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Report on the Manitoba Economy: 2007

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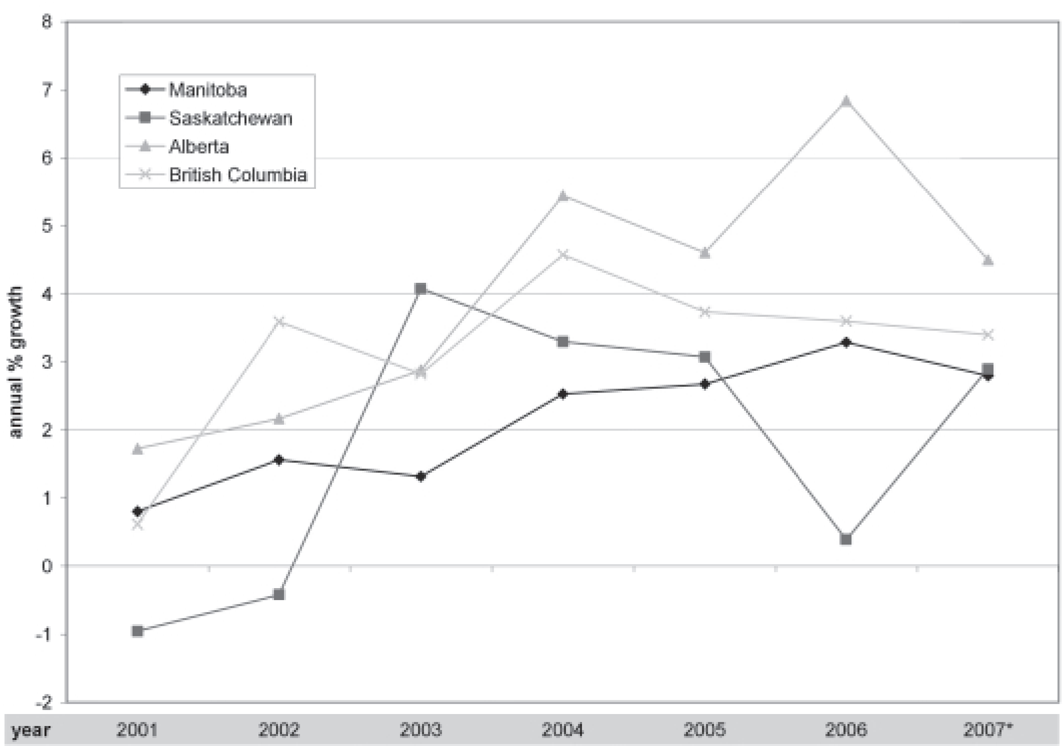
I. Introduction

There is an economic boom in Western Canada. Real gross domestic product (GDP)[1] of the four western provinces increased 3.9% in 2005, and then surged well beyond that with a 4.6% growth rate in 2006. These rates easily surpassed those for the Canadian economy as a whole, which experienced a more modest expansion of 2.9% and 2.7% in 2005 and 2006 respectively[2]. As shown in Figure 1, however, these regional averages conceal considerable disparity in the growth rates of the western provinces. Alberta is leading the pack. Manitoba and Saskatchewan bring up the rear.

The reality of differential provincial growth rates is, in and of itself, neither cause for celebration nor grounds for despair. Naysayers and malcontents who are inclined to disparage the Manitoba economy and/or its economic stewardship will make invidious comparisons between Manitoba's growth and that of Alberta. Those who prefer to see the glass half full will emphasize the fact that Manitoba's economic output is in fact growing at a rate above the Canadian average. A proper assessment of the province's economic performance must, of course, consider many more factors than the GDP growth statistics, but the disparities in the growth rates of the provincial economies of Western Canada cannot be disregarded. Specifically, both the heightened economic boom in Alberta and the rela-

Figure 1: Western Provinces: Real GDP Growth 2001–2007



Source: Statistics Canada, CANSIM, Matrix 3840002, selected series.

tive resurgence of the British Columbia economy have direct implications for the rest of the country. Of national significance are the effects of the boom on the value of the Canadian dollar, on fiscal policy and Federal-Provincial equalization policy, and on inflation rates and the conduct of monetary policy by the Bank of Canada. Developments in all of these areas will have consequences for the Manitoba economy. In addition, however, the relatively close geographic proximity of Manitoba to Alberta means that developments in the two westernmost provinces will unavoidably alter economic conditions and market dynamics in various parts of the Manitoba economy. Being situated at the outermost reaches of a booming economy presents a number of challenges for Manitoba, but it also offers some opportunities.

These challenges and opportunities will be discussed throughout this report. Section II provides a macroeconomic overview of the provincial economy, with special attention on the components of aggregate expenditure. Section III examines the provincial labour market. A sectoral look of the economy on an industry-by-industry basis is presented in Section IV. A general summary and conclusion then follows in Section V.

II. Manitoba: The Macroeconomy

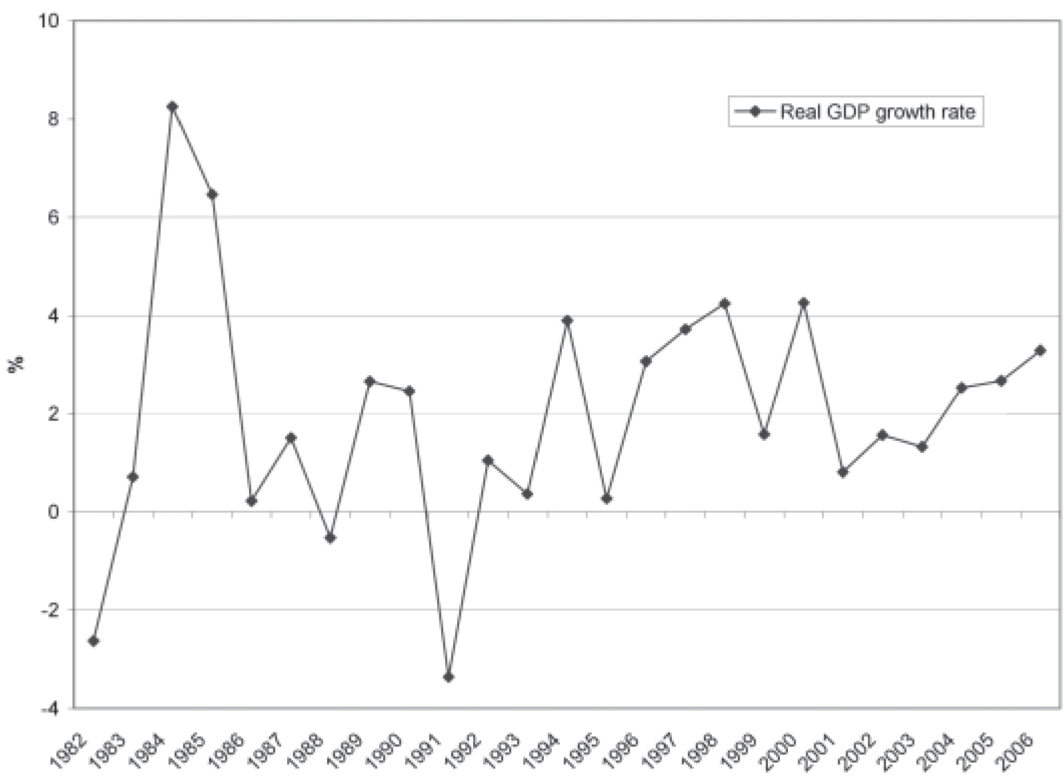
In 2006, Manitoba's real GDP, as measured in 1997 dollars, was $37.1 billion. This is an increase of about 3.3% above the 2005 level. Figure 2 puts these growth rates in historical perspective. Since the severe recession of 1981, the long term trend sees annual growth rates inching up to 2%. The chart shows that the Manitoba economy has managed to sustain its recovery from the sharp reduction in growth rates that affected most of the North American economy in 2001. The province's growth rates for 2005 and 2006 are now above the long term trend, and the consensus of economic forecasters yields estimates of 2.7% for 2007.[3] Although growth rates in the range of 2.7% to 3.3% are decidedly less impressive than the 6.8% rate that Alberta posted in 2006, these contemporary Manitoba rates compare very favourably with those experienced by the province over the last 25 years. Furthermore, the record shows noticeably greater stability in the provincial growth rates since 2001. To date, the dramatic swings of the 1980s and 1990s have not been repeated.

The economic forces that underlie these broader statistics and trends can be better appreciated through the following examination of the major sectoral components of aggregate expenditures: consumption spending, business investment, government spending, and net exports (defined as provincial exports less imports).

Consumer spending

Manitoba households spent $23.1 billion

Figure 2: Manitoba: Real GDP Annual Growth Rates



Source: Statistics Canada, CANSIM, series v15855804.

(in 1997 dollars) on consumer goods and services in 2006. This amounts to 62.3% of aggregate provincial expenditures. Given the size of this sector, movements in the level of consumer spending will be very noticeable in terms of provincial GDP. On the demand side, real consumer spending, which grew 3.2% in 2005 and a further 3.3% in 2006,[4] has been an important driving force underlying the relatively strong expansion of the provincial economy in the last couple of years.

In general, consumption spending is closely tied to the disposable (i.e., after tax) income of consumers, but the strong spending levels of recent years indicate that Manitoba consumers are part of a broader trend which has the ratio of consumption spending to disposable income rising. This rising ratio is due primarily to national factors rather than circumstances specific to Manitoba. One such factor is the maintenance of relatively low interest rates. This reduces the cost of borrowing and thereby encourages debt financing of consumption on the part of households. Nationally, household debt as a ratio of disposable income has risen from 0.98 in 2000 to 1.24 in 2006.[5] Secondly, for any given debt load, lower interest rates will reduce the proportion of household income that indebted consumers will have to allocate to interest payments. As a result, relatively more income can be directed to additional purchases.

Economists have also pointed out that rising housing prices have created a "wealth effect" by increasing the value of household assets. This can make households feel richer, which in turn can induce an increase in their current consumption levels. Households can also use this increased value as collateral for further loans, some of which can then be used to sustain and even augment consumption expenditures. In particular, personal lines of credit, which, according to the Bank of Canada, have increased by about 15% nationally in 2006, are often secured by home equity.[6] In Winnipeg, the average selling price of a standard two-storey home increased 12.9% between December 2005 and December 2006,[7] which constitutes a handsome enhancement of the book value of household assets.

Rising housing prices and access to credit on favourable terms, combined with waves of new and improved high-tech consumer goods and the ever increasing sophistication and intensity of corporate marketing strategies, have proved to be quite effective in raising consumption-disposable income ratios. In Manitoba, this ratio, which was around 80% in the early 1980s, has, since 2005, soared to just under 98%.[8] These unprecedented levels have helped fuel the expansion of a number of important industries in Manitoba, including construction, wholesale, retail, real estate and other services.

However, the long term sustainability of these extremely high consumption to disposable income ratios is questionable. Increased rates of household borrowing imply increased levels of household debt, and an increase in interest rates can put the squeeze on households as they struggle to maintain their debt servicing obligations. While interest rates available to consumers remain low by the standards of the last 25 years, they were clearly moving in an upwards direction in latter half of 2005 and throughout much of 2006.[9] The higher rates can also be expected to cool down the rate of increase in housing prices. Consequently, there are signs which suggest that the rate of growth of consumer spending in 2007 is unlikely to match the particularly strong performance of recent years.

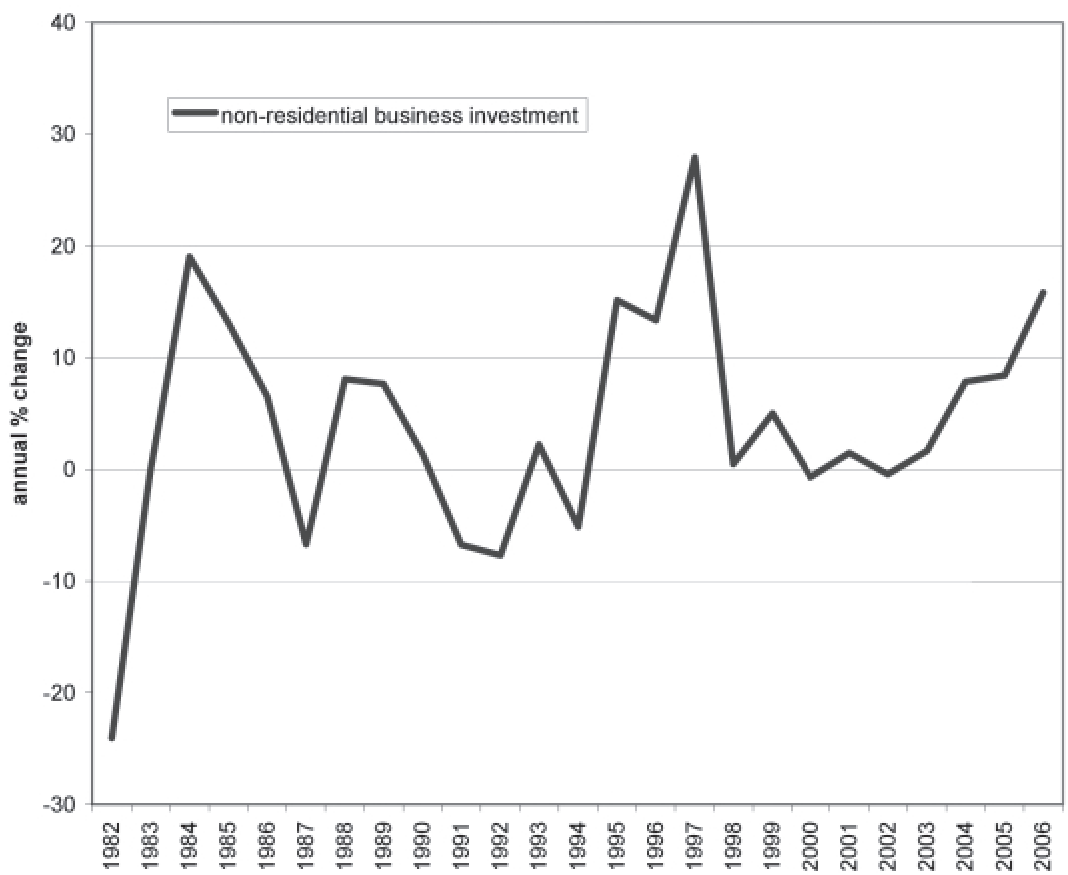
Business investment

The big story in the provincial economy since 2003 has been business investment. Conventional measures classify business investment according to i) expenditures on newly produced residential and non-residential structures, ii) expenditures on new machinery and equipment, and iii) expenditures on business inventories. These investment expenditures have an immediate impact in terms of the demand they generate for the outputs of other industries, and for the employment created in these industries as well as in the construction industry.

Investment in machinery and equipment and non-residential structures also directly affects the capacity of the economy to produce its range of goods and services. Furthermore, this investment affects the competitiveness of local producers, since new equipment and structures, and the technology that is often embedded in and associated with these new capital goods, will have consequences for the productivity and unit costs of Manitoba producers. Consequently, in both its demand-side and supply-side aspects, business investment is of enormous importance to the provincial economy.

Historically, however, this importance has been matched by its volatility. Figure 3, for example, charts annual growth rates of business investment in non-resi-

Figure 3: Manitoba: Non-Residential Business Investment 1982–2006



Source: Statistics Canada, CANSIM series v15855791 and V15855792.

dential construction, machinery and equipment. As indicated by the data, non-residential business investment collapsed in the recession of 1981 and 1982, but rebounded sharply in 1983 and 1984.[10] The buoyant expansion of the last half of the 1990s saw real investment levels surge, rising almost 28% in 1997 alone, but these heady days were immediately followed by a six-year period in which the level of investment spending increased only slightly. The pace picked up in 2004, again in 2005 and yet again in 2006, as real non-residential business investment grew 7.8%, 8.3% and a dramatic 15.8%, respectively. These increases brought the level of non-residential business investment up to $5.4 billion (in 1997 dollars). As a percentage of provincial GDP, this elevated non-residential business capital formation in 2006 to 14.6% which substantially exceeded the peak share that was realized back in the roaring nineties.

Investment in residential construction is also important element on the demand side of the provincial economy. This subsector had exhibited impressive growth in recent years, rising 54% between 2000 and 2005. The latest data suggests that this sector is now slowing down. After 4 years of real growth in the neighbourhood of 10% per annum, the 2005 growth rate dropped to 5.1%, and then slowed further in 2006 to 4.9%. Nevertheless, even allowing for this slowdown these growth rates exceed that of the provincial economy as a whole. Furthermore, the slowdown in growth of residential construction is more than offset by the accelerated growth of the non-residential component. Consequently, business investment has been a major driving force of the Manitoba economy in the last couple of years.

Fixed capital formation comprises a direct link to productive capacity, labour productivity and cost competitiveness, so these investment figures augur well for the prospects of continued growth, at least for the short term, of the provincial economy. The historic volatility of business investment, however, implies that sustaining strong investment rates is always problematic. Dramatic surges in levels of investment expenditures can just as quickly dissipate as new projects come online and the retooling and modernizing of various production processes is completed.

Peering into the future, some cooling off of these exceptionally strong investment levels can be expected. A relative slowdown in residential investment has been noted above. A similar outlook is indicated for the non-residential component. For 2007, Statistics Canada has reported that private sector[11] plans for non-residential capital expenditures in Manitoba are $6.0 billion[12]. This is still a 6.5% increase over 2006 levels, but these are nominal figures. Once inflation is factored in, a real growth rate of less than 5% can be expected.

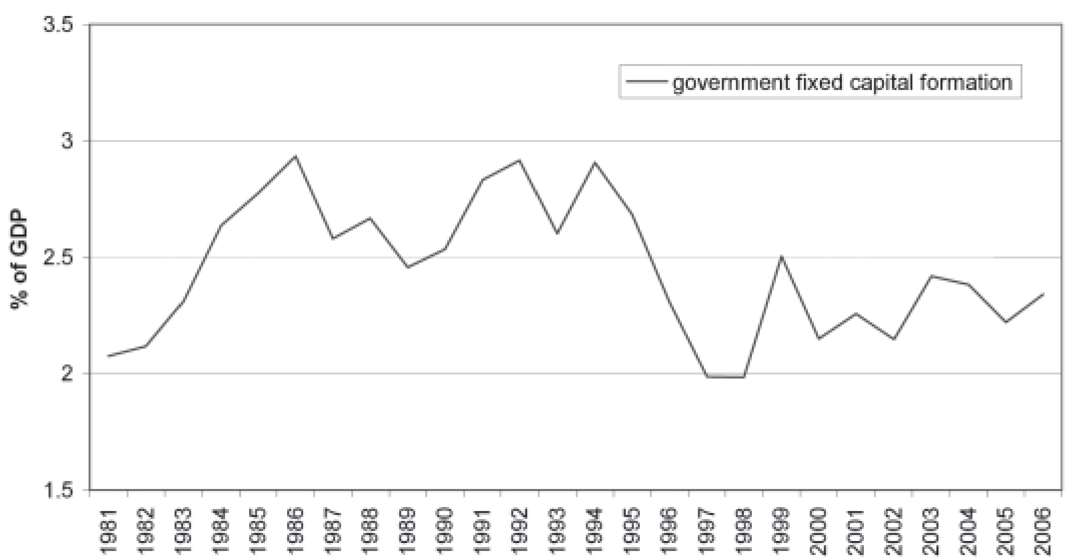
Overall, then, business investment appears to be poised to assume a less energetic role in the Manitoba economy in 2007. The slowdown can be partly attributed to efforts to consolidate and utilize the upgrades in equipment and increases in capacity that resulted from the higher investment rates of the preceding years, as well as the consequences of the recent increments in interest rates. A 5% annual increase in real investment expenditures would compare favourably with the long-term trend in investment spending in Manitoba over the last quarter century. The challenge will be to sustain this rate of growth. It should be noted that recent movements in the rate of growth of investment in Manitoba echo the national average. In fact, 2007 projections have Manitoba doing relatively well compared to its provincial counterparts. This is due in part to the fact that the enormous growth rates of investment experienced by Alberta in 2005 and 2006 (15% in 2006) cannot be sustained year in and year out, so a leveling off there will show up statistically as a big decrease in that economy's investment growth rate, hence their low growth projections for 2007. Nevertheless, the data suggests that the booming provincial economies west of Manitoba have not produced a palpable negative impact on the rate of private capital formation in Manitoba itself.

Government expenditures

Government expenditures in the Manitoba economy in 2006 totaled $9.4 billion (1997 dollars), which amounts to 25.3% of provincial GDP. This expenditure share is down a bit from the 27% to 29% range that was commonplace throughout the 1980s and early 1990s, but it has held fairly steady over the last 5 years. Part of these expenditures constitute the public component of provincial fixed capital formation[13]. This public investment fluctuates markedly from year to year and, in recent years, has in fact experienced even greater yearly fluctuations, measured in terms of percentage change, than its private sector counterpart. In 2006, these real fixed capital expenditures increased 8.9%, but this seemingly impressive figure becomes much more modest when considered in conjunction with a real increase of just under 1% in 2004 and a *decrease* of 4.3% in 2005.

In terms of overall government expenditures, this public investment component is relatively small, usually comprising less than 10% of the total. These, however, are the expenditures which finance, among other items, the construction of roads, schools, hospitals, sewers, and waste and water treatment facilities. As illustrated in Figure 4, since the mid-1990s there has been a perceptible reduction in the share of provincial GDP which has been allocated to public investment. With pressure to balance budgets while holding the line on tax increases, it is perhaps not surprising that such public in-

Figure 4: Government Fixed Capital Formation 1981–2006



Source: Statistics Canada, CANSIM series v15855778 and v15855785 vestments may end up being squeezed in the budgetary planning and formation processes of the different levels of government. Public infrastructure and the capital stock of many public institutions bear the marks of this relative expenditure shift.

There are signs, however, that government is now prepared to elevate its direct role in augmenting the province's stock of fixed capital. Particularly significant is the provincial commitment to the expansion of the Red River Floodway and also the government's announced 5-year plan to improve provincial highways. The Floodway project has a cost estimate of $665 million. Provincial expenditures on the project amounted to $56 million in 2005-06, but jumped to $207 million for 2006-07, and are budgeted at $214 million for 2007-08.[14] The impact of the announced commitment to upgrade provincial highways is evident in the 2007 budget, where spending on provincial roads, highways and airport infrastructure is anticipated to rise from $129.7 million to $239.7 million, a whopping increase of almost 85%. Overall, core provincial government expenditures for capital investment for the 2007-2008 fiscal year is projected to increase to $595.3 million. This is an increase of almost 37% over their 2006-2007 budget plans.[15] Similarly, at the local level, Winnipeg's *2007 Preliminary Capital Budget* is quite explicit in acknowledging that the city faces an "infrastructure deficit" of an estimated $2 billion. Consequently, their proposed 2007 capital budget of $424.3 million constitutes an increase of capital spending of almost 37% over its 2006 levels.[16]

In light of these new figures and stated intentions, gross fixed capital formation by government can be expected to post strong increases in 2007 and 2008, with the result that public investment will make a more significant contribution to immediate provincial demand, employment, and, arguably, to the longer term productive capability of the province.

This enhanced commitment to public investment is laudable and arguably overdue, but it must be noted that the timing of this renewal has some associated costs as well. The relatively strong performance of the Manitoba and Canadian economy in the last few years has improved the revenue flow and overall fiscal situation of government, especially at the federal and provincial level. This helps provide the financial resources to meet demands for capital investment without sacrificing other programs and policy commitments. However, the strength of the Manitoba economy has both resulted from and contributed to robust investment in the business sector, as noted in the section on investment above. Furthermore, much of this investment is construction, both residential and non-residential. This sector of the economy is expanding, with the result that strong demand is generated for the materials, equipment and skilled labour employed in this sector. The construction boom in Alberta will also compete for these inputs. The result is tight supplies and rising prices. A large increase in public sector investment coming at the same time as the private sector boom then acts to intensify the demand pressures within the industry. The City of Winnipeg noted in its *2007 Preliminary Capital Budget* that inflation on various city construction projects for 2006 was estimated to approach levels of close to 30%.[17] The surge in government investment, especially construction projects, exacerbates this demand pressure. Strong demand and high prices will induce a positive supply response, but this response takes time.

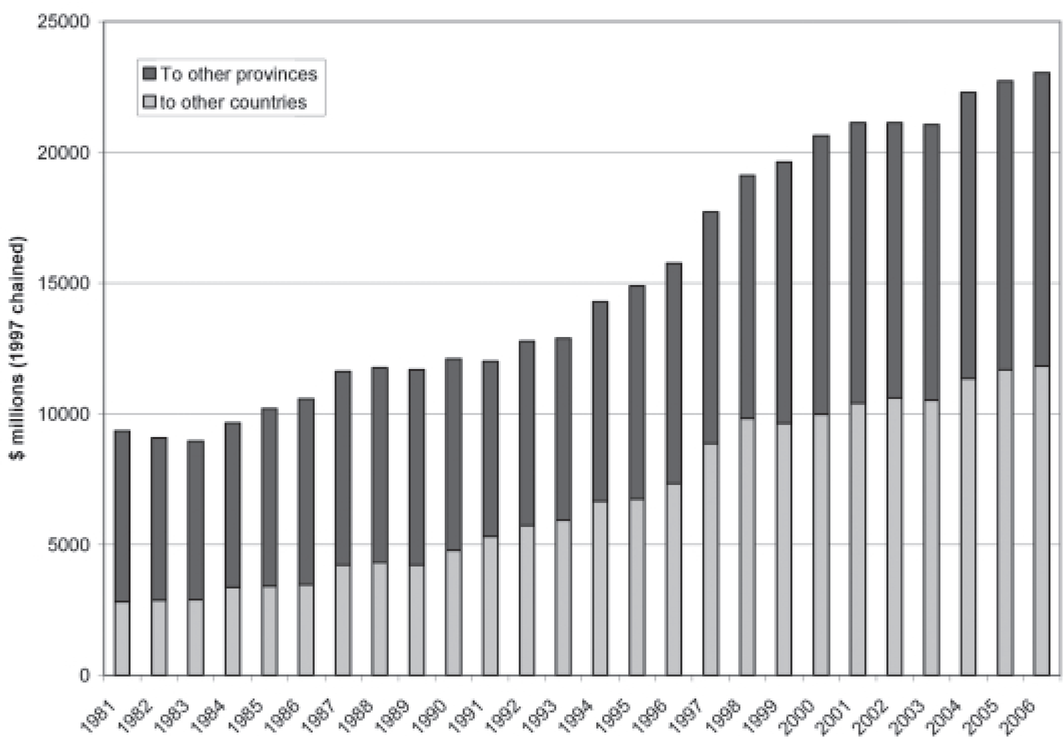
Looking ahead, as the supply side responds in the next few years, the challenge will then be to sustain demand in the years that follow. There is a danger that volatility of private sector investment may in fact be accentuated by the timing of public sector projects.

The non-investment portion of government spending totaled $8.5billion in 2006 (1997 dollars) and is noticeably less prone to sharp yearly fluctuations. In the last two years, these expenditures have, in real terms, increased at a very modest annual rate of 1.7%. The steadiness of this large component of aggregate provincial spending does act to stabilize the provincial economy in a Keynesian-like fashion. Indeed, over the last quarter century, overall government spending as a percentage of provincial GDP reached its peak (29.4%) during the recession of 1991, and high spending-GDP ratios were recorded in the years immediately following the recessions of 1982 and 1991. By contrast, the boom years of the late 1990s saw this ratio fall below the 25% level, reaching 23.6% in 1998. The 1.7% annual growth rates of the non-investment portion of government expenditures may then reflect the relative strength of the provincial economy as it participates in the relatively strong economic expansion in Western Canada, but this sector is not setting the pace of economic activity.

Exports and Imports

Figure 5 illustrates the rise in the value of Manitoba's exports of goods and services. In 2006, total exports amounted to a record $23 billion (in 1997 dollars), and were relatively evenly split between exports to other countries (international exports) and exports to other provinces (inter-provincial exports). As the figure shows, the real value of exports has more than doubled over the last two decades.

Figure 5: Manitoba Exports 1981–2006



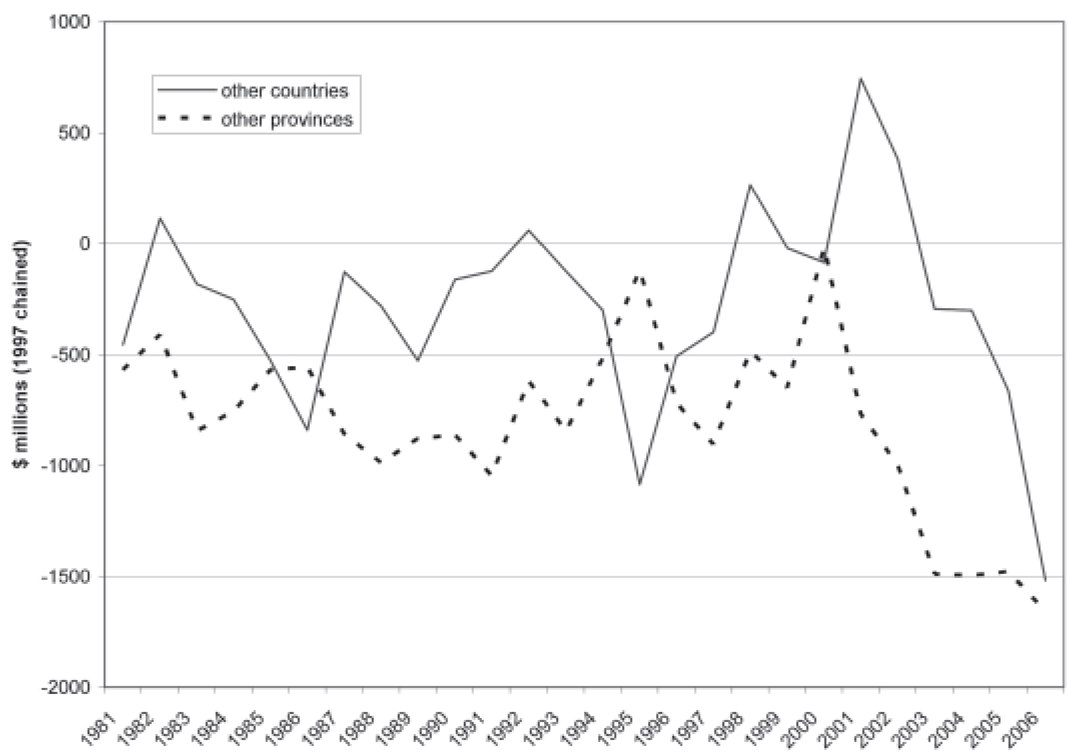
Source: Statistics Canada, CANSIM series v15855797 and v15855798.

As similar trend holds for imports, the value of which reached $26 billion in 2006. Taken together, these figures underline the enormous and growing role that national and international trade plays in the Manitoba economy.

Imports usually exceed exports for the Manitoba economy, but this trade deficit has grown sharply since 2002. Figure 6 separates out the inter-provincial and international components of this deficit. The data reveals a marked deterioration of the inter-provincial trade balance beginning in 2001, and the international balance following suit a year later.

The economic forces underlying the growth of these two respective trade deficits contain some important differences. In regard to international trade, consideration must be given to the impact of exchange rate movements. Manitoba's largest international trading partner is the United States (for example, 76% of Manitoba's international exports are destined for the US market[18]), so the US-Canada exchange rate is of enormous significance. This exchange rate is also significant because many of Manitoba's commodity exports, such as agricultural and mineral products, are sold on global markets with global prices set in term of the US dollar. On the import side, a major supplier of consumer goods, in addition to the US, is China, and China has pegged its currency to the US. Thus changes in the US-Canada exchange are also changes in the China-Canada exchange rate. An appreciation of the Canadian currency will tend to lower the relative price of imports for Canadian buyers, thereby encouraging increased spending on imports. For Canadian exporters, this currency appreciation can

Figure 6: Manitoba Trade Balances 1981–2006



Source: Statistics Canada, CANSIM series v15855797, v15855798, v15855800 and v15855801.

make their goods more expensive for foreign buyers, which can lead to a reduction in the quantity purchased and, under normal conditions, to a reduction in the value of exports. Alternatively, if Canadian exports are sold at a fixed world price, the volume of exports may not decrease, but the value of these products, when converted back into Canadian dollars, will be lower. The end result is a decrease in export earnings. The reverse can be expected if, instead, the Canadian dollar depreciates.

This exchange rate effect is undoubtedly a large part of the story concerning Manitoba's changing international trade balance. The period from 1991 to 2002 saw a decrease in the value of the Canadian dollar relative to the US dollar, as the US price of a Canadian dollar fell from $0.87US to less than $0.64US. At this low rate, Manitoba was able to post a sizable trade surplus on its international trade account, as shown in the figures for 2001 and 2002. Since 2002, the exchange rate has been rather consistently moving in the other direction, rising from a value $0.64US in December 2002 to $0.95 in July 2007.[19] This constitutes an increase of 48.5% in just 4 1/2 years. Changes of this magnitude have an enormous impact on the relative prices of domestic versus foreign produced goods and services, as well as on the net earnings of Manitoba exporters.

This powerful exchange rate effect has, for Manitoba, operated in conjunction with the strong spending levels in the consumer and business sectors. Many consumer goods, especially durable goods such as electronic products, appliances, and automobiles, are produced outside the province and, in many instances, outside the country. Therefore, this component of consumer spending will register in the province's imports, but this reflects, in part, rising material standards of living. In the business sector, Manitoban firms rely heavily on imports for the machinery and equipment that they use in their production processes. The strong increase in business investment in machinery and equipment—an increase of almost $1 billion (in 1997 dollars) since 2003—is, consequently, also primarily an increase in imports. Note that the rising exchange rate not only reduces the cost of the fixed capital imports for Manitoban businesses, thereby encouraging these capital expenditures, but also that investing in new equipment and technology is one way in which firms have responded to the erosion of their international competitive position that is due to the appreciating currency. In this respect, surging imports and the consequent deterioration of the international trade balance is not entirely a negative development, since it in part reflects increased provincial capital formation.

The sharp deterioration of Manitoba's inter-provincial trade balance cannot be attributed to exchange rate effects, but some features of this trade balance reflect structural aspects of the Manitoba economy which affects both international and inter-provincial trade flows. For example, the lack of a strong consumer goods and capital goods producing industry in the province implies that much of the increased spending by Manitobans on these categories of goods will result in imports. As it pertains to inter-provincial trade in particular, part of this demand is supplied by Canadian producers located in other provinces, especially Ontario.

Another significant component of the province's inter-provincial trade concerns energy products. Manitoba is a net importer of mineral-based energy products, especially oil and natural gas. Manitoba's annual consumption of oil and natural gas has not changed significantly over the last decade or so, but there have been very large changes in the prices of these products within this relatively short time period. For example, the Edmonton price of a barrel of light crude oil (in Canadian dollars) averaged $27.35 in 1999. In 2006, the average price had jumped to $72.77.[20] The Alberta Energy Company price for natural gas averaged $2.959 per MMBTu[21] in 1999, but in 2005 it averaged $8.478 per MMBTu.[22] The result of these price increases is a hefty increase in Manitoba's import bill for mineral-based energy products. Table 1 compares the results for 2000 with 2005 (the last year for which a full set of comparable data is available). As shown in the table, the difference between these years amounts to over $600 million, and this does not even include the huge jump in prices in 2000 over the previous year. Recall also that, from May to August 2006, oil prices tended to exceed $80 per barrel. More generally, with a net consumption level of around 36,000 barrels of oil per day, a $1 per barrel increase in the price of oil will, when it works its way down to the retail level, cost Manitobans $36,000 per day, or $13.1 million per year. This is an important part of the story underlying the recent growth of the inter-provincial trade deficit.

Further inspection of the inter-provincial trade figures reveals tepid growth in Manitoban exports to other provinces. Since 2000, these inter-provincial exports have grown, on average, at a rate of less than 1% per year.[23] It is perhaps too early to determine the extent to which these recent figures, which are well below the 6.6% annual average of the 1994-2000 period, are the result of larger structural changes in the production and flow of goods and services within the Canadian economy, but this is an important question meriting further research. For the future, the creation of a power grid could significantly boost inter-provincial electricity exports, which would lead to improvement in the trade balance, but this will not be realized in 2007.

Table 1: Manitoba's Oil and Natural Gas Imports

OIL:	**2000**	**2005**
Consumption	45,000 barrels per day (bpd)	50,000 bpd
Production	11,000 bpd	14,000 bpd
Net Imports	34,000 bpd	36,000 bpd
Price per barrel ($Cdn)	$44.33	$68.72
Net Imports per day	$1.5 million	$2.5 million
Net Imports per year	$549.7 million	$903.0 million
NATURAL GAS:	**2000**	**2005**
Consumption (= Imports)	200,000 MMBTu per day	200,000 MMBTu per day
Price per MMBTu	$5.019	$8.478
Value of Imports per day	$1 million	$1.7 million
Value of imports per year	$366 million	$620.5 million
Total yearly value of oil & gas imports	$915.7 million	$1523.5 million

Source: Canadian Association of Petroleum Producers, *StatsHandbook* <http://www.capp.ca/SHB/> and <http://www.capp.ca/default.asp?V_DOC_ID=678> and author's calculations.

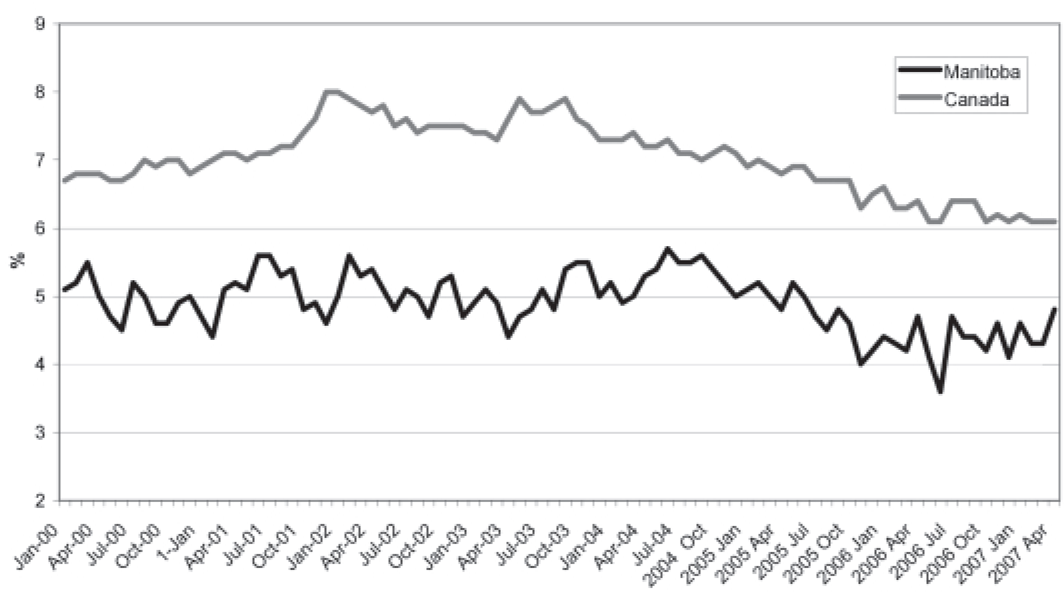
III. Manitoba: The Labour Market

Statistics Canada reports that in April 2007, 592,700 Manitobans were employed.[24] As a proportion of the population aged 15 years and over, this ratio (i.e., the employment rate), works out to 66.1%. A further 29,600 Manitobans were officially classified as being unemployed. Together, the employed and the unemployed comprise the province's labour force. The April 2007 unemployment rate, which is calculated as the ratio of unemployed to the labour force, registered 4.8%.

The snapshot of the provincial labour market that these conventional statistics provide is positive. Indeed, when viewed relative to the labour market performance in recent decades, or when compared with the Canadian labour market as a whole, Manitoba's current performance looks quite strong. After rising through the post-WWII period, since 2002 labour force participation rates in Manitoba have hovered around the 68.5% to 69.5% range—a level that is not only historically high by Manitoba standards, but which exceeds the Canadian average. The unemployment rate has reached its lowest levels in 30 years and, as shown in figure 7, remains well below the Canadian average.

These standard indicators are, however, only part of the picture. Critics can point to the relatively low growth of the provincial population as a whole, and in particular to the net outflow of people to other Canadian destinations. For 2005, Manitoba's net loss to other provinces exceeded 7200 people, and in 2006 the outflow increased to over 8600.[25] As shown in Figure 8, these recent figures constitute a sharp increase over the more modest degree of out-migration in the years immediately preceding 2005. However, the chart also reveals that the current level of net inter-provincial migration is not unprecedented. The 2006 levels were exceeded in 1979-1980 and again

Figure 7: Unemployment Rates 2000–2007

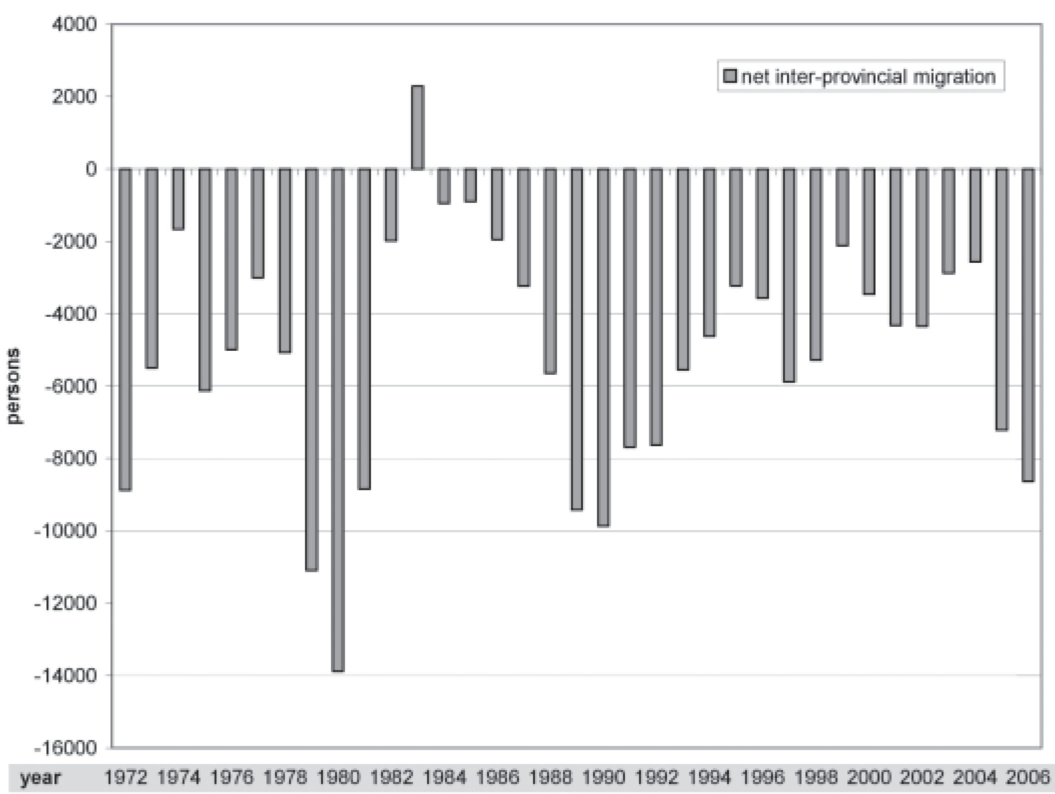


Source: Statistics Canada, CANSIM, series v2062815 and v2064138.

in 1989-1990. The re-emergence of high levels of inter-provincial out-migration in Manitoba since 2005 can undoubtedly be largely attributed to the intense economic boom in Alberta.

This boom is exerting a powerful pull throughout the national labour market as ever more workers are drawn into the Alberta economy. Figure 9 shows net inter-provincial migration since 2006 for some selected provinces. The surging Albertan inflow has produced an especially marked effect in Ontario, as its net outflow grew to over 21,000 in 2006 alone, a level not seen since the devastating recession of 1981. Even the relatively robust BC economy has not been left unaffected, although it has still managed to retain a net surplus. Therefore, when considered in the national context, the increased outflow from Manitoba is not at odds with the situation in most other provinces, and consequently it should not be interpreted as an indicator of a moribund provincial economy or an egregious failure of provincial economic management. More generally, labour mobility within Canada has always been high, and is an important channel through which the macroeconomy adjusts to the uneven rates of regional economic growth and development. The current boom in Alberta is largely exogenously driven, premised as it is on an ample endowment of energy-based staple commodities which are currently enjoying high prices in international markets. Provincial labour markets across the country are reacting to this boom, and Manitoba is no exception. The relative strength of the Manitoba economy has somewhat mitigated the naked attraction of Alberta's demand for labour, but the rising net outflow of people from Mani-

Figure 8: Manitoba: Net Inter-Provincial Migration 1972–2006



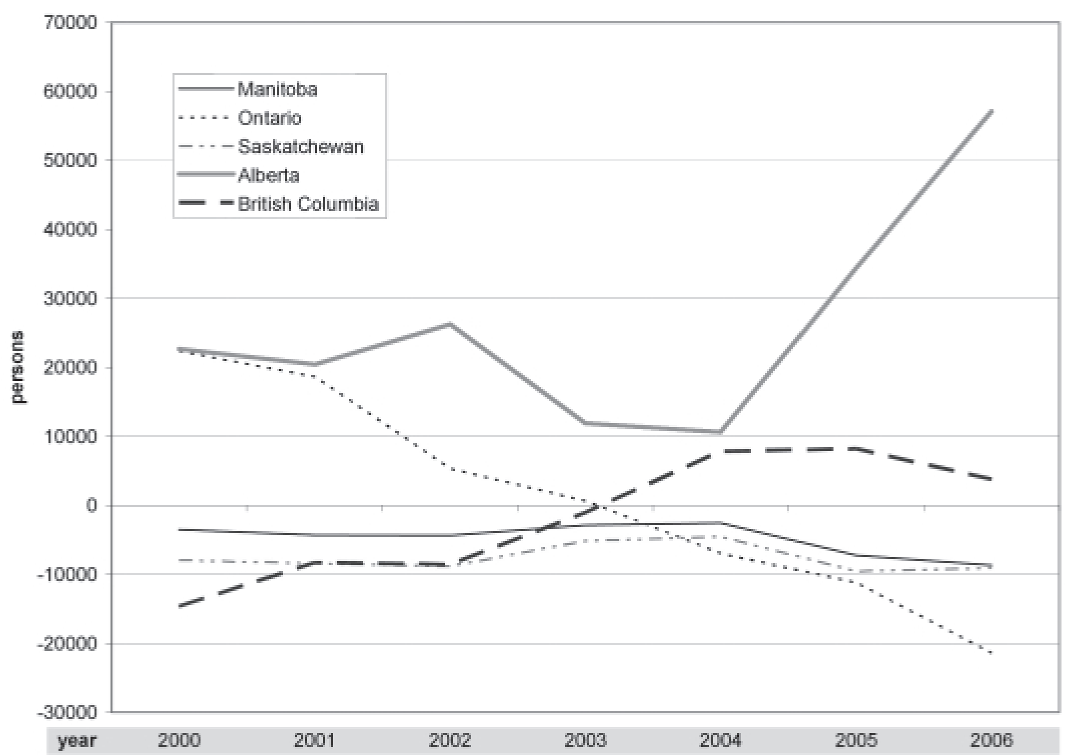
Source: Statistics Canada, CANSIM series v391140.

toba is unlikely to be reversed until Alberta's growth rate subsides. The challenge is to formulate economic policy and conduct economic activity in light of the specific nature of the Alberta-based boom.

This challenge and the attendant adjustment to inter-provincial labour outflows has been achieved in part through international labour inflows. With respect to international migration, Manitoba is a net beneficiary. Since the 1990s, the yearly numbers of Manitoban residents who have emigrated to other countries have fallen, while the number of international immigrants has been increasing. According to Statistics Canada, emigration from Manitoba has consistently been less than 1500 persons per year since 2002.[26] Immigration, however, has increased, especially since 2004. In the 2007 *Budget*, the province reports that Manitoba has averaged 8500 immigrants per year over the last 3 years, and that the numbers for 2006 exceeded 10,000.[27] The province is justified in attributing much of this recent increase to the successful operation of its Provincial Nominee Program (PNP), which, according to *Budget 2007*, "facilitates visa and workplace permit applications from skilled foreign workers and families." Government figures indicate that approximately 50% of total immigrants to Manitoba in 2004 were associated with PNP, and that this ratio had increased to about 66% for 2006. Furthermore the government has stated that it plans to increase immigration levels by 1000 persons per year over the next decade.[28]

Relative wage rates are one of the factors influencing these net labour flows. Manitoba's wage rates are high relative to the global average, and especially with respect to countries such as the Philippines,

Figure 9: Net Inter-Provincial Migration: Selected Provinces 2000–2006



Source: Statistics Canada, CANSIM series v391130, and series v391139 to v391142.

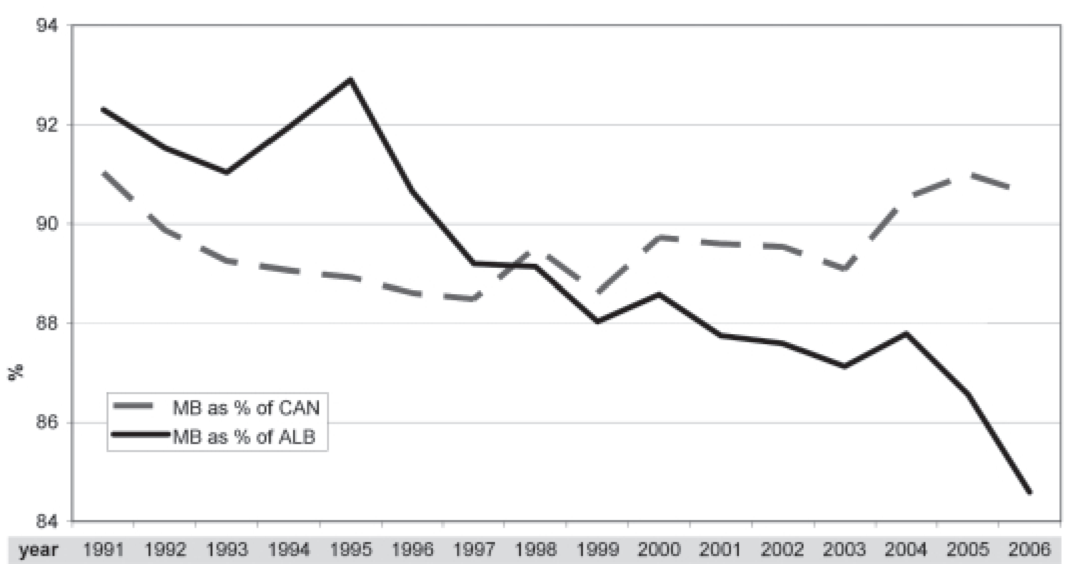
China and Korea, which are 3 of the top 4 sources of international immigrants. The magnitude of this international wage gap, and the material standards of living that are associated with it, constitute a powerful economic incentive for workers around the world to migrate to regions such as Manitoba. On the other hand, limited information about opportunities in Manitoba, and bureaucratic and other institutional barriers confronting potential international migrants, act to effectively limit this inflow. Expansion of the PNP program will help immigrants overcome these hurdles, but it underlines the fact that the immediate determinants of international immigration levels are to be found more in the realm of public policy and recruitment campaigns, than in the workings of the price system.

By the same token, however, Manitoba's wages compare less favourably with the Canadian average, and especially when compared with wage rates in Alberta. The inter-provincial wage differential is of a much lower degree of magnitude than the international differential, but, with better information about external market and living conditions and less pronounced cultural and institutional barriers, inter-provincial labour mobility is much more sensitive to those differentials. Consequently, any significant adjustment of the relative inter-provincial wage gap can be expected to affect net flows of labour across provincial boundaries.

Manitoba wage rates have tended to lie below the national average, so it is not surprising that Manitoba usually experiences a net inter-provincial labour outflow. As illustrated in Figure 10, Manitoba wages relative to the national average have more than held their own since the middle of the 1990s. However, the benchmark for comparison is increasingly not the Canadian average, but the rates offered in Alberta. By this measure, Manitoba's relative position has been deteriorating, and this relative decline has been noticeably more pronounced since 2004.

Positioned on the periphery of the Alberta boom, the pull of the Alberta economy in combination with the high

Figure 10: Relative Average Weekly Wages 1991–2006



Source: Statistics Canada, CANSIM series v1740722, v1741964 and v1742279.

employment/low unemployment rates in Manitoba itself makes for a very tight provincial labour market. The director of the province's Economic and Fiscal Analysis Branch, Jim Hrichishen, was reported as saying that the "tight labour market" is the "No.1 challenge to economic growth in Manitoba."[29] The *Winnipeg Free Press* cited a recent survey by Probe Research Inc. which revealed that, in 2006, 72% of Manitoba businesses "had difficulties finding enough *qualified* new employees over the last year" (emphasis added). This figure is noticeably higher than the 56% reported in 2004, and induced at least one journalist to describe the provincial labour shortage as "a crisis".[30]

This situation has produced a number of adjustments within the provincial labour market. Provincial funds for technical colleges and training programs have increased, as reflected in an increase in funding to $32.6 million in 2007-08 for the College Expansion Initiative (up from $26.5 million in 2004-05—an increase of 22.7% over 3 years) in addition to a 6% increase in college grants for 2007-08.[31] In the 2007 Budget Speech, Finance Minister Greg Selinger stated that apprenticeships and certified journeypersons have increased by 50% since 1999, and went on to announce that the government is committing $2 million in new funds for training and skill enhancement in priority areas.[32]

Efforts to augment the skill levels and enhance the training process for Manitoban workers is both valuable and appropriate, but in and of itself it is not sufficient to address the labour market challenges facing the Manitoba economy today. Education and training takes time as well as money, and some apprenticeship programs can extend from 2 to 5 years. Consequently, the supply side of the labour market tends to lag behind sharp cyclical and sectoral surges in demand. Secondly, improving the skills and qualifications of Manitoban workers does not in any way guarantee that these very workers will continue to apply their skills in the province. Arguably, better skills can, by increasing workers' marketability, actually operate to increase the degree of labour mobility, especially if the market premium for skilled workers is proportionately larger in an area in which those workers are in greatest demand. Recognizing this, it is significant that all three of the major parties in the 2007 provincial election included in their election platforms some measures explicitly designed to induce Manitobans to stay and work in the province. With the re-election of the NDP, their proposal to allow for a 60% tuition rebate for post-secondary students who stay and work in Manitoba for 5 years following graduation is likely to be implemented in the current fiscal year.

Additional internal opportunities for enlarging Manitoba's labour supply involve explicit recognition of the province's aboriginal population. According to the 2001 census, aboriginal people comprised 11% of Manitoba's working age population (aged 15 years and over). This is significant in the context of labour supply because the "aboriginal age distribution is considerably younger" than that of non-aboriginals.[33] Thus, a recent Statistics Canada study reports that, in 2001, 17% of aboriginals in Manitoba were in their 20s, but that this percentage is expected to rise to 23% by 2017.[34] The demographics imply that the aboriginal population can potentially comprise an increasingly prominent component of the provincial labour force. Labour force participation rates for aboriginals have been increasing, but they remain below the rates for the provincial population as a whole. Reducing this differential, aided in part by rising aboriginal education levels, impacts favourably on labour supply in the province.

There are certainly grounds for optimism in assessing recent and future prospects for aboriginal employment. For example, aboriginal employment in Manitoba increased 30% between 2001 and 2005, a rate which is "five times the non-aboriginal rate."[35] Within the aboriginal population, however, there is a marked difference in employment rates, labour force participation rates and unemployment rates between off-reserve aboriginals and their on-reserve counterparts. For example, the 2001 labour force participation rate of off-reserve aboriginals was 64.4%, but for the on-reserve population it was only 46%. Similarly, with respect to unemployment rates, the off-reserve rate in 2001 was 14.2%, while the on-reserve rate was 29.7%.[36] This extremely high on-reserve unemployment rate contrasts markedly with the low rate recorded for the province as a whole. It is significant that the on-reserve population is not included in the labour force surveys from which the "official" employment and unemployment rates are calculated. Thus the low unemployment rates of 5% or less that have characterized the Manitoba economy in recent years understate to some degree the number of people seeking employment by excluding those on reserves, which is precisely the place where unemployment rates are the highest. There is considerable scope for easing some of the labour supply constraints by improving integration of the reserve population into the larger provincial labour market. The well known link between employment status and earnings and the educational levels of individuals is also relevant here, since the on-reserve population tends to have lower levels of educational attainment, both with respect to the off-reserve aboriginal population as well as the non-aboriginal population as a whole.[37] The disparity between the on- and off-reserve populations point to the pressing need to direct more resources, especially with respect to education, but also with respect to housing and other services, to reserves throughout the province.

Although there remains much more to be done, adjustments on the supply side in various areas, including those discussed above, have attracted most of the attention of policy makers. Wage changes, however, can potentially be the most powerful form of market adjustment. There is evidence that selected Manitoba employers are utilizing this instrument to attract and retain workers. For example, one aspect of the Project Management Agreement (PMA) of the Manitoba Floodway Authority gives wage increases of 5% per year to some of the construction workers engaged in the floodway expansion.[38] More striking is the 5-year contract accepted by workers at the Prendiville Industries forest product plant in Birch River. Recognizing the current strong demand for skilled labour, the contract is heavily front-end loaded, with a first year wage increase of 12%.[39]

More generally, however, wages across the province have been slow to respond to the emergence of a tight labour market and the growing concerns expressed by some employers and provincial officials about a labour shortage. Despite the fact that unemployment rates in Manitoba have consistently been below the 5% level for almost 2 full years (i.e., from June 2005 to May 2007), it has really only been since August, 2006, that there has been any significant upward movement in average wage rates. For example, in examining the index of average hourly earnings for Manitoba workers, the data shows that the index increased by less than 2% over the 20 month span between January 2005 and August 2006.[40] The increase from August 2006 to March 2007 exceeded 5%, but this is a belated response and, in light of the increased level of inter-provincial out-migration in 2005 and 2006, it suggests an adjustment that is "too little, too late." In the construction industry, which has been singled out as a sector that is enjoying especially strong rates of growth and which generates demand for a wide range of skilled workers, the hourly wage index displays noticeable changes month-to-month, but failed to register any sustained longer term increase over the January 2005 to August 2006 interval. Here again, it has been only since the fall of 2006 that average wage rates have moved up.[41] The August to March increase for this industry amounted to a healthy 8.7%, but again this is a decidedly lagged response to a demand-driven labour market situation. Taken as a whole, the evidence seems to suggest that Manitoba employers, both public and private, are very reluctant to raise wages in conditions other than those in which a critical shortage of workers has persisted for some time. Employers and public policy seem to favour supply side adjustments, such as immigration and training, rather than enhanced monetary and material compensation for workers. This is undoubtedly one manifestation of a broader shift in the relative power of capital and labour—a shift which has lessened the power of labour—and workers have reacted in part by seeking better fortunes elsewhere.

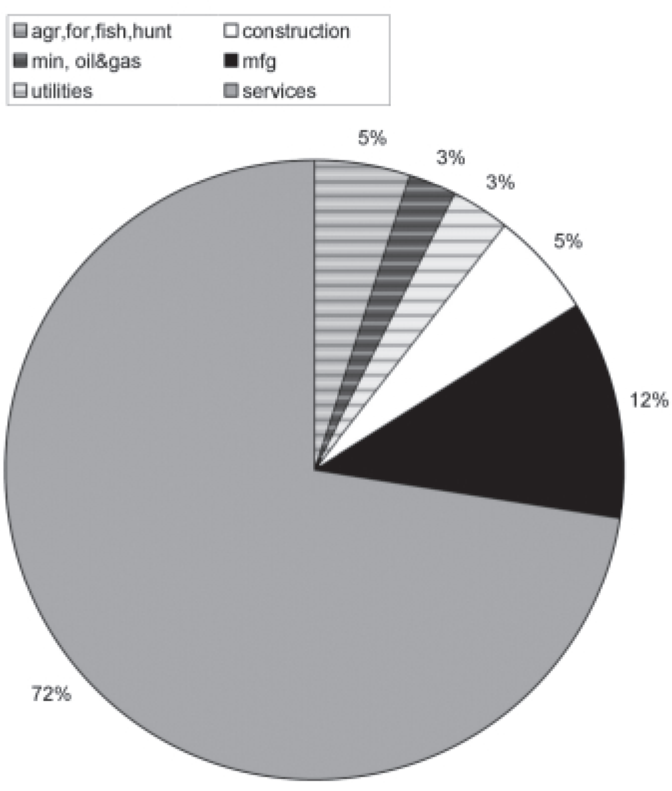
IV. Manitoba Industries: A Closer Look

Figure 11 decomposes the Manitoba economy along the lines of the major industrial categories. As can be readily seen the service sector is dominant, comprising 72% of total provincial GDP. The other 5 categories comprise the goods producing industries. Manufacturing is dominant here, with 12% of total provincial output. Primary industries comprise two categories: 1) agriculture, forestry, fishing, hunting and trapping, and 2) mining, and oil and gas production. Utilities and construction complete this composite industrial set. This section of the report provides a closer look at the performance and some recent developments in these sectors of the provincial economy.

Agriculture

Agriculture comprises less than 5% of provincial GDP, but this understates its importance to the provincial economy. In addition to supporting the rural economy in the southern half of the province, outputs from agriculture comprise essential inputs for numerous manufacturing industries in the province, as well as shaping and supporting much of the transportation industry, and providing the historic base for the emergence of the finance, insurance and commercial sectors in the province.

Figure 11: Manitoba Economy by Industry Share 2006



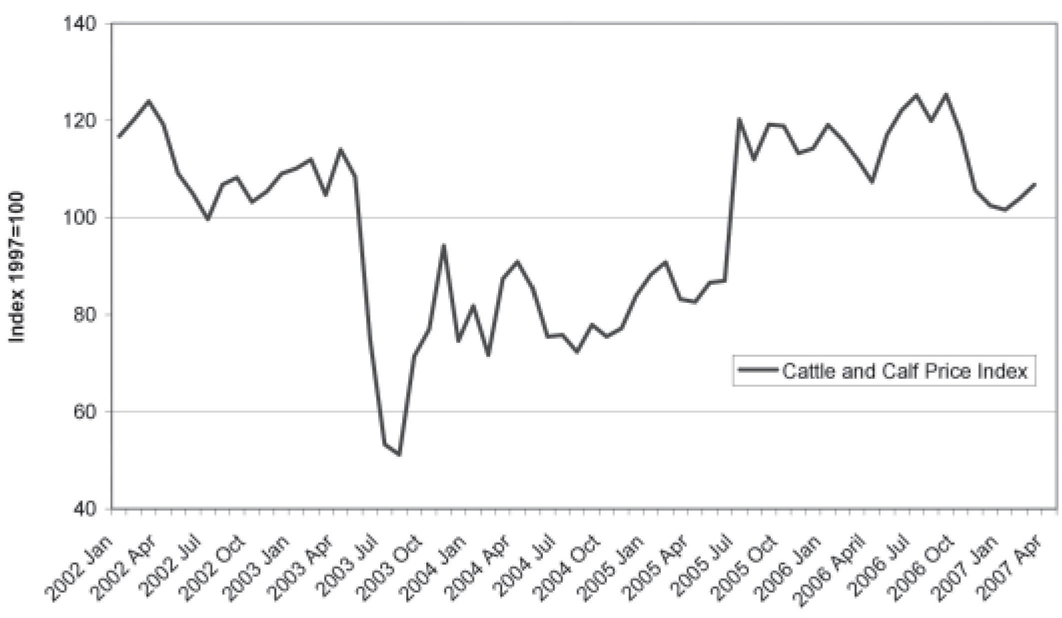
Source: Statistics Canada, CANSIM series v21418635, v21418636, v21418641, v21418647, v21418651, and v21418661.

Total cash receipts for Manitoba agricultural producers amounted to $3.69 billion in 2006.[42] Of this total, roughly half (48.5%) were earnings from sales of livestock, and slightly more than a third (35.2%) came from sales of crops. The remaining 16% comprised direct payments from income stabilization programs and crop insurance programs. Canola is by far the most valuable crop, bringing in $395 million in 2006. Next in importance is wheat ($270 million), followed by potatoes ($128 million) and oats ($96 million). Note that canola and wheat together constitute over 50% of the value of all Manitoba crops sold in 2006.

Livestock production is dominated by hogs. Hog sales delivered $834 million to Manitoba producers in 2006. Even though lower hog prices reduced these 2006 receipts from the $955 million mark registered in the previous year, the 2006 hog revenues comprised about 47% of the total livestock receipts for the province. This sector has expanded rapidly. Inventories of hogs on Manitoba farms have risen from 2.15 million hogs at the beginning of 2000 to almost 3 million by July, 2006,[43] an increase of almost 40%. Slaughter levels have risen from 2.9 million hogs in 2000 to 3.36 million in 2006. Even more dramatic has been the increase in international hog exports, which saw 5.4 million hogs exported in 2006, which is more than double the 2.3 million exported in 2000. This aggregate growth has simultaneously involved a reduction in the absolute numbers of pig farms, resulting in a rise of the average number of pigs per farm. Specifically, the number of pig farms in Manitoba between January 1, 2000 and January 1, 2007 fell from 1,830 to 1,280 while the average number of pigs per farm increased from 1,174 to 2,313. This average far exceeds that of other Canadian provinces. Quebec, Ontario and Saskatchewan, which along with Manitoba are the leading pork producers in Canada, average only 1,661; 902 and 1,016 pigs per farm, respectively.

This strong growth and the establishment of the hog industry as the leader of livestock production in the province, along with the increasing degree of concentration among hog producers, have heightened concerns regarding the environmental impact of the industry. The provincial government has reacted by announcing in November 2006 that it was imposing a moratorium on new or expanded hog barns so as to provide some time to further assess the environmental implications.[44] Consequently, in the near future it is likely that the industry will consolidate around its present level of production, a plateauing that will be reinforced by the weakening of hog prices—a weakening that reaches back to 2004.

Figure 12: Manitoba Cattle and Calf Price Index



Source: Statistics Canada, CANSIM series v1811668.

After hogs, next in importance in terms of livestock cash receipts is cattle, with receipts in 2006 of $450 million, up 20% from the previous year. Calves generated a further $82 million in 2006. The cattle industry is still recovering from the BSE crisis of 2003, and the adjustment process is not yet complete. That crisis, sparked by the discovery of a case of BSE in Alberta, led to the closing of the US market for live Canadian cattle from May 2003 until July 2005. The loss of this primary export market led to plummeting prices for Canadian cattle and the accumulation of the number of cattle on Canadian ranches and farms. With the reopening of the border, international exports have rebounded. Manitoba producers exported 171,700 head of cattle in 2006, but this is still below the 262,200 head that were shipped south in 2002.[45] Prices, as indicated by Figure 12, responded rapidly to the reopening of the border and in fact exceeded the pre-BSE levels in late 2005 and throughout much of 2006, before weakening at the end of the year. Producers have been reducing their stock of cattle as they move towards reestablishing desired levels of inventory. As of January 1, 2007, Manitoba producers had 1,380,000 head of cattle, down 7.4% from a year earlier.

Farm Income

The $3.7 billion in cash receipts that Manitoba farmers earned in 2006 is, by historical standards, very high, not withstanding the fact that these receipts are down slightly from the peak levels of 2002, 2004 and 2005, each of which exceeded $3.8 billion. Operating expenses, on the other hand, rose to a record $3.27 billion in 2006. As a result, the net annual cash income for provincial agricultural producers was only $417 million, which was the lowest level since 1995. When depreciation charges of $405 million are subtracted from this sum, the remainder (plus $12 million reflecting the value of income in kind—i.e., non-cash income), which is defined as *realized net income*, shrinks to a meager $25 million (see Table 2). This is the lowest level since 1935. Fortunately, this extremely low level of realized net income is somewhat compensated by an unusually large increase in the value of farm inventories. The 2006 inventory increase, which amounted to $331.5 million, can be viewed as potential cash income. Including these positive inventory values, *total net income* for 2006 comes to $356.6 million. This is an improvement over the figures for 2004 and 2005, but it is below the levels recorded for the 2001-2003 period, which peaked

Table 2: Net Farm Income

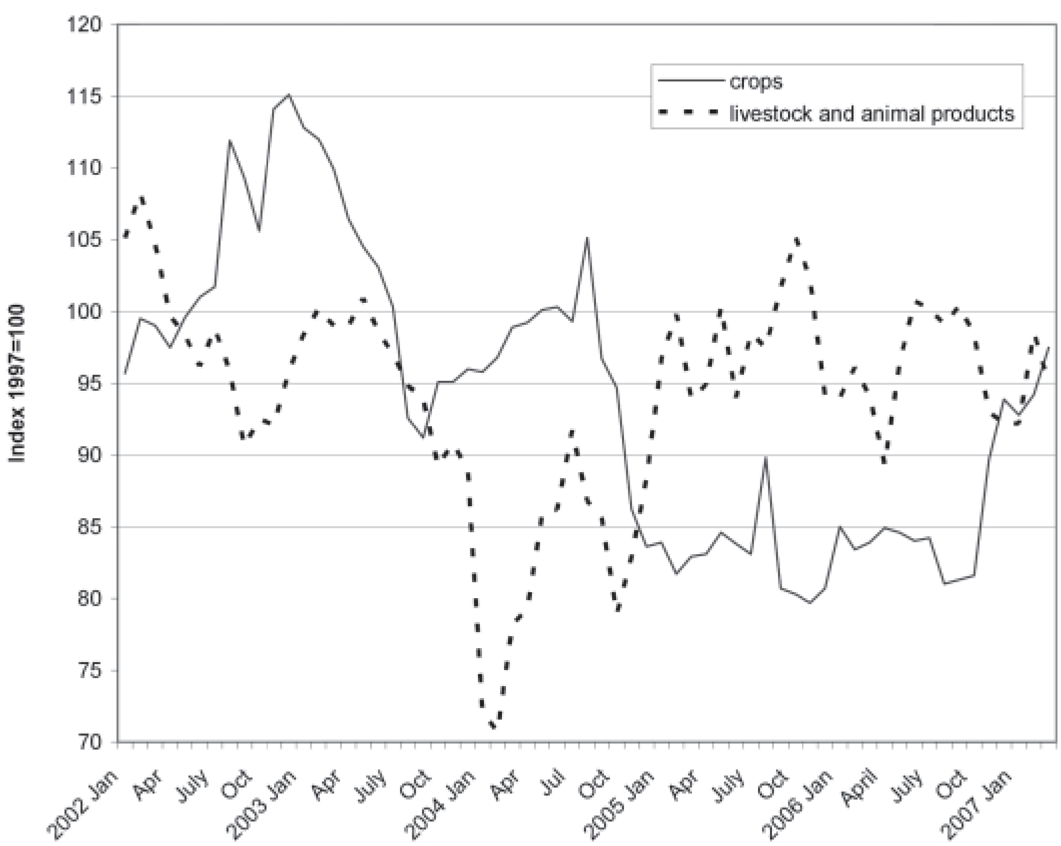
	2004 $ millions	2005 $ millions	2006 $ millions
+ Total cash receipts	3,863	3,805	3,686
– operating expenses (after rebates)	3,139	3,055	3,269
= Net Cash Income	714	750	417
+ Income in kind	9	12	12
– Depreciation	404	409	405
= Realized Net Income	318	352	25
+ Value of inventory change	-58	-228	332
= Total Net Income	260	125	357

Source: Statistics Canada, CANSIM Table #20009 at $540 million in 2003. Furthermore, none of these figures make any allowance for rises in the cost of living. Consequently, on balance, 2006 can enter the books as another difficult year for many Manitoba farmers.

Further analysis of these broad income statements brings to the fore a number of features, both structural and contingent, that characterize and shape agricultural production in the province. Growing conditions were better in 2006 compared to 2005, when wet weather impaired yields and even prevented seeding in parts of the province. The decline in cash receipts in 2006 is not attributable to lower output levels. Lower yields in 2005 led to inventory depletion, and part of the 2006 output was directed towards replenishing inventories. Poor prices also depressed cash receipts. Figure 12 charts the monthly price indices in Manitoba for crops and for livestock. As shown in the figure, the crop index for 2005 and 2006 was well below the levels of the previous 3 years.

For crop producers, the prospects for 2007 have improved as shown in the sharp rise in the crop price index since the fall of 2006. Drought conditions in other major grain producing counties, such as Australia, have adversely affected global grain production. On the demand side, the U.S. government announced in the fall of 2006 a strong commitment, backed by tax incentives, to increased use of biofuels, and especially ethanol.[46] The result has been a surge in world prices for grain and other crops, such as canola, which are used for biofuel production,

Figure 13: Manitoba Farm Product Price Index 2002–2007



Source: Statistics Canada, CANSIM series v1811660 and v1811667.

leading some analysts to argue that prices for crops such as grains and oilseeds are now in fact linked to the prices for oil.[47]

These price increases are significant, but the benefits accruing from the rise in world crop prices have, for Canadian producers, been tempered in part by the recent rise in the Canadian dollar. With world prices denominated in terms of US dollars, the higher Canadian dollar will reduce the revenues received by Canadian sellers once the revenues are converted to Canadian currency. For example, Wheat Board spokesperson Kevin Kolisniak reported that a one-cent rise of the Canadian dollar relative to the US dollar reduces returns to prairie wheat farmers by just under $2 per tonne. With top-grade wheat selling around $205 per tonne, the one-cent rise of the dollar results in slightly less than a 1% decrease in revenues from wheat sales.[48] In the first half of 2007, the Canadian dollar has moved from $0.850US in January to $0.938 in June. As of July 3, 2007, it was trading at $0.944US.[49] Increases of this magnitude (10% in six months) are not unprecedented in foreign exchange markets, but the onus of adjustment weighs heavily on direct producers who sell in international markets. Large organizations can adopt strategies to cover or hedge against currency market risk. The Canadian Wheat Board, for example, is able to do that on behalf of wheat and barley producers, but other agricultural producers, lacking the advantages of economies of scale, are left more exposed to the vagaries of international currency markets.

Regarding operating expenses, the trend has been inexorably upward. As noted above, the $3.27 billion bill for operating expenses in 2006 is the highest on record, and constitutes an increase of 7% over 2005. Part of these higher expenses can be attributed to higher production levels, especially for crop producers who were able to avoid a repeat of 2005 where wet conditions limited acreage for seeding and harvesting,[50] but input prices seem to be rising across the board. Rising energy prices have resulted in increased expenses by farmers for fuel for heating and for machinery. Machinery fuel expenses for Manitoba farmers have, for example, risen from $193 million in 2004 to $231 million in 2005 (an increase of over 19%), and then another 11% in 2006, reaching $256 million.[51] Heating fuel costs also increased by more than 10% in 2006, reaching $33.2 million. Higher petroleum prices are also passed on to producers in the form of higher prices for various fertilizers. Total spending for fertilizers and lime rose 9.6% in 2006, reaching a record value of almost $410 million.

Debt servicing charges constitute another substantial expense. Here, the increases in 2006 were particularly large. Due to rising interest rates in conjunction with increased debt loads, interest payments by producers rose 21.5% in 2006 to $278.2 million. Among other expenses, crop and hail insurance (up 17% over 2005), commercial seed (up 7.5%) and pesticides (up 7.4%) all posted significant increases.

In contrast to the payments of these commodities and services, expenditures for agricultural labour posted only a very modest increase of 2.9% in 2006. Going back to 2003, the increase in labour expenses, which include room and board along with cash wages, have risen less than 6% over the full 3-year interval. This exception reflects not only the relatively slow rise in wages for workers in general, and for unskilled, manual labourers in particular, in the Manitoba economy, but also the specific effect of selected temporary migrant worker programs that are targeted to provide seasonal low wage labour for the agricultural sector. It also suggests that labour is one element in the agricultural producer's cost structure on which producers are able to exercise some control. As employers, they can have more influence over the price of labour inputs, than as buyers of other commodities and services that are in turn provided and marketed by corporations which in many cases have considerable monopoly power.

The squeeze reflected in the recent annual levels of total net income of Manitoba agricultural producers has resulted in ongoing adjustment and transformation in the agricultural sector. In terms of the balance sheet, the value of farm capital in Manitoba continues to rise. Table 3 marks the growth of the components of farm capital over the last decade. As the data shows, however, this growth has been greatly superceded by the parallel growth of farm debt. As a result, the debt-to-capital ratio for agricultural producers has climbed from 20% in 1996 to 36% last year. While credit conditions have been relatively favourable to borrowers over this 10-year span, especially when compared to the previous decade, this rising debt-capital ratio reflects the underlying struggle for economic competitiveness and economic survival in the agricultural sector. The lack of robustness in annual net farm income suggests that a number of producers are being pushed ever closer to the margin. Debt accumulates as producers weather another lean year in the hopes that the next one will be better. More active strategies involve increased capital investment, including the acquisition of additional acreage in an effort to realize economies of scale. Both of these options, however, can involve assuming higher levels of debt.

Alternative off-farm sources of income constitute an important supplement to earnings from agricultural production. Manitoba farm families operating as unincorporated producers earned, on average, $48,668 in 2004 from off-farm income sources. This figure is up dramatically from the $33,299 earned in 1997, and, as of 2004, comprises almost 70% of the total income earned by unincorporated farm families.[52] About two-thirds of this off-farm income is earned through employment of members of the farm family, which underscores not only the importance of the labour market for these families, but also the importance of the unincorporated farm households as a source of labour supply, including part time and seasonal labour, for the wider economy.

Table 3: Value of Farm Capital and Farm Debt 1996-2006

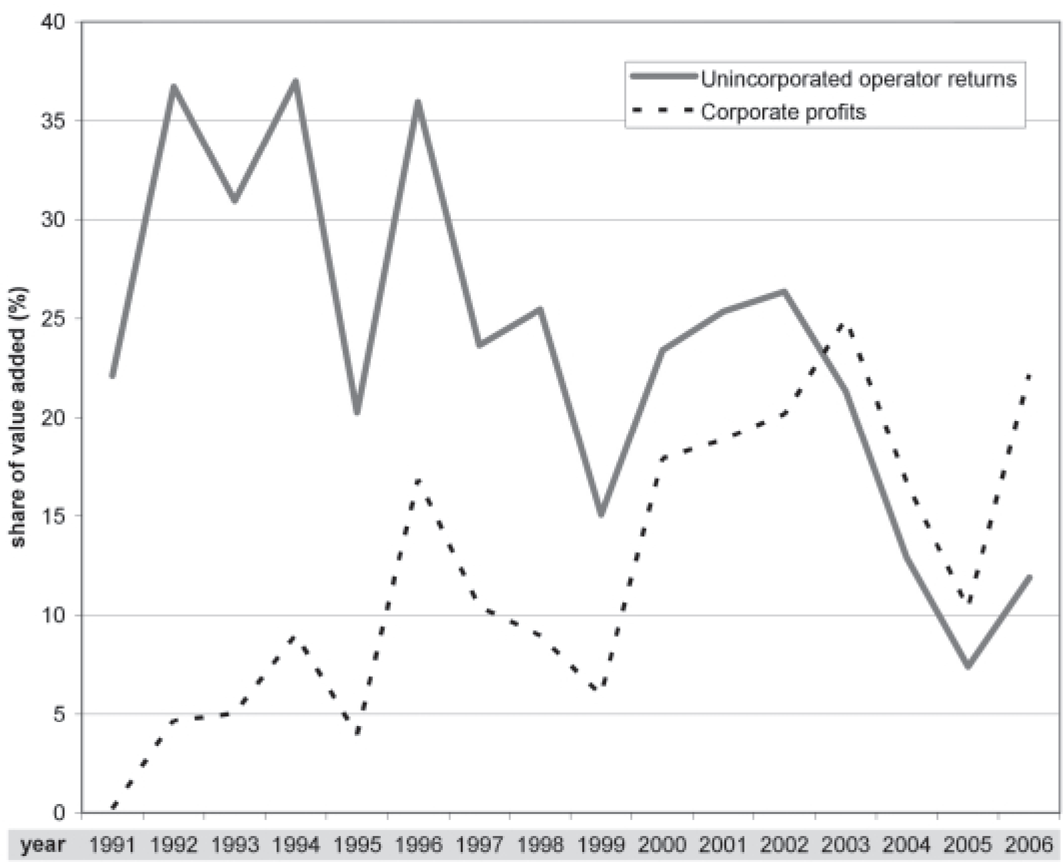
	1996 ($billions)	2001 ($billions)	2006 ($billions)	1996-2001 (% change)	2001-2006 (% change)
Land & Buildings	8.4	9.9	10.8	16.8	9.5
Machinery & Equipment	3.0	3.4	3.6	13.3	5.9
Livestock & Poultry	1.1	1.9	1.5	72.7	-20.6
Total Farm Capital	12.6	15.2	15.9	26.9	4.6
Farm Debt	2.6	3.9	5.8	50.0	48.7
Debt-Capital ratio	0.20	0.26	0.36	N/A	N/A

Source: Statistics Canada, CANSIM series v8597, V8598, V8599, V8600 and v383137.

For some families, however, economic adjustment culminates in exit from the industry. Farm bankruptcies, which cover both incorporated as well as unincorporated producers, increased in 2006, but these numbers are, on a yearly basis, quite small (27 bankruptcies in 2004, 26 in 2005 and 36 in 2006).[53] More common is exit through sale of the farm, precipitated by retirement or the toll exacted by years of low returns. Buyers are often existing operators seeking to expand the size of their operations. The flow of new entrants is below the rate at which existing farm families are leaving and, as a result, the total number of farms is decreasing. In 2006, there were 19,054 farmers in Manitoba. This is a decrease of 9.6% from 2001.[54] Data for the unincorporated sector alone also charts the decline in the number of farm families. From 1997 to 2004, the size of this group slipped from 15,600 to 12,110.[55] Furthermore, the demographic age profile reveals a corresponding increase in the average age of farmer operators. For Manitoba, this average age rose from 47.4 years in 1996 to 49 in 2001, and had reached 51.2 in 2006.[56]

The advantages of size and increased capitalization have encouraged corporate production in agriculture, and this is the flip side to the declining prominence of the family farm. Figure 14 illustrates the extent of this transformation over the last 15 years. As a percentage of net value added in Manitoba agriculture, corporate profits, which comprised less than 5% of

Figure 14: Relative Returns in Agriculture 1991–2006



Source: Statistics Canada, CANSIM series v1939588, v1939592, v1939595 and authors calculations.

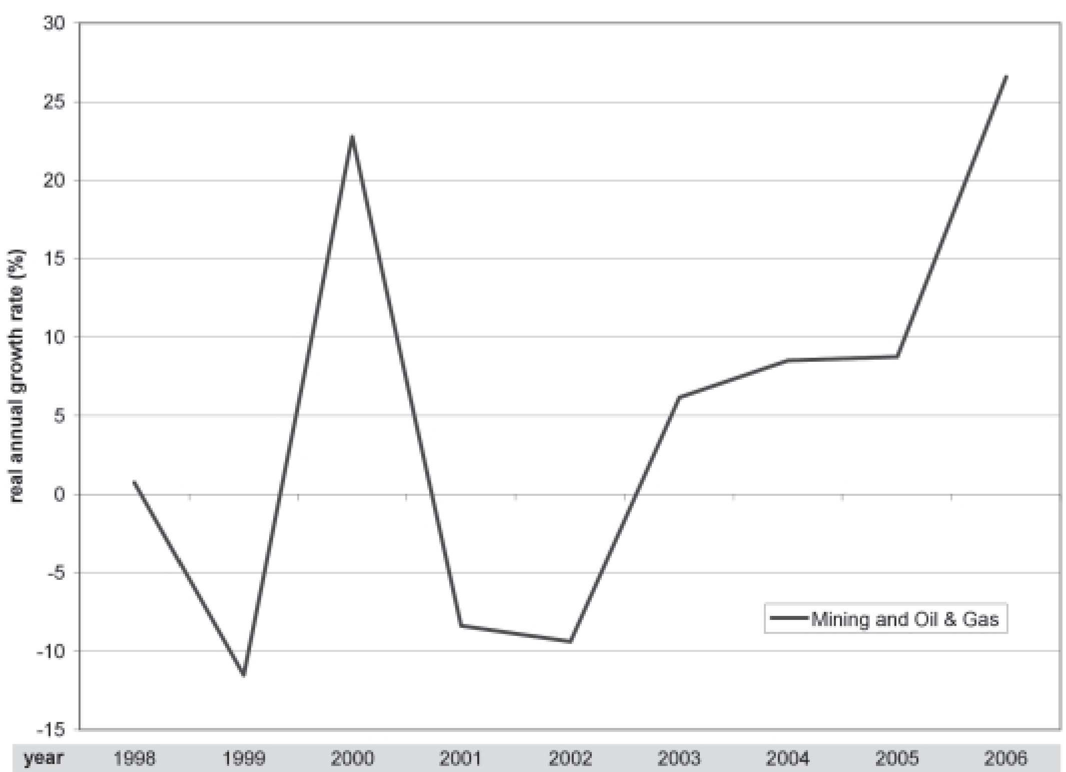
net value added in the early 1990s, are now above 20%. The net returns to unincorporated farm operators, by contrast, have fallen from shares exceeding 30% of net value added in the early and mid-1990s, to levels well below 15% in the 2004-2006 years. The chart shows that the net returns to both the corporate and the unincorporated sectors continue to exhibit considerable variability, but the emergence of corporate agriculture as the dominant form of agricultural production appears now to be well established in the province.

Mining and Oil Extraction

Primary industries are prone to extreme cyclical fluctuations, and, as shown in Figure 15, the recent performance of the mining and petroleum industries in Manitoba exemplifies that characteristic. Specifically, the industry experienced a significant downturn in over the 2000-2002 period, responding in part to the mild economic recession (especially pronounced in the US) that marked the end of "the roaring nineties." The subsequent upturn produced strong growth rates in excess of 8% per year in 2004 and 2005, before taking off in 2006 with a stratospheric growth rate in excess of 26%. These growth rates refer to the real value, in terms of GDP, produced by this sector. This value (measured in 1997 dollars) amounted to a record $888.1 million in 2006, and constituted 2.6% of provincial GDP.

The strong upturn that characterizes the current situation of this industry in the province has been driven primarily by soaring international prices for oil and metallic minerals. The rise in oil prices has been considered earlier in this report. For the Manitoba industry, this rise has

Figure 15: Growth Rates in the Mining and Oil Industry: Manitoba 1998–2006



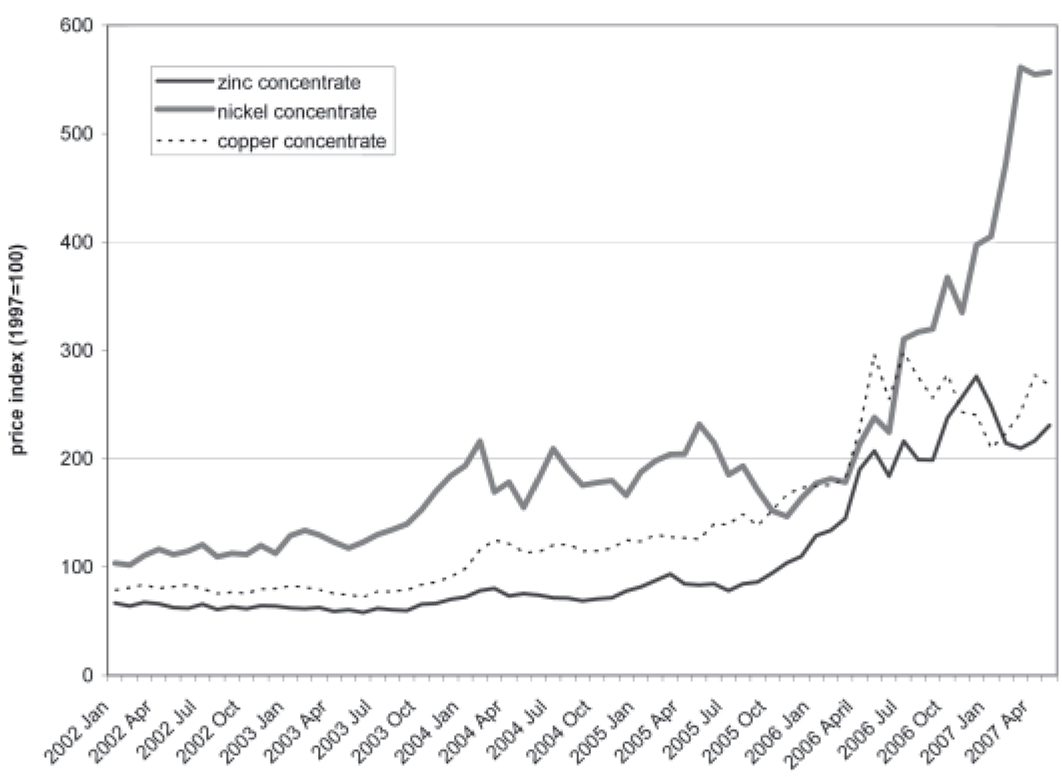
Source: Statistics Canada, CANSIM series v21418641.

resulted in increases in the volume and value of production, as well as unprecedented increases in exploration and drilling activities. Specifically, the number of new wells drilled in the province rose from 94 in 2003 to 285 in 2005 to a record 476 in 2006. Production levels have increased from less than 4 million barrels in 2003 to 5.1 million in 2005 to 7.8 million in 2006, and the market value of oil sold grew from $158 million in 2003 to $530 million in 2006.[57]

As spectacular as the developments in the Manitoba oil industry have been, their economic impact remains considerably less than that of metallic mineral production. Globally, metal prices have also moved sharply upwards in recent years, driven in part by the combination of low global stockpiles of these metals and strong and growing demand from the large high growth economies of India and China. Manitoba has significant endowments of nickel, copper and zinc ore and, as shown in Figure 16, the prices for each of these commodities have surged upwards in 2006. Especially dramatic is the rise in nickel prices which has continued strongly into 2007. As of May 2007, the Canadian price for nickel concentrate was roughly 5-and-one-half times the price that prevailed in January 2002.

The exceptionally strong conditions prevailing in international commodities markets are the primary reason why 2006 was a "record year" for the mining industry in Manitoba. The market value of production reached $2.1 billion in 2006, up from $1.3 billion in 2005, reflecting not just the higher price per unit of ore mined, but also, in some cases, increases in the volume of production levels. For example, copper production levels rose 54.3%

Figure 16: Price Indices for Selected Metals 2002–2007



Source: Statistics Canada, CANSIM series v1576493, v1576494 and v1576496.

in 2006, and gold production increased 20.4%,[58] the latter reflecting the reopening of 2 gold mines in the Bissett region by San Gold Corporation.

Particularly noticeable is the stimulus given by these high prices to mineral exploration and development activities. Exploration spending in the province exceeded $52 million in both 2005 and 2006. Gold prices, which have risen to their highest levels in over 25 years, have induced interest in the resumption of gold mining in the Lynn Lake area, possibly as early as 2008.[59] Soaring nickel prices have boosted plans by Crowflight Minerals Inc. for the development of a new nickel mine at Bucko Lake, in the Thompson nickel belt, with the intention of the mine opening in late 2007.[60] In October, 2006, CVRU Inco initiated production from a new ore body in its Thompson operations. The company has also announced plans to spend $150 million annually in 2007 and 2008 on infrastructure at its Thompson facilities.[61] Copper and zinc producer HudBay Minerals, Inc. intends to spend $26 million on exploration in Manitoba in 2007, as well as invest in further preliminary development or their copper and zinc deposits near Snow Lake. They are reportedly considering opening a mine there for a short term (possibly 3 years) production run.[62]

The upshot of this is that the mining and oil & gas industry in Manitoba is currently enjoying very favourable boom conditions, and it is facing the likelihood that this boom will be sustained throughout 2007. The industry is built upon non-renewable resource deposits, but producers are not facing the spectre of supply exhaustion in the immediate short term. Moreover, improvements in the technology applied to extraction and refining processes, combined with the high prices currently being commanded by these commodities, enable profitable exploitation of lower grade deposits, especially in areas with supporting infrastructure already in place. Securing adequate supplies of skilled and experienced workers are and will continue to be a challenge, but this is a relatively high-paying, capital-intensive sector,[63] and is therefore able to compete effectively with other industries for labour. Cyclical booms are, however, temporary. The conditions generating this boom in the province are highly vulnerable to changes and adjustments in the world economy. The rising commodity prices are inducing supply responses around the world which, especially in the case of metals, is likely to eventually produce a period of oversupply and falling prices. If significant new supplies come available at the same time as a slowdown in the rate of growth of the economy, and especially in the torrid growth rates currently being racked up in China and India, an easing of commodity prices could easily turn into a collapse. Problems of adjustment in the face of pronounced cyclical tendencies in the non-renewable resource sector will remain.

Utilities

Utilities contributed approximately $1.1 billion (in 1997 dollars) to provincial GDP in 2006, which works out to just over 3% of the provincial total.[64] This sector is dominated by electric power generation which comprises 85% of the $1.1 billion,[65] and the significant player here is Manitoba Hydro.

In Manitoba, over 97% of electric power generation is hydraulic. Given the existing capacity, the output generated depends critically on water flow, which in turn is dependent upon precipitation across the drainage basins. The value of the electric power depends on market prices as well as output levels.

The impact of the variability of water flows on hydro production and revenue has been vividly illustrated by the experiences of the past few years. Table 4 presents some of the telling figures. Low water conditions for the 2003-2004 fiscal year resulted in a drop of electric power generation to 19.3 billion kilowatt-hours (kWh) from the 29.2 billion level of the previous year. Low production also necessitated higher expenditures on imports of energy from outside the province, resulting in a huge energy purchase bill for the corporation of $569 million. The 2004-05 year was a return to more normal levels, but 2005-06 proved to be an exceptionally good year, resulting in "unprecedented electricity generation"[66] of a record 37.6 billion kWh. High production combined with stable provincial demand allows for high extra-provincial sales. As the table indicates, these exports soared to an unprecedented $881 million in 2005-06, a 60% increase over the previous year, shattering the previous peak of $588 million in 2001-02. For the corporation this impacted very favourably on the bottom line, as overall net income for 2005-06 came to $415 million.[67]

Preliminary figures indicate that water flows for the 2006-07 fiscal year were down substantially from the record levels of 2005-06. In its quarterly report of December 2006, Manitoba Hydro reported that, in the first 9 months of the 2006-07 fiscal year, hydraulic electricity generation was down 12.6% from the same period in the previous year. As a result, for this 9 month period, extra provincial energy sales amounted to $534 million, down 30% from the corresponding period in 2005, and purchases of fuel and power increased 50% to $202 million. As a result, net income from electricity operations was, for the April 2006 to December 2006 period, only $70 million, compared to $296 million for April-December 2005.[68] Relatively low earnings for the entire fiscal year are likely to be confirmed when Hydro's 2006 *Annual Report* is released in the summer of 2007. However, wet conditions that have visited the drainage region in May, June and early July of 2007 have once again raised water levels above their norms. On this basis, the financial prognosis for the current fiscal year is extremely promising.

While seasonal and yearly fluctuations in net earnings are inevitable due to variability in weather and water conditions, longer term plans for the utility entail expanding generating capacity in the province, improving the transmission

Table 4: Manitoba Hydro: Selected Production and Financial Statistics, 2003-2006

2002-03	2003-04	2004-05	2005-06	
Energy Generated (kWh)	29.2 billion	19.3 billion	31.5 billion	37.6 billion
Total Revenues from Electricity Sales	$1,354 million	$1,287 million	$1,508 million	$1,882 million
Revenues from Extra-provincial Electricity Sales	$463 million	$351 million	$554 million	$881 million
Fuel and Power Purchased	$151 million	$569 million	$135 million	$179 million
Net Income	$71 million	-$436 million	$136 million	$415 million

Source: Manitoba Hydro, *55th Annual Report for the year ended March 31, 2006*.

and distribution infrastructure, and lining up solid export markets for the anticipated surplus power that the increased capacity is expected to produce. In terms of capacity, wind power generation has now been established with the construction and operation of wind farms by independent private companies, and with Manitoba Hydro subsequently purchasing the power and integrating it into the provincial power grid. A significant example is the completion in March 2006 of 63 wind turbines near St. Leon, Manitoba. AirSource Power invested $210 million to construct the towers. The farm, which has since been sold to Algonquin Power Income Fund[69], has a generating capacity of 99-megawatts and has entered into a 25-year power purchase agreement with Manitoba Hydro.[70] In total, for the 9 months ending December 31, 2006, Manitoba Hydro has purchased 260 gigawatt-hours of wind generated electricity, up from 55 gigawatt-hours over the same period in 2005. None was purchased prior to 2005.[71] The 260 gigawatt-hours of electricity is comparable to the 297 gigawatt-hours produced by thermal means in the province, although both comprised only about 2.2% of the total electricity generated in the province in 2006. Wind production is expected to increase, however, with reports that, as of May 2006, the province had received "36 proposals from various groups" seeking to develop wind generating capacity.[72]

Much more substantial are Hydro's plans to augment its hydraulic generating capacity. Agreement has been reached with the Nisichawayasihk Cree Nation (NCN) for a $1 billion, 200 megawatt (MW) Wuskwatim Generation Project on the Burntwood River. The community ratified the Project Development Agreement in June 2006. The agreement includes employment opportunities for NCN members, but is particularly notable for the provision which gives the NCN an opportunity for acquiring up to a 33% equity stake in the generating station. Initial construction on access roads began in August 2006. Completion is scheduled for 2012.[73]

The Wuskwatim project, which Hydro described as the "largest construction project in Manitoba in decades,"[74] would be dwarfed if the plans for the Conawapa Generating station on the Nelson River are realized. This project would have an estimated 1250MW generating capacity. Its estimated cost is listed in the neighborhood of $5billion. Construction is expected to take between 8 and 9 years, and would, according to Manitoba Hydro, create approximately13,000 person years of direct and indirect employment.[75]

The implications of this mega-project are substantial, and can only be briefly identified here. Firstly, the creation of such a substantial increase in generating capacity requires securing strong, stable markets outside the province. The province has been lobbying hard for the erection of an inter-provincial east-west power grid, especially with a view to achieving major power sales to Ontario. Federal money has been tagged for this project through the ecoTrust fund, established in early 2007, and, in the provincial election campaign, Manitoba Premier Gary Doer committed $40 million of Manitoba's portion of the fund to furthering the negotiations and planning associated with this project.[76] Also notable is the announcement on November 2006 of a $2.2 billion power sale to Xcel Energy of Minnesota. The tentative agreement, which is structured to commence in 2015, has sales of 375MW of power per year from 2015 to 2021, followed by 500MW of sales annually from 2021 to 2025.[77]

This is especially significant since Minnesota is the major export market for Manitoba power.

The marketing of hydro electric power emphasizes the renewable and carbon-free aspects of this energy source, but damming waterways, flooding land and constructing access roads and transmission corridors have their own impact on the natural environment and on the people and communities that reside in the areas affected. The environmental and cultural damage done through previous construction projects has not been wholly ameliorated, and that legacy contributes to the debates within northern First Nation communities about not only the terms of any new agreements with Manitoba Hydro, but also about whether or not hydro development and its spinoff effects are desirable at all from the perspective of local residents. The community-approved agreement of the Wuskwatim Generating Project, the announced Process Agreement between Hydro and the York Factory First Nation concerning planning and participation in the proposed Conawapa project,[78] and the "comprehensive settlement agreements" with 4 of the 5 communities that were signatories to the Northern Flood Agreement[79] are all recently announced instances of working agreements between Hydro and First Nations. These agreements suggest that there is considerable support for further hydro development, and that the content of the agreements themselves have evolved, but they do not imply that there is anything approaching consensus among First Nation people concerning these crucial issues.

The sorry historical record of past flood agreements, in Canada as well as in Manitoba, along with the existing real political and philosophical debates among northern residents and their representatives, has affected the marketing and promotion of electrical power as an export commodity. This is well illustrated by a new Minnesota law that requires Manitoba Hydro to explicitly account on a yearly basis for the impact of its northern projects on First Nations people and the environment. Failure to do so can jeopardize export sales to the Minnesota market. Federal and provincial officials have criticized the law and raised the possibility that it violates NAFTA, but it is significant that there is also support for the law by at least one First Nation community.[80]

The impact and implications of hydro development in the north cannot be separated from the pricing policy for electricity throughout the province. In its *Quarterly Report* of September 2006, Hydro stated that Manitobans enjoy the lowest monthly electricity rates in Canada.[81] These low rates suggest that consumers are not being charged full market rates for electricity. Electricity demand can warrant higher domestic prices, and any reduction in provincial sales due to these higher prices can be recouped in the export market. The benefits from the lower rates flow to provincial users. Most of these are in the south, however, while the environmental and cultural costs of increased hydro production are primarily borne by residents in the north. The bulk of the economic benefits that accrue to northern residents stem from employment associated directly and indirectly with construction of new generating plants. The employment is valuable, and training can impart lasting skills to northern workers, but the construction projects themselves tend to be of 8 years duration or less. Consequently, once the construction phase is completed, the flow of direct benefits to northern communities drops. Taking a longer view, there would seem to be considerable scope for the transfer of more financial resources to the north by capturing and redirecting some of the implicit rents that Manitoba electricity consumers are enjoying from hydro production. Implementing policies along these lines may also act to undermine and dissolve the negative associations that foreign consumers may have regarding this economically important export commodity.

Construction

The construction industry in Manitoba has been consistently outpacing the growth of the provincial economy for a number of years now. As a result, its share of provincial GDP has increased from just under 4% in 2000 to 5.3% in 2006 (i.e., $1.8 billion of the $34.3 billion provincial economy, as expressed in 1997 dollars).[82] As noted above in the examination of investment, residential construction has been a major source of activity, with the value of residential construction expenditures rising 54% between 2000 and 2005. The aforementioned relative slowing in 2005 and 2006 of this high rate of expansion in housing has, however, been more than offset by the surge in non-residential construction. For example, business investment in non-residential structures increased by more than 32% in 2006. Underlying these strong figures are the broader set of factors that are driving consumer spending and private sector business investment in the province. These have been discussed previously in Section II of this report. Also significant is the renewed public investment in infrastructure, including increases in the budget for provincial highways, and the expansion of the Winnipeg Floodway. In the north, the approval of the $1 billion Wuskwatim Generating Project will sustain growth in this sector over the projected 5-year construction period. Preliminary construction work on this project got underway in August 2006. Looking beyond this, the possibility of the mammoth $5 billion Conawapa project hovers on the horizon.

Construction is a relatively labour intensive industry, and it also draws upon local and regional suppliers for a range of building materials and services. In regard to materials, concrete, sand and gravel, metals, glass, wood products, and windows all have local suppliers, while architectural and engineering firms are important on the services side. Thus, local multiplier effects from construction activity are significant.

Employment in the industry has increased 38% since June 2002, and stood at 23,723 as of April 2007.[83] The problem of securing the requisite supply of labour, however, poses some challenges due partly to the torrid construction boom in the Alberta economy, but demographic factors are also a factor. A construction industry report states that almost 4,600 construction trades workers are expected to retire in Manitoba between 2007 and 2015.[84] Part of the response has been renewed attention given to apprenticeship programs across the province. Specific responses within the Manitoba construction industry include initiatives to utilize more extensively the latent labour supply of the aboriginal population. This is reflected in the increased commitment to provide training and employment opportunities for First Nations peoples that comprise an important aspect of newly announced hydro developments in the north, such as the Wuskwatim project.

As noted in Part III of this report, wage adjustment as a response to tight labour market conditions has been relatively sluggish. Mention has already been made of the contractual wage agreements for construction workers that are embedded in the PMA of the Manitoba Floodway Authority. In general, however, employment growth in the industry prior to the latter half of 2006 has not been premised upon significant wage increases. Average weekly earnings for construction workers in the province increased only 3.0%, 1.8% and 3.4% annually in 2003, 2004 and 2005, respectively.[85] The 5.3% increase that was recorded in 2006 is more substantial, and reflects increased tightening of market conditions for construction labour. However, this increase raises their average weekly earnings to $831.74. Compared to the provincial average of $676.83 for all industrial sectors together, there is evidently a healthy premium for construction workers in the province, which encourages a flow of labour into this sector and constitutes incentives for workers to avail themselves of training programs that are tailored to meeting the needs of this industry. Nevertheless, the lure of the Alberta economy remains. In Alberta, average weekly earnings in construction were $988.90 for 2006,[86] which is almost 20% higher than the Manitoba rates. With the strong provincial demand for construction expected to continue throughout 2007, combined with the expected extension of the construction boom Alberta, construction workers in Manitoba are in a good position to realize wage increases at a rate exceeding the provincial average for the remainder of 2007 and into 2008.

Recent data indicates, however, that despite the wage increases in 2006, labour's share of the value added in construction has been falling. For example, rough calculations show that for the 2-year period covering 2005 and 2006, real wages (i.e., wages that are adjusted for increases in the consumer price index) rose 4.2%. Since employment increased about 11.2% over the same period, the real wage bill in construction increased about 16% over the 2005-2006 interval. Real value added[87] in the industry, however, grew about 27%. This implies that a larger share of the value added in the industry is going to non-labour incomes, including corporate profits and the net earnings of unincorporated businesses. The evidence suggests that the bottom line for operators in the construction industry has been enhanced substantially since 2005.

Manufacturing

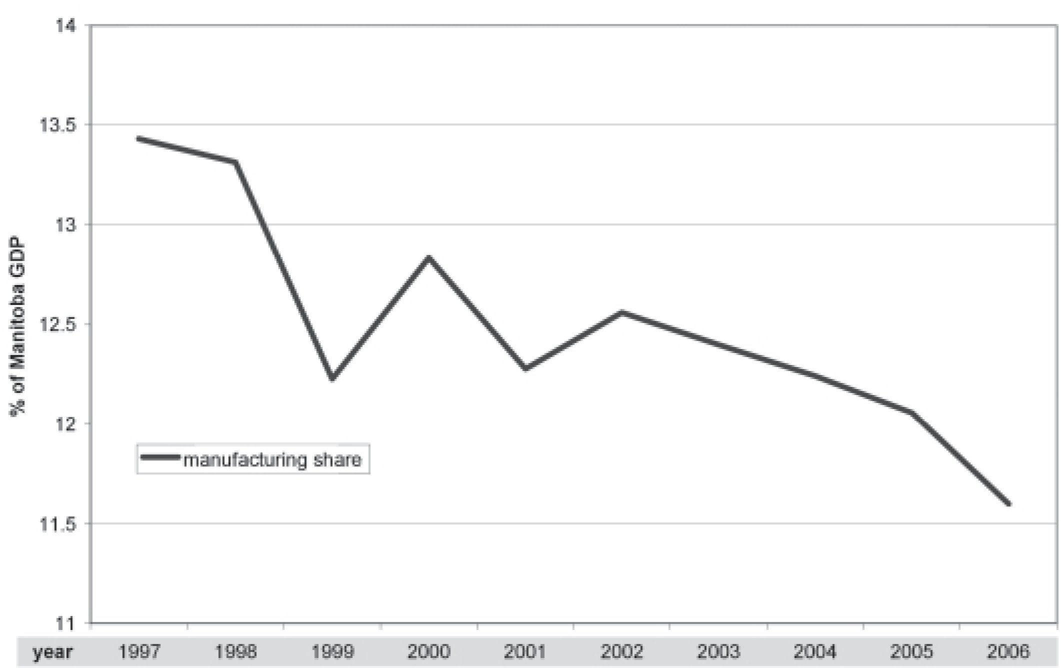
In 2006, manufacturing constituted slightly less than 12% of the provincial economy and employed over 60,000 workers.[88] Measured in 1997 constant dollars, manufacturing GDP was $3.98 billion, down slightly from the record $3.99 billion level reached in 2005. In terms of the entire provincial economy, however, the relative share of output from the manufacturing sector has continued to fall, as illustrated in Figure 17.

This declining share reflects, in part, a continuation of the larger long-term sectoral transformation of advanced industrial economies in which the expansion of the service sector runs parallel to the declining share of manufacturing. However, the last few years have served up additional challenges for Canadian manufacturers. In particular, the sharp rise in the Canadian dollar, especially relative to the US dollar, has undermined the competitiveness of Canadian producers in both domestic and foreign markets. This has accentuated the other competitive advantages that producers exploit through reorganizing production on a global basis so as to make use of low cost opportunities, especially in the form of lower labour costs. Firms throughout Canada have responded in various ways, including shutting down domestic production, shifting more production offshore, repositioning themselves in high-value product niches, increasing productivity through technological upgrades and capital investment, restraining and reducing labour costs, and seeking government assistance in a variety of forms, ranging from import protection to subsidies and tax breaks.

The cumulative impact of these economic forces on Canadian manufacturing is apparent in the latest output and employment figures for the industry. Manufacturing GDP has not been able to match the record levels achieved back in 2000. The sector has shown some recovery from the aftermath of the 2001 downturn, but after some growth in 2004 and 2005, real manufacturing GDP fell 1.3% in 2006.[89] Manufacturing employment has borne a substantial portion of the adjustment that the industry is experiencing. At the end of 2002, employment in this industry was 1.97 million, but the employment levels have been decreasing throughout the subsequent period. As of April 2007, they had fallen to 1.81 million[90]—a net loss of approximately 160,000 jobs in only four and one-half years.

When viewed in this larger national context, Manitoba's manufacturing sector has actually performed quite well. Manitoba lost about 7000 manufacturing jobs between 2000 and 2004, but much of that reflected the cyclical growth of manufacturing employment in the late 1990s and the readjustment in the wake of the termination of the economic upswing in 2001. Since 2004, employment levels have more or less been holding steady, and, as of April 2007, the 60,544 manufacturing workers in the province constitute a slight increase above the 60,476 figure from April 2006.[91] The value of manu-

Figure 17: Manitoba: Manufacturing Share of Output 1997–2006



Source: Statistics Canada, CANSIM series v21418635 and v21418661.

facturing shipments in Canada fell in 2006, but in Manitoba, they increased over their 2005 levels. The monthly figure for May 2007 amounted to $1.32 billion.[92] This was down from the record $1.49 billion set in March 2007, but the early figures for 2007 indicate strong activity throughout much of this sector, and, based on the first 5 months of the year, shipments for 2007 promise to surpass the mark set in 2006.[93]

Manitoba manufacturers have not been exempt from the larger forces, such as adverse exchange rate movements and low cost production offshore, that are pressuring the Canadian manufacturing industry as a whole, and the process of adjustment is continuing. For some firms, such as those in clothing manufacturing, much of the adjustment has already occurred.[94] This sector, which comprised 6.3% of Manitoba's manufacturing GDP in 1997, and 5.6% in 2003, contributed only 2.7% in 2006. Its international exposure was heightened with the WTO sanctioned removal of quotas for clothing in January 2004 and further tariff removals in January 2005. The adjustment continues to squeeze blue collar production jobs, resulting in the loss of a further 450 jobs in 2005,[95] and the closing of a Nygard factory in April 2007.[96] Activity has shifted to place more emphasis on white-collar service work, with particular emphasis on design and marketing,[97] along with increased capital investment and higher-end specialty products.

Other segments of the manufacturing industry are facing similar pressures but have avoided the longer-term decline that characterizes the garment trade. Furniture manufacturing, for example, has experienced growth and expansion in the province throughout most of the last decade, as its GDP (in 1997 dollars) rose from $162.8 million in 1997 to $197.4 million in 2005, and then to a record $243.5 million in 2005, before falling back to $207.9 million in 2006.[98] Nevertheless, pressure for further adjustment has intensified. Palliser Furniture, a major manufacturing employer in the province, has significant foreign production sites, and in 2005 the company announced the closing of one of its Winnipeg upholstery plants, layoffs of about 200 Winnipeg workers, and the shifting of "most of its leather cutting and sewing" to Mexico. The appreciation of the Canadian dollar was explicitly mentioned by Palliser's president and CEO as the reason for this restructuring.[99] The company's wood furniture division in Winnipeg, however, was targeted for expansion and equipment upgrade,[100] a decision which reflects in part the positive influence of Manitoba's and Canada's natural resource base in supporting downstream manufacturing activity.

The importance of agriculture in the provincial economy is evident in the size and expansion of food product manufacturing in Manitoba. This burgeoning sector has increased its share of provincial manufacturing from around 11% in 1997 to 17% as of 2006. Of particular note within this industry has been the increasing importance of meat product manufacturing, reflecting the expansion of the hog industry and the operation of the Maple Leaf packing plant in Brandon. The GDP generated in meat product manufacturing has risen from $132 million (in 1997 dollars) in 1997 to $355.1 million in 2006, which is almost 9% of total provincial manufacturing GDP.[101] Plans for further expansion in Manitoba were announced in 2005 in the form of the proposed $200million OlyWest hog-processing plant for Winnipeg. The proposal, aided by incentives from both the province and the city, has generated considerable opposition, much of it on environmental grounds, among residents and businesses in the city. Furthermore, the rising Canadian dollar has adversely affected the international export market for Canadian pork. This has affected pork producing and manufacturing operations across the country, and it induced one of the major companies in the OlyWest consortium, Olymel of Quebec, to pull out of the Manitoba project. The combination of local opposition, falling hog prices and the continued rise of the Canadian dollar has put the future of the OlyWest proposal in doubt.[102]

Primary and fabricated metal production is only slightly behind the agrifood industry in terms of its contribution to the province's manufacturing industry. This metal sub-sector contributed almost $600 million (1997 dollars) to provincial GDP in 2006, which works out to approximately 15% of Manitoba manufacturing. The sub-sector, riding a strong demand for metal products—a demand that is fuelled by robust construction activity in Canada, in North America, and in the high growth Asian economies of China and India—has continued to expand, showing 5% growth in 2005 and an especially impressive growth of over 10% in 2006.

Manitoba's natural resource base has helped generate a significant wood product manufacturing industry in the province. The sector has in recent years also been favoured by the construction boom. Comprising 7% of total provincial manufacturing, its 2006 GDP output of $282 million was down from the record $310 million of the previous year, but it is higher than the 2003 and 2004 levels, and is more than twice the value that was generated by the industry a mere decade ago.[103] Looking ahead, this sector will be affected by some cooling of the construction boom, as well as by the effects of the rising Canadian dollar. This exchange rate increase has probably contributed to the negative GDP growth of wood product manufacturing in 2006, and the further escalation of the value of the dollar between April and July 2007 can be expected to negatively affect this sector's GDP for 2007 and into 2008.

Manitoba's aerospace industry is a specialized, high-value segment of the provincial economy and relies upon a highly-skilled, experienced workforce. As a result, the industry is less exposed to exchange rate movements and to low-wage offshore competition. It is not, however, immune to cyclical fluctuations and sudden exogenous shocks, as was demonstrated with the drop in air travel in the aftermath of the 9/11 tragedy. Within the provincial aerospace industry, the manufacturing division had been experiencing a significant decline since the late 1990s. In terms of GDP, aerospace products and parts manufacturing had decreased from $314.5 million in 1997 to $216 million in 2004, followed by another dramatic drop in 2005 to $122.1 million.[104] In addition to the post-9/11 downturn in aviation travel and production, the declining fortunes of the Manitoba industry also stem from the fulfillment of previous contracts covering the supply of parts for large aircraft manufacturers—a phenomenon that occurs as existing aircraft production runs move into the late stages of the product cycle. Since 2005, however, the situation in Manitoba has been rejuvenated. This is primarily due to the success of the Winnipeg Boeing plant in securing a new contract to supply parts for Boeing's new 787 passenger airliner. Employment at the

Winnipeg plant, which had sunk to 861 employees in the period following 9/11, has rebounded sharply as production for the 787 got underway in 2006.[105] By mid-2007, increasing production levels had pushed employment to around 1400, exceeding the pre-9/11 peak of 1368 employees, and inducing the company to cancel its annual two-week summer shutdown.[106] The turnaround in production registered in the GDP statistics for aerospace manufacturing with 2006 figures rising 22% to $149.8 million,[107] but the value for 2007 can be expected to easily surpass that.

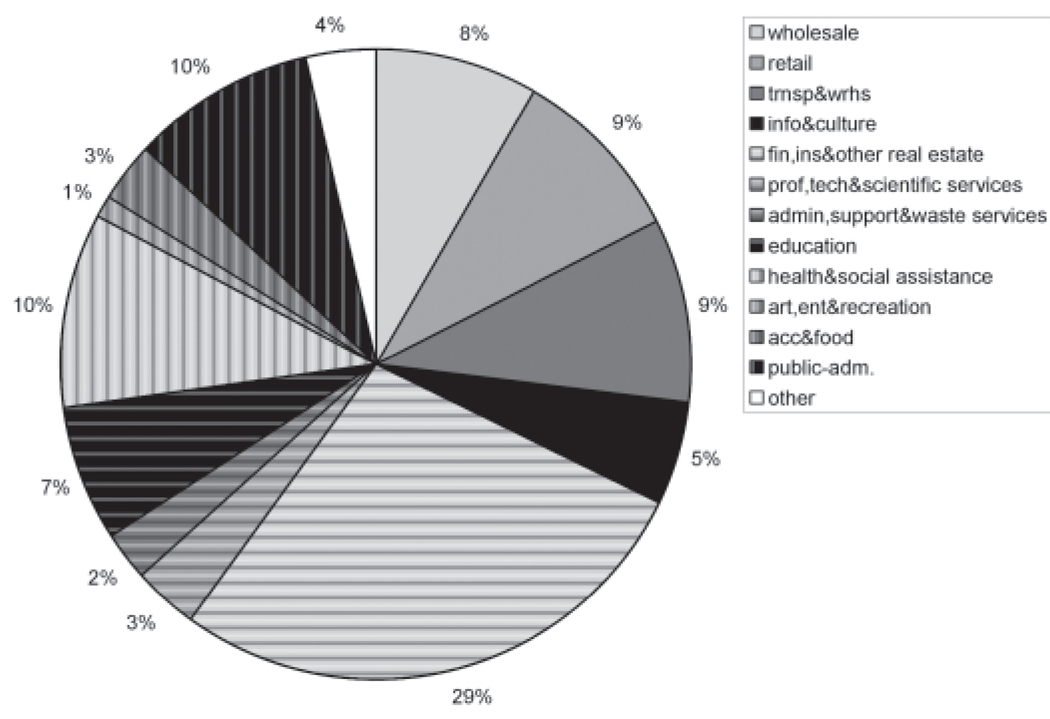
In transportation equipment manufacturing, two prominent Winnipeg-based companies experienced increases in orders and production in 2006. New Flyer Industries consolidated its position as "North America's largest manufacturer of heavy-duty transit buses" with announcements in May 2006 of new orders for 857 buses worth approximately $342 million (US).[108] The company has 2 production plants in Minnesota in addition to its Winnipeg plant. The US plants give the company a means by which the adverse effects of the rising Canadian dollar can be substantially avoided. Furthermore, since many of the customers for transit buses are American urban transit authorities, maintaining a prominent role for US-based production may also help secure sales to those US customers. Nevertheless, it is significant that, with the announcement of the first 15 new orders for 416 buses, the company indicated that its anticipated 30% increase in production levels will occur primarily at the two American plants, despite the fact that the new orders "are almost split evenly between Canada and U.S. customers"[109] and that the Winnipeg plant possessed additional productive capacity. Furthermore, in April 2006, the company reportedly increased production in the two U.S. plants to make up for production losses sustained during a strike by workers in the Winnipeg production plant.[110] These developments illustrate some of the tactical advantages a company can enjoy with even a modest degree of multi-national production capability. They also suggest that the degree to which Manitoba workers will benefit from future contracts is unclear. The further rise in the Canadian dollar (up about 5% between May 2006 and July 2007), will not improve their prospects.

The other prominent company producing transportation equipment in Manitoba is Motor Coach Industries, which manufactures buses primarily for tour companies and inter-city travel. The company was also adversely affected by the downturn in the North American travel industry after 2001, but recovery in the travel industry and renewed demand by intercity bus companies and public municipalities seeking to upgrade and expand their fleets induced a sharp increase in bus sales in early 2006. In addition to the Winnipeg plant, the company has a production facility in North Dakota. In contrast to New Flyer, Motor Coach responded to the resurgence in demand with increased production rates in both its Manitoba and US plants. Employment in the Winnipeg plant increased by 130 workers in the first 3 months of 2006, and had risen from 900 workers in early 2004 to almost 1500 by March 2006.[111] This strong upturn has a decidedly cyclical character to it, however, so that the strong growth and high production levels of the last couple of years can be expected to moderate and decline somewhat in the near future. The future prospects of the company suffered a setback in July 2007 when the federal government announced that a $14 million contract to provide buses to the Department of Defence was awarded to a German company.[112]

Other major components of the manufacturing sector in Manitoba include machinery manufacturing (approximately 7% of total provincial manufacturing), printing and related support activities (6%), and plastic product manufacturing (slightly less than 5%). The GDP of machinery manufacturers has been increasing since 2003, a development which is aided by the recent strength of investment expenditures and the construction industry in Manitoba and beyond, but provincial machinery manufacturing has not recouped the losses it sustained between 1997 and 2003, when the end of the roaring nineties coincided with restructuring and consolidation in the industry.

Finally, the explosive growth of pharmaceutical and medicine manufacturing in the province, which saw its annual GDP (in 1997 dollars) increase from $29.6 million in 1997 to $113.8 million in 2004, has since suffered something of a reversal. The GDP for this category of manufactures fell in both 2005 and 2006, with its value for 2006 down to $97.5 million. The rising Canadian dollar will have played a role in this mild reversal, but future prospects will depend heavily upon results of ongoing research and development activities of firms in the industries, as well as upon the success of product trials. A biotech industry spokesperson has stated that biotech products tend to have a seven or eight-year cycle, and that the last big year was 2000.[113] This would suggest that a new production cycle may lie just ahead, and some recent announcements by provincial producers support this prognosis. For example, in 2006, Winnipeg-based Medicure was in the late stages of field trials for two heart drugs,[114] DiaMedica was conducting a

Figure 18: Manitoba Service Sector 2006



Source: Statistics Canada, CANSIM series v21418706 to v21418743.

clinical trial for a new drug to improve treatment of diabetes,[115] and Cangene Inc. received a $362 million contract to supply an anti-botulism drug to the US government, with shipments expected to begin in the second half of 2007.[116] In this industry, and especially for new products, effective research and development, patent protection and securing regulatory approval weigh more heavily as factors affecting production levels than do the relative price effects resulting from exchange rate movements.

Service Sector

The industries comprising the service sector employ over 430,000 workers[117] and are responsible for 72% of provincial GDP. This sector, however, is very diverse, ranging from retail sales to scientific research. A breakdown of Manitoba's service industries in terms of their relative size is provided by the pie chart in Figure 18.

Since 2003, the retail sector has comprised a larger share of provincial GDP than its wholesale counterpart. In 2006, retail generated approximately 6.6% of provincial GDP and, as shown in Figure 18, 9% of the GDP attributed to the service sector as a whole. Unlike the relatively sluggish wholesale trade, the retail industry has enjoyed strong growth throughout the last decade, and this is one of the manifestations of the growth in consumer spending that has been significant at the macroeconomic level of the provincial economy. The 4.5% real growth in retail trade in 2006 exceeded the 3.6% growth rate for the province as a whole.[118]

The market value of retail sales also increased 4.5% in 2006, rising to $12.9 billion. Within this total, especially notable was a 17.6% increase in sales at home centres and hardware stores, and a 13.7% increase in furniture stores.[119] These latter figures are further confirmation of the strength of the real estate market, reflecting not only the consequences of new residential construction, but also home renovation and its connection to the value of existing residential structures.

Although the retail and wholesale industries are roughly comparable in terms of their contribution to the province's GDP, there is a huge disparity between them in regard to employment. The wholesale sector employs approximately 23,500 workers, but this is little more than one third of the 66,900 workers employed in the retail trade.[120] Employment levels in both retail and wholesale trades rose substantially over the last year, increasing 6.5% and 5.7% between April 2006 and April 2007. When viewed over a longer period, however, the employment trajectories of these two service sector industries are quite different. Wholesale trade, as of April 2007, had grown only about 4.2% over a 10-year period, and its present level of employment is well below the 26,400 employed at the end of 2000. By contrast, retail employment has moved fairly steadily in an upward direction, increasing approximately 35% over the last decade.

The strong retail employment figures are not matched on the earnings side. Average weekly earnings of retail workers averaged only $448.95 in 2006,[121] which is substantially below the provincial average of $676.83. Retail earnings posted an increase of only 1.1% over the 2005 level—an increase which fails even to keep pace with the rate of inflation.[122] These 2006 results are consistent with a longer term pattern. For example, an examination of the last 10 years reveal that average weekly earnings of retail sector workers in Manitoba have increased 13%, but the Consumer Price Index (CPI) for Manitoba rose 19% over that period.[123] Thus the retail sector is providing increased employment opportunities for Manitobans, but most of these opportunities are relatively low paying, and the strength and expansion of the retail sector in Manitoba rests to a considerable degree on the relatively low earnings of its workforce. Furthermore, this relative disparity is growing. For example, average weekly earnings in the retail sector were 72% of the provincial average for all industries in 1997, but 2006 this had fallen to 66%.

Part of the explanation for lower relative earnings for retail workers will be due to the higher incidence of part time work, but this will not explain the "growing gap" between these workers and the majority of those employed elsewhere in the province. Highly elastic labour supply is also part of the story, and in particular the ability of the retail sector to utilize students and youths, but other factors include the difficulties faced by unions in organizing workers in the sector, exacerbated by the hostility and anti-union strategies employed by some of the larger retail employers, such as Wal-Mart. A sector with low earnings also raises the issue of the role of minimum wage legislation. In Manitoba, minimum wages have been increasing steadily over the last decade, rising from $5.40 per hour in 1998[124] to $8.00 as of April 1, 2007.[125] This increase of about 48% over 10 years does not appear to have had any palpable impact on average earnings in the retail sector. This would support the contention that, over this period, the level of the minimum wage, despite its nominal increases, has remained too low to significantly improve the earnings of many workers in low income sectors of the labour force.[126]

The other service sector industry that is characterized by low employee earnings is the accommodation and food services industry. Average weekly earnings in this sector have in recent years been rising slightly above the rate of inflation (with a 2.6% increase in 2006), but the average weekly earnings of $288.96 for 2006[127] makes this sector the lowest earnings sector in the province. This industry also draws heavily young workers to meet its labour requirements, along with a high incidence of part-time jobs. In regard to the latter, average weekly hours for employees in the accommodation and food services industry in 2006 amounted to 23.6 hours. Breaking this down to consider just food services and drinking places, the average drops to 22.8 hours. This figure is substantially below the 28.6 hours average for the service sector as a whole, and the 30.6 hours average for all industries in the province.[128] Employment in accommodation and food services was 36,391 as of April 2007. Employment has been increasing over the last two years, but is down slightly from the 2000-2002 period when employment fluctuated around the 37,000 level.[129]

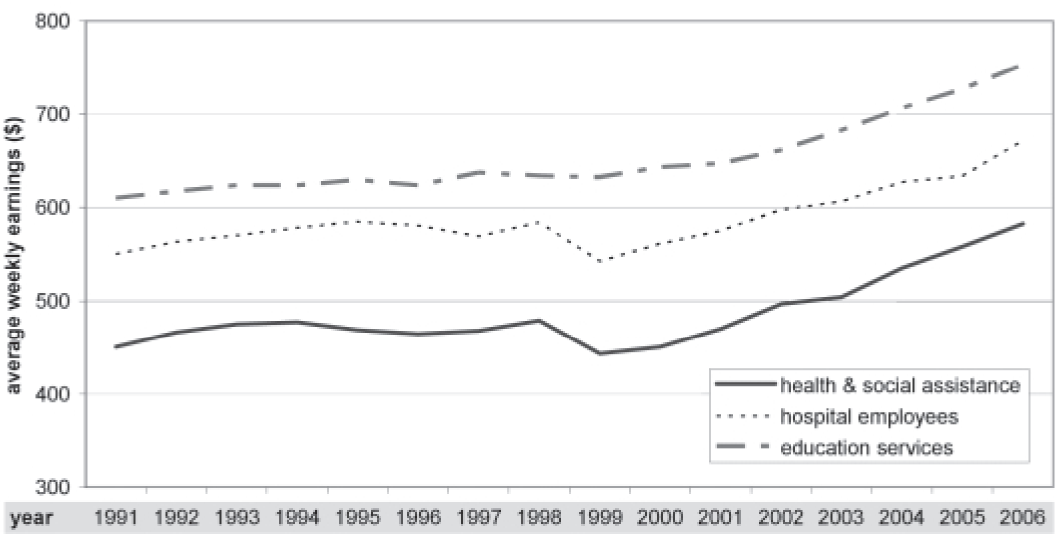
Finance, insurance and real estate (FIRE) comprise the largest chunk (29%) of the service sector in the province. GDP for these industries was $6.9 billion (1997 dollars) in 2006, which works out to one-fifth of provincial GDP. The Manitoba industry, not unlike its counterparts elsewhere in North America, was adversely affected by the end of the financial exuberance that characterized the late 1990s, and especially by the collapse of the dot.com boom in 2001 and the consequences of the revelations of financial impropriety throughout much of the corporate world in the early years of the new millennium. In Manitoba, the FIRE industry actually sustained negative growth rates in 2001 and 2002, and virtually no growth in 2003. Since that time, the sector has recovered, posting solid growth rates of 4.9%, 2.4% and 3.7% in 2004, 2005 and 2006 respectively.[130] As of April 2007, over 37,500 Manitobans were employed in the finance and insurance industries, and another 8500 in real estate, rental and leasing.[131]

Health and social assistance, education, and public administration comprise 10%, 7% and 10%, respectively, of Manitoba's service sector. In each of these 3 industries the public sector is instrumental and, as a result, growth and employment are closely tied to policy priorities and the budgetary decisions of the various levels of government. Provincial responsibility is pre-eminent in health and social assistance and in education. The health and social assistance industry has been growing but, as a proportion of the provincial economy, it has been remarkably constant since 1997, hovering around 7.4%. In education, the direct contribution of the universities to provincial GDP has remained roughly constant at 1.1% over the last decade, but the education sector as a whole has seen its direct contribution to provincial GDP fall from 5.4% in 1997 to 5.0% in 2006.[132]

Both of these sectors are major sources of employment in the province. As of April 2007, there were 68,776 workers in health and social assistance, and a further 44,441 in education. Employment in health and social assistance increased by about 2600 workers since June 2006, and is up about 20% since 1997. By contrast, in education employment actually fell by about 750 workers since June 2006, and had risen by less than 6% over the last ten years.[133] These comparative differences in GDP and employment growth largely reflect the effects of the changing demographic profile of the population, as an aging population places will tend to make greater use of services in the health care sector, and relatively less upon education.[134]

Workers in both the health and social assistance and education industries bore a substantial portion of the costs associated with the fiscal retrenchment and debt and deficit fighting priorities which gripped all levels of government in the

Figure 19: Employee Earnings in Health & Social Assistance , Education: 1991–2006



Source: Statistics Canada, CANSIM series v1742048, v1742053 and v1742134.

1990s. Draconian fiscal initiatives, and the associated restructuring of workplaces and employment practices in these sectors exacted a toll from workers. Part of this cost is revealed in the very limited pay increases received by these workers through the better part of that decade. As illustrated in Figure 19, that era is over, and in recent years average weekly earnings for workers in the health and social assistance and education industries have posted strong gains.

The $2.3 billion GDP of the transportation and warehousing industry comprises 9% of the service sector and 6.7% of the provincial total. As of April 2007, this sector directly employed 31,103 workers.[135] This sector has been enjoying solid growth over the last 3 years, with its GDP rising 3.7% in 2006. This performance rests on the underlying strength of the provincial economy, including exports of primary and manufacturing goods, and the imports that are absorbed by consumer spending and business investment.

The trucking industry makes up about one-quarter of the transportation and warehousing sector in the province. GDP for this industry increased almost 6% in 2006, but the benefits of strong demand for trucking services are offset by a number of other factors. Especially significant are fuel costs which have risen sharply since 2003.[136] The ability of operators to pass on these higher costs in the form of higher prices is constrained by the relatively competitive conditions within the industry. Manitoba alone has around 450 trucking companies, and companies from outside the province can also effectively compete for loads.[137] Large customers requiring trucking services can consequently take advantage of the availability of numerous competing carriers to secure favourable rates, placing the burden of adjustment resulting from fuel cost increases largely on the operators themselves. In light of this recent rise in gasoline prices, it is significant that although average weekly earnings for Manitoba employees in the trucking industry had increased handsomely from $608.17 in 1997 to $732.94 in 2002 (an increase of over 20%),[138] there were no further increases over the 2002-2006 interval. Another development affecting the industry is the sharp increase in the value of the Canadian dollar. This dramatic exchange rate appreciation favours imports over exports. The result has been increased imbalances in loads to and from the US, resulting in problems of unused capacity in southbound vehicles, with consequent intensification of competition among carriers for existing export cargo.[139]

Despite a limited shipping season (July to November) and a low volume of traffic, the northern port of Churchill is of value to the Manitoba economy. Statistics Canada reports that in 2004 the port handled 29 vessels cargo vessels, of which 14 were for international shipments. The international shipments were the most significant in term of tonnage, with approximately 13 times the tonnage of the domestic shipments. In 2004, international shipments were 400,000 tonnes, but this total was down 35% from the 615,000 tonnes shipped out in 2003.[140] Figures for 2006 are better, with shipments of 488,500 tonnes of grain and other crops.[141]

In the context of total Canadian maritime shipments, the contribution of Churchill scarcely registers.[142] Inbound international cargo into Churchill is virtually zero, causing ships to arrive only with ballast and imposing the cost of unused capacity on carriers. However, the port has been a significant outlet for agricultural crops, and especially wheat from regions in northwestern prairies of Manitoba and northeastern Saskatchewan. Approximately 70% of the wheat and durum shipped through Churchill is Canadian Wheat Board (CWB) grain, and CWB shipments rose to 384,000 tonnes of wheat in 2006, up from 353,000 and 361,000 in 2005 and 2004 respectively.[143] In comparison to the Thunder Bay—St. Lawrence route, the Churchill outlet provides a cost advantage to prairie farmers of $15 to $20 per tonne.[144] It is unclear what the full impact on the port and on the economic viability of the northern rail link will be from the proposed changes to the CWB and the termination of its single desk selling status for Canadian wheat. Major grain companies have terminal facilities in Thunder Bay, and, to the extent that they would displace the Wheat Board in purchasing prairie wheat, they would have an incentive to direct their own wheat shipments to utilize the Thunder Bay facilities.[145] The consequences thus point to a decrease in grain shipments to Churchill, impairing the supply of the port's most important export commodity. This is reportedly a matter of some concern for port officials in Churchill.[146]

Among other service sector industries, notable is the aircraft overhaul and maintenance industry. These services combine with manufacturing in the overall composition of the aerospace industry in the province. On the service side, recent developments include the announcements in 2006 by Winnipeg-based Standard Aero of: 1) a partnership with Sikorsky Support Services Inc. to service U.S. Navy training planes (which could be worth $67 million over 5 years); 2) a 3-year contract with the NATO Maintenance and Supply Agency to overhaul and repair engines ($2 million to $3 million per year); and 3) an agreement with Lockheed Martin's Kelly Aviation Centre to continue services the U.S. Air Force (worth more than $200 million annually).[147] In addition to its Winnipeg plant, Standard has facilities outside the province, notably in Texas, and work on these contracts will be allocated between these locations. The Winnipeg facility employs about 1350 employees.[148] These are primarily high skilled, high-paying jobs. As the recent Standard Aero contracts indicate, the defence industry and, more generally, government policy concerning defence expenditures and procurements, play an important role in influencing the demand for aerospace services. The industry is also affected by the standard economic forces shaping corporate restructuring. The interplay of strategic/military, political and corporate considerations comprise the larger backdrop upon which the fortunes of local plants and employees are played out. Standard Aero was bought by the private equity firm Carlyle Group on 2004, but Carlyle has recently announced that it is selling Standard to Dubai Aerospace Enterprise Ltd, a move which raises sensitive political issues in the United States.[149] The impact of this on the performance and prospects of the Winnipeg facility cannot be ascertained at present.

A similar situation has developed at another major aerospace firm. Air Canada Technical Services (ACTS) has a large maintenance facility in Winnipeg, employing approximately 675 workers. However, in January 2007, Air Canada's parent company announced that it was acquiring maintenance facilities in El Salvador, and also that it was preparing to sell the heavy-maintenance division.[150] This sale was realized in June 2007, with two US private equity firms obtaining 70% of the ACTS.[151] The El Salvador plant is reported to specialize in the same sort of maintenance as that performed by the Winnipeg operation, and the prospect of transferring service activities to a cheaper offshore location, as has occurred widely throughout the North American manufacturing sector, has now become very real. A spokesperson for the machinists local in the Winnipeg plant reports that his union members “earn between $1,700 and $5,500 a month” compared to the $350 to $1,200 received by the El Salvador workers.[152] With the existing collective agreements for the unionized workforce are set to expire in mid-2009, the immediate future looks cloudy for ACTS’s Winnipeg employees.

V. Conclusion

2007 will likely go down as a very good year for the Manitoba economy. Real economic growth is strong, employment levels remain high, and finally there is evidence of some upward movements in wage rates and earnings for workers across the province. These positive aspects, however, do not cancel out the very real economic challenges and hardships that face many Manitobans. Statistics Canada reports that, as of 2005, approximately 139,000 Manitobans, or 12.6% of the population, were in families with after-tax incomes below the poverty line.[153] These figures are down from the high levels that plagued the 1990s, but the proportion seems to have stabilized around the 12% mark since 2001. Perceptible increases in real family income over the last ten years have not reduced income inequality. The structure of the economy is such that the average market income received by the highest 20% of Manitoba families rose from $106,900 in 1997 to $122,900 in 2005 (measured in constant 2002 dollars). The average market income of the lowest quintile also increased, moving from $4600 to $5900 over the same period,[154] but, as the figures indicate, the real gap separating these groups has widened. Despite recent fiscal changes, the tax and transfer system that is in place in Manitoba still retains its progressive character, with the result that the inequality in household incomes that are generated by the market are tempered through the intervention of the state. Through the combination of taxes and transfers, the average 2005 after-tax incomes of the top quintile were reduced to $99,100. The bottom 20% of families had their income raised to an average level of $12,500, or 5.3% of the provincial total.[155] Nevertheless, when these outcomes are placed in a wider historical context, it is apparent that there has been no reduction of income inequality in Manitoba over the last quarter century. In fact, the highest quintile has seen its after-tax share increase from 40.9% in 1980 to 42.2% in 2005. This 2005 portion had inched up past its share from the previous year, and was only slightly less than the 42.4% received in 2002, which was the highest share recorded in the last 25 years. Using another indicator of income inequality, the GINI coefficients for after-tax income in 2004 and 2005 were 0.369 and 0.373, which again are the highest ratios generated by the data set, which began back in 1980.[156]

Strong economic growth at the provincial level has directly contributed towards the improvement of the fiscal position of government, especially at the federal and provincial levels. Improved fiscal performance has resulted in balanced budgets, and even budgetary surpluses and reduction of the public debt.[157] Public surpluses have, however, a counterpart in rising levels of consumer debt, fuelled in part by favourable lending rates and rising home equity values, but also by a relatively long period of stagnant real earnings for many workers, the subtle but persistent pressures exerted on low and middle income households by the sustained structure of income inequality, and the growing gaps between the segments within that structure.

Strong economic growth, high employment levels, low inflation and relatively low interest rates have contributed to the presence of favourable levels of consumer and business confidence in the province, and some industrial sectors, buoyed by high commodity prices, robust business investment and public infrastructure spending, are doing exceptionally well. However, given the structure of the Manitoba economy, many of the key factors that determine the province's economic performance are entirely exogenous, i.e., beyond the direct control of Manitobans. For example, the high commodity prices prevailing in mid-2007 are determined in international commodity markets. Low interest rates are the consequences of the bank rate set by the Bank of Canada in light of its assessment of national inflationary pressures. International export sales depend heavily on the health and expenditure levels of foreign economies, especially the United States. Exports and imports are also sensitive to exchange rate movements, which are the result not only of national monetary policy, but also of global economic developments, and the psychological outlook of major players in international financial markets. Political factors, including trade disputes or security concerns, can suddenly squeeze or even halt flows of goods and services across national boundaries. In the corporate world, the investment and production decisions made in head offices—head offices that are in the majority of cases situated outside the province—are often made with an eye to rationalizing operations in the national or international context, with local operations viewed as little more than pawns on a chessboard. Corporate acquisitions and attendant consolidations and/or divestitures are driven by a complex set of efficiency, financial and regulatory factors, are often played out on a national or, increasingly global scale, and can place short term financial considerations and managerial interests above longer run production values and community commitment. Finally, in addition to all of these very real political and economic forces, the Manitoba economy is also highly sensitive to the capricious effects of weather. Crop production is obviously very sensitive to vagaries of the weather, but the fortunes of hydro-electric power generation are similarly linked to precipitation levels across the drainage basin.

This is not a complete list, but it underlines the dependence, and consequently the vulnerability, of the Manitoba economy on external forces. It is the nature of most of the forces listed here that they can, and have, exhibited significant variation within a very short period of time, and that the timing, direction and magnitude of the variation is in practice very difficult to foresee. Institutions and communities involved require time and resources for adjustment, and there is scope for further policy development along these lines. At the macro level, while acknowledging the wide range of possible but potent external sources of disruption, it also needs to be recognized that these factors do not affect all industries in a similar fashion, and that it is highly unlikely that all or even most of these factors will align in an adverse way within any given time period. There is, for Manitoba, considerable strength in diversity.

The boom in Alberta is another exogenous development that affects Manitoba. As noted above, the pull of the Alberta economy, and its high demand for labour, has been felt in Manitoba, with the resulting out-migration of workers from the province and increased efforts by Manitoba employers to secure necessary labour supplies. Also significant are the indirect effects of the Alberta juggernaut. The boom economy has created shortages in Alberta of labour, materials and various other goods, such as housing. The result has been rising prices, which in turn feeds back into the aggregate price levels throughout the country. These national levels are keenly watched by the Bank of Canada, and have induced the Bank to raise its benchmark interest rate. Higher rates raise the cost of borrowing and servicing debt across the country, thereby adversely affecting Manitobans. Higher interest rates will also support the value of the Canadian dollar, thereby reducing the prospect of relief for Manitoban exporters through moderation or reversal of the upward trajectory of the exchange rate. The Alberta phenomenon also has political consequences. Massive surpluses accumulated by the Alberta government[158] have provided a fiscal basis for low tax rates while simultaneously expanding services and enhancing public infrastructure. This sows the ground for invidious comparison with other provinces, and puts pressure on other governments to emulate the practice in Alberta. This is especially evident in regard to tax rates, which lend themselves to inter-provincial comparison and which are a perennial topic of interest and declamation by the business community and right-leaning think tanks.[159]

The situation is not all one-sided, however, and the economic fortune currently visiting Alberta also confers some benefits and opportunities for Manitoba. For some Manitoba workers, the Alberta demand for labour has made the threat to leave by Manitobans more credible, which should enhance their own bargaining power when negotiating with local employers. Furthermore, labour shortages and the rising labour costs that are evident in the Alberta market provide an incentive for firms to maintain and even relocate their production facilities in lower cost areas, such as Manitoba, rather than operating in the Alberta market. A recent but significant instance of this phenomenon is the announcement by Palliser Furniture to mothball its manufacturing facility in Airdrie, outside Calgary, and reallocate most of the plant's work to the company's Winnipeg facility.[160]

The Alberta boom generates demand for a wide range of goods and services. Geographically, Manitoba is not far from Alberta, and this relative proximity can be utilized to produce for and export to the Alberta market. For many services, transport costs can be quite low, so geographic proximity may be less of a determinant than it is for goods, but personnel movement may be important, and easy and rapid transportation of personnel into and out of the Alberta market is feasible from a Winnipeg location. Note that the rapid growth and consequent excess demand for materials, goods and services in Alberta is relatively recent, suggesting that unexploited business opportunities may have only begun to emerge.

Finally, even the out-migration of labour from Manitoba to Alberta is not necessarily an unmitigated or irreversible loss to Manitoba. Specific data on many economic aspects of the recent Manitoba-to-Alberta labour flow is not available, but the larger, more general literature on labour migration indicates that many of these workers send remittances back to their home families, and also that, after an interval, some of these workers may return back to their place of origin. Workers may seek to profit from favourable labour market conditions existing in Alberta, but some will do so with the understanding that this is only a temporary relocation. Manitoba can reap future benefits from this in the forms of the accumulated wealth of those workers, and in the package of skills and experience that they will have acquired and developed through their out-of-province employment stints.

Thus Manitoba should be able to withstand the effects of the Alberta boom. Furthermore, the diversity of the Manitoba economy and the institutional mechanisms designed to foster stabilization and facilitate adjustment should help the economy absorb the impact of sharp, sudden changes in the constellation of external factors. However, lurking behind this resilience is the larger and potentially more intractable issue of the environment. Environmental concerns, and the changing economic and political context that they produce, have already had a noticeable impact on the hog industry, resulting in a moratorium on the establishment of new hog barns and the resistance to the proposed OlyWest meatpacking facility in Winnipeg. Water quality issues, ranging from the potential contamination of ground water due to agricultural activity, to the increasing concern for the quality of rivers and lakes affected by effluents from urban and recreational areas and runoff from agricultural land, have potentially significant impacts on fisheries, on recreational activities, on tourism, on the value of recreational and lakefront property, and on public health.

The economic consequences for agriculture, for other industries, and for the fiscal burden of cities and municipalities have only begun to be noticed, and it is significant that the provincial government has already established a separate department of Water Stewardship. Other environmental issues, notably the problem of greenhouse gas emissions, will also have substantial economic implications. Successful mobilization of the province's human and material resources in order to satisfactorily manage these issues will require broad-based participation and a strengthening of community and democratic institutions. Tackling the problems of poverty and income inequality, improving the health of communities and augmenting the scope and capabilities of our public services are all means to this end. This is the challenge for today and tomorrow.

VI. References

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10 This and the following data on business investment levels are taken from Statistics Canada, CANSIM series v15855789 to v15855792.

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88 Statistics Canada, CANSIM series v21418661 and v1596961. For April 2007, Statistics Canada gives the manufacturing employment figure for Manitoba as 60,544.

89 Statistics Canada, CANSIM series v14183521.

90 Statistics Canada, CAMSIM series v1596771. These Statistics Canada figures are derived from the survey of employment, payroll and hours. Statistics Canada's Labour Force Survey (LFS) estimates paint an even more dramatic picture of employment losses. The LFS records manufacturing employment in Canada at the end of 2002 as 2.32 million, and in April 2007 as 2.07 million, which gives an employment reduction of 250,000 workers. The LFS figures for June 2007 record further employment losses, with the number down to 2.02 million. The LFS figures are available in CAMSIM series v2057609. All figures are seasonally adjusted.

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113 Martin Cash, "Diabetes drug firm set to offer shares," *Winnipeg Free Press*, 7 March 2007.

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117 Statistics Canada, CANSIM series v1596964. Service sector employment in Manitoba was 430,603 in April 2007.

118 These figures are annual growth rates of real GDP. The growth rates are calculated from Statistics Canada, CANSIM series v21418635 and v21418707.

119 Lucy Chung, Mark Switzer and Paula Thomson, *Retail Trade: How the Provinces Fared in 2006*. Ottawa: Statistics Canada, cat. no. 11-621-MIE, 2007. Available at http://www.statcan.ca/english/research/11-621-MIE/11-621-MIE2007057.htm.

120 These and following employment figures are from Statistics Canada, CANSIM series v1596966 and v1596967.

121 Statistics Canada, CANSIM series v1742028.

122 The Consumer Price Index (CPI) for Manitoba increased 1.9% in 2006 (Statistics Canada, CANSIM series v738449). Thus the real purchasing power of the earnings for retail sector workers fell 0.8% in 2006.

123 Statistics Canada, CANSIM series v1742028 and v738449.

124 Errol Black and Jim Silver, *Submission to the Manitoba Minister of Labour on the Minimum Wage*, December 1, 2003, available at http://policyalternatives.ca/documents/Manitoba_Pubs/mb_minwage_submission.pdf.

125 Province of Manitoba, Department of Labour and Immigration, "Fact Sheet," Employment Standards webpage. Available at http://www.gov.mb.ca/labour/standards/doc,minimum-wage,factsheet.html.

126 In 2005, Black and Silver argued that a "realistic" and effective minimum wage should be set at the $10.00 per hour level. See Errol Black and Jim Silver, "Manitoba's Minimum Wage? Be Realistic," Canadian Centre for Policy Alternative-MB, *Fast Facts*, August 4, 2005.

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128 Statistics Canada, series v1803918, v1803921, v1803869 and v1803817.

129 Statistics Canada, CANSIM series v1596970.

130 Statistics Canada, CANSIM series v21418719.

131 Statistics Canada, CANSIM series v1596975 and v1596976.

132 Statistics Canada, CANSIM series v21418730, v21418731 and v21418733.

133 Statistics Canada, CANSIM series v1596968 and v1596980.

134 Statistics Canada, in its presentation of the data from the 2006 Census, reports that in Manitoba, as in every other province and territory in Canada, "the proportion of people aged 65 and over increased between 2001 and 2006, while the percentage of children aged 14 and under continued to decline." Statistics Canada, "2006 Census: Age and sex," *The Daily*, July 17, 2007. Available at http://www.statcan.ca/Daily/

English/070717/d070717a.htm.

135 GDP figures are from Statistics Canada, CANSIM series v21418708. Employment figures are from CANSIM series v1596973.

136 Fuel prices fluctuate a good deal, but the average yearly price of gasoline in Manitoba has increased almost 40% between 2003 and 2006. See Statistics Canada, CANSIM series v738524.

137 Martin Cash, "Border blues for trucking industry," *Winnipeg Free Press*, 10 November, 2006.

138 Statistics Canada, CANSIM series v1742088.

139 Murray McNeill, "Truckers hurt by loonie," *Winnipeg Free Press*, 21 June, 2007.

140 Statistics Canada, *Shipping in Canada 2004*, Catalogue no. 54-205-XIE. Ottawa, Minister of Industry, 2007. Pp. 48, 53 and 58.

141 Larry Kusch, "Churchill shipping season ends with flurry of activity," *Winnipeg Free Press*, 10 November 2006.

142 Churchill's 14 vessels with cargo bound for international destinations in 2004 is about 0.05% of Canada's total of some 30,000 ships. See Statistics Canada, *Shipping in Canada 2004*.

143 Larry Kusch, *Winnipeg Free Press*, 10 November 2006.

144 The Prairie Producer Coalition, "The Impact of Removing Single Desk Marketing on Your Farm," in Terry Pugh and Darrell McLauglin, eds, *Our Board, Our Business: Why Farmers Support the Canadian Wheat Board*. Halifax: Fernwood Publishing and the National Farmers Union, 2007, pp.117-118.

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147 Geoff Kirbyson, "Standard signs NATO deal," *Winnipeg Free Press* 28 June 2006, and Geoff Kirbeyson, "Standard Aero wins back contract servicing U.S. jets," *Winnipeg Free Press*, 14 July 2006.

148 Martin Cash, "Fears fly in aerospace," *Winnipeg Free Press*, 28 June 2007.

149 *Globe and Mail*, "Dubai firm to purchase Winnipeg's Standard," 3 April 2007.

150 Brent Jang, "ACE aims high with spinoff of repair unit," *The Globe and Mail* 31 January 2007.

151 Martin Cash, *Winnipeg Free Press*, 28 June 2007.

152 Brent Jang, *Globe and Mail*, 31 January 2007.

153 Statistics Canada, CANSIM series v1561957 and v1561958. The poverty line, as defined here, is the after-tax low income cutoff line.

154 Statistics Canada, CANSIM series v25744613 and v25744617.

155 Statistics Canada, CANSIM series v25944619 and v25744623.

156 Statistics Canada, CANSIM series v21152629. As a measure of income inequality, the GINI coefficient ranges from a value of 0 to 1. The lower the value of the coefficient, the more equal the distribution of income. A value of 0 means that all recipients (which in this particular case would be all Manitoba households) receive an equal share. By contrast, a value of 1 means that one single recipient receives the entire income, with the rest of the population getting nothing at all.

157 At the provincial level, Manitoba's *Budget 2007* indicates that the government anticipates adding $110 million to its debt retirement fund for the last fiscal year 2006-2007, and a further $110 million for 2007-2008. The Minister of Finance noted that the government has contributed more that $814 million to debt retirement and pension liability funds since entering office in 1999. See Province of Manitoba, *Budget 2007: The 2007 Budget Papers*, available at http://www.gov.mb.ca/finance/budget07/papers/finstats.pdf and The Honourable Gregory F. Selinger, *The 2007 Manitoba Budget Address*, April 4, 2007. Available at http://www.gov.mb.ca./finance/budget07/speech/speech.pdf.

158 University of Manitoba economist Ian Hudson has pointed out that a very significant portion of the revenues of the Alberta government are derived from their resource base. As noted by Professor Hudson, the provincial take from oil revenues in Alberta is larger than the entire Manitoba government budget. For the fiscal year 2006/07, Alberta government revenues from non-renewable resources amounted to $11.7 billion which is about one-third of the total revenue intake of the Alberta provincial government.

159 To offset this pressure, it is significant that the provincial government feels compelled to include in its provincial budgets a section explicitly titled "The Manitoba Advantage" The section is designed to demonstrate that, with regard to personal living expenses and/or costs of doing business, Manitoba compares very favourably to its counterparts elsewhere in Canada and parts of the US. The analysis there rests on a wider set of "costs" than simply taxes, but constructing wider measures for inter-provincial or inter-city comparisons is necessarily a more complex exercise than the crude but straightforward comparisons of taxes.

160 Geoff Kirbyson, "Palliser shifts work to Winnipeg," *Winnipeg Free Press*, 28 June 2007.