

GRADUATE SCHOOL OF



The State of Finances in Agriculture



By Murray Fulton, Professor, Johnson-Shoyama Graduate School of Public Policy

Although agriculture is no longer a major sector in the economy of western Canada¹, the health of

this sector has important policy implications. In terms of government expenditures alone, direct government payments to Canadian farmers in 2009 totaled almost \$3.3 billion down from the \$5.4 billion spent in 2003. This article will show that although recently rising farm incomes have benefitted both farmers and governments (higher incomes mean lower government payments), there is a real question as to whether this situation can continue. Thus, an examination of the financial health of agriculture is of particular interest to public policy practitioners.

As Figure 1 illustrates, farm cash receipts in the three prairie provinces have risen sharply over the last few years, and are up considerably over the last ten years. In contrast, farm cash receipts in B.C. have only increased modestly. The source of this increase in cash receipts on the prairies is the crop sector. Crop cash receipts in recent years have risen both because of higher production due to good crops and Figure 1: Farm Cash Receipts, Western Provinces, 1989-2009



The three measures of farm incomes used in this article are related by the following equations.

- Farm cash receipts = crop receipts + receipts from livestock and livestock products + government program payments
- Net cash income = farm cash receipts cash expenses (net of rebates)
- Realized net income = net cash income depreciation + income in kind

Unless otherwise indicated, all figures are in constant 2009 dollars.

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¹ Even Saskatchewan, which has the largest agricultural sector, has only 12% of its GDP in agriculture (see Vol 1, Issue 1 of the Western Policy Analyst)

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because of higher prices. The livestock sector has remained weak. Alberta, which is by far the largest livestock producer, has seen receipts from this sector drop by a third from just over \$6 billion in 2001 to just over \$4 billion in 2009.

Net cash income (see box for definition) is an important indicator because it reflects what farmers see happening to their bank account. The rise in farm cash receipts in the last few years has resulted in higher net cash income for all three prairie provinces, with the largest increases in Alberta and Saskatchewan (see Figure 2). Net cash income in B.C. has fallen.

Net cash income in the western provinces has followed no real trend over time, although there is, of course, significant volatility. Net cash income is more volatile than farm cash receipts because of the fixed nature of a significant portion of agricultural expenses (e.g., interest charges, rental payments, crop input costs); a small change in revenue can result in a

Figure 2: Net Cash Income, Western Provinces, 1989-2009

significant change in cash flow.

The volatility seen in net cash income is reflected – and amplified – in realized net income (see Figure 3). The major difference between net cash income and realized net income is the inclusion of depreciation expenses in the calculation of net farm income. While net cash income indicates the immediate financial impact on farmers, realized net farm income provides a view of the long-run sustainability of the farm. Simply put, the farm cannot be sustained if depreciation costs cannot be covered.

As illustrated in Figure 3, realized net income has been trending downward over the last twenty years for all four western provinces although that trend is clouded by a great deal of volatility. This downward tendency is particularly worrisome in B.C. where realized net farm income has been negative in each of



Figure 3: Realized Net Income, Western Provinces, 1989-2009



the past four years.

Program Payments

Although agricultural markets are very volatile and agricultural production is subject to the vagaries of the weather, total farm cash receipts have been stabilized because of government payments.

Figure 4 shows direct government payments as a percentage of farm cash receipts. In the late 1980s and early 1990s, government payments made up a significant portion of cash receipts – for example, in Saskatchewan the figure was over 25% for many years. The mid to late 1990s saw a significant drop in government payments as grain markets, in particular, strengthened. Weaker grain markets and significant troubles in the livestock sector (e.g., BSE) resulted in large government payments in the mid 2000s. Stronger grain prices in the last part of this past decade have once again resulted in a drop in government payments.

0%

1989

1991

1993

1995

1997

Off-Farm Income

As might be expected, the low level of realized net income on western farms has a number of ramifications. One of these ramifications is on off-farm employment. For the last thirty years or so, Canadian farmers have been increasingly relying on income derived from work that takes place "off" the farm. This work could include employment in the oil patch or in the mining sector, working in the city and commuting to the farm on weekends, and/or running businesses (e.g., machinery repair) from an office located on the farm.

Figure 5 provides a snapshot of income from off-farm employment as a percentage of total farm income over the last decade. In all the western provinces, off-farm employment has provided a greater share of farm income over time. The B.C. case is particularly interesting because after a drop in the importance of offfarm income in the late 1990s, off-farm income has again risen in importance.

This growth in the importance of off-farm income is likely linked to the downward trend in realized net income over the same period. To generate an income that is sufficient to keep *continued on page 4...* 30% 25% 20% 15% 10% 5%

A rise in farm cash receipts in the last few years has resulted in higher net cash income for all three prairie provinces with the largest increases in Alberta and Saskatchewan.

1999

2001

2003

2005

2007

2009

Figure 5: Off-Farm Income as a Percentage of Total Farm Income, Western Provinces, 1997-2007



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them on the farm and farming, farmers have increasingly turned to other sources of income. In many cases, technological developments in agriculture have allowed farmers to make this labour adjustment. For instance, the use of zero-tillage equipment, which requires much less on-farm labour (and in very concentrated periods of time), has allowed many farmers both to remain farming and to work off the farm.

While the financial state of agriculture circa 2009 is good, it is unlikely that it can persist. Farm income – both cash and net realized – will almost surely be down across the prairies in 2010 as a result of the poor weather conditions (and the resulting lower quantity and quality of the crop) during the past summer. The livestock sector also does not look like it will rebound in any significant way, in part because of trade problems with the United States (e.g., country of origin labeling).

Farm incomes may also be lower in the future because of larger debt loads. As Figure 6 illustrates, farm debt in Manitoba and B.C. has been steadily increasing relative to receipts over the last two decades while debt levels in Saskatchewan and Alberta have been relatively stable. To the extent that this debt is being used to finance an investment in new equipment and technology, it will assist in improving farm incomes. However, larger debt also has a cost – the resulting higher interest payments drag down farm income. This would be particularly the case if interest rates were to suddenly move upwards with a strengthening of the global economy over the next few years.

Summary and Outlook

What is in store for each of the western provinces? For B.C., the current trajectory – a decline in net farm income and an increase in farm debt – is clearly not sustainable. While more analysis is required, the evidence suggests a structural problem that will need to be addressed.

Figure 6: Farm Debt as a Percentage of Gross Recipts, Western provinces, 1989-2009

While the financial state of agriculture circa 2009 is good, it is unlikely that it can persist. Farm incomes may be lower in the future because of larger debt loads.

For the prairie provinces, the long-term outlook for agriculture depends on what happens to crop prices. This is particularly the case in Manitoba and Saskatchewan, where the crop sector makes up the largest portion of the agricultural economy – in 2009, crop receipts in Manitoba were almost twice those of livestock; in Saskatchewan, the ratio was 5:1. However, even in Alberta where the livestock sector is nearly as large as the crop sector, crop prices will still be critical since higher grain prices mean higher feed costs and hence lower profitability for the livestock sector.

There is no consensus on the long-term outlook for crop prices. One scenario is that productivity increases will more than offset the demand increases and grain prices will continue to fall as they have for over 100 years. The other scenario is that increased demand for ethanol, as well as a higher demand for feed grains resulting from an increased desire for meat as incomes rise in places such as China and India, will lead to permanently higher grain prices. These higher grain prices, however, will not fully translate into higher incomes because farm costs can be expected to rise as well. In 2008, for instance, the sharp increase in grain prices also lead to a sharp increase in fertilizer prices as fertilizer companies capitalized on the higher margins that farmers were experiencing.

Regardless of which scenario materializes, the volatility inherent in agriculture will continue. As a result, it is expected that sharply falling incomes sometime in the not too distant future will once again trigger substantial direct government payments.

Source: adapted from Statistics Canada CANSIM Tables 002-0001, 002-0007, 051-0008, 002-009, 002-0024 and 326-0021. Recent figures are subject to revision.

Urban Populations

By Doug Elliott, Editor

In the last issue of the *Western Policy Analyst*, we looked at population trends in the four western provinces, discovering that

British Columbia and Alberta dominate in terms of their overall population and that these two provinces are growing the fastest of the four. In all four western provinces, population growth has come from interprovincial and international migration rather than natural growth. This article looks in more detail at where people live within the provinces, that is, how many live in urban and rural areas including the number who live in the half dozen large metropolitan areas in the West.

The concept of "urban" is subjective and probably relative to your experience. Most people in Europe or Southeast Asia would probably classify Regina or Kelowna, for example, as no more than large towns even though we call them cities. Those living in remote rural areas, however, probably think a nearby community with a population of one thousand is "urban".

Statistics Canada has three general classifications of urban areas used for population figures.

- Census metropolitan areas (CMAs) are large (100,000 population or more) urban centres together with their surrounding "bedroom" communities.
- Census agglomerations (CAs) are smaller (10,000 to 100,000) urban centres together with their surrounding "bedroom" communities.
- All other areas are either smaller urban centers (population less than 10,000), or truly rural areas such as reserves or rural municipalities.

Population data for the smaller two categories are only available from the census whereas more recent estimates are available for the CMAs.

Figure 1 shows the proportion of the population in the western provinces that lived in CAs and CMAs in 2006. Overall, 79% of westerners lived

in a CA or a CMA with the highest proportions in B.C. (80%) and the lowest in Saskatchewan (58%). B.C. also has the largest proportion of people living in a CMA (67%) and is clearly the most urban of the western provinces although Alberta is a close second.

The population of Manitoba is the most concentrated in the sense that the Winnipeg CMA has 60% of the provincial population and there are only three CAs, the largest of which is Brandon, which account for only another 7% of the provincial population. With Lloydminster allocated to Alberta, Saskatchewan has two CMAs (Regina and Saskatoon) and six CAs. Alberta also has two CMAs (Calgary and Edmonton) but thirteen CAs. There are four CMAs in B.C. (Abbotsford is classified separately from Vancouver) and 22 CAs.

As in most parts of the world, the population in western Canada is becoming more urbanized. Over the five years from 2001 to 2006, the population in CMAs grew by an average of 7.7% per year and the population in CAs grew by an average of 6.6% per year (see Figure 2). Outside those centres, the population grew by

continued on page 6...

As in most parts of the world, the population in western Canada is becoming more urbanized.

100% 13% 90% 20% 32% 80% 42% 70% 60% 50% 40% 30% 20% 10% 0% BC AB SK 4 western provinces In CMAs In CAs Elsewhere

Figure 1: Distribution of Populations in 2006 continued from page 5...

only 0.8% per year. Manitoba was an exception to this rule. The population grew at an average annual rate of 0.5% uniformly throughout the province.

Growth in Alberta was even more pronounced in the larger centres outside Calgary and Edmonton than in the two main cities. Places like Red Deer and Grande Prairie were growing at an annual rate of more than 4% between 2001 and 2006.

Post-2006 Growth

Between census years, Statistics Canada uses administrative data to keep the population counts up to date but it does this only for provincial and CMA populations. The post-2006 figures show that the population in western Canada continues to become more urban although the rate has slowed.

From 2006 to 2009, CMA populations grew by an average of 2.2% per year whereas the population outside of them grew by only 1.3% per year (see Figure 3). The fastest growing of these CMAs are still in Alberta although Saskatoon is now in third place whereas it was second last from 2001 to 2006. The three CMAs with the slowest growth rates are those involving capital cities – a coincidence perhaps?

Components of Growth

How are the large urban centres growing? From a public policy perspective, it matters whether they are doing so by attracting people from other countries or provinces or just drawing people from elsewhere in the province. As shown in Table 1, the answer varies by city.

Winnipeg's growth is almost exclusively from international immigration and natural growth. Over the past ten years births have added 11.5% to the population and international immigration has added 8.7%. Interprovincial migration was negative and intraprovincial migration was near zero. Figure 2: Average Annual Population Growth, 2001 to 2006

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Fully 80% of the population in the West lives in or near a community with at least 10,000 people and two thirds live in or near one with at least 100,000 people.

Regina and Saskatoon's growth from international immigration is lower so the cities have relied on intraprovincial migration to offset the outflows to other provinces.

Calgary has very high levels of international and interprovincial migration into the city. This results in more natural growth (because of higher fertility rates among migrants) that helps offset the fact that hardly anybody from elsewhere in Alberta moves to the city. Edmonton and Victoria have a more balanced growth, relying on modest levels of interprovincial, intraprovincial, and interprovincial migration and, in Edmonton's case, natural growth. (Victoria's natural growth is the lowest of the western CMAs.) Kelowna is an example of a city that relies heavily on flows from elsewhere in the province although it also has a relatively large net inflow from other provinces. Abbotsford's growth arises from a combination of natural growth and flows from elsewhere in B.C.

Vancouver is a special case with a very large international inflow offset by a net outflow to other parts of B.C., and is the only CMA that exports people to other parts of its home province.

Summary

Fully 80% of the population in the West lives in or near a community with at least 10,000 people and two thirds live in or near one with at least 100,000 people. The West is clearly becoming as urban as other parts of Canada and the world but many of us tend to hold on to the notion that we live in a rural environment. Federal and provincial governments tend to pay a good deal of attention to rural areas and rural issues possibly because so much economic activity happens outside the cities. Or maybe it is because so many of us were either born in rural areas or have some ongoing connection to our home towns. Regardless of the reason, the reality is that cities like Vancouver or Calgary are larger than most provinces.

Almost every aspect of population affects or is affected by public policy. Future issues of the *Western Policy Analyst* will look at other demographic issues such as the aging of the population and measures of diversity.

Source: adapted from Statistics Canada CANSIM Tables 051-0001, 051-0046, 051-0047 or 051-0048 and from 2006 Census Statistics Canada 97-551-XCB2006012. Recent figures are subject to revision.

Table 1: Components of Population Growth, Western CMAs

	Populations in 1999	Ten year total (1999-2000 to 2008-09) as a percentage of the population in 1999			
		Births	Net Intraprovincial Flows	Net Interprovincial Flows	International Immigration
Winnipeg	688,187	11.5%	0.7%	-4.4%	8.7%
Regina	199,733	11.6%	3.0%	-5.1%	3.7%
Saskatoon	232,802	12.6%	4.1%	-4.7%	5.3%
Calgary	925,783	14.8%	0.9%	9.0%	10.6%
Edmonton	934,430	13.4%	1.7%	6.1%	5.5%
Kelowna	150,258	9.3%	10.3%	7.0%	2.5%
Abbotsford/Mission	149,830	13.0%	5.7%	-0.8%	6.0%
Vancouver	2,013,081	11.0%	-2.2%	0.1%	17.2%
Victoria	320,013	8.6%	1.6%	4.4%	3.1%

Income Inequality

By Adam T. Mills, PhD Student, Johnson-Shoyama Graduate School of Public Policy

Aside from the financing of public goods and services,

governments rely on fiscal policy to redistribute income, that is, as a mechanism to transfer funds from those with higher market incomes to those with lower market incomes. There is plenty of evidence which indicates that policies attempting to narrow the distribution of income are socially beneficial. For instance, greater income equality has been shown to be associated with greater political stability, better health and life expectancy, and greater happiness among the members of a society. Regular attention to the distribution of income and the impacts of government redistributive policies is therefore worthwhile. This article examines the distribution of income and the impacts of government redistributive policies on the distribution of income in the four western Canadian provinces.

There are several approaches that can be applied to analyse the effects of government redistributive policies. One way is to compare market and after-tax income distributions side by side. Figure 1 graphs these measures for the western provinces, showing the percentage of all economic families whose 2008 market and after-tax incomes fall within the dollar ranges specified on the vertical axis. The most apparent observation between market and after-tax income is found at both tails of the distribution. At the bottom end of the distribution, the data show a large decrease in the share between market and after-tax income among those economic families earning under \$10,000. In 2008, 14.3% of families had market incomes under \$10,000; government transfer payments and income taxes reduce this to 3.8% of families. Although less pronounced, a similar net change is illustrated among those earning at the top two ranges of the distribution. The percentage of families with market incomes above \$90,000 was 27.1% in 2008; this drops to 21.4% after government transfers and taxes. These observations should not come as a surprise given the progressive characteristics of both provincial and federal income tax schedules found in Canada.

Figures 2 and 3 provide an illustration of the changes in the shares of market and aftertax income in constant 2008 dollars since 2000. Comparing the two figures confirms that the distributive policies in the western provinces (complemented by federal income tax policies) reduce the number of economic families earning marginal incomes. Indeed, the percentage of western Canadian economic families earning under \$30,000 reduces by approximately five percent in each year after the application of redistributive policies. More interestingly, however, are the trends over time. Specifically, the percentage of economic families earning under \$30,000 is declining while the percentage earning \$60,000 and over is increasing. Since this trend is present in both market and after-tax income data, the economy has been responsible for some meaningful upward social movement. This is particularly welcoming for those economic families earning incomes under \$30,000. These trends support other data showing the general decline in the incidence of low income measured in relative or absolute terms over the same time period.

Figure 2: Trends in the Distribution of Families by Market Income (constant \$2008)

Figure 1: Distribution of Market and After-Tax Income, Western Provinces, 2008

Gini Coefficients

Although the figures above provide useful information regarding the distribution of market and after-tax incomes for economic families, they fail to provide any commentary on the level of variation of incomes, that is, income inequality. One metric, however, which does measure the degree of distributive equality of income is the Gini coefficient.

The Gini coefficient is a number between zero and one that measures the relative degree of inequality in the distribution of income. A coefficient measuring zero (perfect equality) signifies that each economic family within an economy receives the same income level. Alternatively, a coefficient of one (perfect inequality) results if one economic family receives all the income and the remaining economic families receive nothing. The rule in using the Gini coefficient to determine which province's income distribution is relatively more equal is simple: the higher the coefficient, the greater the inequality of the distribution, and vice versa.

Figure 4 compares the Gini coefficients of both market and after-tax income among all four western provinces and Canada. Looking first at market income, we observe that distribution is relatively more equal in each of the four provinces compared to Canada and that Alberta has the greatest relative equality among the four provinces. As anticipated, the Gini coefficients among all jurisdictions are reduced after government transfers and income tax. The after-tax Gini coefficients are nearly identical across each jurisdiction with Manitoba marginally claiming the most equal distribution and B.C. the least. Three of the four western provinces have lower levels of after-tax income inequality than Canada as a whole.

Figure 5 shows the changes in after-tax Gini coefficients for each of the four western provinces from 2000 to 2008. It appears that Alberta has enjoyed the most stable after-tax distributive equality while the opposite is true for Saskatchewan. Although not overly concerning, there is a general increasing trend in after-tax income inequality among all jurisdictions.

Summary

There is substantial evidence suggesting that fiscal policies which narrow the distribution of income provide benefits to societies. Tracking the changes between market and after-tax income over time is therefore worthwhile. Although the share of the population earning market and after-tax income levels between specified ranges can disclose useful information about the income distribution of an economy, it fails to comment on the redistributive equality. Other metrics such as the Gini coefficient are therefore required to determine and pass judgement on the degree of an economy's redistributive equality. When placed side by side, Gini coefficients for different jurisdictions allow for relative comparisons while time series data for the same metric can comment on the changes of income equality over time.

It is evident from the data on both income distribution and Gini coefficients presented above that the federal and provincial governments rely on fiscal policy to alleviate some of the redistributive inequalities which result from the market. This is especially true for those economic families earning incomes near the bottom ranges. The difference in the degree of distributive equality between the four western provinces is inconsequential. However, the gradual increasing trend of the Gini coefficients of after-tax income observed in the western provinces should continue to be monitored to ensure that current fiscal policies are appropriate.

Source: adapted from Statistics Canada Income in Canada, 75-202-X

Figure 4: Gini Coefficients by Province 2008

The income distribution is relatively more equal in each of the four provinces compared to Canada and Alberta has the greatest relative equality among the four provinces.

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The Western Economies

By Peter Phillips, Professor, Johnson-Shoyama Graduate School of Public Policy

Statistics Canada's recent release of the National Income and Expenditure

Accounts for Canada and the provinces for 2009 highlights the divergence between the economic prospects in western Canada and the rest of Canada. While there are significant differences between the four western provinces, as a group they have fared relatively well both in the recent recession and over the past few decades.

Over the past 30 years, the West has had mixed experiences, with a steep economic decline in the 1980s triggered by the collapse of global commodity prices and now a surge as the economies ride a global commodity price boom. In 2009, the West contributed more than 35% of national economic activity and about 95% of Canada's net surplus in trade of goods and services (see Figure 1). Clearly, Canada's performance will depend critically on how the West performs.

Policy makers and businesses need to know the scale, distribution and direction of aggregate economic activity in an economy. Governments need to know whether market activity is generating adequate employment and incomes and how those incomes might be spent, in order to determine the impact on taxation revenues or operational programs. Meanwhile, businesses use macroeconomic data to plan their business operations and investments.

Weathering the Global Recession in 2007-2009

The Canadian economy has fared relatively well in the recent recession compared with other major national economies, at least partly because of the vibrant economies in the western provinces. As one indication, the real value of activity in the Canadian economy dropped by 2.1% between 2007 and 2009 (see Figure 2). Over the same period, the western economies slipped only 0.2% while the rest of Canada slid by 3.1%. Saskatchewan led the West, with 3.7% real growth between 2007 and 2009, with Manitoba posting 2.7% growth, Alberta essentially holding steady with a marginal decline of 0.4% and B.C. with a dip of 1.7%. Figure 1: The Western Economies in Canada

Economists and statisticians offer estimates of economic activity through the national income and expenditure accounts. These accounts attempt to estimate and categorize the market economy by summing up activity in specific periods in three complementary ways:

• as incomes,

- expenditures, and
- value added.

The income side of the ledger measures all of the wages and salaries, profits by firms, farms and unincorporated businesses, rents and incomes on land and other assets, indirect taxes less subsidies and capital consumption allowances.

weaknesses in international trade and general

business investment. Modest rises in business

combined with tempered declines in export

trade, allowed Manitoba and Saskatchewan to

post modest sustained growth over the period.

investment and interprovincial exports,

Structural Differences

Strong personal expenditure, government
spending and government capital investment
in all western provinces did much to offsetseek to measure the amount of net value
generated in each of the sectors. The recent
release of these estimates was examined in
the last issue of the Western Policy Analyst.Strong personal expenditure, government
spending and government capital investment
in all western provinces did much to offsetIn the first instance, we can see that the West
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per-capita GDP in the West has averaged

In the first instance, we can see that the West is relatively well-off. In the past three decades, per-capita GDP in the West has averaged between 12% and 40% above the national average. Compared with the rest of Canada, per capita GDP in the West in 2009 was 25% higher. Alberta consistently has the highest per capita GDP. Since 2004, Saskatchewan has moved into second place in the West and Canada. Manitoba has been a perennial underperformer while B.C. has ebbed and flowed about the

expenditure on goods and services, investments in buildings, machinery o equipment, government outlays and exports, netting out expenditures on

imports. The income and expenditure

estimates are then summed and any

differences in the two calculations are

halved and added or subtracted from each

measure to get one single measure of the

The value added accounts, constructed by

examining economic activity by industry,

value of economic activity in a specified

period.

and

The four western provinces have a variety of ways the scale and structures of their economies differ. These differences can be illustrated in both the income and expenditure accounts.

In the income account, Alberta and Saskatchewan earn a larger share of GDP from business activity, with above average shares of corporate profits before taxes, interest and miscellaneous investment income and capital

national average.

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0.7%

o%

10%

20%

-10%

8.1%

23.3%

30%

consumption allowance. Manitoba and B.C. are relatively more dependent on wages, salaries and supplementary labour income, non-farm unincorporated business income (including rent) and indirect taxes.

The expenditure accounts further illuminate the variety of the western provinces. The West as a whole relies proportionately less than the rest of Canada on personal spending and government outlays on goods and services, instead relying relatively more on business capital formation and net international trade. Looking at each of the provinces separately, we can see some of the character and diversity of the provincial economies.

Manitoba is relatively more dependent than Canada and the other western provinces for personal consumption and government spending (together contributing 87% of GDP, compared with only 78% for Canada as a whole) and is relatively more dependent on interprovincial trade.

Saskatchewan is the most trade dependent of any of the western provinces, deriving almost 15% of its GDP from net international trade; meanwhile personal expenditures account for only about half of the provincial GDP and investment is just marginally above the national average. Alberta is massively dependent on business investment (almost 28% of GDP) and net international trade (almost 14%); combined, those two activities generate almost 20% more for Alberta than the Canadian average. Partly in response, government spending and personal spending are smaller drivers in Alberta (about 58% compared with 78% in Canada as a whole). B.C., in contrast, is least dependent on international trade, instead generating relatively more activity from personal spending and investments in residential housing.

Long Term Trends

The national accounts can offer some insight into economic volatility and productivity growth, both key factors in our collective ability to generate our quality of life.

One important measure economists look at is the volatility in real GDP. The economies in the West have traditionally had more and sharper ups and downs than the national economy, reflecting their dependence on highly cyclical

continued on page 12...

Figure 4: GDP Per Capita; Canada = 100

-2%

-3.1%

-4%

-6%

0.2%

o%

2%

Provinces

Rest of Canada

Interprovincial

6%

۵%

exports

-30%

-20%

Figure 6: Distribution of GDP Expenditures at Market Prices, 2000 to 2009 Average

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commodities. However, the overall volatility in both Canada and the West has dropped significantly over the past three decades (see Figure 7). Manitoba has consistently had the least volatile economy in the West; Saskatchewan experienced its most volatile period in the past 30 years in the 1990s; Alberta remains stubbornly cyclical; B.C. has dampened its oscillations over the period.

Arguably the most important variable to long-term prosperity is the rate of growth in productivity in an economy. Overall, Canada has posted average productivity growth (GDP per employed person) of about 1% per year. This suggests that Canada's overall output per employed person (a proxy for productivity and real income growth) would double in 69 years. In contrast, Saskatchewan's economic productivity would double in 39 years, Alberta

GDP in \$2002 per employed person

in about 50 years, Manitoba in about 58 years and B.C. would only add 30% to its productivity in the time it would take Canada to double. While aggregate growth in an economy can exceed the productivity rate if it can attract more people and capital, real per capita incomes tend to be tied to the rate of overall productivity growth. In essence, our future prosperity depends on our ability to remain productive and competitive.

AB

BC

Figure 8: Real GDP Per Employed Person

\$100,000

\$90.000

\$80.000

\$70,000

\$60,000

Canada

Figure 7: Economic Volatillity; Standard

