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## Smart Market-Oriented Regulations and the Potential for Unintended Policy Interactions in Canada

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# Climate Choices Canada Commentary<sup>1</sup>

## Smart Market-oriented Regulations and the Potential for Unintended Policy Interactions in Canada

By

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### Key Observations:

- Smart-market regulations and the development of corporate average fuel economy (CAFÉ) have contributed to the reduction of greenhouse gas emissions in the state of California.
- These types of regulations may have negative externalities in Canada if unevenly applied among the provinces.
- Policy overlaps, high administrative costs and unequal burden-sharing are among the potential consequences of market-oriented regulations.
- Despite the success of California's zero-emissions vehicle scheme, smart market-oriented regulations might not translate well in the Canadian context and policymakers should be aware of the externalities.

### Introduction:

Climate change policies in Canada have been described as “fragmented” by David McLaughlin the former head of the National Roundtable on the Environment and the Economy (NRTEE) and many other analysts (McLaughlin, 2015; Snoddon and Wigle, 2009). Indeed, there is a lack of cohesion on policy matters between the provinces, and the federal government has not yet defined its role on these issues after years of inertia. While a national strategy is still wanting, the possibility of smart market-based regulations, similar to the California Vehicle Emissions Scheme, has been proposed as an economically efficient and politically acceptable strategy by

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<sup>1</sup> *Climate Choices Canada* took place February 18 to 20, 2016 in Waterloo, Ontario. This commentary is based on the conference presentations and participants' discussions.

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Mark Jaccard, a professor at Simon Fraser University (Jaccard, 2016).<sup>3</sup> This approach offers a way forward for provinces anxious to reduce emissions more aggressively. However, in an already fragmented policy space, such an approach may come with unintended consequences.

The purpose of this commentary is to highlight the scope for policies at different levels of government to interact in a way that may seem counterintuitive. The first section stresses the potential of smart market regulations in reducing GHG emissions and its success in California, as outlined by Jaccard. The second section explores the potential for policy interactions with a hypothetical example where one or more provinces develop a more ambitious system of corporate average fuel economy (CAFE) targets for vehicle emissions given a pre-existing federal carbon trading scheme.

### **What are smart and market-oriented regulation?**

On climate issues, regulation has long been considered as economically inefficient and less effective in reducing GHG reductions, compared to other policy tools such as carbon pricing (Hoar, 2013). Jaccard agrees with that assessment but only to some extent: regulations are inefficient because they are in most cases, poorly designed.<sup>4</sup>

Smart market-oriented regulations are designed to increase the market share of low-emission and/or zero emission technologies (such as vehicle and electricity technologies) among the companies involved in a market. The goal is to establish market conditions which independently promote the adoption of less-polluting technologies, while also catering to the preference of consumers (Dror, An, Ding and Habu, 2014:14). Credits are allowed by the regulatory body for the least polluting technologies and companies may trade among each other in order to meet the GHG emissions quotas. To meet the market shares set by the regulating body and make their investments in these niche markets viable, companies may use implicit carbon pricing on high-emission technologies. Depending on the ways through which GHG emissions reductions are achieved, the regulatory body in partnership with the market participants would readjust the market shares allocated to each niche.

Jaccard uses the example of the California Zero-Emission Vehicle program to illustrate the benefits of this type of regulation. A smart and market-oriented regulation uses inter-firm trade in credits associated with a Corporate Average Fuel Economy (CAFE) target. A corporate average fuel economy (CAFE) would be established in order to make the market-based regulations work. A limit on the average fuel emissions produced by automobile manufacturers' vehicles would be set. Subsequently, carbon credits would be bestowed to the automobile manufacturers whose fleets had better average emissions whereas those manufacturers who are unable to meet their target would have to purchase credits to bring them in line with the regulation. As the carbon market among automobile manufacturers develops and as consumers invest in lower emission-vehicles, the regulatory body could adjust the average fuel economy and/or the credits delivered in that sector.

Corporate average fuel economy schemes combine market logic and climate incentives by inducing behavioural change among the consumers. This is achieved through the indirect impact of the tradeable quotas, which makes vehicles with low fuel economy more expensive relative to those that are more fuel-efficient. The smart market-oriented regulations helped California reduce

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<sup>3</sup>Dr. Jaccard outlined his proposal during his keynote speech at the Climate Choices Canada conference.

<sup>4</sup> See also Helm (2013).

sensibly the level of air pollution and, at the same time, gave incentives to manufacturers to innovate on low-emission vehicles and ultra-low emission vehicles that would be accessible to the market. Of particular interest was the creation of special credits for Zero-Emissions (ZEV) and Ultra Low Emissions (ULEV) vehicles. These provisions supported the development of niche markets, which would not otherwise be economically viable without the CAFE.

### **Market-oriented regulations and the potential for unintended policy interactions in Canada**

Smart-market oriented regulations may appear economically efficient, but their impacts may be significantly altered if overlaps with other pre-existing policies are considered. A tighter CAFE standard in one region may not be as effective if other similar and complementary policies are not implemented in the other provinces of Canada. The potential for policy overlap seems increasingly more likely as federal and provincial governments ramp up policies to tackle emissions.<sup>5</sup> Policy overlaps may lead to high administrative costs, inefficient outcomes, and, more importantly, may have little or no impact on aggregate emissions if combined with other forms of regulation (Rivers, 2014; Fisher and Preonas, 2010; Hood, 2013).

Take the example of the credit market associated with a provincial CAFE-style regulation as suggested by Jaccard. It might have an unexpected effect if not implemented in a similar way in all provinces if there was a national carbon trading scheme in effect. While fostering innovation and consumer preference is beneficial in transitioning towards less greenhouse gas (GHG) emissions, the purchase of a more fuel efficient vehicle may also (via national carbon-trading) relax the GHG constraint for other regions, a possibility that would nullify the overall reduction in GHG emissions. This ought to be considered particularly in the context of Canada, where responsibility for the environment is shared by the federal and provincial governments and the current policy landscape is fragmented. While the implementation of a tight CAFE scheme in British Columbia might reduce the GHG emissions in that province, it might have little or no impact on GHG emissions in Canada. Indeed, the major effect of the tighter CAFE standard imposed by one region may be to allocate a higher share of overall compliance cost to itself with no impact on Canada-wide emissions.

### **Summary:**

In conclusion, the success of California's smart market oriented regulations which favoured the emergence of niche markets in LEVs, ULEVs and ZEVs might not translate well in the Canadian context. While the example we have chosen is rather specific, it illustrates the nature of linkages that can occur between climate policies at different levels of government. As mentioned above, climate policy is fragmented in Canada, and overlaps in policymaking among the provincial and federal governments are a real challenge. Our sense is that policymakers are not sufficiently aware of these interactions.

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<sup>5</sup> An observation made by Nicholas Rivers in session 4 "Instrument Design and Implementation" of the Climate Choices Canada workshop

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