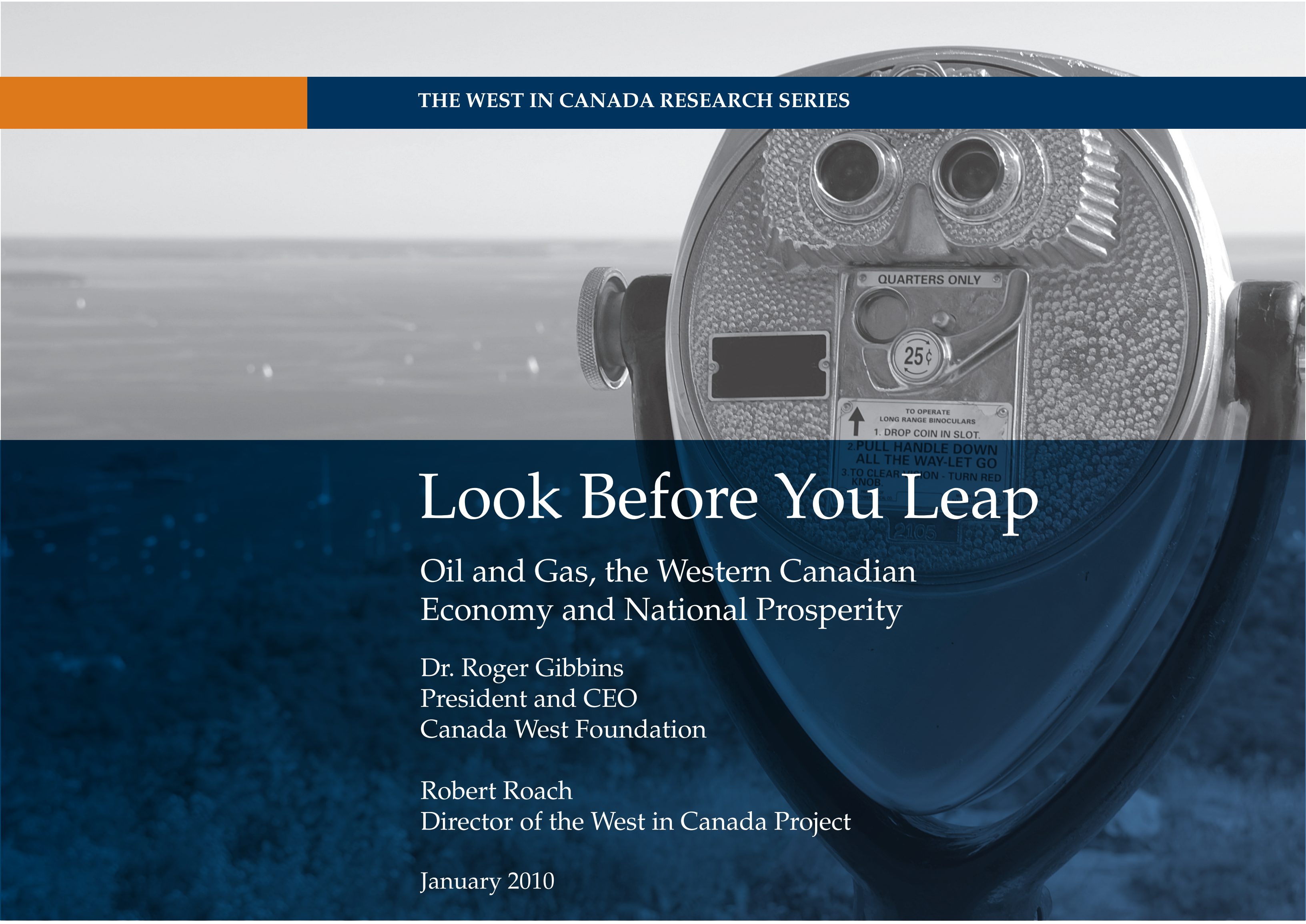
THE WEST IN CANADA RESEARCH SERIES



Look Before You Leap

Oil and Gas, the Western Canadian Economy and National Prosperity

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Contents

Canada West FOUNDATION

CANADA IS STRONGER WHEN THE WEST IS THRIVING!

THE WEST IN CANADA PROJECT

Canada is a wonderfully diverse country with its people spread across the second largest nation-state in the world. There are many things that tie us together as Canadians, but there is no doubt that each part of the country is unique and brings a different set of characteristics and perspectives to the national table. Understanding and integrating this diversity is a challenge as big as Canada itself.

Western Canada—British Columbia, Alberta, Saskatchewan, and Manitoba—forms one of many distinct regions within Canada. The West is no more homogenous than any other region or sub-region, but there is an abundance of features that tie the four western provinces together in special ways. Shedding light on this region, communicating its frustrations and aspirations to the national community, seeking ways to build on the common ground found in the West, weaving the region into the national whole, and highlighting public policy innovation in the West are the goals of the West in Canada Project. The project, like Canada West Foundation, is based on the idea that strong and prosperous regions make for a strong and prosperous Canada.

For more information about The West in Canada Project, please contact Robert Roach (roach@cwf.ca).

This report is part of Canada West Foundation's the West in Canada Project. The report was prepared by Canada West Foundation President and CEO Dr. Roger Gibbins and Director of the West in Canada Project Robert Roach. The author wishes to thank James Brown, Peter Howard, Jacques Marcil, David McColl, Mellisa Mei and Candice Powley for their contributions to this report. Any errors or omissions remain the responsibility of the author. The opinions expressed in this document are those of the authors only and are not necessarily those of Canada West Foundation's Board of Directors, advisors or funders.

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EXECUTIVE SUMMARY

Debate about how to reduce Canada's greenhouse gas (GHG) emissions has led some to argue that Canada's oil and gas industry needs to be reined in or even shut down. This position is often accompanied by one or more dubious claims: the economic consequences will be minimal, the economic pain will be contained within western Canada, and green investment and jobs will fill in the void left by a smaller oil and gas industry.

These arguments, however, miscalculate the economic contribution of the oil and gas industry to both the western Canadian economy and the rest of the national economy, fail to understand the linkages between the western economy and the national economy, and underestimate the magnitude of the hole that the still largely hypothetical green economy would have to fill. Simply put, a blow to the oil and gas industry equals a blow to the western Canadian economy which equals a blow to the national economy.

In order to inform the debate, *Look Before You Leap* documents the West's contribution to the national economy and to the fiscal underpinnings of the federation. It then makes the case that a primary driver of the western economy is the oil and gas industry. If oil and gas suffers, the western economy suffers and, by extension, so does the national economy. We should, therefore, look before leaping into implementing climate change policies that unduly hamstring the oil and gas sector.

This does not mean that economic considerations are the only factor in determining what climate change policies to pursue. Many have and will continue to argue that economic pain is necessary and worth it. Nonetheless, it is important to examine and understand the economic implications in order to make an *informed* decision and to sustain the search for policies that minimize the negative economic and social side-effects. We feel strongly that Canada can do better than simply sacrificing the oil and gas industry, and the thousands upon thousands of jobs that it supports across the country.

In addition, plans that involve insulating the national economy from the economic damage that will be borne by western Canada and the oil and gas industry will not work. Undermining western Canada's role as an economic engine will spread economic pain across the country. Canada is simply too interconnected for a containment policy to work. We are all in this together.

1. SETTING THE STAGE

Debates over regional differences in wealth were a key part of the Confederation settlement in 1867, a driver of the Maritime Rights Movement in the 1920s, staples of western Canadian discontent from the early years of agrarian settlement, and routine grist for the mill of Quebec sovereignists. Even the Ontario government has recently waded in with accusations that the province is carrying an undue fiscal load and reaping a disproportionately modest share of benefits.[1] In short, debates over winners and losers are a national pastime reflecting a patchwork quilt of regional economies rather than a seamless national economy.

What, then, is to be gained by raking over these old coals? Unique regional circumstances mean that a national climate change policy will have different effects in different parts of the country. Hence, matters of regional equity will inevitably arise. In this context, we may lose sight of the *interconnectedness* of Canada's regional economies, and may mistakenly assume that policy-induced pain in one region will leave other regions unscathed.

As this paper shows, the western Canadian economy[2] is *critically important to the rest of the national economy.* They are not two separate entities; what happens to one affects the other. Hence, if the oil and gas sector that underpins so much of the western Canadian economy is hamstrung by policies aimed at curbing greenhouse gas (GHG) emissions, the whole country will suffer. This does not mean that environmental goals should be abandoned, but it does mean that it is wrong to assume that the economic

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1 In a May 8, 2008 speech to the Ottawa Chamber of Commerce, Ontario Premier Dalton McGuinty made the following remarks: "Every year Ottawa collects more than $20 billion from Ontario for distribution to the rest of the country. Sending all that Ontario money to the federal government for redistribution in the rest of Canada made great sense a few decades ago when the playing field needed to be leveled, when other provinces needed the programs and services that help create prosperity and needed a little help in getting there. But it doesn't make sense today because equalization worked for those provinces. They're doing better. They're stronger."

2 Although this paper often refers to the West as a single region, we are acutely aware of very significant provincial differences. With that said, the four western provinces function in many ways as a region and it is useful to consider them as such.

pain caused by seeking those goals will be contained within one industry or one region. Effective public policy must take this into account.

In this sense, *Look Before You Leap* serves as a "yield" sign at a busy policy intersection. Before Canada embarks on energy and climate policies that could disproportionally impair the western Canadian economy,[3] we should understand the national importance of that economy, the benefits that flow from it to Canadians across the country, and the value of seeking out alternatives that will minimize the negative effects. The goal is to ensure that decisions are made based on a solid understanding of the economic consequences. This does not resolve the debate about what to do, but it does inform it in important ways.

Look Before You Leap is far from the final or definitive word in the perennial Canadian debate over regional equity.[4] Our ambition is more modest, a thought piece to round out and frame discussions about regional costs and benefits that might be associated with climate and energy policies. More than anything else, *it is a cautionary tale about the interconnectedness of the Canadian economy, and about the risk of assuming that adverse regional effects will not have adverse national effects.*

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3 See Roger Gibbins. 2009. *Sharing the Load: Addressing the Regional Economic Effects of Canadian Climate Policy*. Canada West Foundation. www.cwf.ca

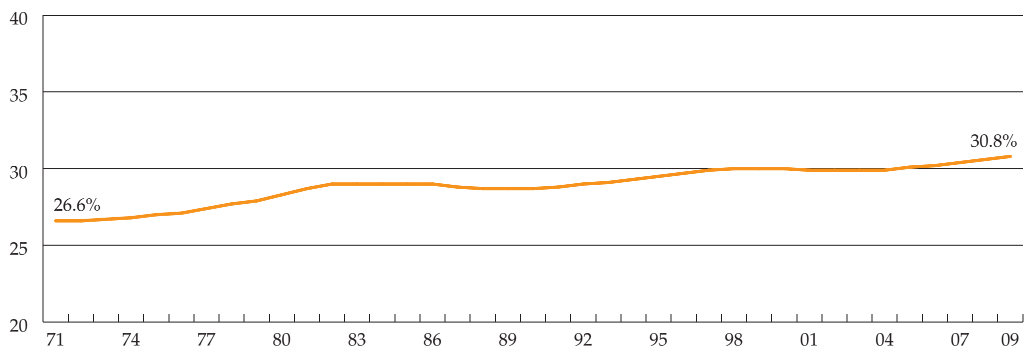
4 Some of the earliest and most noted work in this respect has been done by Robert Mansell and his colleagues at the University of Calgary. See R. Mansell and R. Schlenker. 1995. "The Provincial Distribution of Federal Fiscal Balances." Canadian Business Economics. Winter 1995 and R. Mansell, R. Schlenker and J. Anderson. 2005. "Energy, Fiscal Balances and National Sharing." ISEEE Research Report. University of Calgary. November 18, 2005.

2. WESTERN CANADA'S CONTRIBUTION TO THE NATIONAL ECONOMY

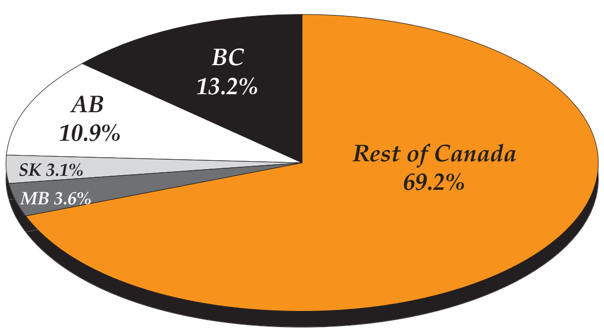
Many have noticed that Canada's economy has acquired a distinct western tilt in recent years. This is reflected in strong migration of job seekers from other parts of the country to the West and a disproportionate contribution to Canada's economic output.

As Figure 1 illustrates, western Canada's share of the national population has been increasing since the 1970s. A large chunk of this growth is the result of a substantial net inflow of Canadians to the West (see Figure 2). Along with this increase in demographic weight has come an increased share of national output as measured by gross domestic product (GDP) and strong export performance (see Figure 3). As a result, the country's economic centre of gravity has shifted westward.

Figure 1 The West's Share of Canada's Population



Provincial Share of Canada's Population, 2009



Source: Statistics Canada and CWF calculations.

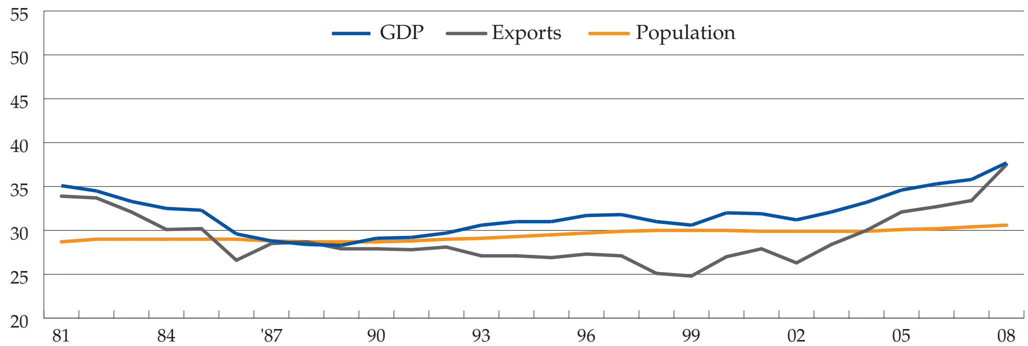
Figure 2 **Interprovincial Migration, 1972-2007**

	Total In	Total Out	Total Net
British Columbia	2,238,752	1,723,505	515,247
Alberta	2,538,472	2,037,816	500,656
Saskatchewan	667,421	870,040	-202,619
Manitoba	655,801	840,496	-184,695
Ontario	2,881,078	2,826,281	54,797
Quebec	925,521	1,438,426	-512,905
New Brunswick	497,106	515,815	-18,709
Nova Scotia	666,998	678,665	-11,667
Prince Edward Island	115,324	110,455	4,869
Newfoundland and Labrador	320,257	444,632	-124,375
North	204,620	225,219	-20,599
West	6,100,446	5,471,857	628,589
Rest of Canada	5,610,904	6,239,493	-628,589

Source: Derived from Statistics Canada data (CANSIM Tables 051-0001 and 051-0018).

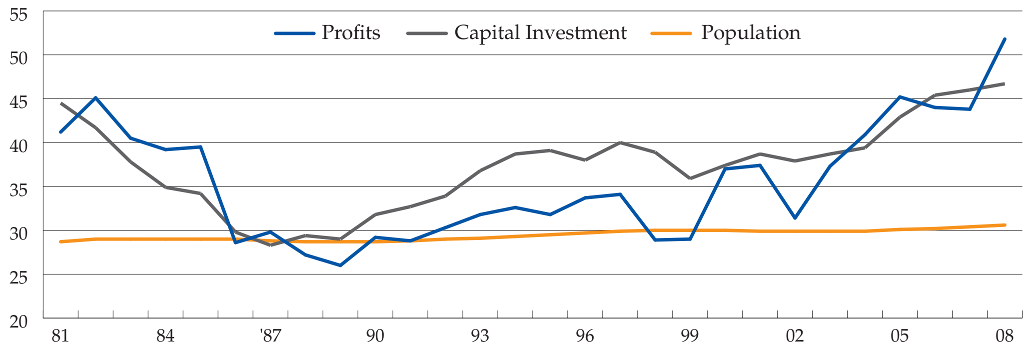
In only two of the 28 years covered in Figure 3 (1988 and 1989) was the West's share of Canada's GDP smaller than the region's share of the Canadian population, and in recent years the gap has been increasing. In 2008, the most recent year for which data are available, the 30.6% of the Canadian population living in the four western provinces accounted for 37.5% of the country's GDP. This is what is meant by the westward shift of the Canadian economy. Figure 3 also plots the West's share of Canadian exports, and here the story is more mixed, reflecting relatively

Figure 3 **The West's Share of Canadian GDP and Exports (%)**



Source: Statistics Canada and CWF calculations.

Figure 4 **The West's Share of Canadian Profits and Capital Investment (%)**



Source: Statistics Canada and CWF calculations.

low global resource prices from the late 1980s to early in the 2000s, but strong performance in recent years. This strong performance has been essential to Canada's economic growth since the turn of the millennium, growth that would not have been achieved without the contributions of western Canada's oil and gas industry.

All of this is good news except for one thing: the West accounts for 53.8% of GHG emissions compared to 30.4% of Canada's population in 2007.[5] Rooted in this statistic is the fundamental challenge: how do we curb GHG emissions without compromising the *national economic benefits* generated by the western Canadian economy?

Figure 4 plots the West's share of profits and capital investment, and here the westward shift of the economy that has been driven in part by the oil and gas industry is even more pronounced. In the 28-year period between 1981 and 2008, the region's share of private sector capital investment surpassed its share of the national population in every year but one (1987). Among other things, capital investment creates jobs, increases productivity and provides business opportunities to suppliers across Canada.

With respect to profits, the West surpassed its share of the national population in 23 of the 28 years, and in recent years the gap has been dramatic. These profits drive reinvestment in the region and are welcome news to anyone a financial stake in the oil and gas industry, including

5 Environment Canada. 2009. *National Inventory Report 1990-2007: Greenhouse Gas Sources and Sinks in Canada.* Out of a national total of 747 megatonnes, BC accounted for 63.1, Alberta for 246.0, Saskatchewan for 72.0 and Manitoba for 21.3.

Canadians with retirement savings tied to the industry through mutual funds and other investment vehicles.

The bold strokes of this economic story are clear: western Canada has become an increasingly important component of the Canadian economy, and this importance both outstrips and drives the region's share of the Canadian population. It is in the West that we find the current engine of the Canadian economy. Not surprisingly, this westward shift is also reflected in the region's contribution to fiscal federalism that is discussed in the next section.

3. WESTERN CANADA’S CONTRIBUTION TO THE FINANCIAL UNDERPINNINGS OF CONFEDERATION

The Canadian federation is characterized by a complex set of financial transfers from the federal government to provincial governments and individual Canadians. Some of the money supports provincial programs (e.g., health care) and some is used to “equalize” the fiscal capacity of provincial and territorial governments so that Canadians, no matter where they live, can expect to receive roughly the same level of public services for roughly the same level of taxation. There are also programs delivered directly to Canadians by federal agencies (e.g., Old Age Security, Employment Insurance) that also have regional redistribution effects.

Given all these transfers, it is something of a pastime in Canada to figure out which provinces are net contributors to the federation and which are net beneficiaries. Knowing this matters for several reasons, including holding the federal government to account for how it spends tax dollars. For the purposes of this paper, however, the most important reason is that certain parts of the country have been relied upon to help out other parts

Figure 5 **Equalization Transfers, 2009/10**

	millions of dollars	$ per capita
British Columbia	0	0
Alberta	0	0
Saskatchewan	0	0
Manitoba	2,063	1,688
Ontario	347	27
Quebec	8,355	1,067
New Brunswick	1,689	2,254
Nova Scotia*	1,391	1,483
Prince Edward Island	340	2,412
Newfoundland and Labrador	**	**

Note: *Nova Scotia received an additional $180 million as part of an offshore accord.
** Newfoundland and Labrador did not receive equalization in 2009/10 but it did receive $465 million as part of an offshore accord. The territories receive funding through the Territorial Financing Formula.

Source: Department of Finance Canada.

Figure 6

Federal Government Net Lending
(federal taxes out minus federal spending in), 2000 to 2007 aggregate

$ Billions	2000	2001	2002	2003	2004	2005	2006	2007	2000-2007
BC	3.3	2.5	1.5	1.8	2.4	2.3	4.2	5.8	23.9
AB	8.1	8.3	8.5	8	9.7	12.8	16.1	19.6	91.1
SK	-1.9	-2	-1.6	-2.1	-2.7	-2.4	-2.1	-1.4	-16.2
MB	-2.6	-3	-3	-3.6	-3.3	-4.4	-4.2	-4.1	-28.1
ON	28.7	25.5	22.1	19.4	21.9	20.5	21.8	21.4	181.3
PQ	-1.2	-3.4	-2.6	-2.9	-0.9	-4.1	-5.1	-4.9	-25
NB	-2.6	-2.9	-2.8	-3.1	-3	-3.7	-3.6	-3.7	-25.4
NS	-3.8	-4.2	-4.2	-4.2	-4.1	-6.1	-5.2	-5.5	-37.3
PEI	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.8	-0.8	-6
NFL	-2.6	-2.7	-2.7	-2.4	-2.1	-4.9	-2.6	-3.4	-23.5
CANADA	20	12	9.4	4.1	10.8	1	11.2	15.2	83.7

$ Per Capita	2000	2001	2002	2003	2004	2005	2006	2007	2000-2007
BC	828	614	377	435	578	539	996	1,355	5,721
AB	2,699	2,707	2,719	2,525	2,992	3,854	4,710	5,573	27,780
SK	- 1,856	- 1,980	- 1,581	- 2,078	- 2,748	- 2,447	- 2,155	- 1,427	- 16,271
MB	- 2,308	- 2,570	- 2,626	- 3,055	- 2,805	- 3,714	- 3,507	- 3,449	- 24,033
ON	2,455	2,140	1,829	1,585	1,770	1,634	1,724	1,672	14,809
PQ	- 161	- 458	- 351	- 381	- 116	- 547	- 663	- 635	- 3,311
NB	- 3,400	- 3,921	- 3,777	- 4,089	- 3,947	- 5,012	- 4,864	- 4,995	- 34,005
NS	- 4,035	- 4,500	- 4,510	- 4,521	- 4,338	- 6,514	- 5,543	- 5,901	- 39,862
PEI	- 4,866	- 5,707	- 5,070	- 5,189	- 4,990	- 6,027	- 5,822	- 6,125	- 43,796
NFL	- 4,940	- 5,210	- 5,135	- 4,688	- 4,120	- 9,563	- 5,071	- 6,766	- 45,494
CANADA	653	387	300	130	339	32	342	460	2,643

Note: A negative number indicates that the province is a net recipient of federal funds and vice versa for a positive number. A positive number for Canada indicates a surplus and vice versa for a negative number.

Source: Statistics Canada, CANSIM Table 3840004

and we must, to paraphrase Ontario Premier Dalton McGuinty, make sure that we do not shoot the geese that lay the federation's golden eggs. Being a net contributor to the federation does not confer moral superiority on a province or special standing among other provinces, but it does mean that we must do what we can to avoid undermining the ability of said province to share its good fortune with the rest of the country.

The federal equalization program is an example of how a portion of regionally concentrated wealth is redistributed to areas with less wealth. In 2009/10, Ottawa paid out $14.2 billion in equalization payments to six provinces (see Figure 5). (Newfoundland and Labrador did not receive equalization in 2009/10 but it did receive $465 million as part of an offshore accord with the federal government.)

Although equalization is paid for by federal taxpayers in *all* of the provinces, only *some* provincial governments receive payments to help them deliver a comparable level of services at a comparable level of taxation. As such, taxpayers in both the "have" and "have not" provinces help pay for equalization, but only taxpayers in the "have not" provinces benefit from the federal equalization payments in the sense that their provincial government receives extra federal cash. This is what makes the system work: the provinces that are better off economically (and, therefore, have a stronger tax base) do not get equalization and this leaves more money to send to the "have not" provinces. This illustrates how a blow to the economies that are doing well would reverberate right across the country as the cash flow needed to fund equalization shrinks.[6]

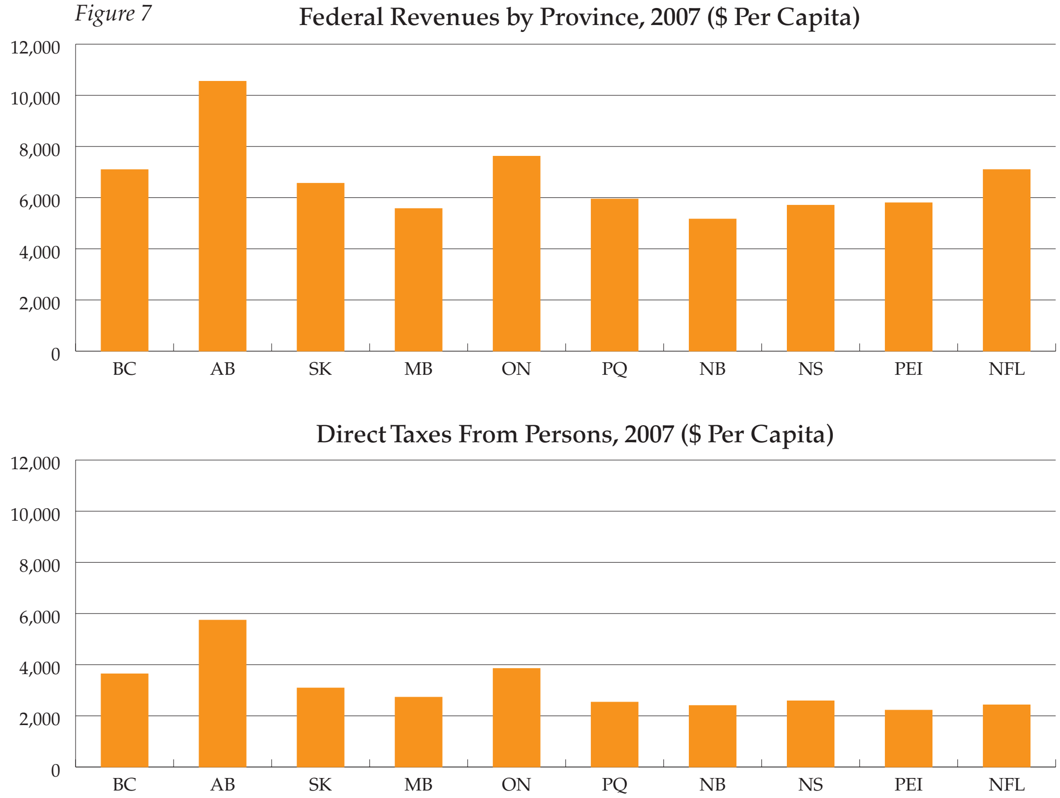
Equalization, however, is only a part of the fiscal transfers that take place between the federal government, on the one hand, and provincial governments and their residents, on the other. What does the picture look like when we consider the totality of "federal taxes out" of a province and "federal spending in" a province? Figure 6 shows that Ontario, Alberta and BC were the net lenders to the rest of the country between 2000 and 2007. On a per capita basis, Albertans have contributed $27,780 more to the federal coffers than they got back in federal spending in the province.

Figure 7 provides a 2007 snapshot of federal government *revenues* from each of the 10 provinces. If we rank the provinces from lowest to highest with respect to total per capita federal government revenues, the largest draw was from Alberta and the lowest from New Brunswick; the four western provinces ranked first, fourth, fifth and ninth. If we look only at the per capita revenues from direct taxes on persons (e.g., income tax and the GST), the four western provinces rank first, third, fourth and sixth.

The general pattern apparent in Figures 5-7 is that the West makes a significantly disproportionate contribution to the revenues of the federal government. However, before we sound the bugles of regional inequity,

6 Equalization is perhaps the most misunderstood program in Canada. For example, many believe that Ottawa takes resource revenue from Alberta and gives it to Quebec. This does not happen. Nonetheless, it is true that taxpayers in a province like Quebec indirectly get some of their federal tax money back in the form of equalization payments to the Quebec government while taxpayers in Alberta do not.

Figure 7



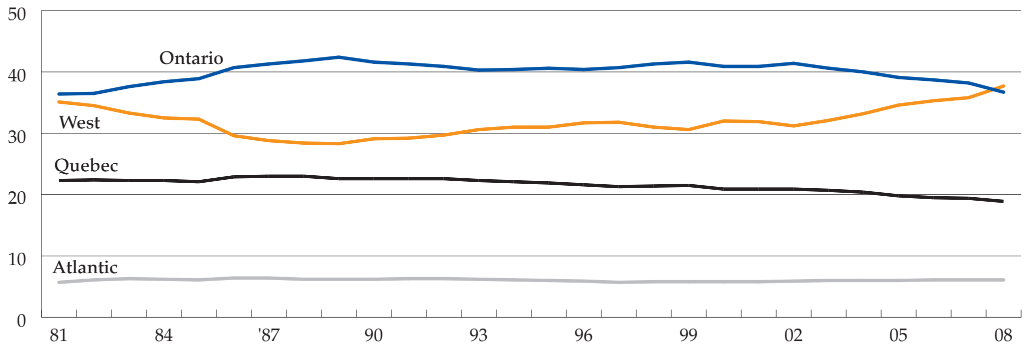
Source: Statistics Canada, CANSIM Table 3840004 and CWF calculations.

it is important to stress what generates the difference between the relative "haves" and "have-nots." The West's contribution would be reduced if the regional population was older (thus drawing more on the CPP and Old Age Security), if unemployment rates were higher (thus drawing more on EI), and incomes were lower (thus generating less federal tax). In other words, carrying a heavier load is a measure of economic prosperity, a prosperity that few western Canadians would be willing to sacrifice in order to bring the fiscal contribution of the West more into line with the rest of the country. In short, there is no claim to moral virtue in being a net contributor to Confederation; it reflects good fortune.

However, the point we want to stress is that the strength of the western Canadian economy plays a significant role in supporting federal programming that benefits Canadians living elsewhere in the country. And, if the manufacturing base in Ontario continues to feel the pinch from a high Canadian dollar and growing global competition in the years ahead, then the contribution of western Canada will become even more important as Ontario's historical role as the fiscal linchpin in Confederation becomes difficult to sustain. Even now, as Figure 8 shows, the West's share of Canada's GDP has surpassed that of Ontario.

The western Canadian economy, therefore, generates important national benefits; it is currently the regional goose laying national golden eggs. Thus the strength of the western Canadian economy is a truly *national* asset.

Figure 8 **Regional Shares of Canada's GDP (%)**



Note: North and "outside Canada" not included, therefore sum is not 100.
Source: Statistics Canada, CANSIM Table 3840004 and CWF calculations.

4. ECONOMIC CONTRIBUTION OF THE OIL AND GAS INDUSTRY TO WESTERN CANADA'S ECONOMY

When it comes to climate policy, the oil and gas industry, and the oil sands in particular, has a big target on its back. However, because the industry is a key driver of the western Canadian economy which, in turn, is a key driver of the national economy, we should be wary of undermining its ability to play this role. The importance of oil and gas to the West's economy is outlined below followed by a discussion of how it benefits the rest of the national economy.

Oil and gas exploration, extraction, and refining in western Canada directly generated 10.3% ($42.1 billion) of the region's GDP, accounted for half of its international exports (52.1% or $96.7 billion) and directly employed almost 130,000 people in 2008.[7] This does not include the economic activity that oil and gas exploration, extraction and refining indirectly supports in the West and across the country. Estimates of the number of jobs dependent in one way or another on oil and gas vary, but it is safe to assume that the number is much greater than the 130,000 jobs in exploration, extraction and refining. For example, there are accountants who do most of their work for small oil patch clients, there are steel mill workers in Ontario who supply steel to oil sands projects, and there are teachers and nurses in northern Alberta who likely would not be employed there if not for the oil and gas activity in the area.

In 2007, oil and gas exploration, extraction and refining accounted for a third of capital investment in the region (31.3% or $53.4 billion). The capacity that this investment has brought and will bring on line in the region will continue to pay economic dividends for decades to come (barring policies that restrict oil and gas production). This is a key point: the oil and gas sector is poised to provide *long-term* economic benefits. Hence, policies that unduly restrict oil and gas activity cut into not only the immediate economic benefits of the industry but its future potential as well. Canada's oil sands deposits are a prime example: Alberta is home

7 "Exploration, extraction and refining" matches with Statistics Canada industry categories (NAICS 211, 213, 324) but does not necessarily match with other definitions of the oil and gas industry nor does it capture spin-off effects in other economic sectors.

Figure 9 **Economic Impact of the Western Canadian Oil and Gas Industry Over the Next 25 Years (GDP $ million)**

	Total Oil and Gas	Total Oil	Total Gas
British Columbia	461,750.07	65,141.16	396,608.91
Alberta	2,552,754.51	1,693,212.96	859,541.56
Saskatchewan	244,979.04	171,351.89	73,627.15
Manitoba	36,070.60	28,348.86	7,721.73
Ontario	143,838.77	75,022.97	68,815.80
Quebec	45,305.92	27,512.37	17,793.55
New Brunswick	4,558.69	2,740.64	1,818.06
Nova Scotia	7,085.73	3,822.13	3,263.60
Prince Edward Island	907.86	543.82	364.04
Newfoundland and Labrador	4,011.65	2,537.00	1,474.65
Yukon Territory	892.33	481.85	410.49
Northwest Territories	3,058.95	1,497.74	1,561.20
Nunavut	654.59	416.85	237.74
Canada	3,505,868.72	2,072,630.24	1,433,238.48

Note: Total oil and gas includes: Alberta Conventional Oil; Alberta Conventional Natural Gas; Alberta Oil Sands Developments; Alberta Coal Bed Methane Production (UncNG); British Columbia Conventional Oil; British Columbia Natural Gas; British Columbia Tight/Shale Gas Production (UncNG); Saskatchewan Conventional Oil (includes Balken; Saskatchewan Natural Gas; Manitoba Conventional Oil.

Total oil includes conventional oil from BC, AB, SK and MB and oil sands from AB.

Total gas includes conventional natural gas from BC, AB and SK and unconventional natural gas from AB and BC

Source: Canadian Energy Research Institute.

to approximately 1.7 trillion barrels of crude bitumen of which 173 billion barrels is recoverable using current technologies. This represents a massive amount of future economic activity on top of current production.

As for government revenue generated by the sector, natural resource revenue accounted for 32.3% of the Alberta government's revenue in 2006/07, 19.3% of Saskatchewan's revenue and 11.3% of British Columbia's—all significant amounts. [8]

In addition to the oil and gas industry's contributions to the western Canadian economy, it also directly and indirectly benefits the economy

8 "Natural resource revenue includes revenue from sources such as forestry and coal but oil and gas revenues are by far the main component. See Gartner, Brett. 2008. *State of the West 2008: Western Canadian Economic and Demographic Trends.* Canada West Foundation. Page 102.

Figure 10 **Employment Impact of the Western Canadian Oil and Gas Industry Over the Next 25 Years (thousand person years)**

	Total Oil and Gas	Total Oil	Total Gas
British Columbia	3,880.07	904.93	2,975.14
Alberta	13,963.43	9,462.70	4,500.73
Saskatchewan	2,037.12	1,408.17	628.95
Manitoba	558.23	413.70	144.53
Ontario	2,100.89	1,103.48	997.41
Quebec	744.50	448.66	295.84
New Brunswick	89.08	53.39	35.69
Nova Scotia	128.70	74.13	54.57
Prince Edward Island	18.81	11.23	7.58
Newfoundland & Labrador	80.39	50.04	30.35
Yukon Territory	12.49	6.73	5.76
Northwest Territories	29.46	16.65	12.80
Nunavut	11.68	7.45	4.23
Canada	23,654.85	13,961.27	9,694.00

Note: "thousand person years" = total number of jobs (times 1000) that last for 1 year. Note: See notes to Figure 9 for definitions.

Source: Canadian Energy Research Institute.

in the rest of the country. For example, a portion of every dollar that is invested in the oil and gas industry is used to purchase equipment and services from other parts of Canada (e.g., from a steel mill in Ontario). This, in turn, creates jobs, increases economic output and generates tax revenue outside the West.

According to a study conducted by the Canadian Energy Research Institute that examines the economic impacts of the oil and gas industry on Canada over the next 25 years, the industry will have a total impact on national GDP of $3.5 trillion.[9] As Figure 9 shows, much of this is concentrated in Alberta, but the impact on the GDP of the other provinces is still significant. In Ontario, for example, the total impact on GDP will be $144 billion over the next 25 years. This is equivalent to 31 times PEI's current GDP.

9 Howard, Peter, David McColl, Mellisa Mei et al. 2009. *Economic Impacts of the Petroleum Industry in Canada.* Canadian Energy Research Institute and personal communication with Peter McColl, Vice President, Research, Canadian Energy Research Institute.

Figure 11 **Federal and Provincial Tax Revenue Impact of the Western Canadian Oil and Gas Industry Over the Next 25 Years ($ million)**

	Total Oil and Gas		Total Oil		Total Gas	
	Federal	Provincial	Federal	Provincial	Federal	Provincial
BC	64,980	61,297	9,167	8,647	55,813	52,650
AB	269,217	153,587	178,569	101,872	90,648	51,714
SK	31,959	33,066	22,354	23,128	9,605	9,938
MB	5,493	6,015	4,317	4,727	1,176	1,288
ON	18,286	18,966	9,538	9,892	8,749	9,074
PQ	6,057	7,984	3,678	4,848	2,379	3,136
NB	784	794	471	478	312	317
NS	1,173	1,331	633	718	540	613
PEI	177	191	106	115	71	77
NFL	533	708	337	447	196	260
YT	276	125	149	68	127	58
NWT	518	256	254	125	265	131
NU	254	77	162	49	92	28
CAN	399,707	284,398	229,733	155,115	169,973	129,282

Note: See notes to Figure 9 for definitions.
Source: Canadian Energy Research Institute.

At the same time, the western Canadian oil and gas industry will support a huge number of jobs over the next 25 years. Figure 10 shows the total employment impacts of the industry in thousand person years.[10] Again we see that significant employment impacts are felt across the country with a total of 24,000 thousand person years of incremental employment supported by the oil and gas industry over the next 25 years.

In terms of tax revenue, the stakes are extremely high. Figure 11 shows that the federal government will glean $400 billion in tax revenue from the economic activity generated by the western Canadian oil and gas industry over the next 25 years. The provinces will take in an additional $284 billion, including $19 billion in Ontario and $8 billion in Quebec.

The above overview provides a sense of the magnitude of current and future economic activity that could be lost if poorly designed climate

10 Total employment reflects the incremental employment, as a result of the investments in upstream and other capital projects analyzed by the Canadian Energy Research Institute model. It includes direct employment due to construction and operation of the assets, indirect employment and induced employment in the support and manufacturing industries.

policies place heavy restrictions on western Canada's oil and gas industry. It also shows how much economic activity would have to be replaced by "green" economic activity. While there is great potential in the green economy, attracting the same level of investment, producing the same level of output, employing the same number of direct employees, indirectly supporting the same number jobs, maintaining the same level of export value and generating the same amount of tax revenue is a huge challenge and one that will not be met as quickly as the damage that could be done to the oil and gas industry by poorly designed climate change policy.[11]

The evidence shows that the oil and gas industry is a significant factor in western Canada's current and future economic prosperity, and given the importance of the western economy to the national economy, to Canada's current and future economic prosperity.

Some argue that curtailing the oil and gas industry is necessary, but we should not kid ourselves that it will not hurt or believe that green jobs and investment will quickly and automatically fill the giant economic void left behind. ***This points to the heart of the debate: are there alternatives that allow Canada to meet aggressive GHG emission targets that do not chop the oil and gas industry off at the knees and, if not, are we willing to accept the national economic consequences and deal with them?***

11 See, for example, Kramer Gert Jan and Martin Haigh. 2009. "No quick switch to low-carbon energy." *Nature.* Vol 462/3 and Morriss, Andrew et al. 2009. "7 Myths About Green Jobs." http://ssrn.com/abstract=1357440

5. CONCLUSION

The story goes something like this: the oil and gas industry is fundamentally important to the western Canadian economy which, in turn, is fundamentally important to the national economy. Hence, if the oil and gas sector takes a beating under certain forms of climate policy, the western Canadian economy will suffer and this will hurt the national economy as well.

Like it or not, we are all in this together.

There are many other important industries in the West and in the country, but oil and gas stands out for three reasons: 1) the large size of its direct economic contribution; 2) its many indirect economic effects that spin off from its direct economic contribution; and 3) the fact that certain forms of climate policy may undermine its role as a regional and national economic driver. The error we are exposing is the notion that pain in one part of the country or one sector—in this case the oil and gas industry that is concentrated in western Canada—does not affect the rest. The reality is that you cannot contain the damage.

Think about your RRSP portfolio (if you are lucky enough to have one): even if you have never seen an oil field in your life, chances are your mutual funds include investments in the oil and gas sector. Think about all the people who migrated to the West and found jobs: they had to move away from home, but they found work. Think about equalization and how a province like Alberta helps carry the load for provinces that do not have the same economic capacity.

None of this is meant to say that addressing environmental challenges is less important than economic prosperity. What it does show is that the economic stakes are high and that more effort is needed to design policy that takes these stakes into account. The worst approach is to leap before looking and pretend that everything will be fine. Canadians deserve better than that.

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