

## **A Review of the Literature on the Social Cost of Greenhouse Gases and Implications for the Index of Economic Well-being**

The Index of Economic Well-being (IEWB), developed by the Centre for the Study of Living Standards (CSLS), includes a domain on stocks of wealth, which has an adjustment for the social costs of greenhouse gases (Thomas and Uguccioni, 2016). The current value assigned to greenhouse gases is \$100 US per ton, which is below many current estimates of the value of the negative externalities association with emissions.

This Directed Research project will contribute to the CSLS research effort related to the improvement of the methodology behind the IEWB by conducting a review of the literature on the social cost of greenhouse gas emissions and making recommendations based on this review to revise the assumption of the social cost of greenhouse gases in the IEWB. The project will consist of three parts. The first part will review the estimates of the social costs of greenhouse gases in the literature, with particular attention to the methodologies and assumptions behind these estimates. The second part will make a recommendation for a new assumption related to the social cost of greenhouse gas emissions for the IEWB, based what is seen as the most credible estimates found in the literature. Time permitting the third part of the project will apply this new assumption to the IEWB database to produce a new set of IEWB estimates and analyze the impact of the change in the assumption of the social costs of greenhouse gases for trends in stocks of wealth and the overall IEWB.

The Directed Research project will provide the student an opportunity to acquire detailed knowledge on the literature on the social cost of greenhouse gas emissions and to apply this knowledge to improve a metric of well-being, the IEWB.

### Reference

Thomas, Jasmin and James Uguccioni (2016) "A Tepid Recovery: The Index of Economic Well-being for Canada and the Provinces, 1981-2014," CSLS Research Report 2016-05, June, <http://www.csls.ca/reports/csls2016-05.pdf>

### Supervisor

Dr. Andrew Sharpe  
Centre for the Study of Living Standards  
[andrew.sharpe@csls.ca](mailto:andrew.sharpe@csls.ca)