When Politics and Economics Collide:
Policy Implications for Reforming Oil and Gas Royalties

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Introduction

Rising oil and gas prices have encouraged governments to increase their take from oil and gas development. In the last decade, both Alaska and Alberta updated their fiscal regimes to ensure they received their ‘fair share’ from petroleum projects. The fiscal changes implemented in both jurisdictions have proven to be extremely controversial and provoked a strong debate over the best royalty design. In North America, the debate over fiscal regimes is often too politically charged to take account of the economics behind achieving the most efficient regime. This paper will argue that the political debate over oil and gas fiscal regimes does not reflect the economics of efficient oil and gas taxation. To make this case, this paper will examine the economics of oil and gas royalties and the politics surrounding the fiscal changes in Alaska and Alberta. The political experience in both jurisdictions is illuminating as they share many similarities and offer excellent case studies for how royalty changes occur. This paper will conclude by providing some insight into how politics and economics have collided to produce less than efficient results.

The Economics of Oil and Gas Royalties

One of the main criteria for designing tax policy is efficiency. Efficiency means that a tax is neutral to the decisions of actors, as it does not distort the pre-tax decisions economic actors would make.[1] When taxes distort decisions they are said to cause a ‘deadweight loss’ as they reduce the amount of resources available in an economy. All else being equal, policy makers should strive to design taxes that are the least distortionary as possible.

[1] Kerr, McKenzie, and Mintz, 2:8

Governments use a variety of fiscal levers to expropriate a return from their oil and gas resources. While there is much debate over the best vehicle to tax resources, economists have concluded that the most efficient system is a tax on rents. Rents are the amount by which the payment received in return for some action exceeds the minimum required for it to be undertaken.[2] In layman's terms, this means that the most efficient tax is a tax on net profits – the revenue of a firm minus the costs. An important point of clarification: a rent tax is not a tax on all profits. Rather, a rent tax allows for costs and a risk-adjusted rate of return on capital to be deducted from the tax base.[3] The advantage of this approach is that a true rent tax does not distort economic decisions and consequently, maximizes the amount of resources available in an economy. In theory, rents can be taxed up to 100 percent without affecting a firm's decision making.[4]

Royalties (also known as severance taxes or production taxes) are taxes that are levied directly on the extraction of a resource.[5] There are five key factors to designing royalty regimes for oil and gas development in Canada and the United States: government ownership, competitive return for private investors, efficiency, simplicity, and stability.[6] These factors are sometimes competing priorities and must be balanced to achieve an optimal royalty design.

1. Government ownership:

In Canada and the United States, government ownership is the standard regime for oil and gas deposits. This factor is important because government, as the owner of the

[2] Boadway and Keen, "Theoretical Perspectives on Resource Tax Design," 15
[3] Parker, "Tax Reform: Future Direction."
[4] Boadway and Keen, "Theoretical Perspectives on Resource Tax Design," 15
[5] Ibid, 27
[6] Mintz and Chen 2012, 4

resources, deserves to be paid for the exploitation of its resources. The primary issue governments face is how to best maximize the return from their resource. Governments must decide the best means of taxation, the appropriate rate, and, given that oil and gas resources are non-renewable, how to balance the needs of today with the needs of tomorrow.

2. Competitive return for private investors:

Businesses will invest where they can find the highest risk-adjusted rate of return. Neoclassical investment theory (NIT) is the main vehicle through which economists predict how a firm will determine its level of investment. NIT theorizes that firms will invest until their rate of return generated by a marginal dollar is equal to the rate of return required by the stakeholders.[7] Taxes can discourage investment by creating a wedge between the market rate of return and the after-tax rate of return, as will be discussed under efficiency below.

Oil and gas that remains in the ground provides no income for governments. For this reason, governments must compete with other jurisdictions to attract investment or else their resources will not be developed.[8] Although governments are entitled to 100% of resource rents, they typically give up some of their share of the rent to provide a competitive rate of return that will attract the best producers across jurisdictions. While undeveloped oil and gas resources do not provide an income currently, they do represent a tangible asset and lucrative source of income for the future. Governments must balance the need for income today with the desire to ensure future citizens also receive a share of

[7] Kerr, McKenzie, and Mintz, 7:24

[8] Boadway and Keen, “Theoretical Perspectives on Resource Tax Design,” 15

the wealth. Future generations can be accommodated by slowing development or by saving some of the current revenue.

3. Efficiency:

As previously mentioned, a rent tax is the most efficient form of taxation because it has the potential to be completely neutral to investment decisions. A neutral rent tax would have a zero tax rate on marginal investments. A zero rent tax at the margin would not mean that government is not collecting any tax. Instead it would mean that the tax rate is zero on marginal production, but that the government is still collecting tax on inframarginal production.

By being neutral to investment decisions, a rent tax can maximize the amount of returns available for both government and producers. However, sometimes governments do not want to be neutral to investment decisions. A government can have a lower discount rate than producers and want to slow down investment.[9] If this were the case, a rent tax would lead to over-investment from the government's perspective. Under this circumstance, the government might prefer to have a tax based on revenues in order to decrease the level of investment. The system would not be as efficient but it would slow down investment to maximize the amount of resources available for future generations.

It is common for policy makers just to examine the statutory tax rates in order to compare how heavily a resource is taxed, but the statutory rates do not show the full picture. As there are typically several different taxes, credits, and deductions being applied for the same project (corporate taxes, capital taxes, exploration credits etc.), analyzing the statutory rate for any tax on its own will not give an accurate depiction of

[9] Boadway and Keen, "Theoretical Perspectives on Resource Tax Design," 49

the tax burden faced by firms. Taxes interact with each other and therefore any analysis of a fiscal regime should take into account the whole system.[10]

One pertinent example is that of the corporate tax. Most jurisdictions levy a corporate tax on oil and gas development, and typically it is a main source of government revenue from petroleum development. When determining an appropriate royalty rate, policy makers should take into account all the different taxes levied, how they interact with each other, and how the tax mix affects investment decisions. For instance, Canada has aggressively decreased its corporate tax rate over the last decade while the U.S. has not.[11] This could potentially allow Canada to have a higher royalty rate without making it uncompetitive. The important point is that the whole tax system must be examined before passing judgment on the quality of a tax regime.

The most effective way of determining whether a petroleum tax regime is efficient is to calculate the marginal effective tax and royalty rate (METRR). The METRR is a calculation of the amount of taxes and royalties paid as a percentage of the pre-tax-and-royalty return on capital that would be required to cover taxes, royalties, and the financing of capital with debt and equity.[12] METRR should not be confused with the average effective tax rate (AETR). The AETR is the proportion of the present value of the income generated by a project that is taken in tax.[13] The AETR is commonly referred to as the 'government take.' METRR, by comparison, focuses on how the tax system affects investment decisions at the margin. In essence, METRR is a measure of the neutrality of a tax system.[14] A neutral tax would have a zero METRR. If the METRR is

[10] Nakhle, "Petroleum Fiscal Regimes: Evolution and Challenges," 109

[11] Chen and Mintz, 7

[12] Mintz and Chen 2012, 8

[13] Boadway and Keen, "Theoretical Perspectives on Resource Tax Design," 45

[14] Daniel et al, "Evaluating Fiscal Regimes for Resource Projects: An Example from Oil Development," 200

positive, the tax regime discourages investment on marginal investment by creating a wedge between the pre-tax and post-tax rate of return. If the METRR is negative, the tax regime subsidizes investment by lowering the cost of capital. In any comparison of fiscal regimes, the risk-adjusted rate of return and the METRR should be the prime considerations ahead of other metrics like profit and statutory rates.

4. Simplicity:

The simplicity of a tax regime is a consideration that is often ignored. A tax regime should be simple to make it easy to understand, comply with, and monitor. The simplest tax is a constant proportional rent tax, where the producer faces one rate of taxation for all profitable production, but governments occasionally ignore this criterion in order to add a level of progressivity to a fiscal regime.[15] A progressive resource tax is one where the tax rate increases as income increases.[16] A progressive tax is often perceived as more fair because it ensures that the government captures an increasing share of the windfall profits that are created when the price of the resource unexpectedly increases. However, it is not clear that royalty rates are the most appropriate means for redistribution. Instead redistribution, if desired, might be better achieved through other fiscal levers, such as an income tax, or through targeted spending programs. Regardless, this ‘price sensitive’ approach for royalties had a strong political appeal in the following case studies.

The problem with progressivity in rent taxation is that it diminishes the neutrality of the tax. A price sensitive royalty distorts investment decisions by encouraging

[15] Boadway and Keen, “Theoretical Perspectives on Resource Tax Design,” 38
[16] Ibid.

companies to invest more when prices are high and delay investments when prices are low.[17] As producers can deduct expenses with a rent tax, they are more likely to invest when the deduction will be applied to a higher tax rate (i.e. when prices are high). Similarly, when prices are low, producers will delay investment with the expectation that they will get a larger tax benefit later when prices rise. Therefore, the royalty would cause a distortion of producers' behaviour and would not be as efficient as a proportional rent-based tax.

5. Stability:

Producers face a variety of risks including financial, geological, and political. For the purpose of this paper, political risk is the most important. Where geological risk diminishes after investment and discovery, political and financial risk intensifies.[18] The reason for this dichotomy is that the relative strength and bargaining power shifts from the producer to the government after investment. Resource development is an inherently capital and time intensive investment. Most of the costs involved in resource development are incurred upfront, and it can take years before a project becomes profitable.

These circumstances pose a time consistency problem - governments have an incentive to increase royalty rates when prices are high.[19] Although investment dollars will be highly mobile at the early stages of a project, after investment most of the costs are sunk. This means that governments can increase the tax rates without causing much of the current investment to change behavior. It is still more profitable to produce than to

[17] Mintz and Chen 2010, 12
[18] Silvana, 4
[19] Boadway and Keen, "Theoretical Perspectives on Resource Tax Design," 15

shutdown after investment is made.[20] However, future investors will take into account the likelihood that government may change the fiscal terms after they have invested.[21] This detail does not mean that governments can never change its fiscal regime. Rather, it should mean that fiscal changes should be made infrequently.

Politics of Resource Taxation

The following section will examine two jurisdictions that changed their fiscal regime for oil and gas in the last seven years: Alaska and Alberta. For each jurisdiction, the paper will outline a simplified version of the events that led to the fiscal changes. Obviously, the decisions discussed below were complex and could merit their own individual paper. My intention is not to oversimplify what occurred, but to provide a basic chronology of events that will help illustrate some lessons for the future.

Alaska and Alberta were chosen for two reasons: similar recent changes and comparability. Both Alaska and Alberta changed their royalty regimes during the last decade and had similar debates over the best means of taxation. Featured prominently in the debates were disagreements over whether a tax should be based on net profits (rent) or on gross revenue. Also, both Alaska and Alberta have comparable oil and gas systems. Unlike many other oil producing jurisdictions, both have democratic governments and are open to private investment for resource development. These two case studies provide a fascinating example of how politics and economics can collide when designing a resource tax system.

Given how recently the changes occurred, the following analysis draws heavily from newspaper articles. The limitation of this methodology is that the articles have not

[20] Ibid.
[21] Ibid.

been peer reviewed or double-checked for errors. Furthermore, it is common for newspaper articles to present opinion as fact. I have tried to compensate for these flaws by reading broadly and including only the elements of the story where there seemed to be consensus.

Alaska

In 2005, Alaska's fiscal regime for oil development had four features: a corporate tax, property tax, royalty, and production tax. The fiscal regime was extremely stable with the last change to the production tax having occurred in 1989.[22] However, some legislators were not content with this system and proposed changes to the production tax. With only a minority in the legislature, Democratic members of the state House of Representatives introduced a bill to increase the government take from oil development. They claimed that the state's share from the production tax had decreased in recent years and wanted to ensure that Alaska got "a fair share" of the revenues.[23]

Alaska's Republican Governor Frank Murkowski used the political opening created by the Democrats to propose changes to the production tax. The production tax was a 12.5% tax on production that increased to 15% after the first five years of production.[24] The production tax included an Economic Limit Factor (ELF), which allowed for marginal oil fields to pay a lower rate or completely avoid paying the tax.[25] During his State of the State address, Gov. Murkowski announced that he would group some of the satellite fields operating around Prudhoe Bay together to ensure that they

[22] Inklebarger, "Murkowski announces oil tax hike."
[23] Bluemink, "Dems tout oil-tax restructure."
[24] Berman, 2
[25] Volz, "Oil industry cries foul at tax hike - or is it crying wolf?."

would all pay taxes as one unit.[26] He argued that the satellite fields were operating interdependently and should, therefore, be taxed together. An industry analysis calculated that the change would amount to a $150 million tax increase on the companies operating in the area.[27] The oil companies were furious that the tax changes would occur after they had already invested in the region. The companies were particularly surprised that the decision was made without prior discussion or consultation.[28] Regardless, Murkowski used his majority in the legislature to proceed with the changes.

Meanwhile, there were concerns that oil companies were too profitable. A confidential study by energy consulting firm Wood Mackenzie found that, although costs for oil development were among the highest in the world, Alaska was also among the top 30% of all oil producing regions for profits.[29] Another report by the Alaska Department of Revenue (DoR) found that oil producers made $5 billion during 2005, whereas Alaska only made $3.19 billion.[30] In particular, the DoR report argued that Alaska was missing out on revenue. The mounting evidence that oil companies were abnormally profitable led Democratic legislators to increase their calls for reform of the ELF system. Not mentioned during the calls for a larger share of the oil wealth was that the Alaska Treasury was benefitting greatly from increased oil profits, which had allowed Alaska to achieve a spending rate twice as large as the U.S. national average.[31]

Gov. Murkowski, holding the second lowest approval rating out of all governors in the country and with only a year to go before the next election, decided he needed to

[26] Volz, "State to honor oil tax agreements."
[27] Ibid.
[28] Inklebarger, "Tax change steams oil companies."
[29] Bluemink, "Study shows high profits for state oil."
[30] Petty, "Big Oil reaps $5 billion in the last year."
[31] Cockerham, "Flush with oil money, state spends it."

find an issue to improve his popularity.[32] He proposed eliminating the ELF and replacing it with a more efficient net profits tax that would produce a higher return for Alaskans. Murkowski had his top oil consultant, Pedro van Meurs, meet with Senate and House finance members to pitch his plan for a new net profits tax. The new production tax would allow oil producers to deduct their capital expenses, operating expenses, royalties and property taxes from their tax base.[33] van Meurs presented legislators with estimates of the effects for a range of tax rates between 17.5% and 25%. He predicted that the new tax structure would bring in somewhere between $1.1 billion and $2.6 billion more revenue each year if the price of oil remained constant at $60 per barrel.[34]

Although Gov. Murkowski originally opted for a 25% tax on net profits, he also wanted to secure a deal with the major oil and gas producers to fund a pipeline that would bring Alaska's natural gas to the lower 48 states. If built, the pipeline would bring 4.5 billion cubic feet of natural gas to market and would be a significant boost to Alaska's energy industry.[35] Murkowski negotiated with BP, ExxonMobil, and ConocoPhillips to ensure that they would proceed with natural gas development if his new bill passed. After much discussion, the big three oil and gas producers agreed to build the new pipeline if Murkowski's bill set a rate of 20% for the new production tax with a 20% tax credit for exploration.[36] The new framework was generally supported by the legislature, but Democratic representatives wanted the tax rate to be higher. Democratic House Minority Leader Ethan Burkowitz accused the governor of caving into the pressure from the oil

[32] *Anchorage Daily News*, "Murkowski re-election chances difficult predict, pollsters say."
[33] Volz, "New oil tax pitched again, details still uncertain."
[34] Ibid.
[35] Foss, "Natural gas pipeline will help, not solve, supply problems."
[36] Petty, "Agreement reached on gas pipeline."

and gas companies by introducing a lower tax rate than he had initially proposed.[37] Some legislators also questioned the write offs despite the fact that the tax would significantly increase the government take from oil and gas development.

The new legislation, called the Petroleum Production Tax (PPT), was introduced and both the House and the Senate began to debate the proposed changes. Oil executives from ConocoPhillips testified that the tax hike would discourage investment in Alaska, but that they would support the legislation as a compromise.[38] The executives also testified that it did not make sense to raise taxes when the government was already in a strong fiscal position. BP stated before committee that they had originally wanted a rate of 12.5%, but that they were prepared to accept 20% as a high-end take.[39] ExxonMobil suggested that they would wait until the legislation was finalized before they would officially commit to proceeding with the pipeline.[40] Small producers, who were not involved in the pipeline deal, testified that the new tax regime would be an improvement over the ELF. "We believe the [tax system] as proposed will entice more companies to Alaska and increase competition," said Pat Foley, spokesman for Pioneer Natural Resources, while testifying before the House and Senate Resource Committees.[41]

Some changes were made to the bill during committee. First, the House Resources Committee added in provisions for a ‘sliding scale’ or a progressive tax. The tax would increase progressively as the price of oil exceeded $50. For every dollar above $50, the rate would increase by 0.30%.[42] Second, some of the credits and allowances included in

[37] Ibid.
[38] Petty, “Oil firms grilled about profits, taxes.”
[39] Petty, “Oil firms urge no change to tax bill.”
[40] Ibid.
[41] Petty, “Small producers back governor's oil-tax legislation.”
[42] Richtmyer, “New oil-tax bill has higher rates, fewer credits.”

the bill were eliminated.[43] Third, the transition period allowed in the original bill was removed.[44] These amendments increased the overall tax burden that the producers would face and significantly increased the government take. The industry spoke out against the amendments saying that they would significantly reduce investments and, consequently, the state would see a reduction in jobs. The vice president of ConocoPhillips accused the government of "destroy[ing] the balance previously represented in the bill."[45]

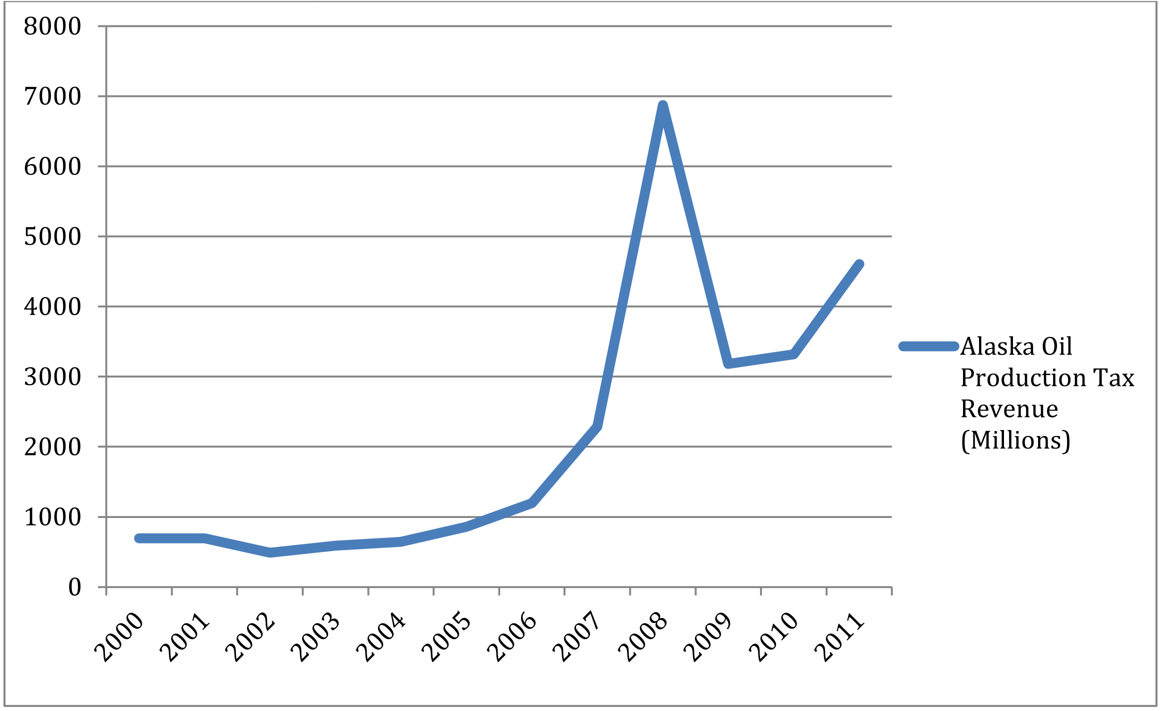
There was a major debate over the appropriate starting rate to be applied. The original bill had proposed 20%, but Democratic representatives wanted the rate to start at 30%. When the bill passed through the House, the rate was increased from the 20% to 21.5%.[46] The Senate immediately rejected the 21.5% version in order to adopt a higher rate of 22.5%.[47] When the bill did not pass during the regular session, Gov. Murkowski said he would reintroduce the original bill with a 20% rate during a special session.[48] Again, the bill was amended by the legislature to have a 22.5% rate but it included a lower progressive increase of 0.1% for every dollar that the price of oil rose above $50.[49] Although this version passed through the Senate, the House rejected it. Murkowski, sticking to his original bill, repeatedly reintroduced his original version, which was summarily amended each time in favour of a higher rate.

During this debate, serious corrosion occurred with one of BP's oil pipelines. Approximately 267,000 gallons of crude oil leaked from the damaged pipeline.[50] Environmentalists labeled the spill a catastrophe and many citizens were reminded of the

[43] Ibid.
[44] Volz, "Oil industry cries foul at tax proposal."
[45] Ibid.
[46] Sutton, "Lawmakers take up oil tax bill."
[47] Ibid.
[48] Volz, "Gov. Murkowski includes oil tax in special session."
[49] Volz, "Senate to vote on oil tax bill."
[50] BBC, "Alaska hit by 'massive' oil spill."

1989 Exxon Valdez tanker spill that had occurred just off the coast.[51] Importantly for the PPT debate, Alaskan legislators began to question whether the state would be paying for the cleanup through the deductions and credits contained in the PPT proposal. van Meurs calculated that, if the PPT was passed, BP would be able to recover up to 80% of the costs for repairs to the corroded pipeline.[52] The incident threatened to derail the new fiscal regime. Nevertheless, the legislature finally passed the PPT on August 11th, 2006. The final legislation set a base rate of 22.5% with an increase of 0.25% for every dollar rise in price above $55 per barrel.[53] The tax change brought in a significant increase in production tax revenue for the Alaskan government (see Figure 1).

FIGURE 1. Alaska oil production tax revenue in millions, 2000-2011[54]



Gov. Murkowski's success in passing the PPT did not save him his job. Concerns over corruption and lavish spending led to him being defeated in the Republican primary

[51] Ibid.
[52] Petty, "Lawmakers fear state will pay."
[53] Volz, "Legislature OKs oil and gas tax bill."
[54] Compiled from Alaska Department of Revenue Annual Reports, 2000-2001, visit: http://www.tax.alaska.gov/programs/sourcebook/index.aspx

by former Wasilla Mayor Sarah Palin. Palin won the election and assumed the office of Governor of Alaska.[55] During the campaign she had said that Alaska needed a tax on gross production, rather than the tax on net profits that Murkowski had proposed.[56] However, once in office she accepted what her predecessor had accomplished. During her first State of the State speech, she said she would monitor the new tax to ensure it was fair for Alaskans. But she admitted she "would have preferred to stick with our proven method of taxing oil and gas based on its gross value, rather than the much more complicated system, basing taxes on an oil company's claimed expenses and profits."[57]

The PPT looked like it would be permanent until a scandal was revealed. Two top executives of the oil service company VECO pleaded guilty to bribing state legislators to get the PPT bill passed through the legislature.[58] Three legislators and three lobbyists were found guilty and charged.[59] Suddenly there were calls from legislators to revisit the PPT and bring in a higher rate on gross revenues instead of net profits.[60] The corruption surrounding the passage of the PPT and the calls from other legislators for change led Gov. Palin to announce that she would revamp the tax. To bolster her position, she released a study conducted by the DoR that was critical of the PPT. While the study found that the PPT was receiving more revenues than the government would have garnered under the ELF formula, the study also said that the revenues were falling much shorter than predicted because of higher costs. The study concluded that, "the legislature should reassess whether the state is getting its fair share of oil and gas revenues, and

[55] Forgey, "Palin captures governor's race."
[56] Forgey, "A taxing dilemma."
[57] Forgey, "BP's problems could cost state twice."
[58] D'Oro, "VECO execs plead guilty to bribery."
[59] Forgey, "Legislature OKs oil tax hike."
[60] Forgey, "Indictments may be downfall of tax."

whether the credits are designed optimally to provide the maximum impact on the state's goal of encouraging investment that leads to more oil and gas production."[61]

Within a month of the release of the DoR, Gov. Palin introduced a new tax: the Alaska Clear and Equitable Share (ACES).[62] The tax was a 25% tax on net profits of production, which increases 0.4% for every dollar of profit a company makes above $30 per barrel of oil. Once profit per barrel reaches $92.50, the rate of increase per additional dollar profit declines to 0.1% until the production tax reaches the maximum rate of 75%. ACES also set a standard cost per barrel of oil in order to make it difficult for companies to manipulate the tax.[63] Surprisingly, Palin's plan maintained the net profits structure of the PPT. When she announced the plan, she explained that she "was dragged, kicking and screaming, away from a gross tax."[64]

ACES faced significant opposition. BP's Alaska president accused the government of having a fiscal regime that was equally as unstable as Nigeria's.[65] BP pointed to a study they had conducted that found that Alaska ranked 99 out of 103 oil fiscal regimes for stability.[66] ACES was also nearly stopped by the legislature. The Senate Resources Committee stripped ACES of its more controversial portions and reduced the initial tax rate to 22.5%.[67] Despite the opposition, Palin continued to push for the ACES plan with the 25% rate she had originally proposed. Palin succeeded and ACES was passed on November 17th, 2007.[68]

[61] Alaska Department of Revenue 2007, 5
[62] Forgey, "Palin offers new plan for state oil tax."
[63] Forgey, "House panel OKs 22.5% oil tax rate."
[64] Forgey, "A taxing dilemma."
[65] Forgey, "State disputes claims about tax instability."
[66] Ibid.
[67] Quinn, "Legislature guts Palin's oil tax bill."
[68] Cockerham, "Session ends with 25% oil tax."

ACES had a negative impact on production tax revenues for the first year after its introduction (see Figure 1). The combination of the global recession in 2008, falling oil prices, and the increased production tax rate led a reduction of petroleum investment. At $100 per barrel, ACES more than tripled the tax liability per barrel from what would have been experienced under the ELF system.[69] Regardless, investment has rebounded since 2010 and appears to be reaching pre-change levels, but production has continued a downward trend.[70]

Alberta

For well over a century, many people had tried to determine how to make Canada's oil sands viable economically.[71] Many attempts to develop the oil sands had proceeded but virtually all of them had failed until the early nineties. In 1994, a group consisting of governments, developers, trade unions, and suppliers came together to form the National Oil Sands Task Force.[72] The Task Force was created to determine how to spur development in the oil sands after so many years of stagnation. One of the recommendations that came from the Task Force was for Alberta to bring in a rent based royalty where companies would pay a 1% gross royalty until companies could pay off their initial investment. Once companies started to see a profit, a royalty of 25% on all production would apply. Ralph Klein, the premier of Alberta, acquiesced to the Task Force's recommendation and announced a new royalty regime in 1995, which came into effect in 1997. The Federal government also provided help by creating an Accelerated

[69] Alaska Department of Revenue 2012, 25

[70] Alaska Department of Revenue 2012, 3-24

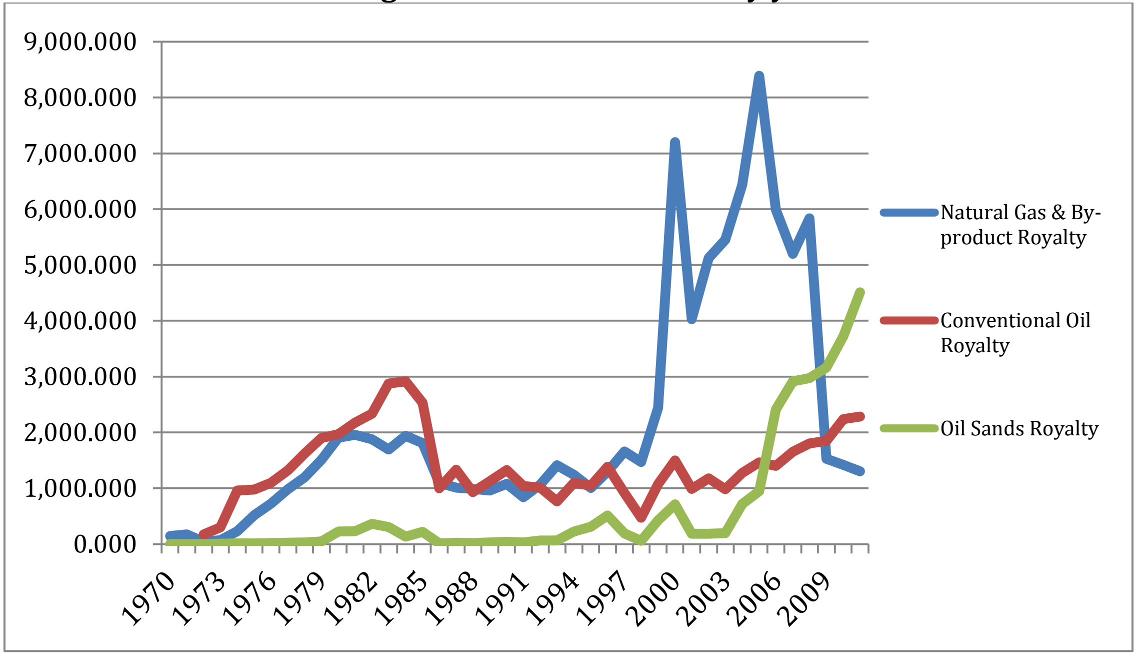
[71] For an understanding of the complexities of Canada's attempts to develop the oil sands read Black Bonanza: Canada's Oil Sand and the Race to Secure North America's Energy Future by Alastair Sweeny

[72] Sweeny, 130

Capital Cost Allowance (ACCA), a tax expenditure that allowed producers to write off capital costs faster than normal.[73]

Finally after so many years of failed projects, development in the oil sands took off. Over the next seven years, investment increased fivefold from the previous seven years.[74] The royalty framework proved remarkably successful, and the oil sands became a key source of economic growth for both Alberta and the rest of the country. The development of other natural resources also played a significant role to Alberta's economic growth. In 2006, Alberta had received a record $15 billion in natural resource revenue, which amounted to 40% of Alberta's provincial budget.[75] The revenue primarily came from two sources: the sale of land/mineral rights and royalty payments. At that time, oil sands contributed a meager amount of royalties with royalties coming predominantly from natural gas (see Figure 2).

FIGURE 2. Alberta oil and gas revenue in millions by year, 1970-2012[76]



[73] Ibid.

[74] Ibid, 131

[75] Government of Alberta 2006, 7

[76] Compiled from Alberta Department of Energy data, visit: http://www.energy.alberta.ca/About_Us/2564.asp

Ralph Klein, still the Progressive Conservative (PC) premier in 2006, was reluctant to bring in any changes to the existing royalty framework for energy development. However, the government conducted studies to examine possible changes of royalties. The studies were not released to the public, but the provincial Energy Minister stated that Alberta had “a pretty fair, comparable royalty regime."[77] In spite of the minister’s assessment, calls were being made by Members of the Legislative Assembly (MLAs) to revamp the royalty structure. Opposition Liberals released a leaked government document that showed that petroleum producers had paid 4% fewer royalties in 2004 than they had in 2001. High profits for producers were bringing into question whether Alberta was receiving a large enough percentage of revenues from oil and gas development.[78]

These factors led to outside interests such as the Pembina Institute (an environmental policy think tank) building pressure for royalty changes. Pembina argued that “windfall profits should not be left with companies; they should be transferred back to Albertans."[79] In particular, Pembina argued that the oil sands royalties were unacceptable because producers only paid 1% of royalties until they earned a profit. Pembina believed that the low royalty rate was not only hurting government revenue but was causing the Alberta economy to overheat. They argued that low royalties were causing a large increase in the costs of labour and equipment for other industries. Pembina commissioned a poll that indicated 84% of Albertans believed that there should be a public review for royalty rates.[80]

[77] Fekete and Schmidt, “Alberta Won't Release its Review of Royalties: Critics Say Taxpayers Shortchanged.”
[78] Fekete, “Province gets 'fair share' of resource revenues.”
[79] *National Post,* “Raise Oilsands Royalty Rate and Pay Back to Albertans, Pembina Survey Says.”
[80] Ibid.

Pembina's campaign for higher rates could not have come at a better time. Premier Klein had announced that he would step down as leader of the PCs in a few months, sparking a leadership campaign. With an election a couple years away, the next leader of the PCs would automatically become premier without having to face a general election. Early contenders for leadership spoke out in favour of re-examining the royalty rates. During his campaign, candidate Ed Stelmach proclaimed that, if elected, he would conduct a public review of the royalty agreement that had been reached in 1995.[81] Stelmach hailed from a rural Alberta riding and used the royalty issue to shore up his support from his rural base. After he won the leadership, Stelmach re-affirmed that he would fulfill his campaign promise and start a public review of royalties.

True to his word, Premier Stelmach launched the review in Feburary 2007.[82] A six-person committee of energy executives, economists, and tax experts conducted the review. The committee had a mandate to investigate the royalty structure for oil sands development, and also the royalties for convention oil and gas development. The committee was to conduct open hearings across the province and listen to presentations from a range of stakeholders. Almost as soon as the review had been announced, opposition members questioned the integrity of the committee. The opposition accused the government of stacking the review with people who were friendly to the oil industry and would jeopardize the public interest.[83]

Many different stakeholders had an opportunity to come before the committee. However, the testimony essentially consisted of two sides: pro-status quo and pro-increased government take. The pro-status quo side was led by industry. The Canadian

[81] Harding, "Stelmach's Stand Worries Oilpatch: Premier-Designate 'Committed' to Incentives Review."
[82] Fekete, "Alberta Launches Royalty Review: Most Residents Back Initiative, Poll shows."
[83] Fekete and D'aliesio, "Royalty Review Panel Draws Criticism."

Association of Petroleum Producers (CAPP), the main industry association, argued that the rate of return for conventional oil development was lower in Alberta than it was in other jurisdictions.[84] Further, they stated that Alberta's advantage was that it was a regime with low political risk and a stable tax system.[85] Focusing on the oil sands, CAPP argued that there were significant policy changes already underway that would hurt development. For example, the federal government had recently announced the elimination of the ACCA. The ACCA had been available for all mining operations, but the federal government decided that it would phase it out only for oil sands producers.[86] CAPP also addressed the rent-based structure of the oil sands royalty. CAPP argued that, to understand the low royalty structure, policy makers must look at the full life of the project. To complain about the low 1% gross payout before producers reached a profit was akin to "looking at a child from age 3 to 6 and then saying 'they will never amount to anything important over their lifetime'."[87] Overall, industry maintained that the government should not change the royalty structure that had been such a success at increasing development while maintaining a competitive return for Albertans.

On the other side of the debate, citizens, labour unions, and environmental groups testified on behalf of an increased government share of the royalty revenues. The Alberta Federation of Labour reasoned that Albertans should be concerned that they were being "taken to the cleaners, while oil company executives snicker behind closed doors and make comments about what suckers we are."[88] The Pembina Institute called on Albertans to 'think like an owner' and demand a larger share of resource revenues. Pembina argued

[84] Alvarez, 3
[85] Ibid.
[86] Ibid, 4
[87] Ibid, 5
[88] Yedlin, "Alberta Royalty Review Effectively Neutered."

that, for oil sands development, the 53% share that the petroleum producers received dwarfed the 32% share that Albertans received. They compared the government take to that of Norway where they said the Norwegian government received 78% of the revenues.[89] Interestingly, Pembina did not advocate for an increase in the pre-payout royalty for oil sands production because it would only delay producers from achieving profits and reaching the higher rate. Instead Pembina argued that the oil sands royalty should increase the rate for the post-payout royalty to 55%.[90]

After months of review, the royalty review panel released their findings in a report called *Our Fair Share.* The report started with a letter to the provincial Minister of Finance, which stated that "Albertans do not receive their fair share from energy development and they have not, in fact, been receiving their fair share for quite some time."[91] The report suggested that the government act to increase its share of energy revenues by increasing royalties for conventional oil, oil sands, and natural gas. The increase in tax rates would amount to a 20% increase in overall government revenues. Upon the report's release, the industry went into an uproar. A representative from CAPP exclaimed that the change was "way bigger than we thought -it is a wholesale change to the entire royalty system."[92] Many petroleum producers declared that they would invest in other jurisdictions if the government adopted the recommendations in the report. EnCana, Canada's largest oil and gas producer at the time, even threatened to invest $1 billion that they had planned to invest in Alberta elsewhere.[93] In spite of the industry's

[89] Taylor, 1
[90] Ibid, 2
[91] Alberta Royalty Review Panel 2007, 4
[92] Schmidt, "'It's Way Bigger than we Thought,' Says CAPP; Recommended Changes would See Province Gain an Estimated $2B."
[93] Harding, "Crescent Vows to Leave Alberta if Royalties Hiked."

protests, polls found that 88% of Albertans felt that the government was not getting its 'fair share' of the resource pie.

Given the overwhelming support from Albertans, Premier Stelmach announced that he would proceed with increasing the government's share of oil and gas revenues.[94] However, the government did not adopt all of the review panel's recommendations. The increase in government take would align with the suggestions of the panel, but the specific royalty differed. For instance, the panel recommended that the oil sands pre-payout royalty stay at 1%, but that the post-payout rate should increase to 33%.[95] The panel would have supplemented this system with a severance tax that would have been payable upon the start of production. Instead, the government opted to introduce a progressive scale for both the pre- and post-payout royalties. The new system would range from a 1% to 9% pre-payout royalty and a 25% to 40% post-payout royalty depending on oil prices.[96] The government passed the changes, which were set to come into effect in 2009.

Meanwhile, important developments were occurring on Alberta's political scene. The PC Party had been the predominant right-wing party in Alberta since its first election in 1971. However, in recent years, new fringe right wing parties started to develop. The Alberta Alliance and the Wildrose Party were hoping to garner enough of the right wing vote to displace the PCs. Both parties came out strongly against the review panel's findings when the report was released.[97] Neither party had any significant representation in the legislature but both parties started to get more attention after they declared their position on the royalty review. After Premier Stelmach announced his plans for changing

[94] Harding, "Oil Take Leaps 20%; Stelmach to Squeeze $1.4B from Oil Industry."
[95] Alberta Royalty Review Panel 2007, 8
[96] Harding, "Oil Take Leaps 20%; Stelmach to Squeeze $1.4B from Oil Industry."
[97] Seskus and Markusoff, "Tory Foes Pin Hopes on Royalties Issue; Alliance, Wildrose Campaigning Against Hikes."

the royalty regime, the two parties started discussions for a merger.[98] The PC's position on raising taxes opened up the far right of the political spectrum for the two parties to gain some traction. Now that the royalty changes had brought the two parties together, they voted to merge to form the Wildrose Alliance Party (WRA).[99]

With the concern of a new right-wing challenger, Premier Stelmach began preparations for a snap election.[100] Stelmach called an election just two weeks after the WRA merger, a time frame that gave the new party little time to prepare or be able to mount a proper campaign.[101] All opposition parties, except the WRA, attacked the PCs during the campaign for having been too lenient on the oil and gas industry.[102] The Liberal Party, the Official Opposition, pledged to raise the royalty rate for the oil sands, but also committed to providing some relief for natural gas development.[103] The WRA was the only party that promised to scrap the new royalty regime if it was elected.[104] Regardless, the election ended on the 3rd of March 2008 with a PC majority government. The PCs won 72 seats out of the 83 seats in the legislature. The WRA received 6.8% of the vote, but did not manage to win any seats.[105]

Fresh off his victory, Premier Stelmach attempted to rebuild support with the oil and gas industry. The government introduced tax credits for deeper oil and gas wells to try to mitigate some of the 'unintended consequences' of the new royalty regime.[106] Energy Minister Mel Knight provided rationale for the decision by stating, "resource wells that are not drilled do not generate royalty and do not benefit Albertans." The new

[98] Ibid.

[99] Cattaneo, "Alberta's Alternative Tory Party New Misery for Premier; Wildrose Alliance would Toss Out New Oil and Gas Royalties."

[100] Braid, "Fearing Political Right, Alberta Tories Gear for March Election."

[101] Cryderman, "Vote Call Looms Today; Signs Point Toward Raucous Campaign to Govern Alberta."

[102] D'Aliesio, Fekete, and McLean, "Rivals Launch Royalty Battle; Tories Under Attack for Energy Policy."

[103] Ibid.

[104] Mccoy, "Wildrose Targets Photo Radar; Merged Party Unveils its Platform."

[105] Elections Alberta 2008, 142

[106] Polczer and Harding, "Royalty Adjustments Get Industry Thumbs-Down; Tories Take another Stab at Overhaul."

credits would attempt to encourage production in some of the deeper wells that had become uneconomical after the royalty announcement. Despite the adjustment, other jurisdictions were increasingly looking attractive for investors. By November, the number of rigs drilled in Alberta was down 9% from 2007 and 40% from 2006, whereas British Columbia and Saskatchewan saw a 19% and a 22% increase respectively.[107]

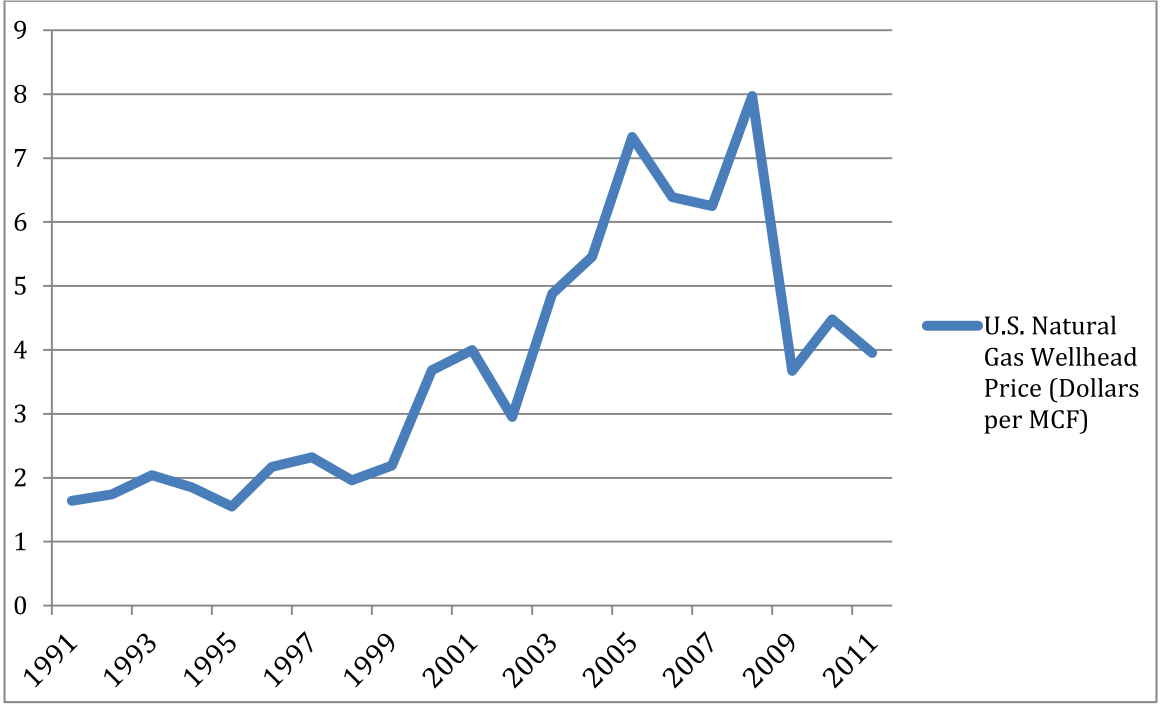
It was clear that the new Alberta royalty framework was seriously damaging its oil and gas industry. As the world started to slip into a recession, oil and gas prices plummeted, which made much of the production in Alberta uneconomical. Natural gas prices experienced a pronounced decrease because of the global recession and increased shale gas production in the United States.[108] Natural gas prices plummeted in 2009, which made the royalty increases for natural gas particularly damaging to the industry (see Figure 3). To counteract the decline in investment, Premier Stelmach announced that he would introduce further tax relief to help encourage investment to return to Alberta. The government offered transitional royalty terms for new oil and gas wells that would last until 2013. The new royalty relief was estimated to provide a $1.8 billion dollar tax break from what it would have collected over the five years.[109]

[107] Cattaneo and Tait, "Alberta Relaxes Royalties by $1.8B; Oil Sector Relief."

[108] Natural Resources Canada 2011, 18

[109] Cattaneo and Tait, "Alberta Relaxes Royalties by $1.8B; Oil Sector Relief."

FIGURE 3. U.S. natural gas wellhead price in dollars per MCF, 1991-2011[110]



The government delivered further tax relief just a few months after the new royalty regime officially came into effect. The government reduced royalty rates for conventional oil and gas, and brought in a drilling royalty credit for producers.[111] These changes amounted to $1.5 billion relief for the industry, which, taken together with the other 'adjustments', effectively negated any new income the government expected to raise with the new royalty system.[112] Unfortunately, the tax relief was still not sufficient to stop the tide of investment dollars fleeing Alberta for other jurisdictions. Premier Stelmach announced that the government would commission a 'competitiveness review' to determine the best way to address the floundering industry. This time the review would be conducted without public hearings but with private industry consultations.[113]

[110] Compiled from U.S. Energy Information Administration (EIA) data, visit: http://www.eia.gov/dnav/ng/hist/n9190us3A.htm
[111] Cattaneo, "Alberta Gets Passing Grade for Royalty Fix; Policy Change; Province must Still Rethink Framework."
[112] Braid, "New Royalty Regime Lies in Shambles."
[113] Schmidt, "Industry to Shape Alberta Review."

While the government was scrambling to fix its failing new policy, the WRA was benefiting from the issue. The party started to outpace the PCs in large donations, much of which came from the oil and gas industry.[114] Oil executives, with no other party to defend their interests, began to look at the WRA as a viable alternative.[115] When its party leader resigned in April, the ensuing leadership contest sparked much attention for the new party. The WRA's new leader, Danielle Smith, capitalized on the party's improving fortunes and saw dramatic increases in its poll numbers. The party soon won a by-election and sent their first MLA to the legislature.[116] By November the WRA had narrowed the gap and was within six percentage points from the governing PCs.[117] Now that the party was being taken seriously, three sitting MLAs (all former PCs) announced that they would cross the floor to join the WRA caucus.[118]

The increased pressure from the WRA caused the government to act quickly to solidify its position. The government announced a major cabinet shuffle that promoted their most right leaning MLA to Minister of Finance and brought in a new Energy Minister. The changes provided some room for the about-face the government announced just a couple months later. The competitiveness review titled Energizing Investment was released on March 11th, 2010. The review advocated rolling back virtually all changes that had been implemented in 2009. In particular the review recommended lowering both conventional oil and gas royalty rates permanently, but stopped short of suggesting a rollback of oil sands royalty increases.[119] The government implemented the report's suggestions by decreasing conventional oil and gas royalties and maintaining the new oil

[114] D'Aliesio, "Wildrose Alliance Snags Hefty Donations; Fledgling Party Matches Tories in Top-Dollar Gifts."
[115] Yager, "Wildrose Alliance Attracts Oilpatch Support."
[116] Sayers and Stewart, "Is this the End of the Tory Dynasty?: The Wildrose Alliance in Alberta Politics," 4.
[117] *Calgary Herald,* "Tories Slide in New Poll; Conservatives Barely Ahead of Fledgling Wildrose."
[118] Bennett, "Former Alberta cabinet minister joins Wildrose Alliance."
[119] Government of Alberta 2010, 2-11

sands royalty rates. Government revenue from the oil sands now far exceeds natural gas revenues (see Figure 2). Natural gas revenues have never recovered from the royalty changes.

University of Calgary economist Kenneth McKenzie published a study that analyzed the Alberta royalty changes a couple years after they were implemented. His study found that the profit-based structure of the oil sands royalty allowed the royalty hike to occur with little impact on investment decisions. The Alberta government successfully increased revenues by $240 million in 2009 and $786 million in 2010 without overly damaging the industry.[120] By contrast, the tax increase on conventional oil and gas caused significant damage to the industry because the royalty had a revenue-based structure. The revenue-based royalty hike was more detrimental to rates of return than a profit-based royalty hike.

The Collision of Economics and Politics

The above case studies provide some insight into how fiscal regimes for resource development are changed. The following section will highlight some of the lessons that can be derived from these examples.

First, perhaps the most obvious lesson (which deserves stating, nonetheless) is that politicians will only act when it is popular to do so. In his book**,** An Economic Theory of Democracy, Anthony Downs makes a compelling case that the sole motivation of government action is to win votes.[121] Downs's thesis was well supported in the two case studies. In Alaska, Gov. Murkowski moved to change the ELF towards the end of his term when an election was coming. Palin, when campaigning for Governor, called for

[120] McKenzie, 5

[121] Downs, *An Economic Theory of Democracy*, 28

tougher royalties. After becoming governor, Palin switched her position from being in favour of a gross tax to supporting the more economically efficient net profits tax. She said changed her mind because department officials convinced her it was a better tax.[122] While Gov. Palin probably would have let the PPT remain, after the corruption allegations it became popular to pursue a larger government take. In Alberta, during his campaign for leader of the PCs, Stelmach used the promise of a royalty review to gain support from rural Alberta. It was only after investment dollars rushed out of the province and the WRA started to gain traction that Stelmach reversed his position and undid most of the royalty hikes.

Second, Alaska and Alberta faced a debate over the appropriate level of government take. Interestingly, in both cases the same rhetorical argument of 'fair share' came up. As seen in both jurisdictions, the fair share argument tends to be the default position for those who want a larger share. Unfortunately, economic literature has not provided any insight into the appropriate rate for a rent tax.[123] In theory, a true rent tax could have a tax rate of 100% without affecting decisions. In practice, however, it is clear that, when setting a rate, governments should consider other jurisdictions. Determining an appropriate rate is an inherently political decision based on a value judgment of what governments and their citizens deem to be 'appropriate'. A low rate will not provide a strong return for government. However, governments should be wary of applying a too high rate for fear of other jurisdictions providing a better rate of return. This was demonstrated clearly in Alberta where the royalty changes caused capital flight - investment dollars fled to British Columbia and Saskatchewan.

[122] Forgey, "House panel OKs 22.5% oil tax rate."
[123] Boadway and Keen, "Theoretical Perspectives on Resource Tax Design," 37

Third, when determining tax rates, the public perception of the industry seems to be the prime determinant of whether the public deems the government take ‘appropriate’. In both Alaska and Alberta, the perception that companies were making too large a profit drove calls for change. Instead of examining rates of return, the public was very focused on the ‘record profits’ the producers were receiving. In Alaska, BP’s pipeline spill and VECO’s bribery helped build support against the industry and for Gov. Palin’s plan to increase the government take.[124] If industry wishes to have competitive returns, it is important that oil and gas companies constantly maintain model public images. Future environmental issues or questions of integrity will only lead to public perception that they are being taken advantage of by the industry.

Fourth, as setting the tax rate is a political problem, the integrity of the process is of the utmost importance. Citizens must believe that these decisions are being made in a fair and transparent way. When revelations of bribery surfaced in Alaska, there was significant outrage and the integrity of the process was called into question. Had there been no allegations of corruption the PPT tax probably would have remained. However, after lawmakers were charged with corruption, the policy debate was reopened and a higher rate implemented. In Alberta, the question of process was called into question during both the royalty review hearings and the competitiveness review. In each case, there were accusations that the government was being overly accommodating to industry. Furthermore, the competitiveness review was done behind closed doors with no substantial public involvement. Fortunately for the PCs, the process for the competitiveness review did not derail the subsequent policy changes. It is clear that any future royalty changes must have a process beyond reproach.

[124] Erickson, “Tax windfall eyed for savings, but capital budget beckons.”

Fifth, although fiscal levers can look very different, they can produce similar results on the margin. Both the Alaska and Alberta royalties are based on net profit. Alaska and Alberta (oil sands) face a 31.6%[125] and 27.7%[126] METRR respectively. The model assumed that the price of oil was $76 (five year average of West Intermediate Texas prices), which would mean a statutory royalty rate of 37.4% for Alaska and 29.9% for Alberta (oil sands). The METRRs are not equal but they do indicate that fiscal regimes need to be examined in their entirety; statutory rates are not sufficient to draw conclusions on the effects of royalties.

Sixth, it is clear that progressivity had a strong political appeal. In both case studies, the governments decided to bring in price sensitivity despite the strong economic case against progressivity for rent taxes. As oil and gas prices surged in 2008, there was a desire to ensure that government was capturing the increased rents. The political argument for progressivity stems from a belief that a firm's tax burden should be based on its ability to pay. While a progressive system appears to be fairer, it contradicts the economic case for a rent tax – neutrality. Under a proportional rent tax, neutrality is maintained between different types of investment (risky or not) and between time periods.[127] Furthermore, it is questionable why this reform is necessary when the government would get more revenue with a proportional tax when prices rise and less when prices fall.[128] Regardless, it is clear that the political appeal for progressivity can be strong and work must be done to educate the public on the economic impacts of price sensitive royalties.

[125] This was calculated using a simplified U.S. METRR model adopted from Mintz and Chen (2012). The model assumes producers are using the 50% credit and that the sales tax does not apply to capital goods.
[126] Mintz and Chen 2012, 22
[127] Boadway and Keen, "Theoretical Perspectives on Resource Tax Design," 38
[128] Mintz, "Forget 'fairness' on oil royalties."

Seventh, the case studies show that changing a fiscal regime once allows for many changes to occur. Both Alaska and Alberta had an extremely stable fiscal regime until they were altered once. Before the first change, both jurisdictions had not modified their regime in many years. Alaska had not changed its production tax in 16 years, and Alberta had maintained its oil sands royalty for a decade before the review. After the first change, both regimes underwent a flurry of adjustments in rapid succession. It appears that changing the fiscal regime once focused the public's attention to the fiscal regime and put the prospect for more changes on the public agenda. In both cases, the frequency of changes was detrimental to producers' perceptions of the stability of the regime. These cases suggest that producers should be wary of any fiscal changes as they may prompt more changes in the near future.

Finally, rent taxes have proven to be politically difficult to implement. In Alaska, there was a major debate over whether the PPT and ACES should be based on gross revenue or net profits. In Alberta, the fact that the oil sands only paid a 1% pre-payout royalty was one of the main drivers that sparked the royalty review. Though it is clear that a rent tax is the most efficient system, there is not a public understanding that it is the right model for resource taxation. Policy makers have a responsibility to build support the best tax system. By moving all resource tax regimes closer to pure rent taxes, policy makers will serve to maximize rent for both government and producers.

Conclusion

This paper argued that the political debate over oil and gas fiscal regimes does not reflect the economics of efficient oil and gas taxation. To make this case, the paper examined the economics of oil and gas royalties, and the politics surrounding the fiscal changes in Alaska and Alberta. It is clear from the case studies that there is no easy way to achieve consensus on royalty changes. Good public policy strives to achieve the most efficient outcome, but politics tends to produce the most popular outcome instead. Policy makers should endeavour to build public support for better policies. This goal is easier said than done, and the politics of oil and gas taxation has, in many cases, led to outcomes that do not serve the public good. When governments do not properly balance the elements of oil and gas taxation (government ownership, competitive returns, efficiency, simplicity, and stability) they can jeopardize the end goal of achieving the maximum rent for all stakeholders.

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