets of thoughts from this are particularly relevant in this case.

One is the idea of path dependency: that choices are made at critical junctures that are institutionalised so that subsequent choices are framed and limited by previous decisions. In some cases the decisions made at critical junctures were not necessarily that great, but the cumulative consequences then lead to very large differences in the histories of fortunes of the countries concerned.

Mahoney's (2001) analysis of Central America is good example.[3] In this case the critical juncture is the 1870 to 1930 period when throughout the isthmus liberal ideas that stressed the importance of economic growth through trade dominated policy making. 'Modernisation' was the road to achieving this: partly a matter of investing in infrastructure and enterprises, adopting better technology, and reforming institutions to facilitate commerce. Export agriculture was at the heart of matters, so land mattered, and much of the land was either under communal or state ownership. For efficiency, the rhetoric claimed, this land would be better in private freehold: behind the rhetoric lay the clear self interest of those with land and capital who could see the profits to be gained from grabbing land; but the five nations took different roads at this stage, differentiated by the extent to which land was seized and how much it was then concentrated in large estates. Guatemala and Costa Rica marked the extremes: the former transferring land to large estates; the latter taking less land and distributing it in family-sized lots. Once in place, vested interests have led to authoritarian repression in the grossly inequitable economy of Guatemala; while in Costa Rica a liberal and social democracy emerged in the much more equal economy and society.

In similar vein, Bates (1989) looks at the creation of institutions at several critical junctures in modern Kenyan history: the arrival of the white settlers in the first few decades of the twentieth century; the reforms made from 1954 onwards and above all after independence in 1964, and the changes to the model that emerged in the Moi presidency from the early 1980s onwards. In this account political interests and economic efficiency lead to institutional choices that confer advantages to groups that can use this politically to make further policy and institutional change to their benefit.

Bates introduces another and seemingly vital element to the analysis: the difference between periods when the power of the state was deployed largely to redistribute assets and wealth amongst different groups – most clearly seen in the alienation of land to white settlers and the measures to try and ensure a supply of African labour to the farms created; and times when the state focused on raising productivity and efficiency in a drive for growth.

The other set of thoughts stems from a key question in any account of path dependency: on what basis were the decisions made at the critical juncture? In looking for the origins of institutions that appear to have set nations on very different courses, factor endowments have been highlighted.

For example, a longstanding question has been the reasons for the differences in economic growth seen in the USA and Canada compared to that seen in Latin America. Hoff (2003) reports Sokoloff & Engerman's arguments: that it was the differences lay in the relative endowments of population, climate, and minerals in the sixteenth and seventeenth centuries. Where, as applied in the Caribbean and in much of Latin America, there were easy rents to extract through mining or by operating plantations to produce sugar, then the critical institutions were those to guarantee a labour force to work the mines and the estates. These then created societies of extreme inequality in access to land and natural resources, as well as to the profits from their use, leading to deformations in subsequent institutional and political development.

Where, as in the north of the USA and Canada, population was sparse, precious mineral deposits were absent, and the land was suitable only for grains and livestock, there was little profit to be had.[4] It proved

3 He summarises the approach as follows: '... path dependence occurs when the choices of key actors at critical juncture points lead to the formation of institutions that have self-reproducing properties. These institutions are important to subsequent political development because their persistence produces a series of reactions and counter-reactions that culminate in the creation of major regime outcomes. Hence, in this approach, key actor choices during critical junctures set into motion more deterministic causal processes that drive processes of political development.' (111–112)

4 This was to change by the nineteenth century when falling shipping costs and the growth of the European market made grain farming profitable, and when the industrial revolution made mineral deposits of coal, iron, ore, copper, alluminium, etc. and eventually oil and gas, valuable assets.

impossible to tie labour to large farms in any case. The institutions that emerged were more equitable leading to societies where ordinary people became citizens with education and voting rights, with the power to prevent elites from living off rents and anxious to ensure widespread access to opportunities be that through ownership of land or education and skills.

In similar vein, Acemoglu, John & Robinson (2002) have argued that a fundamental difference between the fate of the 'western offshoots' of North America, Australia, New Zealand, South Africa and the Southern Cone, and other developing countries was related to settlement density and the need to settle Europeans to have a labour force. Settlers could only be attracted if they had secure rights to property and so clear and strong property rights were established early on with subsequent benefits in investment and growth. In other parts of the developing world, labour could be secured from existing populations, and strong property rights were not established from an early moment of incorporation into European trading regimes.

These accounts prompt more questions, however, than they answer. Why, for example, did not the initial wealth of areas of Latin America with sugar plantations or gold and silver mines lead to cycles of accumulation giving them a head start in industrialisation? Why should high inequality of assets and incomes prevent economic growth?

Were property tights in areas such as West Africa really that much less clear than in, say, Australia? Hill's (1996) account of the cocoa boom in Ghana (then the Gold Coast) in the closing decades of the nineteenth century show that local institutions could give investors all the confidence they needed to invest, and that indigenous entrepreneurs were capable of both investing on farm and in infrastructure, and of sorting out institutions to allocate land and attract labour to the cocoa groves.

Why, when the opportunity for profit in grain farming arose, did not those with power in the young United States not bond labourers to large estates? The country was at that time operating slave plantations in the south: the model was there.

At first sight, it seems that there is a little more to choice of institutions than the geographical lottery of initial factor endowments. Indeed, Mahoney argues that in Central America it is not just a matter of population density: that may be an important difference of Guatemala and Costa Rica, but explains less for the other three cases.

This discussion will be renewed in the conclusions. The next section outlines the broad patterns seen in the agricultural and economic development of the two countries, and in the case of Bolivia, with a short review of poverty. Following that, key institutions are examined, with particular attention to land rights. From these observations conclusions are drawn on the relation between institutions, agricultural and overall national development.

2. Agricultural development, growth and poverty reduction

Bolivia
Agricultural development since 1825

At Independence in 1825 farming in Bolivia was carried out in two main forms. One was the largely subsistence farming practised by households in the indigenous communities, almost entirely in the altiplano and valleys that made up the highlands, where the large majority of the population lived. Here the land was held communally at the level of the community or village, but arable land was allocated to households for their usufruct and farmed largely by the household alone – although labour was exchanged with neighbours and family at peak times in the farming season. Pastures, woods and any water bodies were not individually apportioned; their use being open to members of the community, subject to collective norms of appropriation and use.

On small areas, effectively limited to less than five hectares by the ability of the household to till using hand tools supplemented in some cases by the draught power of oxen, donkeys and horses, households produced potatoes – with a profusion of varieties that had been developed for the many ecological niches found in the highlands – quinoa, maize, wheat, and vegetables. In addition, households herded flocks of llama, alpaca, cattle, sheep and goats: the importance of livestock increasing towards the semi-arid margins where large areas of unimproved pasture had no alternative use. As a backyard activity cui – similar to a guinea pig – and pigs were kept.

The main aim was to feed the household, but some surpluses were produced to meet two main demands. Taxes were one: the Spanish taxed households at the rate of one-tenth ('diezmo') of the produce – apparently a drastic reduction on the Inca taxation that applied beforehand that was levied at a staggering 75% (Antezana 2006).[5] In addition, for communities within reach of towns and mining camps there was the chance to produce for the market, although in this they faced competition from the other

5 Antezana comments that with taxes at this level, the invading Spanish with their 10% levy were sometimes seen as preferable to the offficials of the Inca empire.
These, however, were not the only exactions of the Spanish. In addition to the tribute, they levied labour obligations on the communities who were expected to provide labourers for the mines under a labour system known as the 'mita', by which male adults would work for four months every seven years. At the silver deposits of Potosí in the sixteenth century as many as 14,000 'Indians' were put to work.

main sector, the large farms ('haciendas') owned by Spanish settlers.

These were set up in colonial times usually in areas close to the towns and mining camps that the Spanish established to provide them with food. The crops and livestock, and indeed, the technology used, were not that different from the indigenous communities – the exceptions being the introduction of the plough, new crops such as wheat and barley, and the new livestock of cattle, horses, donkeys, sheep and goats that were introduced. The creation of the hacienda probably did not involve the expropriation of much indigenous land. In the seventeenth century it was estimated that the indigenous population of Alto Perú – the Spanish sub-division that later became Bolivia – was 3M who occupied some 50M hectares (ha) while the Spanish farmers of that time were no more than 2,000–3,000 settled on 15,000–20,000 ha. (Antezana 2006) But if the haciendas were an imposition, it was not so much in the land they took, as in their demands for labour. These were met by the indigenous communities. The landlords signed up labourers (known as 'yanaconas') from local communities, paid their tribute and exempted them from the mita (labour service in the mines) in return for them working on the estates. (Laserna 2005) This often evolved into a system by which the labourers occupied plots on the estate from which they provided for their own subsistence, in return for unpaid labour to the central domain operated by the owner.

The haciendas produced just enough to supply the camps and towns, and to provide the Spanish owners with the leisured life of the gentleman: many hacendados spent much of their time at their town houses. Given the distance from world markets, and the immense costs of shipping bulky farm produce through the mountains, there were no exports beyond the local rural economies. Although agriculture in 1825 might have been the mainstay of most people's livelihoods, the dynamo of the colonial economy was mining.

In the lowlands, there was little farming in 1825: some of the hunter-gatherer groups practised shifting agriculture for subsistence; while around the small and remote settlement of Santa Cruz there were a few haciendas supplying the city. There were a few products from the tropical lowlands that were valuable enough to cover the costs of mule transport to the highland cities: sugar, cotton, dried meat ('charque') and leather. The extent of such exports from the lowlands varied with the fortunes of the mines and the demand that they generated for food and leather goods (Arrieta et al. 1990).

From 1825 to 1873 little changed in the Bolivian countryside. Bolívar, briefly the first president of the country, and his successor Sucre, brought in a liberal and enlightened constitution that protected the rights of the indigenous to their land, abolished slavery, and decreed that all labour should be paid wages, putting an end to levied labour and the like; but fine words in constitutions are one thing, reality another. Given how often the various decrees and laws on labour were reiterated over the next forty years, the impression is that nothing much changed in labour relations. With political power in the hands of urban elites including the estate-owners, it was unlikely that the measures were enforced with any energy. Perhaps the best that the enlightened legislation did was to limit the worst excesses of forced labour and mis-treatment.

The last quarter of the nineteenth century, however, brought important changes. Tin mining began generating large revenues for the barons who owned them. It stimulated the building of railways to link the mining centres and cities of the highlands to the Pacific coast. The growth of the mines and the cities made farming more attractive. In response, a major law was enacted, the 1874 Ley de Exvinculación that limited the amount of land that indigenous farmers in their communities could own, and decreed that the rest of the community land was public property and could be sold by the state to the highest bidder. The haciendas were thus able to expand considerably: between 1880 and 1930 it is reckoned that the share of land occupied by the communities fell from half to one third, as the haciendas increased their share.

Even so, farming hardly prospered in this period, since the policies of free trade and the construction of the railways left the markets of the highlands open to imports from Chile and Peru. This hit the haciendas of Santa Cruz particularly hard: with no rail link to the highlands, the sugar from the tropical lowlands could not compete with that coming from Peruvian coastal estates.

By the 1930s Bolivia had a small population but of pronounced inequalities: the mines, the few industries and the haciendas were almost entirely in the hands of an elite minority of Spanish descent; while the majority of the population, variously rural and indigenous or urban and mestizo, found livelihoods in subsistence farming, artisan work, or as labourers in the mines, hacienda or the town houses of the elite. The latter sought to resist their exploitation through the formation of unions, the mining unions becoming especially militant; but their accession to political power was to depend on alliances with members of the urban elite who provided intellectual leadership to fashion a vision of a progressive and nationalist Bolivia.[6]

From the end of the Chaco War in 1935 to 1952 there were various attempts to reform the country, but they were largely unsuccessful being resisted by conservative groups. This was to change with the 1952 revolution, when militias from the mining unions overthrew the government, that brought in the reforming

6 The Chaco War of 1932–35 proved inspirational. As battalions of conscripted indigenous troops were ordered into the tropical bush where they perished in their thousands to fight a proxy war against Paraguy on behalf of competing foreign oil companies seeking to commandeer oilfields, the inequalities and injustices of the regimes were highlighted. A generation of the urban middle class, many of them young officers in the war, were shocked to their core and inspired to create a new Bolivia. The geography of the war proved equally important: for most of the officers from the highlands, this was their first visit to the tropical lowlands and they were struck by the immense areas of potential agricultural land that lay barely used owing to the lack of transport links to the region.

government of the National Revolutionary Movement (Movimiento Nacional Revolucionario, MNR). In its economic policy, the MNR took two definitive moves: an immediate nationalisation of the mines, oil and gas fields; and the 1953 agrarian reform that legalised the land invasions carried out by peasant movements as part of the revolution and which effectively dissolved the haciendas in the highlands. Apart from these measures the MNR that was to rule for the next dozen years put into place programmes where the state was the central actor: owner of mining and gas enterprises; key investor through the Bolivian Development Corporation (Corporación Boliviano de Fomento, CBF); operator of state agencies that made it the country's largest single employer; and controller of trade and foreign exchange.[7]

The MNR programme for agriculture was led by a vision of developing the lands of the east, following the recommendations made by the 1942 Plan Bohan – a US mission that set out a development strategy for the country. Using international credits and aid funds, highways were built to link the plains of the north and east of the country to the cities of La Paz and Cochabamba – the key investment being the metalled road from Cochabamba to Santa Cruz completed in 1957. This, together with the construction of railways to Argentina and Brazil, broke the isolation of Santa Cruz from the rest of Bolivia, and indeed from the rest of the world. At the same time as the roads reached the lowlands, government promoted the resettlement of retired miners and peasants with little land from their homes in the highlands to the lowlands.

It was expected that the infrastructure would stimulate farming in the lowlands, producing foodstuffs that could substitute for imports. Resettlement would give peasants enough land to farm and escape poverty, and help reduce pressure on the more heavily-settled lands in the highlands.[8]

For the highlands, however, the MNR had less to offer – other than the agrarian reform. Under this, indigenous small farmers in the communities were to receive title to their lands, while the haciendas were divided out amongst their tenants and workers: thereby giving back to the highland peasantry their land and meeting their main political demand; but this aside, public investments in highland farming were limited.

The agricultural development strategy set out by the MNR was, in broad outline, continued by subsequent governments through to 1985. The results in the lowlands were impressive. The eastern plains were populated,[9] and production of tropical crops, such as rice, by the settlers surged.

At the same time the old landlords and the middle class of the plains, above all in the areas around Santa Cruz, saw the opportunity to cultivate the large areas they possessed, previously not worth it for lack of an accessible market. They invested, often with capital from the state, in medium and large-scale farms, and took advantage of the seasonal labour of the settlers for harvesting. Producing sugar cane, rice and beef cattle in first instance, the 1970s saw a boom in large-scale production of cotton, 'white gold', as cotton prices rose in the first half of the decade. More recently, since the middle of the 1980s, and with a rapid increase in the 1990s, soy beans have been planted on a very large scale. In 2005 it was estimated that almost 900,000 ha were sown to this oil seed: three times the area sown to maize, and six times more than the area under potatoes.

While agrarian reform in the highlands ended the haciendas, the east was barely affected by the measures. Instead, from the 1950s onwards the landowners of the east extended their holdings, in some cases by annexing land that had been abandoned by small-scale settlers practising slash-and-burn shifting agriculture. The combination of small-scale settlement and expanding large farms meant that in Santa Cruz the old dualities of Bolivian agriculture re-emerged. For the large farms, with their heavy demands for harvest labour – at least for cane and cotton, it was convenient to have a pool of small-scale farmers who could be recruited locally for temporary work.

The strategy yielded impressive results in the farmlands of Santa Cruz, but it marginalised the small farms of the western highlands. With little investment in roads, irrigation, inputs and faced by a notable lack of credit, production in the highlands stagnated, growing barely at the rate of the rural population. The exceptions were restricted to some peri-urban areas where horticulture and dairying have flourished.

The very different performance of Bolivian agriculture in the highlands and the lowlands can be seen in Table 2.1.

7 The MNR's programmes and policies were revolutionary in some respects, but they also reflected mainstream thinking in the West on development policy of the time that favoured state control of the commanding heights of the economy. The MNR government was backed by the USA, funded by USAID and the Washington-based international financial institutions. Although the MNR was allied to unions that were overtly socialist and communist, the key leaders of the MNR were more nationalist reformers than Marxist radicals. The US was concerned, but saw backing the reformers as preferable to trying to overthrow the regime.

8 The plans of the 1950s were drawn up with great enthusiasm for what might be achieved in the eastern lowlands where the country could, in effect, make a new start. Resettlement on new lands would not only promote economic growth, but also it would break class divisions and old habits.

9 It is believed that some 60,000 families moved to the lowlands during the second half of the twentieth century (Demeure, 1999).

Table 2.1: Average annual rates of growth of production of the main crops, 1961 to 2005

	1961 to 2005	1980 to 2005
Highland crops		
Barley	0.0%	0.5%
Maize	2.3%	1.9%
Potato	0.6%	0.5%
Wheat (a)	2.6%	3.2%
Lowland crops		
Cacao	3.5%	2.6%
Rice	4.9%	5.2%
Cotton	4.5%	10.1%
Sorghum	35.4% (b)	9.1%
Soy Beans	30.8% (b)	15.5%
Sugar Cane	4.0%	2.2%

Source: Computed from data from FAOSTAT, FAO. Annual growth rates based on linear regression.
Notes: (a) Wheat is also grown in the lowlands. (b) Exaggerated rates since these started from a base of almost zero.

Since 1985, when the economy was stabilised and markets were liberalised, the guiding framework for the rural economy has been the free market, with increasingly liberalised international trade. The state has drastically reduced its interventions, above all ending the liberal supply of public credit.

Policies since 1985 have emphasised creating an overall investment climate, and making investments in purely public goods – such as roads and other infrastructure, education and health, agricultural research and extension. To stimulate competitiveness amongst those small-scale farmers able to produce a surplus, value chain analyses have been carried out to identify the bottlenecks and encourage groups of farmers to enter the market and form partnerships with large-scale private enterprise.

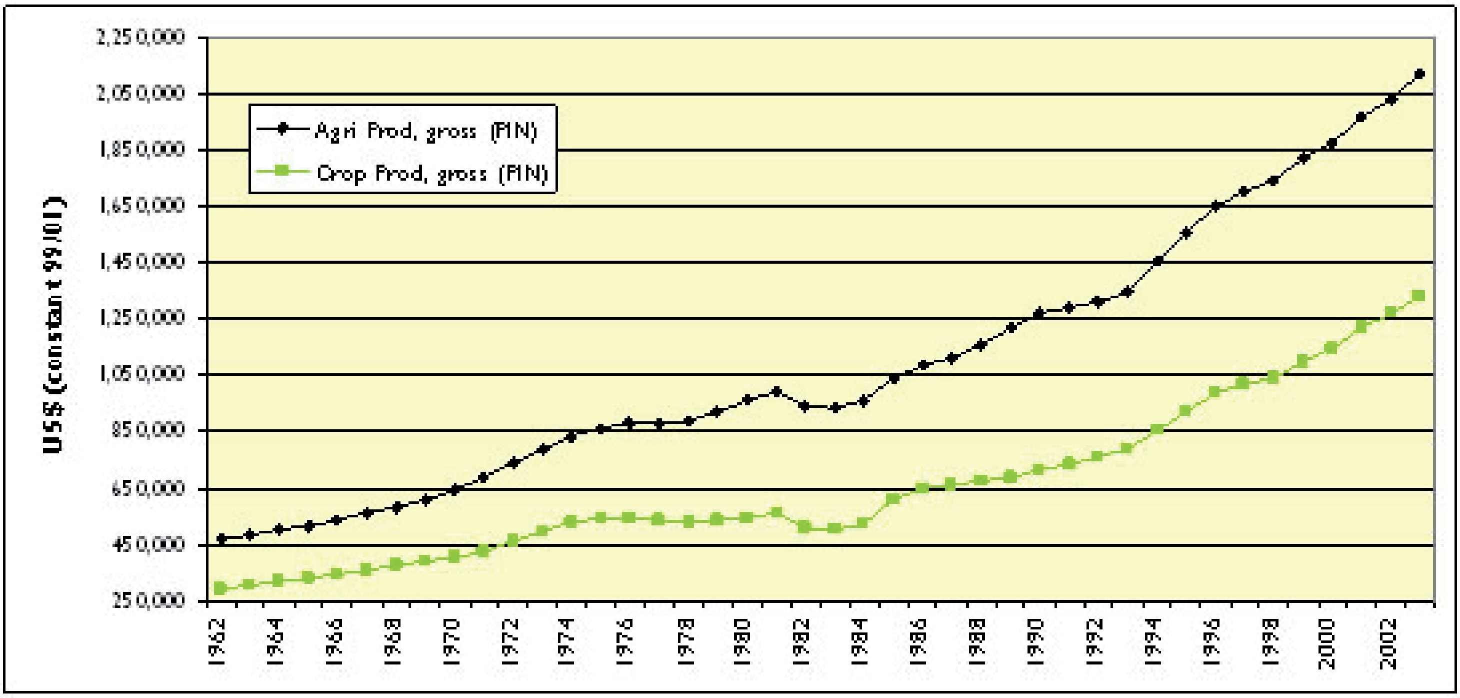
A new land reform law was introduced in 1996 to address the mounting problems seen in the eastern lowlands as the expansion of large farms led to complaints about illegal and fraudulent acquisitions, or the occupation of the communal lands of indigenous groups. Protests had become common: the new law sought to survey and map lands, check on titles, resolve disputes and award legitimate owners with a formal title deed – including collective title to indigenous groups.

The results since 1985 seem to have been a continuation of previous trends: expanding farming in the eastern lowlands with large farms to the fore; and stagnation in the highlands where for most peasants progress lies in moving to the cities.

In early 2006 the government of Evo Morales took power with an explicit aim and mandate to rectify the inequalities of Bolivia and give priority to indigenous groups. An ambitious new programme for agricultural and rural development has been announced, with the acceleration and intensification of land reform, support for village-level development efforts, and more financing for small-scale farming. It is yet to be seen how feasible it is to implement the measures announced, let alone what the results may be.

The overall record of agricultural growth since the early 1960s can be seen in Figure 2.1. The annual rates of growth for agriculture over the forty years seen have averaged 3.5% a year – ahead of population growth that averaged around 2.3% for the same period. The graph, however, suggests that growth can be broken into three periods: from the early 1960s to the mid-1970s when agriculture grew rapidly, a decade of stagnation from the mid-1970s to mid-1980s, and then a increased growth since then. The annual average growth rates for the three periods are 4.9%, 1.4%, and 4.1%. Compared to other countries, Bolivia's agricultural growth rates since the early 1990s are rapid: the fifth best in Latin America and amongst the top two-dozen in the world.

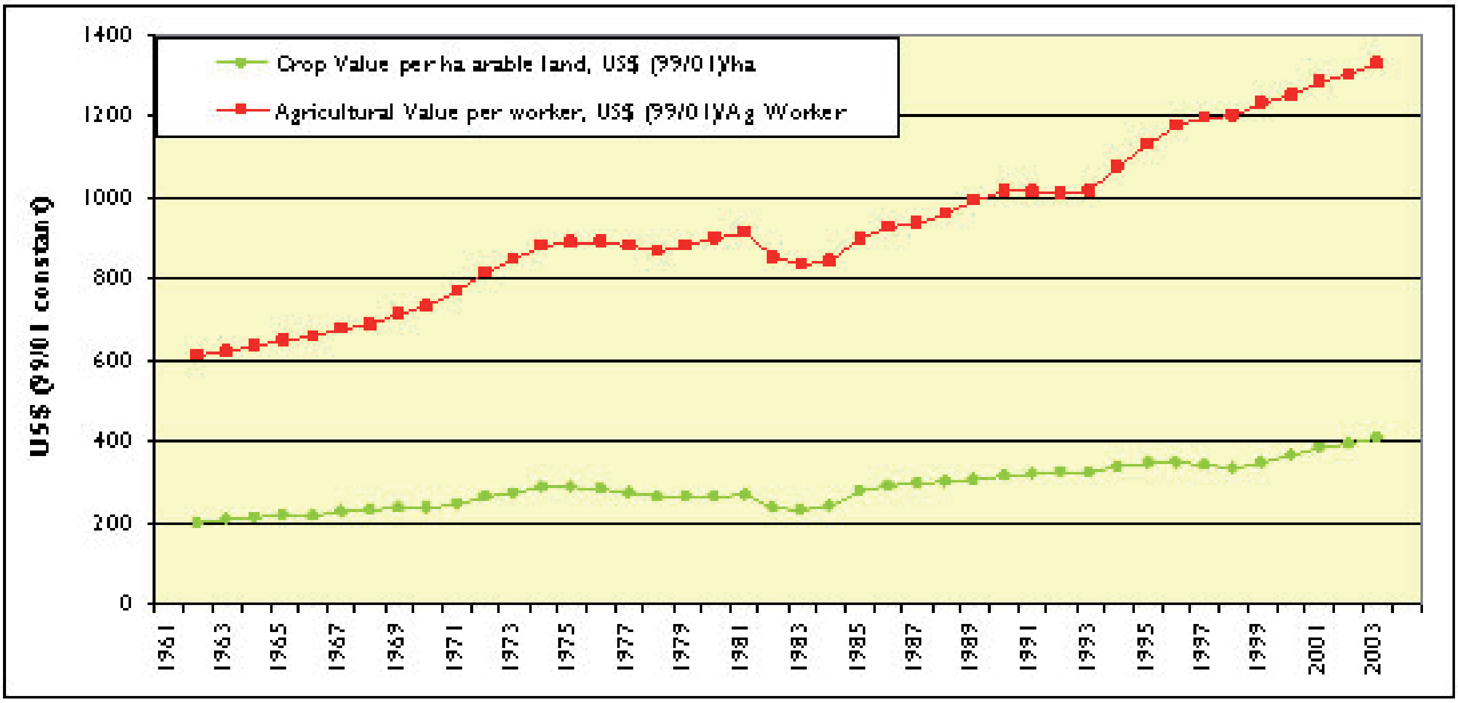
Figure 2.1 Bolivia, agricultural growth 1961–2003, in real terms



Source: FAOSTAT data using production indices that value output at the prices seen in 1999/2001, taking three-year moving averages to reduce the year to year fluctuations resulting from weather and other factors.

Much of this growth has been based on expanding the cultivated area. From 1.4M ha cultivated in the early 1960s, by 2005 the area had reached 3.4M ha. Most of the additional 2M ha have been added in the eastern lowlands, mainly in Santa Cruz. This can be seen in the changing patterns of productivity over this period, see Figure 2.2.

Figure 2.2: Bolivia, agricultural productivity, 1961 to 2004



Source: FAOSTAT data.

On crop land, the value of production per hectare has doubled in forty years, a modest rate of intensification, especially when much of the increase is owing to a reduction of fallow fields. Physical yields of the main crops remain low: for 2004/06 yields of potatoes were little more than 5 tonnes/ha, those of rice around 2.2 t/ha, soybeans 1.8 t/ha, and sugar cane 47 t/ha. Not surprisingly the use of fertiliser is very low, at less than 8 kg/ha of arable and permanently cultivated land in 2005. Less than 4% of crop land is irrigated.

Returns to the agricultural workforce have more than doubled over this period, rising from just US$600 a year to more than US$1,300 a year. Unfortunately, data to break this down by crop or by region are not available. It is likely, however, that there will be very large differences between labour returns on some of the large farms of Santa Cruz and the peasant holdings of the highlands; and probably equally so in the increases in labour productivity through time.

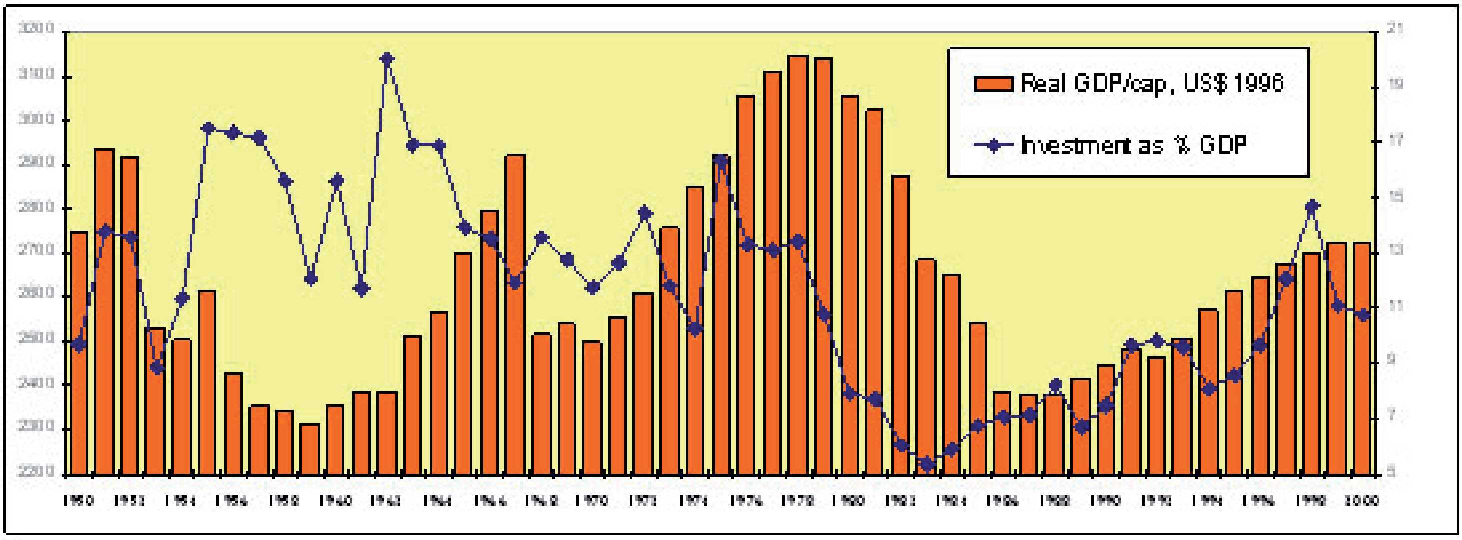
Overall economic growth in Bolivia

As Figure 2.3 shows, Bolivia has a poor record of economic growth. Real incomes a head were actually lower in 2000 than they were in 1950, a half century during which the median Latin American country saw average real incomes double. Growth has been intermittent, interrupted by three periods of declining GDP per capita: the 1950s, the late 1960s and, most dramatically of all, the first half of the 1980s.

This last decline was associated with a collapse of the price of tin that hit mining hard, leading to loss of export revenues with multiplier effects on the rest of the economy. At the same time, the burden of external debt that had been piled up in the 1970s when real interest rates were low, became unsustainable when international interest rates rose abruptly in 1981. To make matters worse, once the debt crisis broke, fresh funds from private banks dried up. Meanwhile the government was running a budget deficit, owing in large part to loss-making parastatal enterprises, and now had to the cover the gap by borrowing internally and in effect, printing money. The result was acute inflation that degenerated to one of the worst cases of hyper-inflation seen in the twentieth century reaching 11,750% in 1985. Unions went out on strike for higher wages, production fell, and investment collapsed.

In 1985 a drastic reform package was introduced that liberalised the economy and succeeded stopping inflation, but it was to be until 1989 before GDP per capita finally increased again.

Figure 2.3: Bolivia, economic growth and investment, 1950 to 2000



Source: Data from Penn World Tables

While agriculture also declined during this slump, its faltering growth was not as sharp as that seen in mining or services, so that agriculture probably acted as a stabiliser to the national economy.

Poverty

Table 2.2 presents data on rural poverty in Bolivia and trends in recent times. Different sources vary in their estimates, since some compare expenditure against a poverty line, while others take income for comparison. The differences are generally small and the picture is clear: most of the population live in poverty, and especially so in rural areas.

Table 2.2: Poverty in Bolivia by headcount, 1989 to 2002

Year	1989	1994	1997	1999	2002
Percentage of population in poverty					
National	77	72		65	67
Rural	90	90		83	84
Percentage of population in extreme poverty					
National	56	50		38	39
Rural	75	76		60	57
Source: Klasen, 2005					
Percentage of population in poverty					
National			64	63.5	65
Rural			78	84	83.5
Percentage of population in extreme poverty					
National			36.5	41	41
Rural			59	70	67
Source: Banco Mundial 2006					

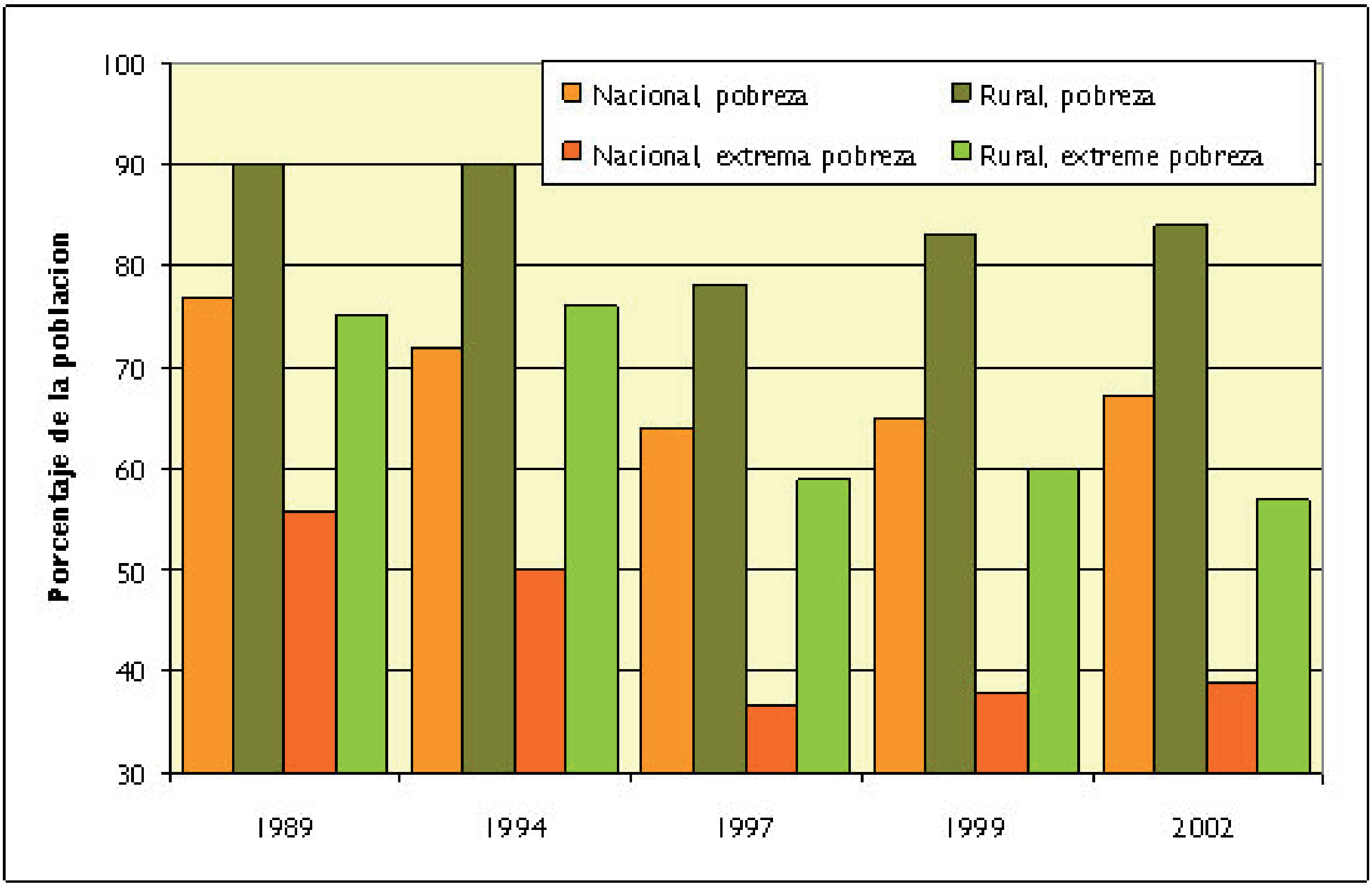
Notes: Klasen uses expenditure for rural areas, and mixed income and expenditures for national estimates. The World Bank uses income data alone.

Figure 2.4 shows the variations in poverty rates between 1989 and 2002. At national level, poverty rates fell from some three-quarters in 1989 to two-thirds of the population in 1997, and extreme poverty rates fell even more; during a time in which GDP per person grew overall by some 10% in total over the eight years. The reduction in rural poverty was slower than for the country as a whole. Consequently the difference between living standards in urban and rural areas widened.

Since 1997, however, poverty rates have risen, with the exception of extreme poverty in rural areas. The sad reality is thus that over the thirteen years to 2002 the reduction in the fraction living in poverty has been meagre.

Figure 2.4: Poverty in Bolivia, headcount, from 1989 to 2002

Sources: Data from Klasen 2005, except data for 1997 from Banco Mundial 2006



The link between economic growth and poverty reduction is not that close. The World Bank (Banco Mundial 2006) reports an elasticity of poverty with respect to incomes of just 0.3 to 0.5, compared to 1.0 in other countries in the region. The problem lies in the narrow base of the most dynamic sectors of the economy: mining, oil and gas extraction, and commercial farming – and within this especially soy beans. These activities do not generate much demand for labour, nor do they create strong economic linkages to other industries and activities. Thus the economy can grow without generating many more jobs, leaving the majority of the population with little benefit.[10]

Comparing Figure 2.2 to 2.4 is instructive: had the increases in average agricultural productivity seen been evenly distributed across all farmers, rural poverty rates would surely have fallen significantly since 1997; but since the gains were largely those in Santa Cruz, and much of this on medium to large-scale farms, the growth seen has had next to no impact on the high and deep rates of rural poverty.

New Zealand
Agricultural development since 1840

In 1840 at the time of the Treaty of Waitangi[11] New Zealand was a land of 100–200k Maori and a small, but growing immigrant community made up primarily of traders and missionaries from the UK. The Maori lived by hunting, fishing and keeping small farms. The first Europeans were mainly interested in hunting whales and seals, or extracting the valuable timber from kauri trees.

From 1840 onwards, agriculture developed to feed the early settlements, to export grains and vegetables to mining camps in Australia, and within a few years, to produce wool for the UK market – a trade that was to form the backbone of the economy for the first forty years of the life of modern New Zealand.[12]

Early agriculture by settlers[13] was centred on South Island, partly since this had natural grasslands suitable for sheep grazing, and partly since there were fewer Maori and less scope for land disputes. Indeed, between 1844 and 1860 most of the land on South Island was bought from the original owners, the Ngai Tahu section of the Maori, by the Crown. The aim was to sell this to settlers for £1 an acre, but much was leased out on 14 year terms. By 1866 as much as 6.2M ha had been leased out, while 3.2M ha had been sold. (Ackroyd 1993)

Those arriving in New Zealand in the first few decades after 1840 were mainly from the UK and as a broad generalisation could be divided into two groups. One was made up of landless labourers, largely from rural England, in search of the chance to farm, some or most of whom arrived on assisted packages – since the cost of a voyage from the UK at the time was equivalent to six months wages of an agricultural labourer. The others were wealthier and they included those with ambitions to invest in sheep runs and to become landed gentry in the manner common in the UK at the time.

A key scheme for settlement was that promoted by Edward Gibbon Wakefield and his New Zealand Company. In this, land was to be sold by the Crown at a price sufficiently high so that the arriving landless would need to work for the would-be gentry, who could afford to buy land, for many years before they saved enough to afford their own farms. The funds raised from land sales would then be invested in recruiting and transporting additional settlers. The scheme, unsurprisingly, was not popular with the agricultural labourers who cavilled at once again working for the wealthy and saw their dreams of being independent farmers postponed and frustrated. (Sutch 1942)

Some of the early administrators were not keen on the model either, and Governor Grey in the 1850s dropped the price of land to encourage sales to smaller farmers; but this did not quite work as expected. For the arriving gentry, and investors back in London, sheep farming promised good returns. Cheaper land only encouraged the wealthy to accumulate large sheep runs on South Island. By 1859 just 200 estates in Canterbury, South Island occupied no less than 2M ha (Ackroyd 1993). Typically these estates employed 100 or more labourers, and their owners had additional interests in urban trading and agricultural processing plants. (Fairweather 1985)

Just twenty years into the life of the colony, and already the inequalities in land ownership of rural England had re-emerged to the dismay of the less wealthy arrivals who had travelled in the hope of escaping the poverty widespread in rural England at that time; but between 1860 or so and the end of the century, this was to change. New Zealand agriculture was to become very largely a matter of family-owned and run farms of modest sizes. What made the difference in the latter part of that century?

10 Klasen (2005) observes that while poverty rates in the cities tend to fluctuate with the growth of the national economy, in rural areas the patterns seem more linked to the fortunes of smallholder farming including variations owing to the weather. This implies that the links between the urban and rural economies are weaker than might be expected. Something similar occurs with rural-urban migration, the same author commenting that the movements are less than expected given the wide gap between the incomes typically found in cities and in villages.

11 The 1840 Treaty of Waitangi is an agreement between the British crown and the Maori chiefs intended to lay the basis for peaceful settlement of the islands and the co-existence of the Maori with immigrants. It recognises the claims of Maori tribes and clans to the land and remains a key reference for modern-day claims to lands and compensation for expropriation.

12 As early as 1856 New Zealand was effectively a self-governing state, even if full self-government as a dominium was to be granted in 1907.

13 In the first half of the nineteenth century Maori farming thrived as well on the opportunity to sell produce to settler communities.

First, the wool sheep economy declined when prices of wool declined: by one third from 1862 to 1870 (Ackroyd 1993), and still further from 16 to 5d/lb between the 1870s and 1902 (Barber 1983). As wool declined, a new opportunity was made possible by refrigerated shipping – the SS Dunedin sailed from New Zealand to the UK in 1882 with the first shipment of frozen sheep carcasses. From then on New Zealand farmers found they had a ready market in the UK for sheepmeat and for dairy produce, above all butter. Unlike other parts of industrialising Europe, UK markets were open to imports, and especially to those from its colonies and dominions.

Dairying developed first and foremost on North Island. Here there was less potential for the wealthy to accumulate land. Disputes with the Maori were more frequent, breaking out into the Land Wars from 1845 to 1872. Much of the North Island was covered in dense bush requiring arduous work to clear before being farmed. Perhaps more important was scale of production. Dairying is best carried out at scale of the milking unit, since if owners of cows also milk the animals, they have the incentive to take good care of their stock. Before the advent of milking machines, only a few dozen cows could be milked by hand and so this was the scale of the farms carved out of the bush.

A second reason was deliberate policy: governments, voted in by universal suffrage from 1879,[14] were sensitive to popular sentiments and a distrust of privilege and inequality was widespread. The 1877 Land Act offered land to settlers on deferred payment or in return for residency and improvement. (Ackroyd 1993) In the 1890s the government offered settlers mortgages to buy state lands. A graduated Land Tax was introduced in 1891, and then in 1892 the Lands for Settlement Act allowed government to buy up land for closer settlement – a provision that was rarely exercised (13 cases recorded), since rising land prices and the economies of smaller scale production meant that estate owners were selling off their lands.

Whatever the causes, the structure of land ownership changed substantially. Estates of more than 4,000 ha that covered 3.25M ha in 1892 occupied just 1.45M ha in 1910. There were an estimated 10,000 farms in the 1860s: by 1914 there were more than 80,000. (Hawke & Lattimore 1999)

By the early twentieth century a pattern had been set in New Zealand farming that would last until the 1960s. New Zealand farming was largely pastoral with herds of dairy cows, mainly in the North, and flocks of sheep mainly in the South – now no longer Merinos bred for their wool, but Corriedales and Southdown-Romneys selected to produce fat lambs. Beef cattle were also important. Crop production was limited, mainly being grown to meet domestic requirements. Export of butter, lamb and beef was overwhelmingly to the UK and was channelled through marketing boards. Farming was central to the economy: it earned the bulk of foreign exchange and this largely determined the ability to import and to consume manufactured goods.

As a small country with a specialised economy closely linked to a single major export market, New Zealand was vulnerable to external events. During the two world wars New Zealand farming thrived since the UK was prepared to pay premium prices to secure food. On the other hand, the depression of the early 1930s was a blow as commodity prices slumped.

From 1972 substantial changes were made as the UK entered the European Common Market and abandoned its policies of free access to its food markets, even if special quotas were negotiated for New Zealand's traditional exports. New Zealand began to look for new markets and found them closer to home in the countries bordering the Pacific, and above all in Asia.

Government support to farming had been restrained for most of the century, but by the late 1970s increasing subsidies on inputs and support prices were offered to farmers, partly to compensate for overvalued exchange rates. Progressively more onerous to the public finances, most of these supports were abruptly removed in 1984 when economic reforms were introduced designed to liberalise the New Zealand economy. Although farming suffered in the late 1980s, as much from an appreciating exchange rate and rising interest rates as from loss of subsidies, by the early 1990s it was clear that most farmers had been able to adapt. In response, agriculture diversified moving from the hill sheep and beef farming that had benefitted in particular from government support, to horticulture, wine, forestry and a further expansion of dairying. From being a sector orientated to feed the UK market, New Zealand agriculture by the end of the century was focused on a wide array of overseas markets, with farmers keenly aware of the need to innovate, meet standards, and otherwise hold down their costs to remain competitive.[15]

The family farm remained the key production unit: indeed, it was the resilience of this that allowed some farms to survive the changes of the 1980s – since the adults could find work off the farm and so effectively subsidise the holding if necessary (Smith & Montgomery 2003). Farm numbers have actually increased: from 71,000 in 1980, they were 81,000 in 1990 and 92,000 in 2001; partly since the booming horticulture farms were smaller than the concerns they replaced.

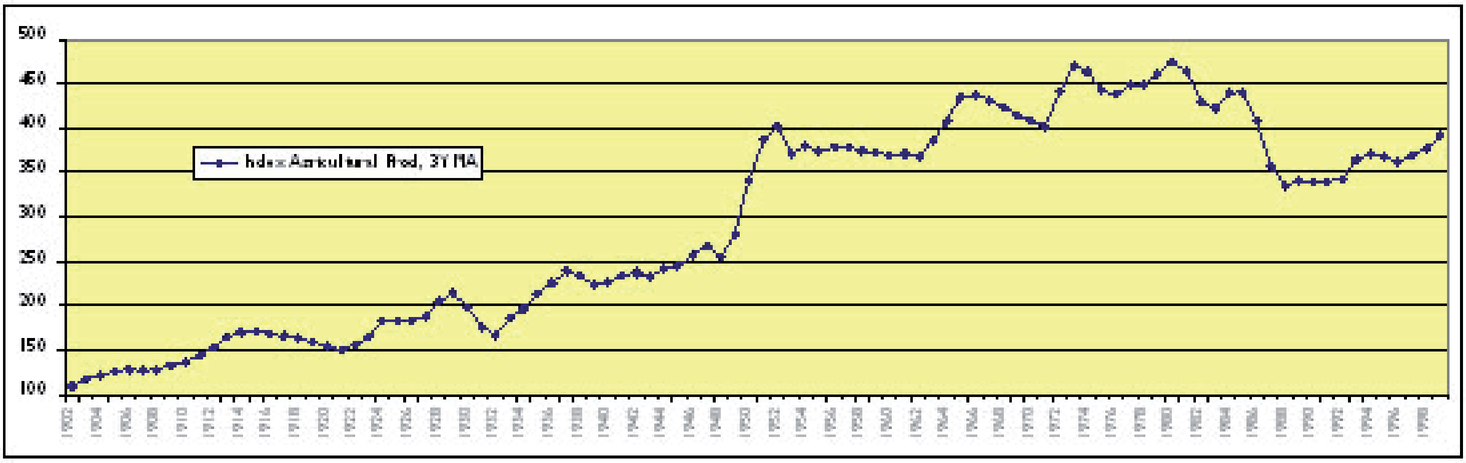
14 Maori males got the vote 12 years earlier, females were enfranchised from 1893 – one of the first countries to grant women the vote.

15 The Federation of Farmers representing the industry quickly accepted the reforms of 1985 as necessary if painful, but then pressured government to reform other sectors, and above all port operations, that would cut costs in the supply chain for agricultural exports.

Agricultural growth: the record

During the twentieth century, New Zealand agriculture grew at modest rates, see Figure 2.5. Three phases can be picked out: that from beginning of the century to the late 1940s when the value of output rose by an annual average of 1.68% a year; from the early 1950s to the early 1980s when average growth rates were lower at 0.72% a year; and the 1990s when growth picked up to reach an annual average of 1.32% a year. The three periods are divided by the Korea War when commodity prices boomed, and the late 1980s when economic reforms delivered a shock to the economy.

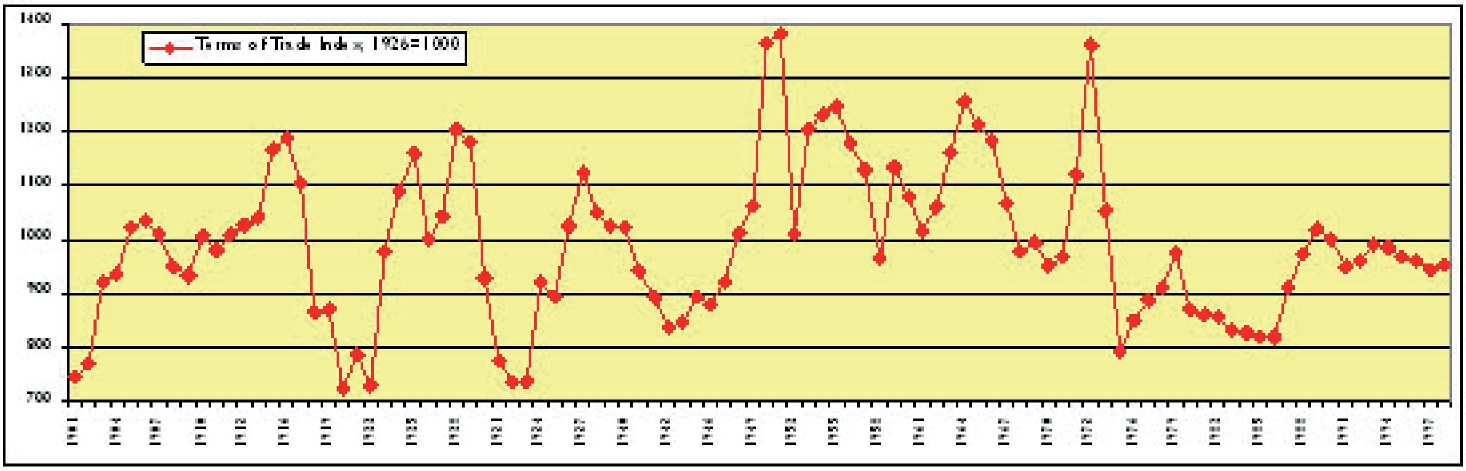
Figure 2.5: New Zealand, agricultural growth, 1901 to 1999, constant value



Source: Long-term data series, NZ statistics, Table 16.7. Index is a three-year moving average of an index created by chaining data on the value of agricultural production and deflating by the GDP deflator.

Throughout the century, overall growth was interrupted by fluctuations resulting from variations in international prices: for example, the influences of the crash of the early 1930s, the Korean War boom and the 1973/74 spike in commodity prices can be readily seen. The level of agricultural production and the terms of trade for the country as a whole – see Figure 2.6 – correlate with a coefficient of 0.25 during the twentieth century.

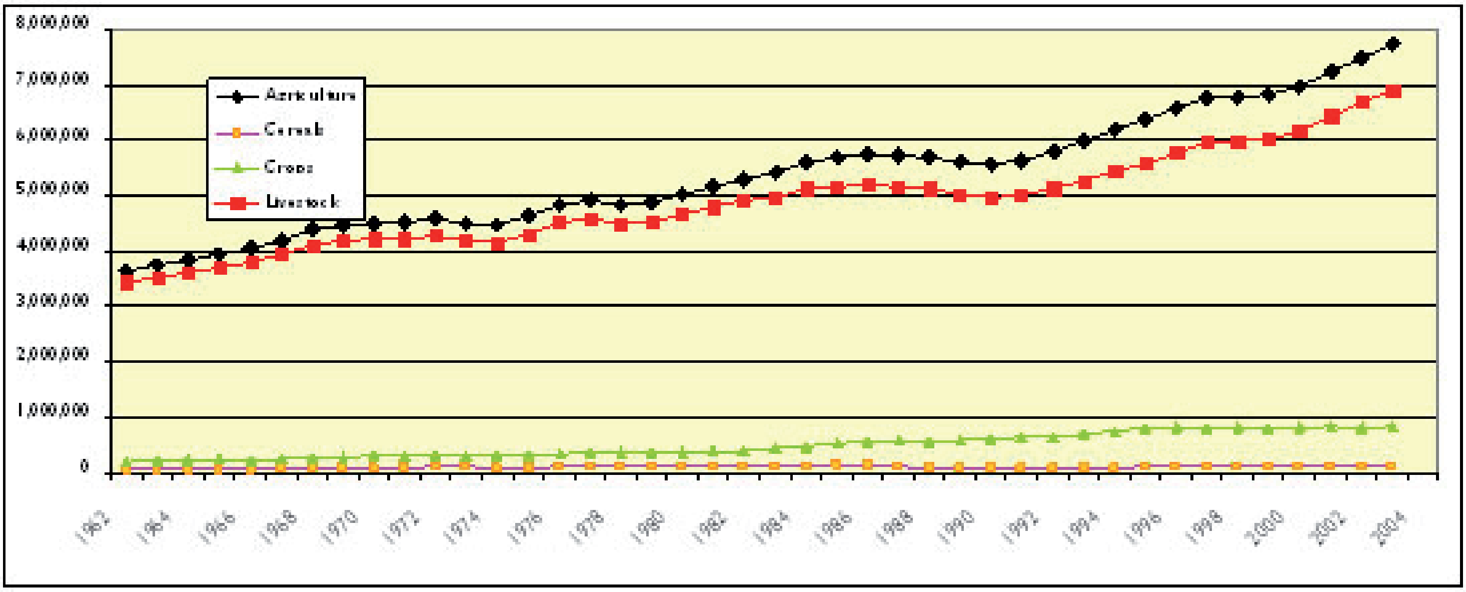
Figure 2.6: New Zealand, terms of trade index, twentieth century



Source: Long-term data series, NZ statistics, Table G1.1

Inspection of the terms of trade also gives a clue as to why growth rates of New Zealand farming have been so modest during the second half of the century: during that time, and despite many fluctuations, the overall trend of the terms of trade was downwards, thus depressing the value of farm output. The growth of physical output was presumably that much greater. This can be shown by looking at an index of physical output since the early 1960s, as shown in Figure 2.7.

Figure 2.7: New Zealand, agricultural growth, 1962 to 2004



Source: FAOSTAT, production indices, based on value of crops at 1999/2001, three year moving average

Growth rates over the last forty years seen in physical terms have been higher than the data on the value of output would indicate, see Table 2.3. Over the forty years, overall physical growth averages 1.6% a year, but that hides a marked difference between the period before and after the 1985 reforms. Prior to then output grew by 1.7%, but subsequently rose to 2.5% a year.[16]

Table 2.3: New Zealand, average annual growth rates of agricultural output in physical terms

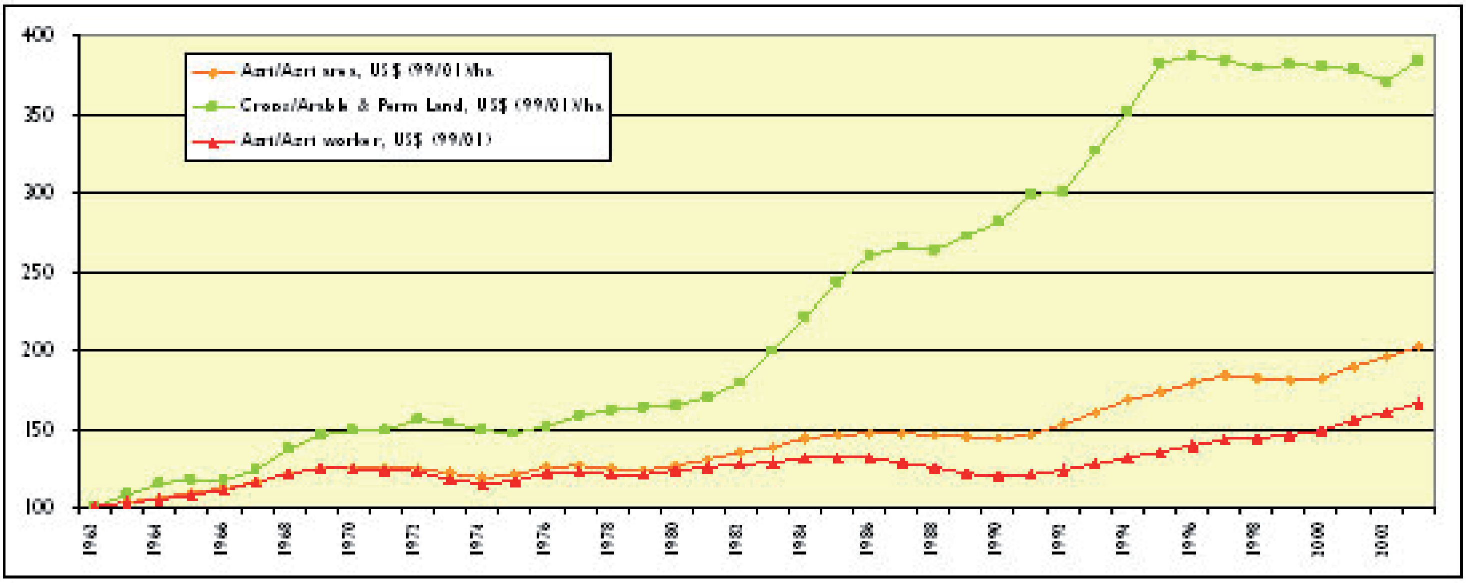
	1961/63 to 2002/03	1961/63 to 1985/87	1989/91 to 2002/04
Agriculture (PIN)	1.59	1.71	2.47
Cereals	1.15	3.25	1.94
Crops	3.70	3.57	2.25
Food	1.81	1.83	2.83
Livestock	1.40	1.57	2.50
Non Food	0.37	1.20	-1.57

Source: linear regression of production indices from FAOSTAT. The production indices value output at the price levels prevalent in 2000 and thus are unaffected by the rise and fall of commodity prices through time.

The record on productivity can be seen in Figure 2.8. Output per hectare just about doubled in the forty years between the early 1960s and the early 1990s. That for crops on arable land saw almost a four-fold increase, presumably owing to the shift into horticulture and vineyards with very high returns per hectare. Agricultural output per person in the agricultural labour force rose by two-thirds. The real increase in labour productivity may be muted since it is likely that those counted in the farm labour force would have spent an increasing fraction of their time in the rural non-farm economy.

16 Given that the value of farm output rose by around 1.3% during the 1990s, it seems that in recent years the movement of the terms of trade against agriculture has reduced growth by 1.2% points.

Figure 2.8; New Zealand, agricultural productivity indices, 1961/63 to 2002/05



Source: Computed from FAOSTAT data

Looking at the record before and after the reforms of the mid-1980s, shows the pattern seen in Table 2.4. The rise in output per hectare is far higher, almost twice as high, from the start of the 1990s than in the period from the early 1960s to the mid-1980s. The improvement in labour productivity also shows the same considerable increase over the two periods, with the rate of productivity gain almost three times as rapid in the 1990s than before the reforms. The strong improvements in productivity per unit of both land and labour since the early 1990s helps explain the accounts of rising farm incomes during this period (Smith & Montgomery 2003).

Table 2.4: New Zealand, average annual rates of growth of agricultural productivity

	1961/63 to 2002/03	1961/63 to 1985/87	1989/91 2002/04
Agricultural output/area	1.49	1.25	2.43
Crop output/arable area	3.53	3.03	2.17
Agricultural output/agricultural worker	0.77	0.85	2.49

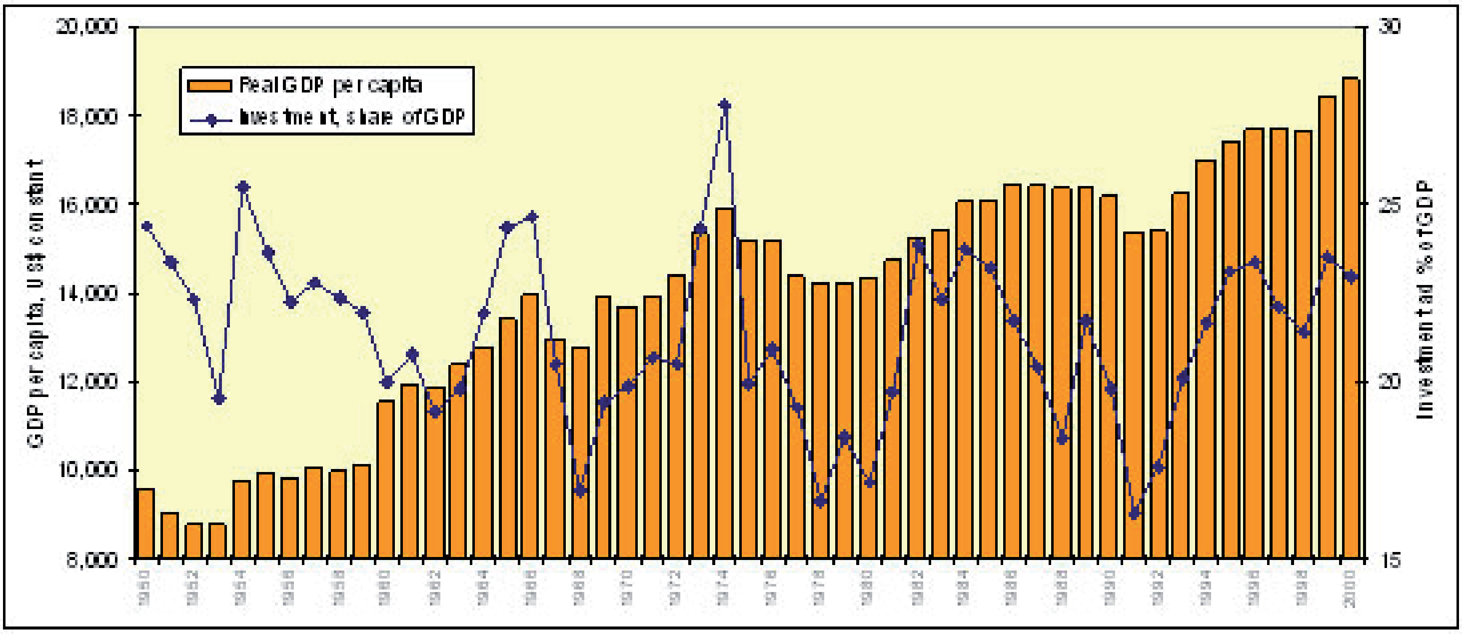
Source: Computed from FAOSTAT data

Overall economic growth

In the second half of the twentieth century average real GDP per capita just about doubled. Growth, as Figure 2.9 shows, was uneven. From the early 1950s to the early 1970s average incomes rose rapidly, but then barely increased over the next two decades to the early 1990s, after which they once again grew quickly. Average annual growth rates for the three periods were about 2.4%, 1% and 2.2% respectively.

Growth appears to correlate to some extent with investment rates – a simple correlation gives a coefficient of 35% – that have averaged between 21% and 22% of GDP. The other clear correspondence is with the terms of trade and above all the prices of agricultural commodities. New Zealand's economy grew with the booms of the early 1950s and early 1970s, as well as with the improving terms of trade of the late 1980s and early 1990s.

Figure 2.9: New Zealand, economic growth 1950 to 2000



Source: Penn World Tables, Alan Heston, Robert Summers and Bettina Aten, Penn World Table Version 6.1, Center for International Comparisons at the University of Pennsylvania (CICUP), October 2002.

Comparing the two countries

Comparisons of the two countries shed some interesting lights. In economic growth, over fifty years Bolivia has made no progress in raising average incomes, while New Zealand incomes have just about doubled. This sharp contrast hides, however, the dynamics of growth. In both cases, there have been years of stagnation and recession when economic growth has been outstripped by population increases – often linked to the common experience of both countries as small countries open to the world economy and affected by changing commodity prices and terms of trade. Table 3.1 summarises the experiences.

Table 3.1: Economic growth per capita, Bolivia and New Zealand, 1950 to 2000

	Bolivia	New Zealand
Number of years with positive growth GDP/capita	29	32
Number of years with negative growth GDP/capita	21	18
Average growth of GDP/capita in years of positive growth	2.6%	3.5%
Average decline in GDP/capita in years of decline	-3.4%	-2.2%
Average investment %/real GDP per capita	10.3%	21.3%
Standard deviation, investment %/real GDP per capita	2.7	2.4

Source: Computed from Penn World Table data. The averages taken are simple arithmetic means for the years concerned.

The table shows that there is little to choose in terms of the numbers of years of growth or decline in GDP per capita between the two countries: Bolivia has registered only three more bad years than New Zealand. The more important contrast is that while the average good year in New Zealand saw growth 1.3% points higher than the declines in the bad years; in Bolivia, the bad years saw reverses that were 0.8% points worse than growth in the good years.

Bolivia's bad times have clearly been far worse than those in New Zealand. Bolivia's downturns have often been marked by sharp political changes: the revolutionary government of the MNR in the early 1950s; and the rapid changes in military governments of the late 1970s followed by civilian governments with contrasting policies of the first half of the 1980s; but if the two are linked, in which direction is the causality? Does economic decline lead to political turmoil or vice versa?

The main difference seen between the two countries, however, can be seen in the rates of investment:[17] with those in New Zealand being twice those in Bolivia, and with a little less variation as well. Given that growth rates have not been so sharply different, it is likely that the return on investment has actually been higher in Bolivia than in New Zealand. This makes the difference in investment rates all the more remarkable.

For agriculture, perhaps the most surprising point is that Bolivian agriculture has been growing at annual average rate of 3.5% since the early 1960s, while the equivalent figure for New Zealand is 1.6%

17 Investment rates include both domestic and foreign direct investment.

a year. A comparison of changes in productivity reveals similar degrees of change over the forty or so years: in both countries indices of output per hectare and output per agricultural worker (including self-employed farmers) about doubled over the period. Bolivia's much higher rate of growth is down to a major expansion of the cultivated area, more than doubling, while New Zealand has seen little or no increase in the use of land for farming over the last forty or so years.

Impressive as Bolivian agricultural growth has been, it has done little to stimulate national economic growth or to reduce poverty. In forty years of improving labour productivity in Bolivia, the increase was only a little better than that achieved in New Zealand – and probably lags behind since the early 1990s – so that by the early 2000s, the difference in productivity per head is actually larger in absolute terms than it was in the early 1960s. Today the return to labour in New Zealand averages more than US$45,000; while that in Bolivia is barely more than US$1,300 – the equivalent figures forty years ago were US$27,000 and US$600 in real terms.

In Bolivia's case, the averages are deceptive owing to the great differences that would emerge if there were more data to compare the agriculture of much of the highlands to that of the lowlands. Much of agricultural growth in the last 15 or more years has been the result of a boom in producing soya, largely based on mechanised farming being expanded across many hundreds of thousands of hectares of previously untilled land. This, it seems, has not generated strong linkages to the rest of the economy: neither in terms of jobs on farms; nor in terms of additional activity in processing and marketing of the soya, most of which is exported to other parts of South America.

The other important contrast between the countries lies in the role of farming. For New Zealand, agricultural and food exports represent more than half the merchandise exports of the country: the ability to export is a key element in the growth of the economy, given the large of fraction of gross national product that is traded. National economic growth correlates with the growth of agriculture.

In Bolivia, it is only relatively recently, in the early 1990s, that the agricultural sector began to show a net trade surplus: until that time farmers were mainly producing for the national market. Economic growth at national level has been more closely influenced by the fortunes of the mining, oil and gas sectors that have produced the bulk of foreign exchange earnings. The relatively narrow base to exports, in a country where trade also represents much of the gross national product, means that the economy has been much influenced by the combined effects of varying prices for minerals and hydrocarbons, and by discoveries of new deposits. Moreover the earnings from these activities have not generated strong links in production: instead they generate royalties that the state then spends – thus making the state potentially a strong arbiter of redistribution. Clearly given the high levels of concentration of income, the state has not directed spending in ways that make much impression on economic inequality.

3. Comparing economic institutions

Property rights: land

Debates over land tenure persist to the current day in Bolivia, while in New Zealand a consensus on the basis of tenure was reached a century ago.

In Bolivia from the time of the Spanish conquest, there have been struggles over land: between elites who have tried to take control over large holdings both to realise commercial gains in farming as well as to accumulate wealth and status; and the peasantry and their defenders who have fought to prevent the lands worked by households and communities for generations from being alienated. The curious point is that historically land in Bolivia was not worth that much. Once farmers produced enough for subsistence and some minimum reserve, geography and the high costs of transport to distant markets meant there was little or no return to producing a surplus. The exceptions were few: the haciendas of the highlands founded close to cities and mining camps to provide foodstuffs to the local markets; and the lowland farms of Santa Cruz that were able to produce some foods that were of sufficiently high value to weight and bulk so as to withstand the costs of mule transport – such as sugar, dried meat, and cotton.

By the late nineteenth century with a resurgence of mining and a gradual increase in the size of the cities, the opportunities to profit from farming increased somewhat. It would be tempting to argue that a larger domestic market for farm surpluses were the reasons for the Ley de Exvinculación of 1874 that allowed the Spanish-origin elites to appropriate the 'spare' land of the indigenous communities; but surely it was not that large a market. By 1900 Bolivia had a population of no more than 1.8M: the Census of 1900 reported the population of the main city, La Paz, as 60k, with another nine cities with populations between 10k and 36k. Less than 15% of the population lived in urban areas. The urban markets of the late nineteenth century were clearly very small: insufficient to stimulate a boom in farming.

Yet despite the apparent lack of profit in agriculture, by 1950 the hacendados had managed to accumulate no less than 98% of the agricultural area in holdings of 100 ha or more; while the smallest 50% of holdings, of less than 3 ha, took up just 0.13% of the farmland. (Demeure 1999) Moreover, the same source reports that barely 2.5% of the land was actually sown to crops: even allowing for lands unsuitable for crops on account of their aridity, poor soils or altitude, it seems that large areas of potentially arable land were simply not tilled.

So why were the lands of the indigenous seized by the hacendados? If there was little profit to be had from farming for lack of markets, then perhaps the reasons were largely feudal: the elites presumably wanted to have the status afforded to the landed, to enjoy a disproportionate share of the wealth of the land however meagre it might be, and to monopolise land sufficiently that some of the peasantry could be attracted into the status of tenants who would pay their rent in labour services and so providing the estates with the labour needed to work the central part of the hacienda. Effectively the hacienda became a means by which the landed elites could live off the rents created by work of the indigenes.

Possibly there was another, largely ideological reason: the belief that large holdings would allow enlightened elites to use the land more productively than the peasantry and so bring progress to the seemingly benighted indigenous rural communities. The model of England, where landlords had seized most the land through waves of enclosures by the latter part of the nineteenth century may have been influential.

This system was to be replaced within months after the 1952 revolution when the peasants invaded the lands of the haciendas and existing tenants reneged on labour obligations. De facto this re-allocated land and labour. The change was then sanctioned by the 1953 land reform act that awarded the land to the tiller, protected the rights of those living in indigenous communities, and set limits to the size of estates. From then onwards, the dominant form of tenure in the highlands has been the small farm operated for the most part by the family with considerable confidence in their right to the land they work.

The old inequalities in land were to be recreated in the lowlands. The estates in the vicinity of Santa Cruz were little affected by the events of 1952 and 1953. There were no great populations of indigenous tenants on the estates determined to take control of the land. The region had large areas of land, but most of it was left as bush, forest and savannah since there was simply little that could be done with any production that was surplus to the local economy owing to the very high costs of transport from a remote part of the country.

By the end of the 1950s the opportunities in the eastern lowlands multiplied as a tarmac road connected Santa Cruz to the highlands, while railways linked the region east to Brazil and south to Argentina. Land became valuable as never before.

Tenure in the east evolved under two forces. On the one hand was settlement ('colonización') both planned and spontaneous that saw people from the highlands, mainly peasants and retired miners, moving to the lowlands. Those moving there under government schemes would be given lots of between 10 and 50 ha arrayed along tracks cut into the bush and forest, provided with tools and seeds, building materials, in planned settlements for which schools and health posts would be constructed; but those moving under sponsored schemes were outnumbered by those who took the risk of travelling on buses and lorries following the new roads that had been constructed to the north of La Paz, Cochabamba[18] and Santa Cruz to find a patch of land in the forest to clear and farm.

Both sets of settlers had ample access to land: their difficulty lay in clearing and farming it. In many cases the settlers adopted slash-and-burn techniques in which they cleared two or three hectares of forest, burned the debris, and planted with digging sticks into the ash-covered clearings. For two or three years the fertility of the land would give acceptable yields, but after that they fell and weeds invaded, so that it made sense to abandon the clearings and find a new patch of forest to clear. Hence, although settlers might have had plots of 10 to 50 ha, they rarely farmed more than 5 ha at any time. Some could effectively become shifting cultivators within their own allocated plots; but in other cases, finding a new patch of forest meant pushing deeper into the surrounding bush and forest down whatever tracks had been opened.

At the same time as ten of thousands of settlers migrated into the lowlands, the estate owners of Santa Cruz, large and medium-scale farmers, looked to take advantage of the new opportunities in commercial farming. Initially they had their own land to develop, but when they saw the chance to expand, they had several options.

One was to take over the land abandoned by settlers. This area of forest re-growth could be quickly cleared by tractor and bulldozer and added to the estates. Another was to expand out from the existing farmlands of Santa Cruz into uncultivated lands that however were sometimes or often part of territory used by indigenous groups for hunting, gathering or long-fallow shifting agriculture. In either case, any opposition to the expansion of the large farms was usually ineffective since these well-off farmers were politically well connected. They could arrange for the lands they took over to be documented as legally theirs. If there was still any physical resistance, they could afford to hire gunmen to enforce their claims.

Thus the massive expansion of the cultivated area of the lowlands, and above in the Department of Santa Cruz was marked by two very different sets of farms: the smallholdings of the settlers; and the large estates that occupied the bulk of the land. The old bimodal pattern of landholding seen in the highlands before 1952 had thus been recreated in Santa Cruz. The difference was that the estates of Santa Cruz were primarily developed to produce a commercial surplus, initially destined to the national market – sugar cane, rice, cotton, and soybeans were the main crops – and by the early 1970s, increasingly for export as well. The motive for expansion was primarily commercial and productive, although some farms

18 Although La Paz and Cochabamba are in the highlands, they lie close to the edge of the Andean mountains. Roads were built in the 1950s and 1960s that crossed the mountains and linked these cities to the lowlands that were little more than 100km distance as the crow flies – but some 2,000 to 3,000 metres below the cities.

may have accumulated land speculating on its appreciating value as farming boomed.

Land tenure debates are active in Bolivia, mainly in response to tensions in the eastern lowlands. In 1996 new legislation was introduced to deal with the proliferating disputes seen mainly in the eastern lowlands as indigenous groups and those with little or no land[19] protested their loss or lack of land. The Ley INRA of 1996 proposed to inspect, survey, map and register land and titles throughout the country and thus resolve disputes and give the rightful owners a title that would allow them to invest and develop their farms. It recognised a new form of property, Original Community Lands (Tierras Comunitarias de Orígen, TCO) to cover the cases of indigenous groups who for centuries had been gaining their livelihoods through the collective use of bush and forest. To administer this measure, it re-established a land tenure agency, the National Institute for Land Reform (Instituto Nacional de Reforma Agraria, INRA). Progress has however been slow: by 2004 INRA only managed to process 6.44M hectares, out of more than 37M hectares of agricultural land, of which no less than 4.5M ha were awarded in just 55 TCO certificates (Kay & Urioste 2005).[20]

To accelerate the process of surveying and titling, the current government of Evo Morales brought in a revised law in 2006 that allows for lands illegally acquired or not in production to be reclaimed by the state for redistribution to those lacking land. It remains to be seen how much the government has the administrative capacity and political capital to implement these measures; and how much this threatens investor confidence in the commercial farming and agri-business circles of Santa Cruz. The government has stressed the importance of these tenure reforms: politically they have a very high profile.

In ***New Zealand***, issues of land tenure were largely settled by the early years of the twentieth century – give or take claims for restitution of land or compensation from Maori groups in recent years – by which time most agricultural land was in the hands of owner-operated family farms under freehold tenure. The route to this outcome, however, was far from smooth. Before this tenure pattern could prevail, two things were to happen: first the expropriation of land from the original settlers and users, the Maori; and second, preventing the accumulation of land in the hands of a few large holders.

The 1840 Treaty of Waitangi recognised the rights of the Maori to their land. Subsequent practice in the nineteenth century was for land to be bought from them by the government for sale or lease to European settlers. Typically land was bought at four pennies an acre for sale at one pound an acre.[21] The pace of land acquisition was rapid: by 1856 almost all of South Island had been bought up; plus 2.4M ha (6M acres) of North Island (Sutch 1942).

By the 1860s however, there was too little land being transferred to meet the demand of settlers, Maori lands were occupied, and the Land Wars broke out[22] that were to last until 1872. Ultimately the Maori were outnumbered and outgunned: within a few decades of the Treaty they had lost most of their land to the newcomers.

From the early days of European settlement, the threat of land concentration was present. Indeed, Wakefield's vision of recreating the English village of the nineteenth century aimed to concentrate the land in the hands of the gentry who would have access to landless labourers. The latter would have to work for decades to be able to afford the price of land to acquire their own farms. Wakefield's schemes did not prosper: the rural poor who ventured to New Zealand on assisted passages had not taken the risk to work once again for the local landowners. They dreamed of becoming independent farmers. Once in New Zealand they looked to every opportunity to find their own farms and not have to work for others.

Even so, land rapidly did concentrate in a few hands. The Crown had pre-emptive right to buy land from the Maori and banned them from renting land to the new settlers. It was apparently able to control much of the land it had acquired from the Maori and either sell it, the preferred option, or lease it to those arriving. Crown control was, however, incomplete. Squatters had leased land from the Maori and they continued to farm this with precarious rights – apparently then becoming a political force for self-government (Fairweather 1985).

In selling the land the government depended on sufficient demand at the asking price of £1 an acre. Although it was clear by the early 1850s that running wool sheep on South Island was profitable, there was reluctance to buy land: most instead was let out on pastoral leases lasting 14 years with obligations to stock and improve – mainly a matter of fencing – the land. By 1866 twice as much land had been leased out as was sold. (Ackroyd 1993)

Settlement brought its own economic logic. Land was abundant but the sheep were not. Hence the early runholders made money, not only from wool, but also from selling livestock to latecomers, or loaning them the stock in return for a share of the offspring and returns (Fairweather 1985).

Within the wool sheep economy of South Island a struggle for land emerged between the early runholders and those speculators, who seeing the excellent returns to wool production, looked to accumulate large areas of land. The government tried to encourage sales by dropping the price of land to 10 and 5 shillings an acre in 1853, but this only encouraged speculation. Runholders engaged in various tactics to hold

19 copying the Brazilian model, the Movement of those without Land (Movimiento Sin Tierra, MST) was formed to invade and squat on unused land held by large estates.

20 To which can be added to another 19m ha reserved and protected areas, making some 56m ha in total (Kay & Urioste, 2005, table 4).

21 One pound = 20 shillings; one shilling = 12 pennies: so 240 pennies made up a pound.

22 Strictly speaking the wars began in 1845, but before 1859 hostilities were few and limited.

on to their land and to acquire adjoining parcels by 'grid-ironing', 'spotting' and 'dummying'.[23] There is some controversy as how much these measures were unscrupulous attempts to grab the land, or mere defence against would-be land speculators (Ackroyd's 1993 judgment), and further debates over how much the tactics distorted what would otherwise have happened in the emerging land market (see Hawke & Lattimore 1999 who argue that these practices were neither that extensive nor that distorting).

The estates with freehold tenure of purchased land, however, prevailed over the runholders with their leases: Ackroyd (1993) reports 200 estates occupying 1.2M ha in Canterbury, South Island by 1859; but it seems that the period from 1860 to the 1880s were to be the high-water mark of the estates. The New Zealand Census of 1882 revealed that just over half the occupied land was held by 1.5% of farmers with holdings of 4,000 ha or more; and the next 5% of landowners with between 400 ha and 4,000 ha held another 24% of land.

From the 1870s onwards several forces combined to limit the estates and promote the emergence of smaller owner-operated farms. One was the fall in wool prices already recorded above: extensive sheep grazing on South Island ceased to be an attractive option. Another was refrigeration that opened up the UK market to New Zealand lamb and butter. Dairying was an activity best carried out at the scale of herd owner and milker, and in the days before sophisticated milking machines, that meant herds of 50 cows or less. A further factor was the bush that covered much of North Island, where settlers increasingly arrived in search of land. This could not be rapidly stocked with sheep to form a large holding, but instead required laborious clearance by axe and fire: labour counted for more than land. Swamps were another feature, requiring drainage to make them usable.

Probably none of these would have prevented land ownership being concentrated in a few hands. It would, after all, have been possible for a few wealthy individuals to buy up the land and then rent out concessions to dairy farmers and those prepared to clear the bush. Ultimately, it was deliberate government policy that prevented the accumulation of land, and indeed, promoted the division of its ownership. In 1877 a Land Act was introduced to promote family farms: land was to be offered to settlers on deferred terms, or under homesteading arrangements where the requirements were residency and improvement of the land awarded. By the 1890s the governments was offering mortgages at 5% interest to those taking Crown land. The same Act brought restrictions to the size of pastoral leases.[24]

In 1891 a graduated land tax was brought in that exempted six out of seven farmers, while provisions for compulsory acquisition of land were made in the 1892 Lands for Settlement Act, although apparently this right was rarely exercised. In addition the government increased the number of leases it provided, from under 10,800 in 1890 to 20,100 in 1908. Any tenant farmers had both their leases and rents protected.

These were not the only measures taken by government to limit the estates and to encourage family-sized holdings: there was a barrage of legislation passed to encourage estate owners to sell off their lands, and to facilitate small farmers buying land off them, and getting leases on state lands. The signals were clear, the policy consistent in broad outline.[25] The Liberal Party that won the elections of 1890 had promotion of closer settlement as an important part of its manifesto.

The consequence of the combination of changing economic conditions and state action was a decline in the estates – those with more than 4,000 ha covered 3.25M ha in 1892 but only 1.45M ha in 1910 – not so much because government forced their break-up, but more since it was more profitable to the owners to divide up their properties. As the number of estates fell, so that of farms rose from around 10,000 in the 1860s to more than 80,000 by 1914, a number that fell only slightly during the twentieth century to reach 70,000 farms by 2002.

By the First World War, the agricultural land of NZ was mainly in the hands of family farmers working the land at the scale that could be maintained by the family, with perhaps some extra hired help at peak times. Actual farm sizes might vary considerably between that necessary to feed a few dozen cows on North Island, compared to the very much larger area to run sheep on South Island, but the ability to manage and operate the unit at the family level was the norm.

In the process a certain shared vision of New Zealand had been created: that of the hard-working, land-clearing settler farmer owing no other person allegiance other than that demanded by common civility, suspicious of luxury and intolerant of privilege. This was allied to many other measures of social progress that the New Zealand government had introduced by the end of the nineteenth century – universal

23 Fairweather (1985) explains: 'To 'gridiron' a property into an array of purchased and unpurchased strips or pockets of land, runholders would begin by buying a series of twenty acre sections fronting a road and leaving a nineteen acre section between the purchased sections (Burdon, 1938, pp.123). Under the waste land regulations, the small sections had to be auctioned; this was difficult to organise and small farmers were likely to be outbidded. Thus: 'wide stretches of leasehold were blotched, spotted and tattooed with blocks of freehold in such a way as to bewilder and baffle would-be purchasers' (Parsons, 1904, pp.74). In addition to gridironing the original run, an emergent estate-owner could 'spot' it by buying out the good portions, or use imaginary buyers, or front men, to pre-empt land, a practice known as 'dummying' (Scotter, 1965, pp.109). An investigation into this practice revealed that 19,000 acres of the New Zealand and Australian Land Company had been acquired by employees in its service. These tactics are reported to have been used widely in the South Island and were common in the North Island.

24 These proved too restrictive and subsequent measures in 1882 and 1885 increased the areas that could be leased (Ackroyd, 1993).

25 In the detail there was debate and disagreement, such as wether family farmers should be given leasehold or freehold possession of state land. A compromise was to offer leases of 999 years.

suffrage including females, free education, and pensions; driven by an electorate determined to avoid the social evils of poverty, inequity and exploitation left behind in the UK (Coleman 1958).[26]

By the early years of the twentieth century the land frontier had closed in New Zealand. Any quick gains to be made by converting forest, bush and grasslands to farmland and grazing had been realised. With the land divided amongst family-run farms in a fairly equitable manner, ideas of advancement by redistributing land were limited to those small-scale transfers possible in local land markets. From then onwards if production was to increase and incomes to rise, the existing land had to be made more productive.

Intermediation and facilitating transactions

According to one view, see PNUD (2005), informal enterprises in Bolivia – a category that takes in the majority of businesses including small farms and which provides 80% or more of employment[27] – face high transactions costs. Deferred transactions are subject to high moral hazard. Obtaining formal credit in particular is either costly or impossible. Many risks cannot be formally insured.

Where informal business has to deal with government, the costs are high in paperwork, travel, waiting times, and often in petty bribery to ensure attention to the case in hand. Where informal business chooses to operate outside of government laws and regulations, additional uncertainty prevails over the possibility of a government crack-down. When the regulations are applied, further costs are then incurred in either paying fines, bribing would-be enforcers, or else in mounting a defence.

Most small and young enterprises choose to remain informal. Although this raises their costs of operation and deprives them of access to government services, the costs of registration and payment of taxes are seen as higher.

Two elements help explain this situation. One is the ineffectiveness of the state in delivering services and building the institutions to support contracts. In part this stems from lack of political priority, and in part from lack of capacity in staff and experience to fulfil these functions – the latter largely a consequence of the former.

The other is a lack of generalised trust between participants in markets and supply chains that means that most transactions are in cash and on the spot. The way in which the Bolivian state developed and why it has been unsuccessful in promoting institutions for intermediation of commercial and other relations will be discussed in the next section on collective action.

In the case of ***New Zealand***, complaints of the difficulty of transacting are limited. From a relatively early period, the state was active in fostering institutions. From 1861 there was a central bank operating and a Post Office Savings Bank was established in 1867.[28] The government set up a life insurance office in 1870 and in the 1890s opened a fire office to offer insurance against fire. (Hawke 1985) In neither case were these public monopolies: they were set up to provide a public alternative to commercial schemes to prevent profiteering.

The financial system, with ready access to finance from London, was augmented by the government taking on loans and re-lending to settlers.

Looking beyond purely commercial transactions, government moved increasingly during the twentieth century to intervene in the economy and society to reduce social tensions, mitigate inequality, and to protect New Zealand interests against those of foreign enterprise. For example, from 1894 an Industrial Conciliation and Arbitration Act recognised labour unions and set up a forum to make deals between them and employers on wages and conditions.

The state put in place measures to protect citizens against economic shocks. In the last decades of the nineteenth century, soup kitchens were set up for the unemployed. By the early 1930s there were public employment schemes in place to assist the victims of the depression. Old age pensions were introduced in 1898. By the 1930s there was a limited unemployment benefit. The 1939 Social Security Act brought in a wide-ranging set of measures: pensions and benefits for the old, widows, invalids, child allowances, and universal free medical care.

Statutory boards were introduced in the years between two world wars to regulate dealings between farmers on the one hand, and processors and exporters on the other. In time, some of these would come to have monopoly control over exports.

The impression is that from the 1890s onwards there were strong instincts in government, private enterprise, organised labour and farmers to put limits on the market economy – restricting the ability of the wealthy to accumulate land, to exercise monopoly power, and to protect labour and citizens against shocks. Not quite a corporate state, since individual freedom was rarely that restricted, nevertheless the state strove to find consensus and build a strong sense of national identity, purpose and shared interests.

26 Ironically by the last quarter of the nineteenth century conditions improved markedly for labourers in both factories and on the land in the UK: but many of New Zealand's settlers had left before seeing this. Nevertheless, it seems that in both average incomes and conditions of work, New Zealand led the UK by 1900.

27 PNUD (2005) reports a narrow-based economy, where just 7% of the workforce (in firms of more than 50 employees) generate 65% of the income; while 83% of the workforce in small-scale firms and farms produce just 25% of income; leaving with a very small middle band where 10% of the workers produce 10% of incomes.

28 This may have been influenced by the establishment in the UK of a similar bank in 1861.

This was bolstered by a confident belief, with certain justification, in the early years of the twentieth century that New Zealand was a model of social progress and as prosperous a society as any on earth, a model for other countries to follow (Coleman 1958).

Collective action

Collective action in Bolivia has tended to be limited to small and local groups. In highland farming, communities have tended to be close-knit facilitating exchange of labour, construction and maintenance of small-scale irrigation works, and social functions. Wider association has been limited – at least for economic purposes. PNUD (2005) documents the paradox of the highlands: 'solidarios pero solitarios' [solidarity but solitary] in which it points out how the operators of small businesses in El Alto – most of them recent emigrants from the villages of the altiplano – have combined readily in defence of their interests against, for example government attempts to make intellectual property rights stick, and yet still do not trust their companions of the barricades and marches in everyday business interactions.

Indeed, a motif of the highlands seems to be the ease with which miners and peasants have combined to defend and advance their interests – most strikingly in insurrections including that of 1952 – and yet attempts to replicate that solidarity in economic transactions have repeatedly foundered.

Take the case of co-operatives: rural Bolivia, in common with much of the rest of the developing world at that time, saw government programmes to form farmer co-operatives in the 1960; but they largely failed. Later in 1983 the union of peasant farmers (Confederación Sindical Única de Trabajadores Campesinos de Bolivia, CSUTCB) formed an agricultural co-operative (Corporación Agropecuaria Campesina, CORACA) that soon ran into trouble. Muñoz Eisner et al. (2004) reported that in the first general assembly held in Uyuni in 1989, the following faults were recognised:

> … little participation from the grassroots, bureaucratisation, corruption, debts accrued without cover, falsification of data, constant interference by political parties, use of resources for union work, personal spending by leaders and technical staff, and lack of control and supervision of the work of the technical staff.

Moreover, it was established that CORACA did not take on concrete tasks, its activities were not established within a national overall strategic plan, and that projects were planned and implemented from the top down. [62–63, own translation]

After the economic reforms of 1985 that made it clear that economic matters were to be organised first and foremost in the market by private actors, peasant economic organisations have been formed at the instigation of donors, NGOs and the state. They have, however, found it difficult to make progress without effectively operating as a club for a reduced number of slightly better-off small farmers (Muñoz Eisner et al. 2004). In part, these difficulties arise from all-embracing concepts of co-operation in Andean tradition:[29] drawing clear lines between operating business services and providing social welfare and entertainment is not straightforward.

Other accounts of collective action show a similar pattern of successful grouping for political action; as seen with the peasant unions of central Cochabamba that used the opening of decentralisation in 1995 to get their leaders elected and to promote their political agenda. The origins of the party in government at the moment, the MAS (Movimiento al Socialismo, Socialist Movement) lie in regional peasant unions, and especially those defending coca farmers against official attempts to destroy their crop. (Whitehead & Gray M. 2004)

The main examples of some success in collective organisation to support production come from the lowlands, where the Eastern Agricultural Chamber (Cámara Agropecuaria del Oriente, CAO) acts as an umbrella for the interests for ten or more agricultural associations representing growers of different crops. These serve commercial aims in procuring inputs, marketing and obtaining credit, as well as helping provide technical advice, and lobbying the state for the interests of their sectors.[30] Although there are some small farmers in these associations, the leaders are larger-scale commercial farmers.

In Santa Cruz the various organisations that have been set up to represent commercial interests form part of the remarkable Committee for Santa Cruz (Comité pro Santa Cruz): a civil body set up in 1951 to promote the interests of the Department. In marked contrast to the highlands, political leadership in the lowlands has developed along corporate lines with private enterprise very much to the fore. This has been aided by the presence of oil and gas fields in the Department: a portion of the royalties goes directly to the Department. This allowed the creation of a public agency, the Development Corporation of Santa Cruz (Corporación de Desarrollo de Santa Cruz, CORDECRUZ) that had the means to make public investments in ways that central government could not. This agency, while under the political leadership of the elites, developed considerable technical competence.

29 This refers to the longstanding practice of 'cargos' and 'fiestas' in highland communities, in which the prosperous would bankroll fiestas in return for social standing and the assumption of leadership roles. For some observers, this served to dissipate capital and prevent accumulation to the detriment of economic growth.

30 In some cases, such as sugar, the price used to be negotiated with the government.

As an example of how Santa Cruz organised itself, a regional agricultural research station was started in 1976 (CIAT) that was increasingly funded by CORDECRUZ and the crop associations.[31] With little or no central government funding, CIAT found itself having to work closely with the producer organisations and some NGOs representing small farmers to maintain its regional funding and support. Although the linkages between researchers and farmers are imperfect, compared to other parts of Bolivia the system works reasonably well and farmers both large and small have seen some benefits. (Thiele et al. 1988, Wadsworth 1996)

Another example of successful collective action comes from micro-finance where since 1985, Bolivia has seen some innovative experiences that are well-known internationally, BancoSol being the best example. The microfinance agencies, however, are largely working in the cities and rural microfinance has not been so well developed.

Paradoxically, the success of microfinance based on the ability to use the social capital of small groups to overcome high transactions costs in credit markets, has been threatened by the ability of debtors to form solidarity groups to defend their interests. When a credit crisis broke in 1999 as those over-indebted with the micro-finance houses ran into repayment problems, the debtors quickly formed alliances led by populist politicians to press government for debt forgiveness and deferred repayments. They had some success but in the process undermined the viability of the micro-finance houses. It seems that faced by crisis the reaction was confrontational – with leaders portraying the debtors as the deserving poor being exploited by usurious lenders[32] – rather than a search for consensus. (Velasco & Marconi 2004, Marconi & Mosley 2006)

In New Zealand, collective action was facilitated along two axes. One was through business and financial elites who by the middle of the nineteenth century had interests in estates, banking, processing and transport (Fairweather 1985) and also tended to take positions in local and national government.[33] Not only were the colonial New Zealand an apparently closely connected group, but they also maintained their links to the UK – overwhelmingly the main trading partner and source of investment finance. New Zealand may have been effectively self-governed from the mid-1850s, but its nominal status as colony and later dominion meant that links to the UK were made that much easier.

The other axis was co-operation by ordinary farmers. By the end of the nineteenth century, farmers had established a range of associations, as reported by Star & Brooking (2007, paragraphing added):

> From the 1890s, in addition to A&P associations [agricultural and pastoral societies that ran annual shows], farmers' clubs and farmers' unions, farmers also formed co-operatives, notably to run dairy factories, but sometimes to act as merchants.
>
> Already by 1897 the United Farmers Co-operative Association in Palmerston North held 'large stocks of both English and colonial grown seeds, ... [including] crested dogstail, meadow foxtail, and cocksfoot' (NZF 1897: 330). Farmers' influence upon pasture development increasingly extended beyond experimentation, practice and education and into the field of commerce.
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> By 1915, Wellington Farmers' Union ran 'an up-to-date factory for the manufacture of superphosphate and sulphuric acid' (NZF 1915: 926). Independent action in such areas is significant confirmatory evidence of farmers' stand-alone role in early pasture development.

Farmer-owned co-operatives have been the dominant form of organisation of the dairy supply chain, and have played important roles for other products as well.

Although producer groups have lobbied for government support, they have apparently been able to appreciate the limits to public funding and have balanced this against a clear vision that New Zealand farming has to be competitive if it is to thrive, being so dependent on export markets. Thus when the reforms of 1984 came, the Federation of Farmers accepted them, so long as government applied the same medicine to other protected sectors in the agricultural export chains – in transport and above all in port operations.

How costly have institutional shortcomings been?

It is easy enough to see that economic institutions are more completely and widely developed in New Zealand providing a sufficient framework for the workings of a relatively prosperous economy. Bolivia's economic institutions are less well developed and function imperfectly; but how costly to Bolivia have those deficiencies been?

Looking at property rights and above all those to land, it is not clear that in Bolivia investment has ever been deterred by unclear land rights. The peasantry of the highlands, by most accounts, have felt secure in their rights to the lands they till since the 1953 agrarian reform. It might be argued that lack of negotiable titles that could have been offered as collateral has made it difficult for them to obtain

31 CIAT has benefited from donor support from both the UK and the World Bank.

32 This image has persisted in some political quarters, the phrase 'micro-usury' being coined.

33 Fariweather cites the case of one of the local gentry from South Island: 'John Grigg served on the railroad, church and cathedral committees, judged stock at the local show, and served on the road council, the Ashburton County Council, the school board and the hospital board (Stevens, 1952). He was also a member of the House of Representatives.'

formal credit; but against this it is likely that high transaction costs would still have deterred bankers from offering credit. There was, for many years, in any case a specialist state-owned bank for agriculture (Banco Agrícola de Bolivia, BAB) that could have lent to the peasantry without collateral, something that it did only to a limited extent – presumably owing to high transactions costs and a lack of bankable agricultural investment projects in the highlands.

Has the distribution of land to the peasants in the highlands prevented a land market from emerging and ensuring that the most efficient and dynamic farmers get land to farm? It is hard to find any evidence that the highland land market works de facto less well than that in other countries. For example, Urioste (2005) describes how the land of those villagers who migrate to urban areas (confusedly these absent migrants are called 'residentes') is let out to neighbours. Most accounts based on observations at the community level show that land is transferred between users, temporarily or permanently, no matter what the formal status of the land may be.

In the eastern lowlands, disputes over land have not prevented the boom in growing soybeans or any other crop. Credit was not for many years dependent only or even mainly on private banks: the large farms of Santa Cruz made copious use of capital channelled to it through the BAB and the Central Bank. Now that such state financing has been much reduced since the 1985 reforms, the main source of credit to large-scale farmers has been through input suppliers and processors.

Has tenure in the east of the country led to land being unproductive? While reports of land being acquired in the hope of its value appreciating are registered, this surely cannot have been a major impediment otherwise the almost one million additional hectares of land planted to soya would not have happened.

Does this mean, then, that the very different evolution of land tenure in the two countries since the 1870s does not matter? In immediate terms, perhaps not: but it is hard to escape the argument that New Zealand's move to family-sized farms did much to cement a society of relative equality, while the expropriations in Bolivia at that same time underlined social and economic inequalities.

It is in the sphere of intermediation that faltering and absent economic institutions appear most likely to stymie investment and growth. The Human Development Report for 2005 (PNUD 2005) stresses that the informal sector, where most Bolivians work, faces chronic problems in deferred transactions – and in particular in getting access to capital. Informal credit markets reportedly operate with very high rates of real interest – 25% or more.

At first sight, this seems likely to reflect the high costs of intermediation in an economy where levels of generalised trust are low, and formal institutions to mediate contracts either do not exist or function poorly; but then look at savings and investment rates, both rarely higher than 10% since 1985. This suggests an economy where capital is scarce and this may explain the high interest rates charged for the little that is on offer.

High costs of capital, for whatever reason, tend then to encourage trade with relatively rapid returns rather than investment in production (PNUD 2005), and especially agricultural production, where the returns are likely to take longer to appear. They also encourage the search for rents: if interest rates exceed the likely returns to normal enterprise, then the only way to finance loans is by obtaining an additional rent over and above any concept of normal profit. One of the clearest routes to rents is by state favour: the allocation of rights to valuable property; award of monopoly privileges; protection from foreign competition; subsidies and access to cheaper state credit. Arguably this then creates a business culture in which entrepreneurs spend as much time lobbying for favour and support as they do in running their businesses.

To make matters worse, it might additionally be imagined that given that state favour is a limited good, then the search for privileges is a zero-sum game. If so, then for business interests, a society of great inequality in wealth and political power serves to allow the fortunate few their share of the cake, while the rest can be marginalised. Inequality then becomes instrumental to the model. This is not to argue that inequality is the creation of rational economic calculation; but merely to pose the thought that there are economic forces that may reinforce the original inequality.

It is difficult to tease out what may be the effects of difficulties faced in mounting effective collective action in Bolivia. For much of production on farm, this hardly matters: with the dominant production unit being the family managed farm, then the inability to operate in larger groups does not represent an obstacle. When it comes to organising in other parts of the agricultural supply chain, it is hard to judge where some form of collective action would be more effective than a hierarchical enterprise of owner, managers, and hired staff – of which there are plenty of examples in input supply, processing and transport.

Yet the lack of generalised trust has its costs: it reduces the scope for innovation – in established lines of business, personal relations can be forged, but when new opportunities arise that imply engaging with unfamiliar actors, the lack of generalised trust is an obstacle. It contributes to a political and public culture where mistrust prevails and struggle and confrontation are more likely than debate and negotiation.

The conclusion of these brief reflections is a sense that there are costs of institutional deficiencies in intermediation and transactions, but quite how high they are, and how they rank compared to other problems is difficult to judge. Moreover, it seems institutions are not the determining factors, but are more the representation of underlying forces; yet the institutions in place then reinforce the processes that those forces drive. To these the argument moves in the conclusions.

4. Conclusions

If economic institutions are not the driving force in Bolivia, what is? An intriguing hypothesis can be found in the work of Laserna et al. (2005) that argues that Bolivia's ills stem from a pervasive culture of rents. In this the building blocks include:

- An economy in which good returns can be made by putting natural resources to work – through the extraction of minerals, oil, gas, or the conversion of little used tropical lowlands into fields of soya;
- A state that is accustomed to imposing its will by force, that can allocate the rights to the natural resources, but that is weak in providing services or in establishing formal, neutral and effective economic institutions; and,
- A society of longstanding inequalities with sharp divisions by class and ethnicity, in which time and again privileged elites have monopolised the natural resources and treated the rest of the population as cheap labour, and have then largely reneged on building a more competent state, let alone creating a democratic state.

These elements then interact. With limited natural resources, small groups scramble for control of the state to award themselves the rights to the resources. High levels of inequality make this easier for the elites as well as facilitating a supply of cheap labour to extract the resources. For the elites the key functions of the state are the maintenance of order, in effect maintaining inequalities, and assuming control over natural resources that can then be awarded to the elites who control the state.

This then produces deformations amongst the marginalised majority. The state is seen as the source of wealth, of favours, of rents.[34] Political struggles are thus about gaining political power after which the rents can be redirected to the winning side.

If, when a new group assumes government, rents prove to be less than imagined, the suspicion tends to be that somewhere in the system some other group is extracting the rents. Domestically that leads to a distrust of private enterprise and externally to a sense that the terms of trade, and of access to international capital and investment funds, are adverse. It helps, of course, that there is usually some, albeit partial evidence to support both propositions. The appealing solution is then to impose more control on markets and entrepreneurs internally, and to disengage from international transactions – with trade liberalisation and foreign direct investment seen as dangers rather than opportunities.

Those out of power see the state as the partisan apparatus of political opponents, to be resisted. On an everyday basis that can translate into demands for the state to attend to this or that need, but with little sense that there may be reciprocal obligations from the citizenry in terms of paying taxes or that protest should be maintained within some recognised limit.

Finally in this edifice, political turmoil is likely: control of the state becomes the overwhelming focus of ambition; while blatantly partisan government lacks legitimacy and is always likely to face severe opposition from the excluded parties. This would seem to help explain the extraordinary number of governments that Bolivia has seen: since the 1952 revolution, for example, there have been no less than thirty administrations in just 56 years.

As far as economic institutions are concerned, one stands out above all others: property rights to the natural resources. Institutions for intermediation are not seen as important, something that can be attributed to the nature of the main forms of production. Much of farming operates through relatively small, family-run businesses – albeit that they may take the form of 10,000 hectare soybean farms. Mining, oil and gas companies tend to be large-scale hierarchical organisations with much vertical integration to assure inputs upstream and processing and marketing downstream. In both cases institutions for intermediation are not an immediate concern in production. (Wiggins et al., 2006) That does not mean that institutions for intermediation are unimportant: their lack means that enterprises and activities that require more than a small scale and cannot be organised vertically will struggle. And that may be a substantial factor behind the undiversified and narrow economy of Bolivia that the UNDP report (PNUD, 2005) documents and laments.

This is an appealing hypothesis. It helps explain why patterns persist even when the model is changed drastically, as occurred with the revolutionary government that took power in 1952. It incorporates more than one fashionable argument, such as the idea that countries with valuable natural resources are cursed with bad government; or that inequality has multiple disadvantages in the economy.

34 While the state is central to rentier projects, it is also often central to reformist projects as well. Those with visions of a transformed Bolivia, tend to invest a state that is palpably incapable of doing more than trying to hold the peace by coercion and awarding the rights to resources, with imagined extraordinary increases in competence in promoting equity, investment and enterprise. Here is one of the elements that undermined the revolutionary government of 1952 that entrusted the state with the mission of transformation: the apparatus the MNR inherited was presumably never anything like capable of fulfilling the vision of the leadership.
The current MAS government has plans that also seem to depend to an alarming extent on an efficient and effective public service.

There are shortcomings to these arguments, however. Bolivia is changing. Inequalities may persist, but the health and education of the marginalised majority have improved greatly over the last half century. Democratic ideas allowed some decentralisation of government to local levels from 1995 onwards, where multiple learning experiences in representative democracy have taken place. The combination of a better educated majority and the chance for grassroots leaders to develop political skills at local level have been major elements in the electoral triumph of the MAS in late 2005.

Futhermore, in the east of the country an economy and society has grown up where some of the three elements are weaker than seen at national level, above all in the nature of the regional government where private enterprise dominates not so much to profit from rents, as to ensure the conditions for business are favourable. The Santa Cruz model is far from perfect, and it is arguable that when the land frontier finally closes and the chances for rapid enrichment cease, that the economy and society will face some difficult challenges in raising productivity as a way to increase wealth; but it does represent another model and confirm that there is nothing inevitable in the way that mainstream Bolivian politics, economics, society and associated institutions have evolved.

New Zealand, on the other hand, appears as almost the other side of the coin. An economy based on natural resources, to be sure, but resources that have – ever since the demise of the wool sheep boom in the 1870s – required much hard work for modest returns; and where there has not been a means for those with capital to secure unusually cheap labour to work on their behalf. A nation that became by the last decade of the nineteenth century a model of democracy and reformist social progress; one where the bedrock was not the state itself, but a free and enterprising collection of individuals and households. A society where gross social inequality was abhorred, where any whiff of privilege was likely to prompt a strong social reaction.

Within this somewhat idealised vision of New Zealand the family farm then becomes a model unit: one where individual households, secure in their tenure of a modest amount of land that demands hard physical labour and problem-solving ingenuity, but from which a decent living can be had, are free to make their own fortunes.

What is intriguing is that this was not achieved by linear progress along a grand design. On the contrary, by the late 1860s, scarcely thirty years after European settlement started on any scale, the country had been set up to reproduce the inequalities of rural England of the time – partly by design (Wakefield's vision), partly owing to the acquisitive instincts of elites arriving in the islands, and partly owing to existence of easy pickings from sheep farming. At that time, New Zealand's future could have been similar to that of Bolivia, or perhaps to other Latin American countries where pronounced inequalities in land ownership were to influence the nature of society and politics for generations to come.

That New Zealand did not follow a path similar to that of Bolivia, Chile, Argentina or Uruguay seems to come down in large part to historical chance and circumstance: the demise of the sheep economy, the rise of dairying made possible by refrigeration, and the difficulties of clearing North Island bush; but clearly this was not just fortune, since the interventions of government translated these chances into a new path; intervention that was the result of an acceptance of democracy through which the have-nots of early colonial New Zealand insisted on a measure of redistribution, the prevention of privilege, the mitigation of inequality, and that opportunities should be open to the majority if not all.

Democracy is thus a crucial difference between the two countries in view. In New Zealand, a legislature existed by 1852 for which all adult men with property could vote.[35] By 1879 the property qualification was removed, and by 1893 women were enfranchised as well. Contrast this to Bolivia. The 1880 constitution allowed men to vote so long as they possessed property or had a minimum annual income, and crucially, so long as they were literate. The literacy requirement was extraordinarily exclusive: in 1900, less than 20% of adult Bolivians were literate. By 1950 they were still less than half the population. Indeed, as late as 1950 just 4% of the population voted. It was only in 1952 the literacy requirement was abolished and in effect a universal franchise was offered.

This then begs the question of why a universal franchise came sixty years earlier in New Zealand than Bolivia. In the latter case, the franchise was the direct result of a popular uprising, one of the few true revolutions of Latin America, the product of courage and carbines. In the former nothing of the sort applied: yes, the history of early settler New Zealand is replete with protests and strikes as the disentitled and disadvantaged amongst the settlers struggled to make their voices heard, but it never came to armed rebellion.[36]

Is imagination, and its practical counterpart, leadership, part of the explanation? Tellingly, one Bolivian historian (Mayorga 1999) argues that the 1880 voting rules were largely accepted even by those who were excluded: the ambitious amongst them thus sought education and property to achieve their citizenship. If correct, Bolivia's caste system had captured even the imagination of the downtrodden. A coherent political movement for emancipation would not emerge until the generation of the Chaco and the mine unions emerged in the late 1930s.

35 The Maori were not qualified since their communal land ownership was not admissible as property. This was corrected in 1867 when property requirements were withdrawn for Maori men.

36 Of course there is a parallel history in nineteenth-century New Zealand: the other set of disadvantaged, the Maori, did rebel and the country was plunged into the Land Wars – three decades of intermittent warfare.

Even this line of argument, dealing in intangible elements and thus susceptible to being tweaked to suit the facts, runs into difficulties. If imagination and leadership produced an early democracy in New Zealand, what happened to the high ideals of Bolívar and Sucre in the early years of independent Bolivia? Vested interests from colonial Bolivia faced down the ideals; but why did this not happen in the 1850s and 1860s in New Zealand? Were any instincts towards reaction and repression amongst the settler elites tempered by contemporaneous events in the UK where democratising elements were slowly winning the battles against longstanding privilege? And if so, why did this same example not exercise the same effect on the elites of Bolivia? Britain traded with the world, and as a great power was highly visible. France and the USA, two other powers, provided other examples of a progressive political imagination. Was language a barrier, was the isolation of the small cities of the Andes a factor? Mayorga again supplies an explanation: that Bolivia was so unequal a society, that the elites lived with a great fear – that of the uprising of the indigenes in which they would be annihilated. Anything that encouraged the downtrodden to raise their expectations was repressed: hence the reluctance of the hacendados to allow rural schooling.

How much then have economic institutions been important in these two cases? Yes, they matter, but perhaps not quite in the ways one might imaginer: the land tenure systems of the two countries may not make that much difference to the incentives of farmers of all scales to invest and innovate, but they are fundamental elements of equality and inequality in the two societies. Gross inequality deters investment in all but ventures with fast and high returns. The lack of effective institutions to allow intermediation in Bolivia surely has costs, and deter investment. The limits to collective action in Bolivia make progress towards economic, social and political advances with common purpose that much more difficult.

But the institutions are not necessarily the drivers: they are the manifestations of deeper norms and beliefs inherited and forged in the everyday experiences of ordinary people, one where it is clear that the system is unfair and has been more or less designed to be so; the other where much has been done to make things fair – and where fairness is taken as an overriding social, economic and political value. It is inequality, reinforced through political systems and cultures, that makes the difference.

Referring back to the literature, this account has much in common with ideas of path dependency. Decisions made long ago – the mid-1800s in New Zealand, the mid-1500s in Bolivia – have set the two nations on different paths, where subsequent decisions have been heavily constrained by the historical experience. Indeed, the Bolivian case can be read as one of extraordinary resistance to change: the rupture of independence was seemingly little more than a flash in the pan; and while the revolution of 1952 made a lasting impact, it was incapable of deflecting the country far from its trajectory.

But this would be to stretch the argument to breaking point. In the revolution of 1952 Bolivia did change its course, even if the fruition of those changes has been long in the making, probably longer than any of the revolutionaries and reformers of 1952 could ever imagine. The breaking of the power of the oligarchs and the universal franchise did not immediately lead to a lively democracy; but the legacy of this can be seen in the advances made in the restoration of democracy in 1982, the decentralisation of 1995, and the election of the MAS in 2005 as a party representing the marginalised majority. Bolivia's road to a better future may be hard and long, but there is a path.

… and policy?

Are there policy implications that follow from this essay, and in particular policy concerned with institutions? The lessons from this reading of the history of two now very different countries may not original, but some are clear.

This essay suggests the primacy of political development, itself a cultural manifestation, over economic matters. Gross inequality breeds multiple ills, not least from the desperate measures that ultimately frightened elites undertake to maintain control. By definition in such societies the key economic institutions are at best provisional: economic institutions exist to make behaviour predictable. If the only way elites can anticipate the actions of the subordinated is through the lash and the bullet, uncertainty becomes fundamental. Some form of democracy – defined as broadly as a system where the executive rules by general consent – seems to have multiple benefits.

Given political development, the economic institutions will more or less take care of themselves; and it is the function that matters more than the form. In New Zealand there were long discussions over rights to land turning on points such as leases and rentals versus freehold property. Did these differences ever matter when farmers were deciding whether to improve a pasture, buy some livestock, or drain a field? Surely not: what counted was their expectation that they lived in a society where their rewards to their efforts would not be expropriated by the state or bandits.[37] It is a working hypothesis that the reason farmers cared about leases versus freehold was more a matter of their conception of the status that this gave them, rather than as something that would affect the management of their farms.[38]

In economic development, New Zealand shows that slow progress is nevertheless progress, especially once a certain level of economic growth has been achieved. From 1870 to 1932, per capita GDP grew by

37 NZ did see a period when agricultural investment faltered: in North Island during the Land Wars.

38 'Freehold' may be more than technical term in English: it suggests something about the dignity of the holder, rather than a mere relation of human to property.

around 0.8% a year: since 1932 it has grown by 1.8% a year on average.[39] In the long-run these rates make a huge difference: in the depression of the early 1930s some New Zealanders were reduced to wearing sugar bags, unthinkable today and almost unthinkable in contemporary Bolivia.

The battle in economic development is to set the conditions for investment, work and innovation, rather than the scramble for rents. While the former promise ultimately to create wealth on a scale that can be widely distributed, capable of being sustained, and adapted to changing circumstances; rents are often limited in scale and time, encourage visions of the limited good and life as a zero-sum game, and restrict visions of economic development to particular activities rather than processes.

39 Linear regression of Geary-Khamis estimates of constant GDP/capita made by Maddison and reported by Stats NZ.

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