

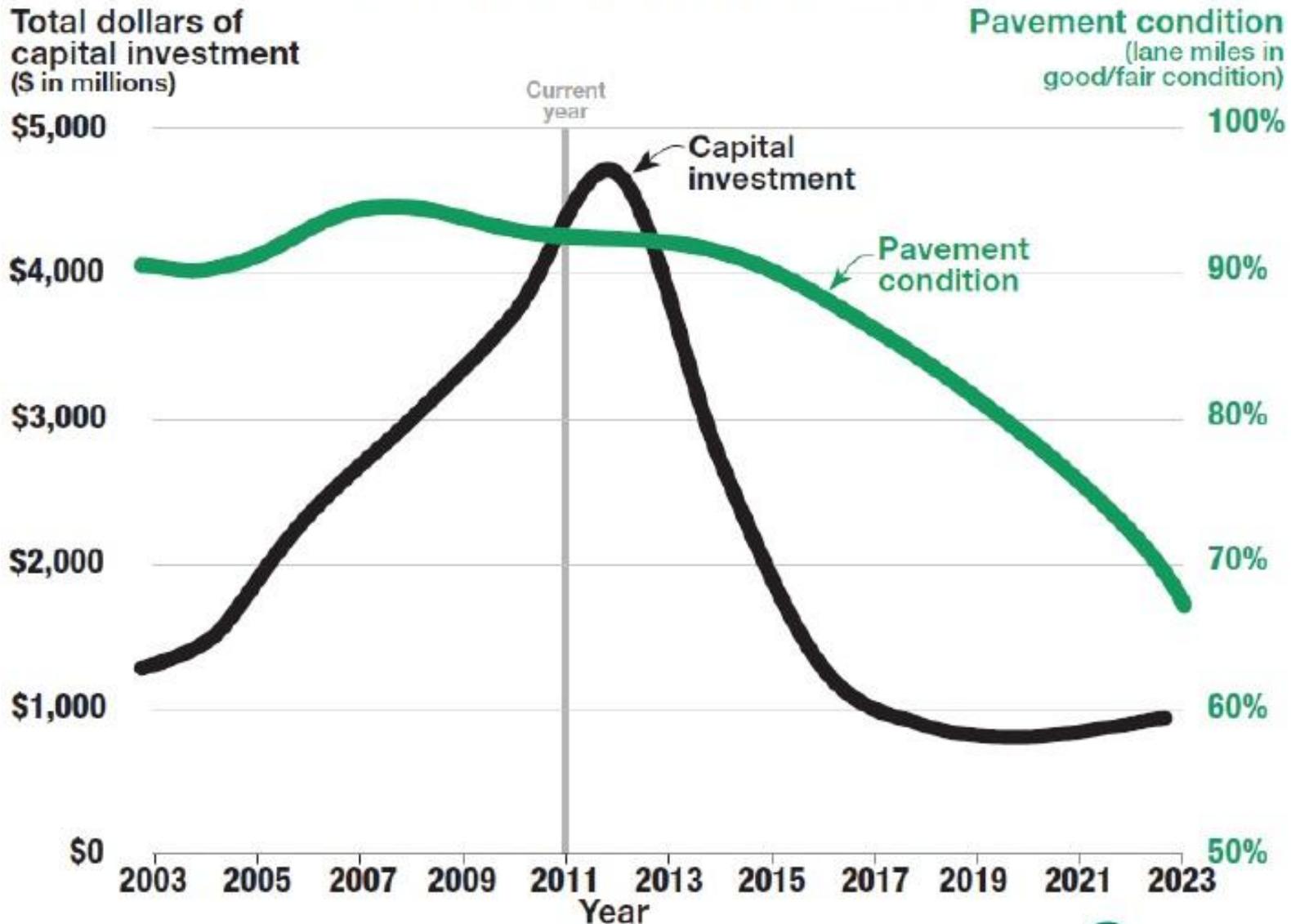
Seeking common ground on carbon taxes

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Sightline Institute

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Transportation system at risk with declining revenues

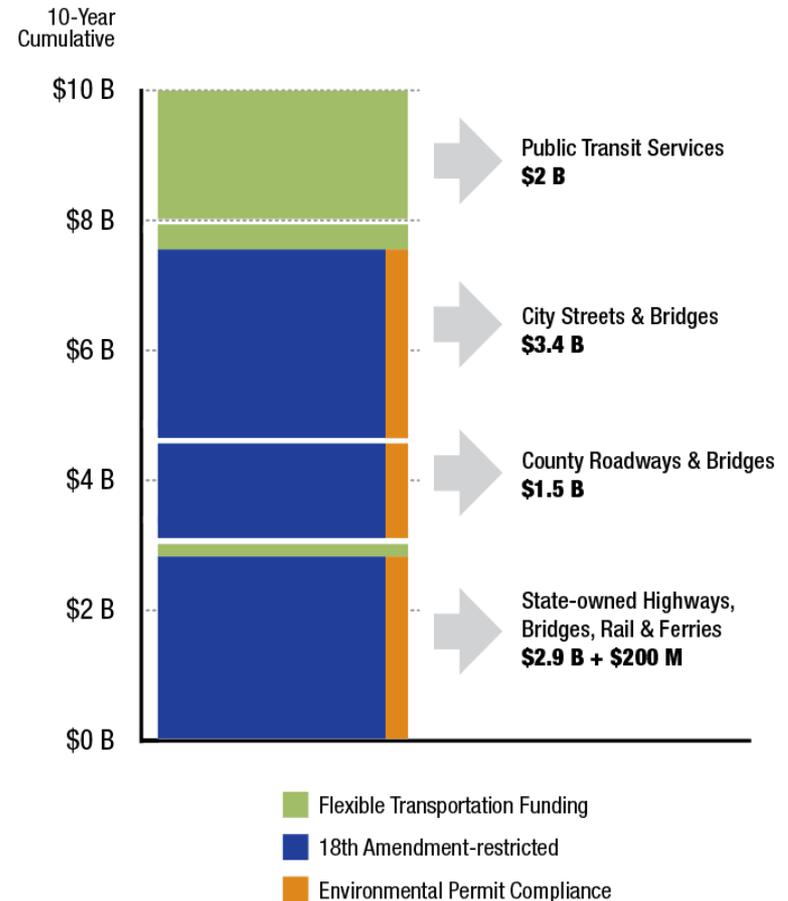


Estimated 10-Year Maintenance and Operations Transportation System Needs

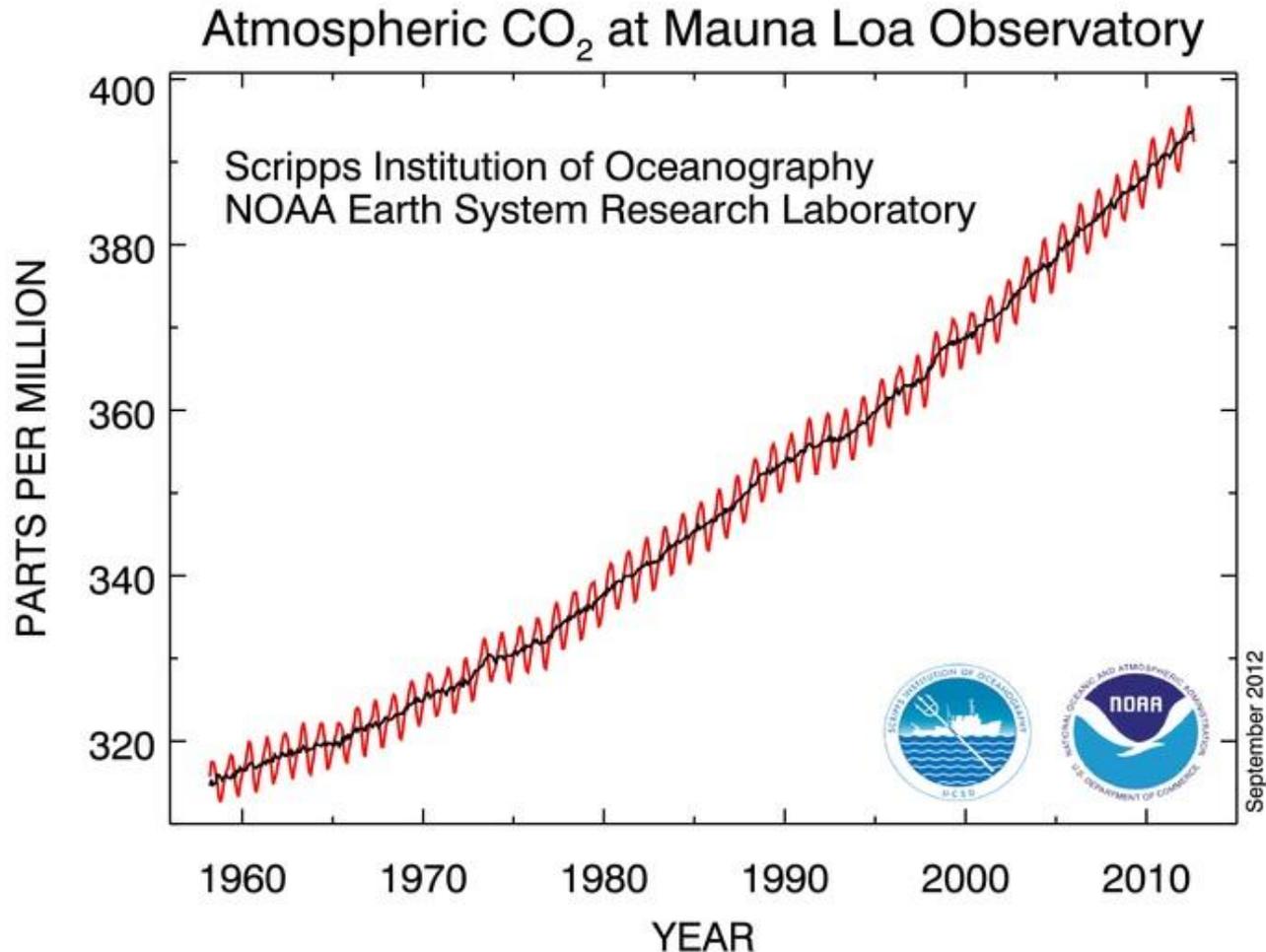
Maintaining & Operating the Current System:

Amounts represent the unfunded 10-year maintenance and operations needs of Washington's transportation system. Funding is assumed to come from all sources: state, city, county and special-purpose district taxes and fees. Additional assumptions include:

- Maintain all state and county roads at a standard of 90% fair and good condition.
- Address the backlog for state and county federally classified bridges.
- Maintain all city arterials at a standard of 80% in fair and good condition and provide \$1.3 billion in bridge preservation.
- Complete remaining replacement vessels for the state ferry system, conduct terminal repairs and maintain current levels of service.
- Provide operating subsidy for existing passenger rail routes and provide continuation of existing service on state-owned freight rail facilities.
- Comply with current storm water environmental permit requirements, as well as county fish barrier requirements.
- Restore the 10-year operating and maintenance revenue shortfall for transit agencies to maintain and preserve 2008 levels of service.



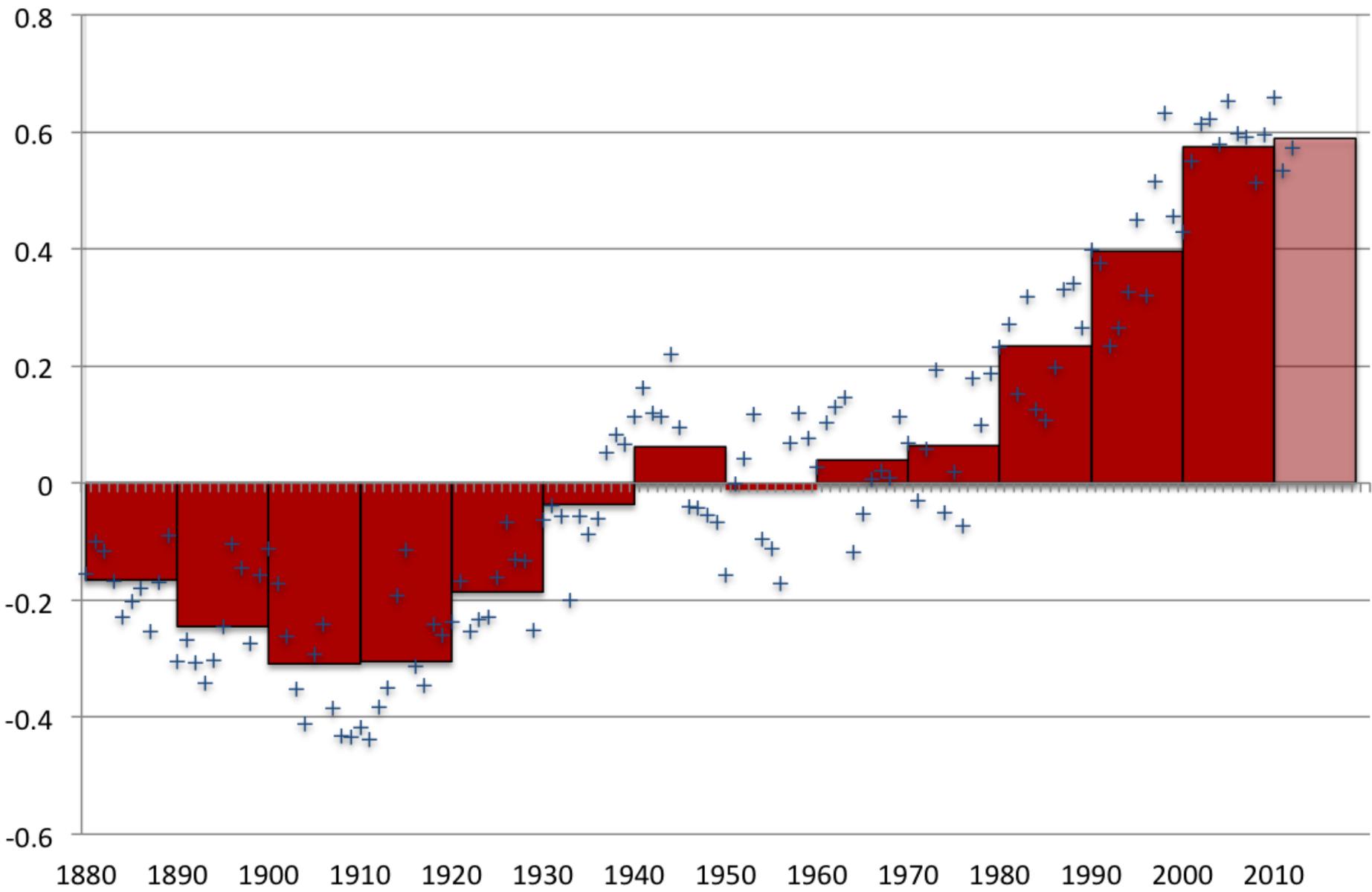
Carbon concentrations going up



: <http://www.esrl.noaa.gov/gmd/ccgg/trends/>

Annual Global Temperature Anomaly, in °C

(NOAA Land+Ocean data, relative to 1901-2000)



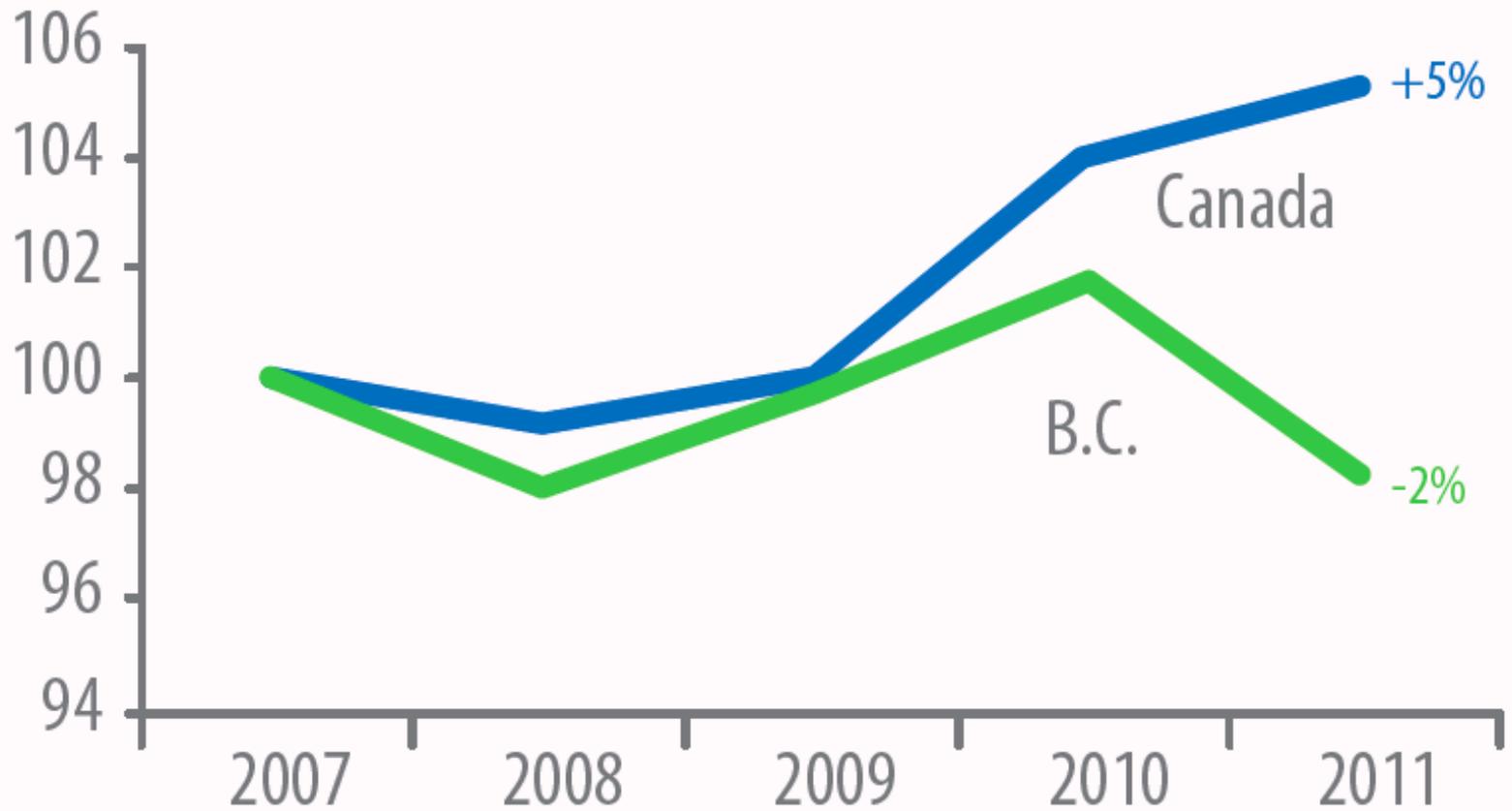
We can solve both problems with a carbon tax

- A tax on the carbon content of fossil fuels
- The tax will reduce carbon emissions...
- ...and the revenue can be used to make our economy stronger and create jobs by reducing existing taxes and funding public investment.
- Transportation infrastructure is my focus today, but education/health also possible

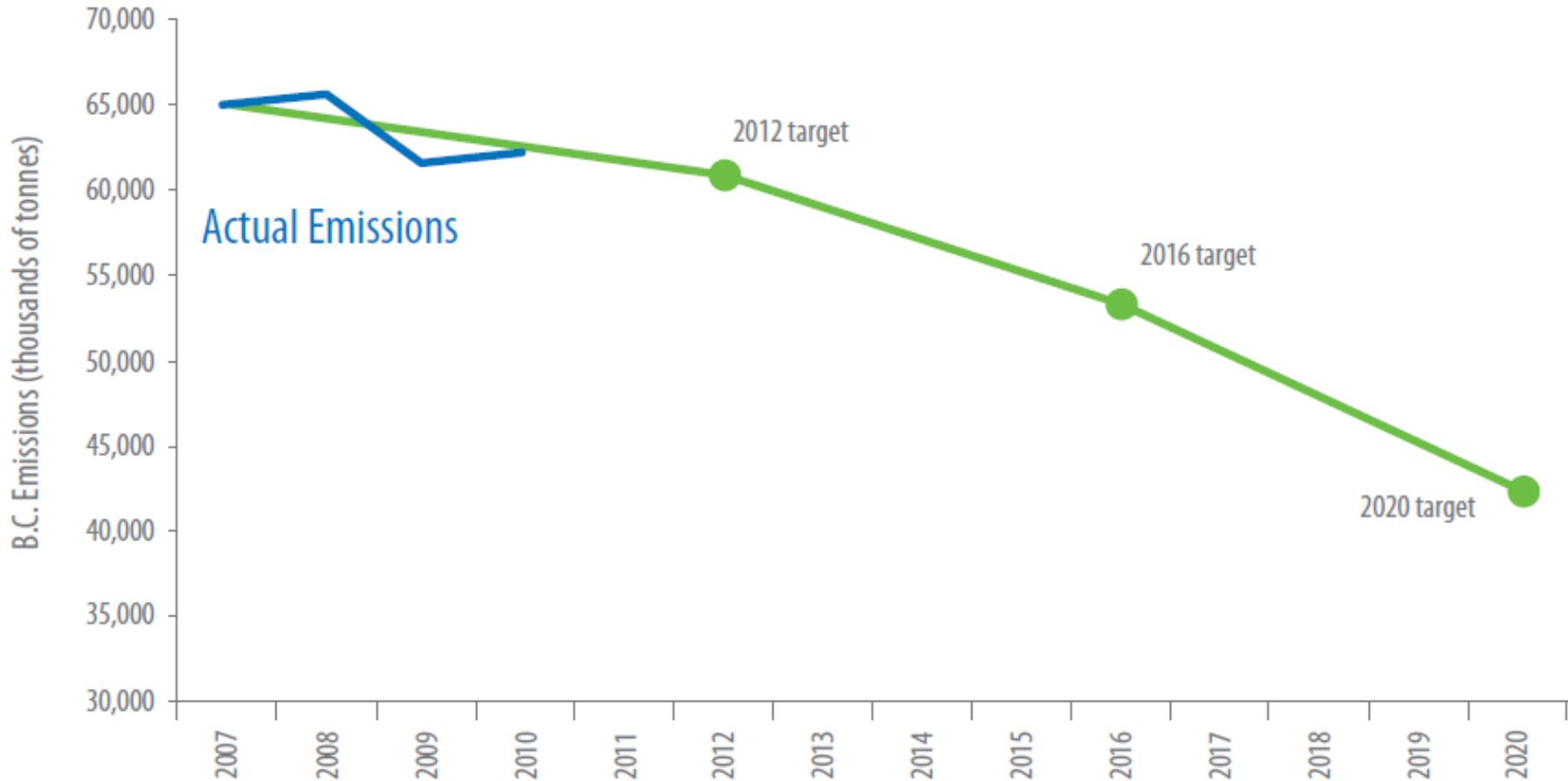
BC's carbon tax: \$30/ton CO₂

- Revenue of over \$1 billion per year
- Impact on energy prices
 - Petroleum: ≈30¢ per gallon
 - Electricity from coal: ≈3¢ per kWh
 - Electricity from natural gas: ≈1.5¢ per kWh
 - (≈\$1.50 per mmBTU / mcf / 10 therms)

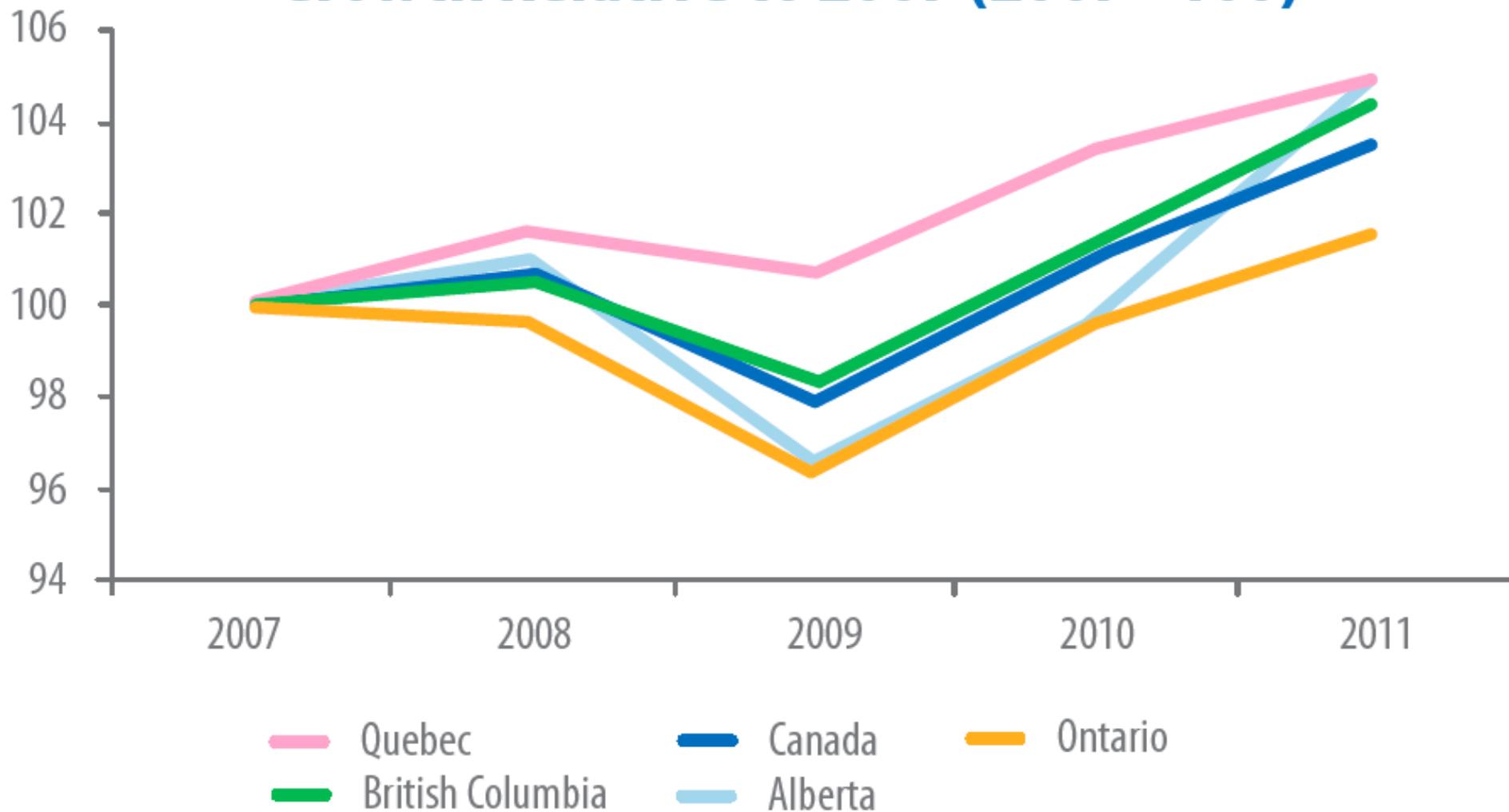
Motor Gasoline Sales 2007=100



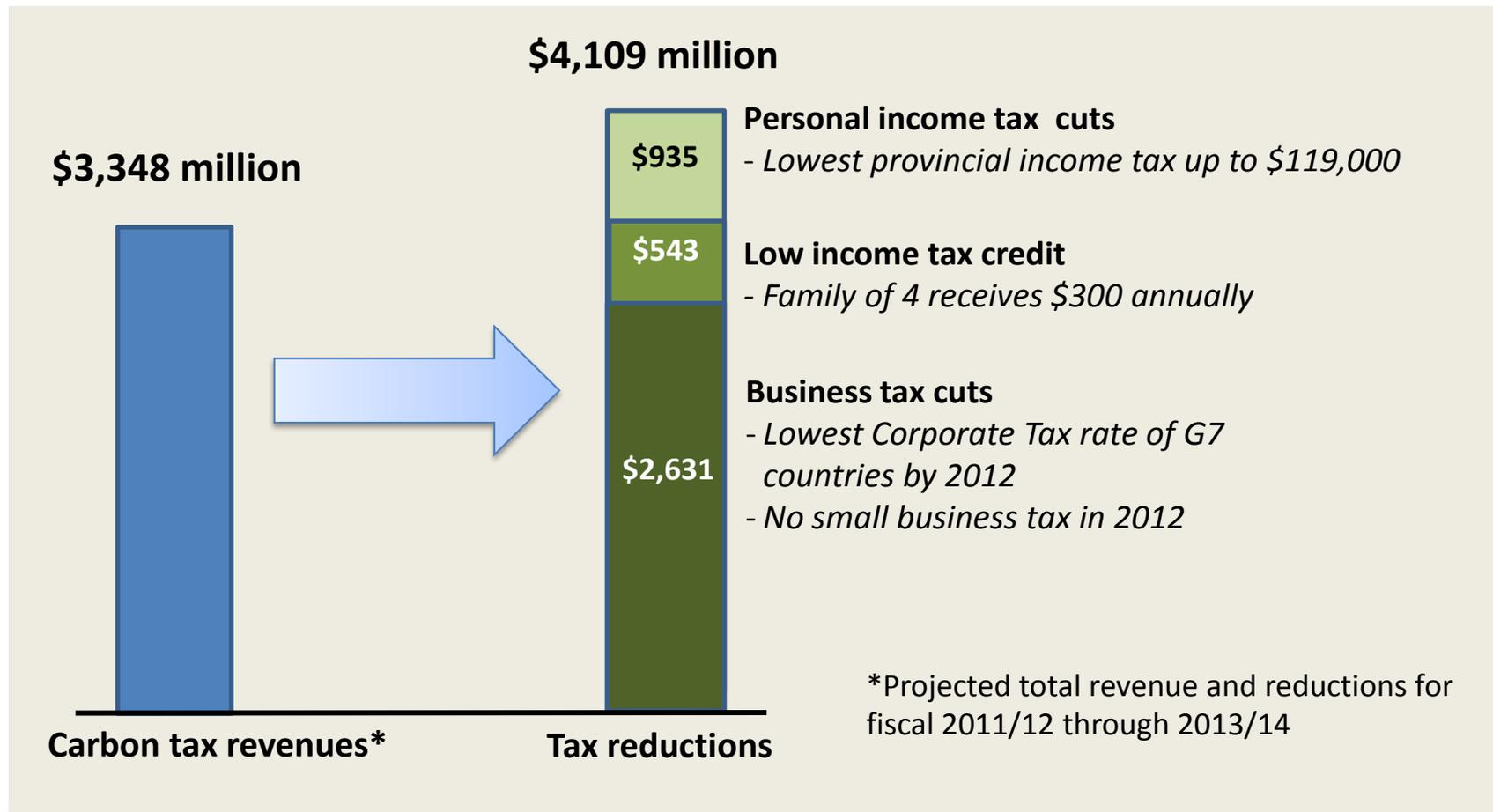
BC Emissions 2007-2010



Real Gross Domestic Product (GDP) Growth Relative to 2007 (2007=100)



Revenue neutral



State legislation in 2013

Study carbon pricing in Washington

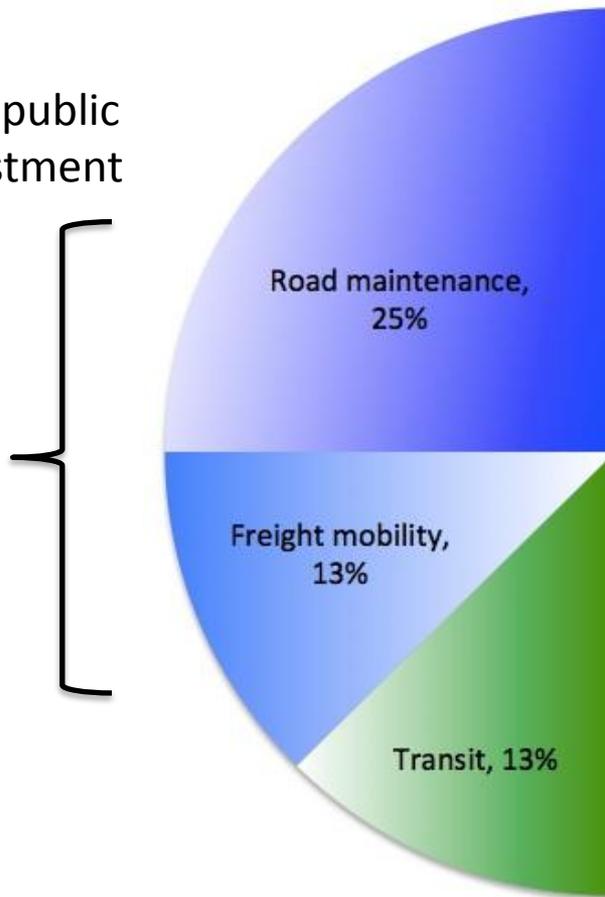
1. What would BC's carbon tax look like here?
2. What else could we do with the money?
3. Could we link up with CA's cap & trade program?

Transportation Option

- Carbon tax as in BC
- 50% for tax rebates as in BC, including targeted offsets for the manufacturing sector and for low-income households
- 50% for public investment, focused on road maintenance, transit, freight mobility

50% public investment, 50% tax rebates (\$2.3b total)

50% public
investment



Economic modeling

- We contracted with PERI (out of U Mass – Amherst)
- Used IMPLAN input-output model of Washington State
- No small-grain detail to do industry-level analysis, so the results are preliminary.

Economic modeling

2010 IMPLAN	Employment Multiplier
Industry Description	Multiplier
Public transit	30.30
Road maintenance	13.65
Electric power	3.98
Natural gas	2.66
Petroleum	1.05

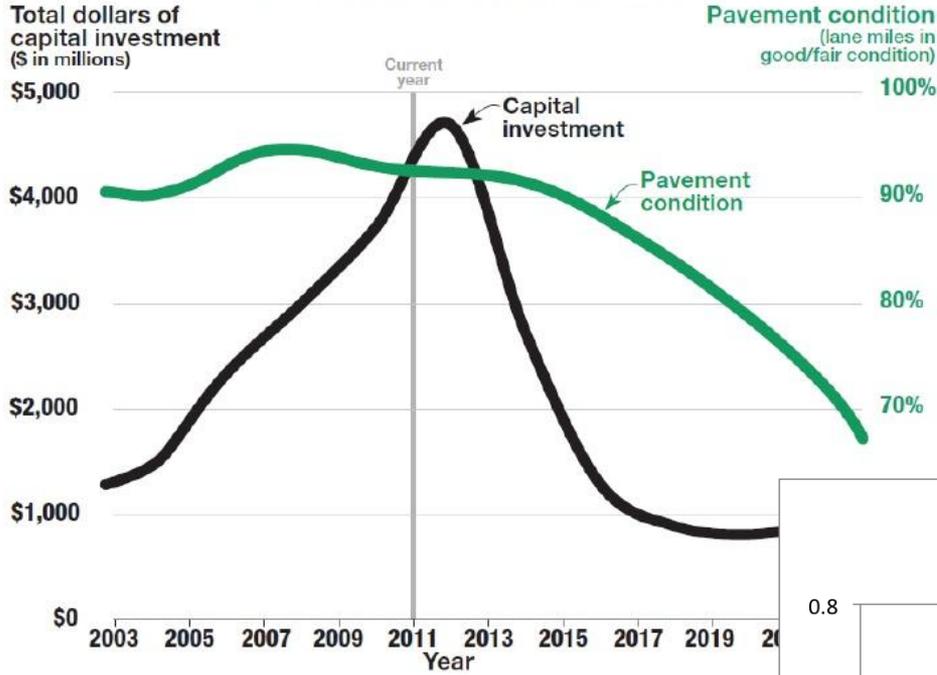
Economic modeling

- Result from IMPLAN: Net increase of 4,000 jobs, \$385m in GDP
- Underlying idea: Shifting consumption from fossil fuels to infrastructure can be good for jobs and economic growth

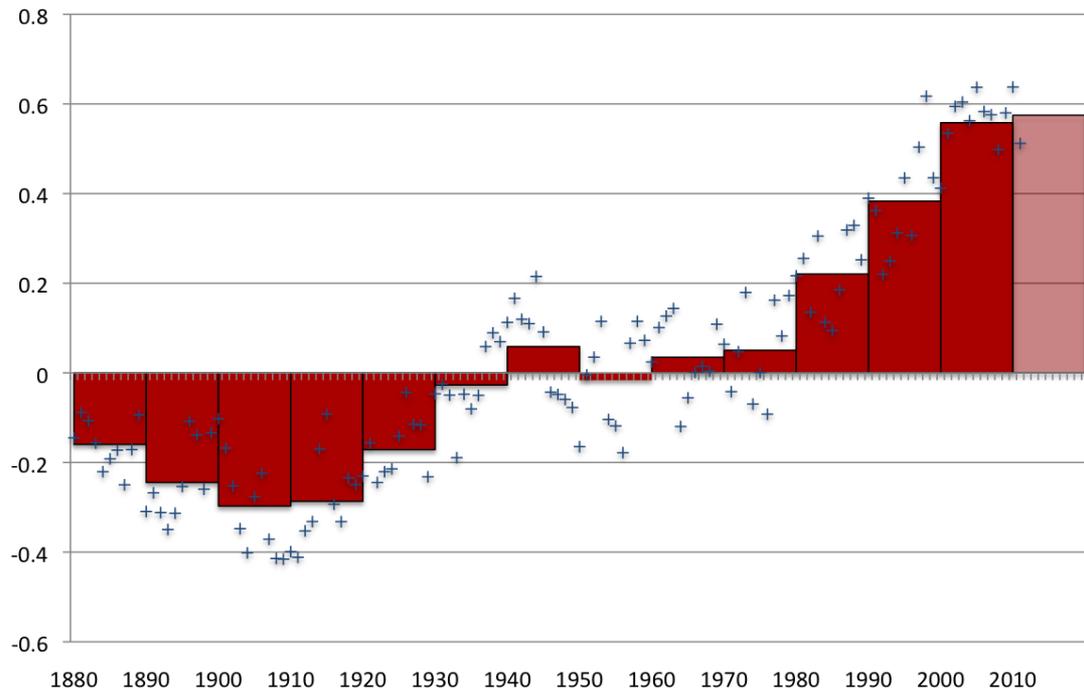
Economic modeling

- Next step: industry-level analysis
- Costs: \$30/ton CO₂
- Benefit: \$650m for road maintenance
- Benefit: \$300m for freight mobility/transit
- Benefit: \$160m for eliminating B&O taxes for manufacturers
- Benefit: \$650m in property tax rebates

Transportation system at risk with declining revenues



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Common ground?

- We need to fund transportation infrastructure
- We need to reduce carbon emissions
- This could be a win-win, and that doesn't happen all the time

