The question of why some governments are early adopters of policy innovations, while others are not, is one of the central puzzles of public policy research. It is particularly relevant to areas such as global climate change and greenhouse gas mitigation where the consequences of governmental inaction are severe and where promising policy ideas – and are well known – but their adoption is uneven. Carbon pricing policy ideas, whether through carbon taxes or carbon cap and trade programs, have existed since the emergence of global climate change as a policy issue in the late 1980s, but their uptake by governments in the developed world has been very uneven. Outside of Europe, where carbon pricing was embraced earliest and most widely, the early adopters of carbon pricing policies in North America and Oceania have been British Columbia (BC) and New Zealand, respectively. The question is: why? What factor(s) in these jurisdictions prompted their governments to become early adopters of carbon pricing policies, despite the macro political economic disincentives to doing so?

This question is examined here using the Multiple Stream Framework pioneered by John Kingdon, looking specifically at factors that facilitated the emergence of carbon pricing policies on policy agendas in BC and New Zealand. It argues that the most important factor in the early adoption of carbon pricing policies was the presence of a committed carbon pricing policy entrepreneur at the centre of government. These policy entrepreneurs were able to exploit their unique and powerful positions to shape problem definitions, narrow perceived policy options, and influence political calculations in ways that favoured carbon pricing. Most of all, they were well-positioned to seize policy window opportunities and gain the commitment of key veto players in the introduction and passage of carbon pricing legislation. In short, committed policy entrepreneurs at the centre of government were a necessary factor to the adoption of carbon pricing policies in both BC and New Zealand. This finding holds implications not only for the adoption of carbon pricing and other policy innovations, but also for the Multiple Streams Framework and its application to parliamentary systems.

Carbon Pricing PoliciesClimate change has been on the political radar in the developed world since at least the late 1980s and just about all sovereign governments in Europe, North America and Oceania have taken at least some policy measures to mitigate greenhouse gas (i.e., carbon) emissions. Examined in any detail, the diversity of these policy measures becomes quickly overwhelming as governments have relied on a wide range and mix of policy designs in their carbon mitigation efforts. Nevertheless, some sense of this policy diversity can be made simply by distinguishing between those jurisdictions that have relied on carbon pricing in their mitigation efforts, and those that have not. This distinction is important because it gets to the heart of how different governments have tried to signal and incentivize carbon mitigation in their respective economies and societies.

Carbon pricing, through carbon taxes or carbon cap-and-trade, uses market signals to incentivize carbon mitigation by placing a cost on carbon emissions and forcing emitters to bear that cost. Of the two carbon pricing instruments, carbon taxes are the most straightforward and transparent. They establish a government-determined price on carbon emissions – the carbon tax rate – which is typically calculated and applied based on the emissions content per tonne of a particular good. Usually, the carbon tax rate increases over time according to an established schedule, ramping up incentives to reduce carbon emissions. In contrast, carbon cap-and-trade schemes involve government(s) setting an absolute and gradually declining limit on emissions, enshrining that limit in the form of emissions allowance certificates, distributing these certificates to regulated emitters and allowing regulated emitters to determine how best to meet the emission reduction targets, either by investing in emissions reductions or purchasing allowance certificates. In cap-and-trade, the carbon price is determined by the market for carbon allowances, not government regulators, and the carbon price is likely to fluctuate much more than in a carbon tax. Although the means used to determine carbon prices differ in the carbon tax and carbon cap-and-trade instruments, both use market signals to encourage emissions reductions, structurally embedding carbon mitigation incentives into capitalist economies.

Jurisdictions that have not introduced carbon pricing policies have, instead, relied on different combinations of subsidies and regulations in their carbon mitigation efforts. Subsidy-based programs for carbon mitigation have been many and varied, but have typically targeted specific (often egregious) carbon emitting behaviour and provided short-term, positive incentives to alter this behaviour. Examples include subsidy programs to get old cars off the roads, government support for underground carbon sequestration, and home retrofit programs, amongst others. Regulatory policies have also focused on specific carbon emitting activities and imposed stricter standards on these activities, backed by financial penalties, to incentivize emissions reductions. These regulatory standards have taken the form of technological or tailpipe emissions requirements rather than ambient air quality requirements. Some governments, for example, have imposed tailpipe emissions standards for automobiles and electrical generating stations, but none have imposed overall regulatory limits on atmospheric carbon content. While subsidies and regulations provide signals for carbon mitigation, in comparison to carbon pricing signals, they have tended to be more transient, more piecemeal, and less structurally embedded.

The distinction between those jurisdictions that have introduced carbon pricing and those that have not might suggest that the former group has been serious about addressing climate change, while the latter has not. Although *prima facie* evidence supports this assertion, there is not a perfect correlation between carbon pricing and carbon mitigation success. The specifics of policy design, whether based on carbon pricing or not, are very important, as are many additional factors that influence a jurisdiction's success in carbon mitigation. At the very least, however, the distinction between carbon pricing and non-carbon pricing policies reflects fundamental differences in how governments have approached and responded to the climate change issue, and these differences require some explanation.

The 'first movers' in carbon pricing were European governments who positioned themselves as international leaders in carbon mitigation from the onset of the climate change issue. The first carbon taxes were introduced by Finland and the Netherlands in 1990 and, since then, a number of other European states such as Denmark, Norway, France, Ireland, Sweden, the UK and Switzerland have also introduced carbon taxes. Carbon cap-and-trade came onto European policy agendas in the late 1990s after the negotiation of the Kyoto Protocol and its provisions for buying and selling carbon credits. Although reluctant to accept cap-and-trade during the Kyoto negotiations, European governments have since embraced it with considerable enthusiasm, starting with the creation of domestic cap-and-trade programs in Denmark and the UK in the early 2000s and culminating in the introduction of the European Union Emissions Trading Scheme (EU ETS) – the largest carbon cap-and-trade program in the world – in 2005. The Europeans' 'first mover' status in carbon pricing has been investigated by a number of political scientists who have attributed it to various factors, including European political culture, strategic positioning by European politicians, and the design of EU institutions (Damro & Mendez, 2003) (Schreurs & Tiberghien, 2007).

Outside of Europe, governments have been much slower to embrace carbon pricing policies. In the early and mid 2000s, carbon pricing was a major election issue in Canada, Australia and New Zealand, and carbon cap-and-trade bills were put before the US Congress on a number of occasions, but carbon pricing policies were not adopted. Significant movement on this front did not occur until 2008 when BC adopted its carbon tax and New Zealand adopted its carbon cap-and-trade scheme.[1] In their respective parts of the world, BC and New Zealand thus became early adopters of carbon pricing and regional outliers in climate change policy. BC remains an outlier still, as one of the few jurisdictions in North America to have introduced a significant carbon price; New Zealand is now somewhat less of an outlier with Australia's adoption of carbon pricing legislation in late 2011. While observers have noted BC and New Zealand as pioneers in climate change policy, none have offered an explanation for their willingness to take on this role.

BC and New Zealand's early adopter status is all the more puzzling considering the formidable economic and political barriers to becoming an early adopter. Opponents of carbon pricing, and even some supporters, have long warned that early adopters of carbon pricing would increase the costs of energy and key economic goods, potentially undermining economic growth and stimulating flights of investment to jurisdictions without carbon prices. So, early regional adopters of carbon pricing have done so despite the prevailing macro-economic incentives, not because of them. Moreover, carbon pricing is just one of many policy issues competing for the time and attention of policy-makers in national and sub-national political systems and, given the uncertain and long-term nature of climate change compared to immediate economic and social concerns, it is widely regarded as a less urgent one. So, it is all the more remarkable that such a dis-incentivized issue could out-compete many others to get on the policy agenda and emerge as government policy. Clearly, this is something that requires explanation.

The Multiple Streams Framework and Parliamentary Systems

One way of approaching this question is through the multiple streams framework famously developed by John Kingdon.

The multiple streams framework conceptualizes political systems as comprising three streams of policy-relevant activity: a problem stream, a policy stream and a politics stream. In the problem stream, economic, social and environmental conditions are conceptualized and problematized by various political actors in such a way that they demand –though they don't always receive – government attention. In the policy stream, political actors engage in the development and dissemination of policy

[1] Other jurisdictions introduced carbon pricing initiatives around this time as well, such as the Western Climate Change Initiative (WCI) and the Regional Greenhouse Gas Initiative (RGGI), both of them intergovernmental initiatives involving US states and Canadian provinces. However, the carbon prices introduced by BC and New Zealand were higher, applied to a wider range of emissions, and were introduced more expediently than both the WCI and RGGI.

ideas in an effort to popularize and legitimize ready-made policy solutions to perceived policy problems. In the politics stream, the focus is primarily on key executive and legislative decision-makers, their efforts to gain and retain office, and key factors that can affect these efforts such as the electoral cycle, the national mood and advocacy group campaigns. The three policy streams normally operate independently of each other so that it is very difficult to pair policy problems with policy ideas and bring paired problems and ideas into the politics stream to gain the attention of policy-makers (Kingdon, 1995; Zahariadis, 2007).

In exceptional circumstances, however, policy entrepreneurs can take advantage of policy windows and bring the three streams together, putting a policy idea on the government's policy agenda and giving it a good chance for adoption. Policy entrepreneurs are typically personable, passionate and well-connected individuals who dedicate themselves to advocating for a particular policy problem and a solution to it. They may work for years on behalf of their policy cause seeking and cultivating opportunities to get it on the policy agenda. When these opportunities arise, they take the form of policy windows, fleeting periods of public concern brought on by some crisis or unique set of political circumstances. When policy windows open, policy entrepreneurs must act swiftly and skillfully to push their pet policy problem and ready-made policy solution onto the policy agenda before the public loses interest and the policy window closes (Kingdon, 1995; Zahariadis, 2007).

Kingdon developed the multiple streams framework with the US congressional system in mind, but subsequent scholars have successfully applied it to parliamentary systems in the UK (Zahariadis, 1996; Zahariadis, 2004), Australia (Bakir, 2003; Hyshka, 2009), Canada (Howlett, 1998; Schwartz & Johnson, 2010; Rowlands, 2007; Bird, 2010) and New Zealand (Aberbach & Christensen, 2001; Catalinac, 2004), so it is applicable to the cases considered here. It is also applicable because it helps to identify what was unique about the domestic politics of BC and New Zealand that allowed carbon pricing to emerge as a viable policy option, despite the odds against this.

The comparison below reveals that the key factor in both BC and New Zealand's adoption of carbon pricing was the emergence of policy entrepreneurs in the centre of government. Both BC and New Zealand are parliamentary systems in which the legislative and executive branches of government are fused and those at the centre of government – the Premier/Prime Minister and their closest political and administrative advisors – have considerable influence over the policy agenda. Thus, a policy entrepreneur at the centre of government is better placed than anyone to bring the three streams together and to take advantage of fleeting policy windows when they arise. Carbon pricing policy entrepreneurs in BC and New Zealand were able to do just this, overcoming the economic and political obstacles to carbon pricing that have delayed or stymied its adoption in other jurisdictions.

The rest of the paper examines this thesis through a multiple streams analysis of the adoption of carbon pricing policies in BC and New Zealand. The policy process was traced over time by examining Hansard records, governmental and non-governmental white papers, and newspaper accounts. Identification of significant actors and ideas was accomplished by using these materials triangulation aids, thought it ought to be noted that in each case significant materials are subject to cabinet confidence and not available for public scrutiny.

British Columbia

British Columbia's three streams were dominated by executive political actors from the provincial Liberal party. These executives provided a definition of why carbon emissions are a problem to the province based on local indications of climate change, produced a policy solution which was compatible with their existing pro-growth inclinations, and successfully deployed a political justification for action which not only withstood opposition, but generated new political supporters willing to defend the Liberal initiative. Premier Gordon Campbell was the policy entrepreneur responsible for putting carbon pricing on the agenda, and in his capacity as Premier brought the three streams together to open a policy window. Thus, the policy window in BC was an endogenously generated one, and not the consequence of an external focusing event. Absent Premier Campbell's leadership, it is unlikely the BC Liberal government would have instituted a carbon tax.

BC's Problem Stream

There are two primary questions to be answered when investigating the problem stream: who is providing definitions of the problem; and what those specific definitions are. Environmental problems are frequently ambiguous and prone to analytical intractability. Hence, the definitions of such problems are often constructed such that a single solution becomes the obvious one to adopt. In BC's case, the problem of carbon emissions was defined in terms of how emissions-induced climate change is presently affecting the province. Consequently, the political executive was obligated to shift from a preference for voluntary emissions reduction instruments to mandatory tools. This problem definition was new to the province, in the sense that prior to 2007 there had been no definition of the problem.

The provincial executive offered a problem definition which argued emissions-induced climate change was clearly, currently, and adversely affecting BC. Environment Minister Barry Penner straightforwardly advanced this argument in the Legislature:

"...we saw really firsthand in British Columbia the effects of climate change that had been predicted: extreme variations of weather in a very short period of time, literally going from record rainfall days in the southern part of British Columbia to record low stream flows and all the way back again where we had extreme storms and mountain snowpacks...British Columbia is highly sensitive to climate change." (21 Nov 2007, Hansard, pp. 9369)

Premier Gordon Campbell made the same argument in media interviews; for example, he highlighted the devastation caused by the mountain pine beetle as a demonstration of how emissions-induced climate change was damaging the province. Beetle-killed trees would no-longer provide erosion control or water fixation, filtration and transpiration services, thus dramatically altering soil stability, soil quality and precipitation patterns over great swaths of the province (Bermingham, 27 January 2008; Bermingham, 30 January 2008; Fowlie, 29 December 2007; Hamilton, 13 March 2008; Hunt, April 2008; Hunter, 22 December 2007; Rud, 15 September 2007). While these are exactly the kind of consequences which experts predict BC will face as climate change progresses, such experts have rarely if ever drawn a causal connection between current events and climate change (Bohn, 18 February 1995: McKeague, 31 March 1997).

The 2007 throne speech also identified climate change as a current threat to BC, arguing that of all governmental priorities “none is more important than the critical problem of global warming and climate change…[the] more timid our response, the harsher the consequences will be.” (Province of British Columbia, 13 February 2007). This throne speech identified provincial carbon emissions as a contributor to this critical problem and also named neighbouring jurisdictions in the United States which had arrived at a similar problem definition, including Oregon and Washington State, implying that the Liberal understanding of the problem was a mainstream opinion.

Prior to 2007, the Liberal government had preferred an implicit definition of the problem which understood emissions as a necessary by-product of economic growth, not an explicit threat to be regulated. For example, many of the previous seven throne speeches had established priorities which were antithetical to the reduction of carbon emissions. An entire section of the 2004 throne speech was dedicated to talk of expanding the production of coal-bed methane and coal mining in the province (Province of British Columbia, 10 February 2004). In 2003 the provincial executive claimed that by 2010 "...your government wants to have an offshore oil and gas industry that is up and running, environmentally sound and booming with job creation" (Province of British Columbia, 11 February 2003). Finally, in 2002 the executive promised to "...improve the investment climate for mineral exploration..." and offshore oil and gas production (Province of British Columbia, 12 February 2002). The sole emissions reduction policy initiative supported by the provincial government prior to 2007 was the national Voluntary Challenge and Registry, a non-binding organization which never achieved meaningful reductions in BC or any other Canadian province (Meadows, 2008; Province of British Columbia, May 2006. The change in this stream thus occurred when the political executive shifted their understanding of the seriousness of the problem of carbon emissions, from necessary by-product of economic growth to critical threat requiring mandatory reductions.

BC’s Policy Stream

While the problem stream developed a clear definition of why carbon emissions were an issue worth government attention early on in 2007, the policy stream developed more gradually. Operational specifics emerged over time, but the most important initial characteristic of the stream was that the final Liberal proposal would be compatible with their pre-established policy preferences regarding the indirect role government ought to play in society and the market. Policy options which fit with this broad preference were already well developed by policy advocates outside government, one of whom became a major participant in the formal policy creation process.

The 2007 throne speech exposed the Liberal policy preference for a hands-off approach to emissions reductions by identifying the provincial tax system as a mechanism by which absolute cuts could be achieved. While the speech did not plainly identify the specific policy changes under consideration, the intent was clear:

"The government does not support new taxes on productivity that create disincentives to capital investment. But it does believe that our tax system should encourage responsible action and individual choices. The cost of climate change is directly related to our consumption. Over the next year, the Province will consider the range of possibilities aimed at encouraging personal choices that are environmentally responsible. It will look for new ways to encourage overall tax savings through shifts in behaviour that reduce carbon consumption. For our goals to be met citizens must take primary responsibility and make choices that reflect their values."(Province of British Columbia, 13 February 2007)

Members of the provincial executive publically argued that placing a price on carbon emissions was not only compatible with but supportive of economic growth and competitiveness. For example, Minister of the Environment Barry Penner often called such a policy a potential "win-win" for the environment and the economy, and argued in the Legislature that setting a price on emissions would make the province "a leader in geothermal technology, energy-efficient buildings, solar thermal systems, cellulose ethanol technologies and gas-to-liquid technologies…" (Hansard, 21 November 2007, pp. 9372). Bluntly, it is not possible that the Minster could know with such specificity which industries, if any, would directly benefit from the creation of a price on emissions. His statements are relevant not in terms of their validity, but because of how they developed the Liberal policy agenda.

As 2007 came to a close, the political executive signaled they intended to proceed with a tax on the carbon content of fossil fuels, levied primarily upstream (i.e., the coal mine gate, the wellhead, the customs office, etc.). Premier Campbell and Finance Minister Carole Taylor were the primary political actors responsible for drafting this proposal, and while they relied on several consultative forums and ad-hoc bureaucratic bodies to develop the policy proposal further, it may be that the process was designed to produce a pro-carbon tax proposal. All of the new bureaucratic groups, such as the Climate Action Secretariat, were housed administratively within the Office of the Premier, not the Ministry of the Environment, even though the Ministry provided the Secretariat's budget and housed all provincial data and expertise on emission sources and sinks (Province of British Columbia, June 2008). Campbell's hand-picked head of the Secretariat, Graham Whitmarsh, was a public supporter of carbon taxes and argued they could be used to develop new economic sectors within the province prior to the introduction of the actual policy proposal (Board Resourcing and Development Office, n.d.; Tod, 10 December 2007). Finally, a traveling committee of MLAs established by the Premier to provide policy suggestions actually recommended against a carbon tax in their final report, but their conclusions were dismissed by the Minister Taylor prior to the carbon tax announcement (Meissner, 10 February 2008; Meissner, 12 February 2008; Meissner, 19 February 2008; Smyth, 13 January 2008).

A policy argument for using market-based instruments to reduce emissions had long been advanced by actors and organizations outside government. Advocacy-minded academics like Simon Fraser University's Mark Jaccard and the Sightline Institute's Alan Durning had published numerous white papers, op-eds and books for years prior to the 2007 throne speech, as had groups like the Pembina

Institute. Durning got a copy of his book on carbon taxation into the hands of Campbell when he was transitioning from leader of the opposition to Premier in the late 1990s. Campbell allegedly told Durning that he intended to implement such a scheme in his second term, a story which the current High Commissioner to the United Kingdom has not corroborated (Durning, 13 March 2008; Motavalli, March/April 1999). However, there are numerous significant similarities between Durning's arguments and those made by the Premier during the introduction of the carbon tax, in both normative and administrative terms. For example, both argued that carbon taxes were compatible, and could even promote, economic growth. Also, both argued that any such scheme ought to be levied upstream for the sake of administrative simplicity (Bauman & Durning, 1998). Jaccard had also authored and co-wrote numerous publications on the economic benefits of carbon taxes, and played a direct role in developing provincial policy by serving as a special advisor to the provincial Cabinet Committee on Climate Action; his environmental consultancy, MK Jaccards & Associates, had a second, separate contract to provide the same group of political executives with technical expertise on policy (Jaccard, 24 October 2007; Jaccard, 16 January 2008; Mintz & Jaccard, 2006; Mittelstaedt, 17 May 2007; Province of British Columbia, June 2008). The quality and quantity of work produced outside government on carbon taxes prior to 2007 meant that the Liberal executive would not be forced to build from first principles, making the above argument that the policy process was engineered to produce a pre-carbon tax recommendation more plausible. The change in this stream lay solely in the fact that the political executive took an interest in implementing its contents, not that a new idea suddenly emerged.

BC's Politics Stream

In 2007-08, Gordon Campbell was a two-term Premier with an election on the horizon. Given the mercurial nature of provincial voters, and the fact that the last premier re-elected twice was Bill Bennett in the early 1980s, it would have been understandable if the Premier wanted to avoid ruffling too many feathers ahead of the spring 2009 election. However, the potential disturbance caused by the introduction of a carbon tax was calculated as a net political gain for several reasons.

First, by acting to introduce an aggressive policy instrument which would reduce GHG emissions, the Liberals were stealing the initiative on a policy issue popularly viewed as belonging to the NDP (Hunter, 29 February 2008; Isabella, 27 June 1999; Meissner, 29 May 2008; Woods, 6 November 2006). Over the course of the carbon tax's proposal and implementation, the Liberals gradually came to be viewed in public opinion polls as the party with the most legitimacy on environmental issues (Coyne, 26 May 2009; Fowlie, 8 March 2008; Hunter, 30 May 2008). The NDP opposition facilitated this shift by introducing counter-proposals which were seen as weaker policy alternatives by various environmental groups, such as the David Suzuki Foundation, Pembina Institute and Sierra Club of BC (Jaccard, 16 January 2008; Rivers, 29 April 2008; Smyth, 3 June 2008). These groups were traditional critics of the Liberal government, but offered increasingly vocal support and defense of the Liberal plan as its characteristics were filled out.

Second, traditional Liberal supporters who would be disadvantaged by the carbon tax, represented by groups like the Business Council of BC and Canadian Trucking Alliance, had no political party to the right of the Liberals ready to champion their grievances (Beltrame, 27 January 2008; Bradley, 4 June 2008; Finlayson, 11 March 2008; Vanderkilppe, 28 May 2008). At the time, the provincial Liberals were the only conservative party in the province. Having no right to run to meant that opponents of the tax could only hope to influence the character of the tax by participating in government-organized consultative forums, such as the Climate Action Team, a psudo-bureaucratic group formed in late 2007 from representatives of the business, environmental, Aboriginal and academic spheres. The influence these groups had on shifting the original preferences of the political executive is questionable, and given the heterogeneous membership of these groups it seems unlikely that opponents to the tax would have been able to control the agenda or messages they produced.

The Liberals experienced only one real political challenge to their plans, though a weakly-organized and temporary one. In early 2008, after the provincial government had announced that it would introduce a carbon tax on 1 July 2008, the mayors of various northern municipalities in BC began agitating for exemptions based on two grounds. First, municipalities do not pay income tax of any type, meaning they would not be able to take advantage of the simultaneous tax reductions introduced with the policy. Second, the leaders of these municipalities argued that their residents did not have the same range of low-emission transportation options as residents of the urban centres and thus wouldn't be able to avoid the tax by making the changes encouraged under the policy (Ritchie, 29 April 2008).

At a meeting of the North Central Municipal Association, the mayors of these communities unanimously passed a non-binding resolution calling for each individual municipality to withhold paying their share of the carbon tax until the province agreed to come up with a way to return the revenue. A joint meeting between provincial officials and the Association was held shortly after this vote, during which Premier Campbell spoke. During his speech, the Premier never once mentioned the carbon tax, the Association's threat to withhold payments or any new revenue transfers from the province to northern municipalities. Only after the meeting was over – in a follow-up media scrum outside the meeting hall – did the Premier discuss the tax, and even then only to say that he had no plans to modify it in any way (Bailey, 9 May 2008). Organized opposition to the carbon tax broke down completely after northern municipal leaders failed to gain the support of Finance Minister Carole Taylor, who made it clear in a private conference call the tax would not be modified and that the Premier was absolutely committed to lowering provincial emissions (Bailey, 26 May 2008). While the NDP opposition continued to raise the tax's supposed unfair impact on northern communities in the provincial legislature and in the media, no other group or movement arose to champion the issue (Hansard, 22 May 2008: Meissner, 29 May 2008: Smyth, 3 June 2008).

The combination of these factors produced a net political gain for the Liberals. The NDP would lose environmental support to the Liberals based on their inability to offer a legitimate policy alternative, and loss of existing Liberal supporters would be minimized based on the provincial political landscape. The shift in the political stream occurred when the Liberal Party under Gordon Campbell calculated that introducing a carbon tax would strengthen their political position.

BC's Policy Entrepreneur & Policy Window

Multiple streams theory claims that policy change comes about only when an entrepreneur purposefully crosses the three streams, or takes advantage of their serendipitous crossing, and exploits the resulting policy window. In BC, Premier Gordon Campbell filled this entrepreneurial role by engineering the required cross and shepherding the provincial carbon tax through the legislature. The window he opened was endogenously generated in that it was the product of internal contextual factors within the formal political structure, and not the consequence of a focusing event located outside government. Policy change in BC was a deliberate process driven by a motivated agent, not an accident of history exploited by the right man in the right place.

Entrepreneurs are always active agents, and they work to shift perceptions and create strategic opportunities for change from both within government and outside the formal political structure. Premier Campbell worked with elements of both forums; inside the political executive of the Liberal government, he established a problem definition regarding carbon emissions which demanded government more from passive support for voluntary reductions to active regulation of mandatory emissions cuts. He provided a policy option which was compatible with the existing market-based preferences of the Liberal party by drawing on existing and well-developed work from outside government, and by establishing a consultation process which was designed to produce a suitably mainstream recommendation. Finally, he exploited the opportunities of the political landscape, which included an ineffective official opposition, a captive political base and the availability of non-traditional supporters from outside the formal political process. Premier Campbell was responsible for the quality and contents of each of the three streams; none of them were controlled by other agents or defined by external events. In the absence of his entrepreneurial leadership, it is unlikely that the provincial Liberals would have instituted a carbon tax.

New Zealand

New Zealand's story spans a longer time frame and includes more political actors than BC's, owing largely to the country's style of proportional representation. However, the basic narrative remains the same; carbon pricing came about because actors within the political executive calculated that instituting such policy would secure their hold on government. The single largest difference between the two cases is that in New Zealand, carbon pricing appeared, vanished and then reappeared on the policy agenda prior to being implemented. Between 2002 and 2005, a carbon tax was promoted by the centre-left Labour government. It was dropped following the 2005 election, and no successor policy proposal appeared until early 2007 when Labour decided to construct an emissions trading system. Even though Labour lost the 2008 election to the centre-right National Party, the emissions trading system was still implemented, reflecting a broad political agreement that such a scheme was the right policy for the problem.

New Zealand's Problem Stream

Labour and National initially held different conceptualizations of the country's emissions problems, in the sense that Labour believed there was a problem while National did not. After ratifying the Kyoto Protocol in 2002, Labour promised to introduce a carbon tax which would help the country meet its obligations under that agreement, an obligation Clark and others argued needed to be met if New Zealand was to protect its reputation as an environmentally conscious participant in global markets (NZ Herald Staff, 10 December 2002; Young, 15 November 2002). Pete Hodgson, who simultaneously held the posts of Energy Minister and Minister Responsible for Climate Issues, was the member of Labour's executive most frequently called on to explain and defend this proposal. He frequently referred to the economic benefits New Zealand would enjoy from participating in Kyoto, primarily the windfall of internationally-tradable emission credits the country would be granted under the scheme (Hodgson, 18 August 2003; Hodgson, 4 May 2005; Read, 19 November 2003).

National, led by Don Brash until late 2006, was quick to oppose the carbon tax and attempted to offer a very different problem definition leading up to the election of September 2005. His argument was that, given New Zealand contributes so little to the sum of global emissions, the country ought not to commit to any reductions before their major trading partners (Australia and the United States). On these ground, Brash argued that a National government would not only repeal the carbon tax, but exit Kyoto altogether (Fallow, 10 August 2004; NZ Herald Staff, 13 May 2004; NZ Herald Staff, 18 August 2005). It ought to be noted that at no point did Brash or any significant representative of National claim climate change is not occurring; indeed, National was quite careful to base their opposition to the carbon tax on economic grounds, not scientific ones. The primary take-away from this argument between Labour and

National is that, from the outset, the definition of New Zealand's emissions problem was a contested concept. Importantly, the contest was not based on different interpretations of technical information, but divergent political preferences. While Labour publically argued their primary responsibility was to protect New Zealand's international reputation, National argued the government's responsibility was to protect the competitiveness of domestic enterprises.

Leading up to the 2005 election, Labour clearly failed to entrench their problem definition as the primary one. More explanation will follow in the politics section, but it suffices to say for now that National and their allies both in and outside of government had successfully defended the status quo of no carbon tax; a couple of New Zealand's minority parties even included repealing Kyoto as planks in their election platforms. While Clark's Labour Party managed to form government again after that September, they did so by forming confidence and supply agreements with those anti-tax parties, and not with the pro-tax Greens (Bennett, 14 September 2005; Bennett, 24 August 2005; New Zealand Press Association, 21 December 2005; NZ Herald Staff, 18 August 2005). Carbon pricing fell off the domestic policy agenda in late 2005, and by the time it returned in 2007, National had developed a somewhat different problem definition.

After failing to form government in the 2005 election, National produced an understanding of the emissions problem which competed with Labour's existing definition in positive rather than negative terms. In short, National began to steal carbon pricing as a policy issue from Labour, rather than oppose carbon pricing altogether (James, 8 May 2007). Party leader John Key – who took the reins after Don Brash's resignation in late 2006 – argued that reducing New Zealand's GHG emissions without causing undue economic hardship was the primary issue, while meeting the state's obligations under Kyoto was secondary. For example, in late 2007 Key endorsed a white paper produced by the New Zealand Institute which called for the country to abandon trying to meet its 2012 Kyoto targets in favour of more achievable 2020 targets; Key framed his endorsement of this particular report as an effort to balance economic and environmental responsibilities without sacrificing one to the other (Fallow, 24 October 2007). In early 2008, Key began promoting the findings of another think-tank white paper which argued that the costs of Labour's proposed emissions trading scheme would exceed $4.5 billion. As National did previously with the carbon tax, Key argued that Labour's plans would hurt New Zealand's economic competitiveness; however, rather than reject the proposed emissions scheme altogether, Key instead made National's support of the scheme contingent on Labour addressing a brief list of policy design concerns. For example, Key wanted Labour to publically affirm that the scheme would be revenue neutral and linkable to an eventual Australian ETS (NZ Herald, 30 April 2008).

New Zealand's Policy Stream

Between 2005 and 2008, New Zealand went from almost having a carbon tax, to having no carbon pricing policy at all, to ending up with an emissions trading scheme. In this section we will discuss some of the technical specifics of these policies and who promoted them, as well as how New Zealand's developing understanding of their Kyoto obligations likely shifted Labour's policy preferences. The vital point to take-away from this section is that by the time of the 2008 election, both Labour and National agreed in broad strokes on the appropriate policy option. This changed the nature of the political fight surrounding the policy, from one based on the legitimacy of the carbon tax proposal itself to one based on who was the political actor best situated to implement a successful emissions trading scheme.

Under Kyoto, New Zealand would be granted a quantity of Assigned Amount Units (AAU), the tradable emission credits given to national governments which were to be used to meet their reduction obligations. Upon ratification in 2002, and repeatedly claimed over the subsequent years, the Labour government argued that the country would be a net winner under Kyoto. Energy and Climate Issues Minister Pete Hodgson argued at the time that not ratifying Kyoto would be like setting fire "a very big check," a check whose value was based on forests in New Zealand which counted as carbon sinks under the Protocol (Fallow, 25 October 2004). At the time, it was thought that these forests would allow New Zealand to meet their reduction obligations with a minimum of effort, and leave the country holding a surplus of allowances worth many millions of dollars. For this reason, the Labour government chose to retain ownership of the AAU assigned to them under Kyoto, rather than distribute them to private foresters as a property right (Dann, 21 July 2003; Fallow, 5 July 2003; Fallow, 11 March 2004). Importantly, this meant that the liability for meeting Kyoto's obligations also remained with the national government.

When Labour ratified the Kyoto Protocol in 2002, the party claimed that a domestic carbon tax would be developed to aid in meeting the county's emission reduction obligations. However, substantive technical work did not begin on the policy until after the Protocol came into force in 2004, when Russia's ratification turned the document from a well-meaning piece of paper into an internationally binding agreement (Fallow, 2 October 2004; Fallow, 3 October 2004; NZ Herald Staff, 1 April 2004; NZ Herald Staff, 3 April 2004). Suddenly, Labour's proposed carbon tax was included in the 2005 budget and intended to begin collecting revenues from April of 2007. Emissions from agricultural operators were to be excluded from the scheme, a significant design choice considering that approximately 40% of New Zealand's emissions come from that sector. Agricultural operators would pay a separate methane levy, the revenues from which would be used to fund research into methods of reducing livestock-based emissions. The carbon tax was also intended to be revenue neutral in that its implementation would be combined with a rollback of other forms of taxation. (Hodgson, 4 May 2005: Fallow, 15 May 2005).

A serious blow to the assumptions Labour had based the carbon tax policy on – and Pete Hodgson had consistently voiced in the media – gradually emerged over 2005; New Zealand would in fact be a net loser under Kyoto. Due to a scientific re-evaluation of how forests sequester carbon, the country would not receive as many AAUs at the start of 2008 – the beginning of Kyoto's first compliance period – as had been assumed (Fallow, 17 June 2005; Milne, 26 June 2005: Taylor, 6 September 2005). The national government was now facing a shortfall of emissions allowances, not a surplus, and a consequent liability which could run to just under half a billion dollars, depending on the international price of allowances (Fallow, 9 July 2005; Fallow, 12 July 2005). Overnight, Labour's carbon tax plan went from being politically unpopular but good policy, to politically unpopular and wholly insufficient policy. After forming government again following the 2005 election, Minister Hodgson ordered a review of these findings; upon confirming them in October of that year, Labour dropped the carbon tax from their budget plans, citing the rising costs of vehicle fuel and success of other emission-reduction policies as justifications for its abandonment (Fallow, 11 October 2005; Fallow, 18 October 2005; Myer, 30 December 2005; NZPA, 21 December 2005:).

In November of 2006, National released its own carbon pricing proposal as part of a white paper, *A Blue-Green Vision for New Zealand*. Primarily authored by Nick Smith, National's environment critic, the paper proposed implementing a domestic emissions trading scheme which would be designed to be compatible with an eventual Australian counterpart, and possibly the California emissions trading scheme. Furthermore, National proposed to design the scheme in a context of ongoing negotiations around a post-Kyoto regime, a dramatic policy shift from their earlier pre-2005 preference for leaving Kyoto altogether. A specific emissions reduction pledge was not included, nor was mention made of whether or not agricultural emissions would be covered by the scheme, omissions which fit with the problem definition being developed by John Key at this time and discussed above. Finally, the paper also included other climate-related policy goals, such as drafting regulations requiring increased domestic blending of biodiesel and revising the national Resource Management Act to speed up approvals of renewable energy projects, many of which would be followed through on after National won the 2008 election (Smith, 2006).

National's white paper proceeded Labour's initial emissions trading scheme announcement by a solid six months. In early 2007, David Parker – Labour's new Minister for Climate Change Issues following a cabinet shuffle – claimed that consultations on climate policy options during late 2006 had revealed a consensus among members of the public and business community that an emissions trading scheme was the right choice for New Zealand (Cabinet Policy Committee, 21 August 2007; Cumming, 14 April 2007; Evans, 9 May 2007). Consequently, Minister Parker would facilitate a year-long process of program design to create a Kyoto-compliant trading scheme which would help the country meet its reduction obligations, a proposal which the Minister argued already possessed significant political support, given National's endorsement of an emissions trading scheme. Hence, while Labour shifted its policy preferences on carbon pricing, it did not do so because of a new understanding of the problem.

New Zealand's Politics Stream

The politics of carbon pricing shifted significantly between 2002 and 2008. During the carbon tax period, Labour fought multiple uphill battles at the same time. Organized opposition came from both political organizations and economic ones, and the government failed to cultivate strong alliances with groups which could aid them in implementing the policy. While Labour was returned to government following the 2005 election, the political landscape had not been significantly shifted by the vote, and the carbon tax was dropped. By the time the emissions trading scheme was proposed in 2007, however, one significant change had occurred. National – the organization most likely to form an alternative government – had chosen to promote itself as the party most likely to reduce New Zealand's emissions, a change evident in how their arguments around carbon pricing shifted from being opposed to the proposed policy to questioning Labour's capacity to implement the policy.

Between 2002 and 2005, the Labour government faced organized opposition to their proposed carbon tax from several interests. To start, Labour had chosen to capture agricultural emissions under a separate policy, a levy on methane which would fund research on methods and technologies intended to reduce emissions from this sector. While such emissions would be excluded from the proposed carbon tax, agricultural interest groups consistently argued that their operators would in fact be subject to both taxes because of the carbon tax's effect on the price of inputs like fuel and electricity. Leading up the to the carbon tax`s inclusion in the 2005 budget, New Zealand`s largest agricultural lobby, Federated Farmers, organized numerous rallies against the policy, which they labeled a 'fart tax' (Dann, 25 June 2003; Dann, 18 August 2003; NZ Herald Staff, 3 July 2003; NZ Herald Staff, 21 July 2003; NZ Herald Staff, 1 April 2004). Ranch and farm operators were counted among the traditional political base of the National Party, giving then-leader Don Brash a political incentive to oppose the tax. In addition to the economic concerns discussed above, Brash also based his opposition to the carbon tax on the claimed double-burden it would place on the agricultural sector, a position which was further supported by domestic business lobbies like the New Zealand Business Roundtable. Brash also used the carbon tax as an example of Labour's alleged lack of focus, spending more time trying to cut emissions than stem the emigration of New Zealanders to Australia. Finally, Climate Change Minister Hodgson was also Energy Minister Hodgson during most of this period, and found himself in the position of defending the economic credentials of the carbon tax while also arguing it would have no adverse effect on sorely-needed investments in new electrical generation facilities. This position came under sustained attack from business interests and coal mine operators, who argued the tax would make such investments unlikely (Dann, 1 April 2004; Fallow, 29 March 2004; Fallow, 3 April 2004; Fallow, 6 September 2005; Northern Advocate; 26 July 2005; NZ Herald Staff, 1 April 2004; Taylor, 20 May 2004; Vaughan, 20 May 2005).

As Labour was enduring opposition to their as-yet-undrafted carbon tax, the government was simultaneously failing to earn the support of potential allies in the environmental sector. By excluding agricultural emissions from the proposed policy and choosing to recycle revenues via lower income and corporate taxes rather than using the revenues to fund domestic emissions reductions, groups like Greenpeace and the Sustainable Business Council of New Zealand argued that the Labour government was offering only half a loaf on emissions policy (Donald, 28 December 2003; Fallow, 13 January 2003; Fallow, 5 July 2003). Labour also antagonized operators in the one sector which clearly stood to be a net winner under the combined Kyoto/carbon tax regime, commercial foresters. By keeping New Zealand's allotment of AAU's, forestry interests argued that the government was appropriating a benefit which had been earned by the efforts of their operators. This policy choice was cited as the reason why reforestation efforts slowed so dramatically following Labour's ratification of the Protocol; without the expected economic benefit of transferred carbon credits, commercial foresters were delaying plantings until Labour's policy plans became clear (Fallow, 10 August 2004; Fallow, 18 August 2005). Finally, New Zealand's Green Party argued against the carbon tax for many of the same reasons advanced by environmental groups. This party made their support for the tax contingent on Labour agreeing to fund and implement other emissions-reducing schemes, such as an incentive for home owners to install additional insulation. The Greens also argued that the carbon tax ought only to be the first step toward a complete overhaul of New Zealand's tax system, based on ecological principles (Bennett, 24 August 2005; Fallow, 15 May 2005; NZ Herald Staff, 31 August 2005). The Greens were the only minority party to ever vote for the carbon tax in the legislature, with most of the other parties justifying their opposition to it along the same lines as offered by National. Following the 2005 election, Labour chose to form government by striking confidence and supply agreements with two minority parties which had both campaigned on scrapping the tax and exiting Kyoto, rather than the pro-tax Greens. This lack of support from their coalition partners made it easier for Labour to abandon a policy which had not brought them any political advantage, even though it had been a plank in their platform for many years.

In late 2007, when the Labour government brought the emissions trading bill to its first reading, only one party of the seven present in Parliament voted against it. National leader John Key said his party "supports the first reading of [the bill] because we believe that an emissions trading system is the sensible approach for New Zealand to take in response to the huge challenge of climate change" (Hansard, 11 December 2007, pp. 13791). However, leading up to the election of 2008, this political consensus morphed into a political contest, one which saw Labour repeat many of the mistakes it made during the fight over the carbon tax regarding cultivating allies and withstanding opponents.

For example, Climate Change Minister David Parker and Prime Minister Helen Clark announced in early 2008 that transport fuels, which had originally been slated to fall under the emissions trading scheme's authority from the start of 2009, would now be pushed back to 2011 in order to alleviate price pressures on consumers and industry (Fallow, 6 March 2008; NZ Herald Staff, 5 May 2008). Transport fuels were supposed to be the second sector included in the scheme after forestry, the plan being that operators in this latter sector would provide short-term offset investment opportunities to fossil fuel producers and suppliers who would require more time to reduce their own emissions (Cabinet Policy Committee, 21 August 2007; Fallow, 9 June 2007; Fallow, 1 October 2007; New Zealand Government, September 2007). By instituting this change, Labour was eliminating the domestic market for the carbon offsets generated by forestry operators, a snub which was quickly placed by these operators in the context of Labour's previous choice to withhold AAU's, and criticized by environmental groups as a blow against the scheme's environmental legitimacy. This significant technical change also demonstrated to industry association that the final form and functioning of the emissions trading scheme was still very uncertain, a realization which led to them qualifying the cautious support they had previously given the plan (NZ Herald, 30 April 2008; Terry, 23 July 2008; Beard, 1 August 2008; Fallow, 10 September 2008a; Fallow, 10 September 2008b). As with the carbon tax, Labour's actions, encouraged otherwise logical allies to withhold their support.

Another similarity came from Labour's decision to include agriculture under the emissions trading scheme only from 2013, thereby generating increased resistance from outside government while simultaneously failing to earn the endorsement of the group it was intended to placate. In addition to entering the scheme after every other regulated sector, agricultural operators would receive free allowances of 90% of their 2005 emissions, the same rate as trade-exposed sectors like cement and steel making. Prime Minister Clark also announced that reductions in free allocations would not begin until 2018, five years later than originally planned, and only after a special review was conducted to ensure that sectors receiving assistance would be able to bear the costs of full obligations (Fallow, 20 September 2007; Fallow, 25 February 2008; Fallow, 30 April 2008; Fallow, 7 May 2008; NZ Herald, 21 May 2008; Hembry, 15 September 2008). These were significant technically concessions granted to cultivate allies among one of the most significant interests which had opposed Labour's carbon tax, concessions which were predictably opposed by environmental groups. However, Federated Farmers again employed the same argument against the emissions trading scheme as they had against the failed carbon tax; the only short-term way operators could reduce their emissions was to cut production, and if government wanted farmers to cut emissions they needed to spend a great deal more on research and development. This demand wound up as part of Federated Farmer's pre-election manifesto, along with a demand the agriculture be excluded from New Zealand's emissions trading scheme altogether (de Freitas, 20 May 2008: Hembry, 4 November 2008).

Leading up to the 2008 election, National spent serious time and effort engaged in strategic positioning on the emissions trading scheme. For example, leader John Key gave a speech to the party's membership which endorsed New Zealand's participation in Kyoto, promised to establish an all-sector, all-gases ETS if elected and announced National's goal of a 50% reduction in emissions by 2050 (Quilliam, 15 April 2007: James, 8 May 2007: NZPA, 14 May 2007).This was a dramatic reversal from the carbon tax period, a reversal which was preceded by environment critic Nick Smith's above-discussed white paper on carbon pricing. During the lead-up to and actual votes on the second and third reading of the bill, Key and other members of the National party hammered away at Labour on the grounds that the entire legislative process around the bill had been rushed, that a proper regulatory impact analysis had never been performed and that Labour lacked the legitimacy to pass such a bill given the dramatic rise in both emissions and deforestation during their rule (Hansard, 5 March 2008: Hansard, 18 June 2008: Hansard, 28 August 2008: Hansard, 10 September 2008). In short, National was attempting to employ climate policy as an election wedge issue; while the party demonstrated political support for emissions trading in both Smith's 2006 white paper and the first vote on the scheme in 2007, they never intended to allow Labour to own the file without challenge.

Interestingly, National's support for the emissions trading system over 2007-2008 came in the teeth of opposition from their traditional supporters in the agricultural sector. As mentioned, Federated Farmers was still opposing mandatory emission cuts on behalf of their members, but National chose to act against this demand by supporting an emissions trading system which covered agriculture. This shift may be understood in several lights; first, National had gotten behind the demands of the agricultural sector in a serious way during the 2005 election, but doing so hadn't given them government. Thus, National was presented with an indication that their traditional supporters may be insufficient to propel their rise to power while simultaneously obtaining a new leader in John Key. Key was free to act on this indication however he chose, and he chose to adopt a policy position exactly opposite to that of his predecessor. Second, public consultations in late 2006 revealed a consensus among members of the public, industry and environmental sectors that emissions reductions were still desirable and that an emissions trading scheme was the tool to accomplish this end. Labour used these consultations as justification for introducing their scheme, and National's white paper which endorsed carbon pricing was released around the same time. By following public opinion with a policy proposal, and making a political argument that Labour had no credibility on emissions reductions, National was attempting to steal an issue which had previously belonged to Labour, and a lesser extent the Greens. While Labour repeated many of the mistakes it made during the carbon tax debate, National learned how to steal the momentum on a political issue from the same experience.

New Zealand's Policy Entrepreneurs & Policy Window

Three people stood out as policy entrepreneurs in the push to set a price on carbon in New Zealand. From Labour, Climate Change and Energy Minister Peter Hodgson was the executive actor most dedicated to establishing a pricing policy, while within National it was leader John Key and environment critic Nick Smith pushing the agenda. The most significant difference between the two sets of entrepreneurs, Hodgson and Key/Smith, was the energy they devoted to crossing the three streams and opening a policy window.

Minister Hodgson never gave Labour's proposed carbon tax his full attention. Holding two substantial portfolios simultaneously demanded he split his time among a variety of issues, making it easier for opponents of the carbon tax to control political discussions surrounding the instrument. Omitting agricultural emissions from the tax was a policy fix to a political problem, but one which failed to subdue opposition from representatives of the industry while also softening support from potential allies in the environmental sector. Hodgson was also unable to control messaging around the policy, in that the carbon tax was often wrongly bound up with the methane levy, a completely separate policy. In his legislative efforts to pass the carbon tax, Hodgson was hindered by the lack of opposition support for even the idea of carbon pricing, let alone the substance of the tax. Most of the other parties, save the Greens, wanted to exit Kyoto altogether even before it emerged that New Zealand would likely need to purchase emission allowances in order to meet its reduction obligations. In short, there never was a policy window surrounding carbon pricing during Minister Hodgson's attempted to pass the carbon tax.

While Labour was the party which first introduced an emissions trading bill in the legislature, National had adopted the policy as a party plank months previously. When John Key became leader following the 2005 election, he initiated a reversal of National's opposition to Kyoto and carbon pricing and established support for emissions trading as a National policy, via Nick Smith's 2006 environmental policy white paper. Losing the 2005 election left Key free to make these dramatic changes in party policy based on political calculations. Seeing an opportunity to steal the initiative on an issue which Labour had claimed to be interested in but consistently failed to achieve a policy success on for years, Key framed the issue of carbon pricing as being about the credibility of the government and not the need to reduce emissions. National's political situation was further improved by the fact that in the run-up to the 2008 election, agricultural groups who still opposed any action on emissions spent most of their efforts attacking Labour as the source of the trading scheme proposal, while failing to notice that National – their historical political champion – intended to introduce a largely similar scheme if they formed government. Hence, the continued opposition of these external groups was made less significant because a consensus had emerged on policy. This consensus changed the nature of the political contest surrounding the issue of carbon pricing, from one based on whether or not there ought to be a policy at all to who would take the credit for establishing the policy.

Closing Remarks

In both New Zealand and British Columbia, multiple streams highlighted the vital role played by members of the political executive – as policy entrepreneurs – in inducing policy change. Within these parliamentary systems, executive actors were uniquely placed to bring together the three streams and take advantage of the resulting policy window. Absent their interest in the issue, it seems improbable that either jurisdiction would have a price on carbon today. In neither case was there an overt exogenous push to establish a policy; in BC, there was no external agreement requiring action on emission reductions, while in New Zealand the specific policy demands of the country's Kyoto obligations was ambiguous at best, providing no particular policy guidelines or provoking the formation of a domestic interest which demanded action. The shape and substance of action, if action was to be taken, was left to the discretion of an elite.

In both cases, actors from the centre of government were active in shaping the character of all three streams. These actors interpreted the relative costs and benefits to be gained by taking different political positions, framed policy proposals in strategic ways in order to make them more or less compatible with existing policy preferences and consciously generated problem definitions which demanded or prohibited government action on carbon pricing. The policy outcomes in each case were the consequence of purposeful strategic action, driven by executive actors who deliberately sought policy alternatives which would increase their power, relative to their political opponents. Therefore, a multiple streams explanation of the policy process in a parliamentary setting makes the involvement of an executive member as a policy entrepreneur a necessary condition of policy change.

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