

Searching for a Balanced System of Innovation Incentives

An International Perspective

A presentation to:

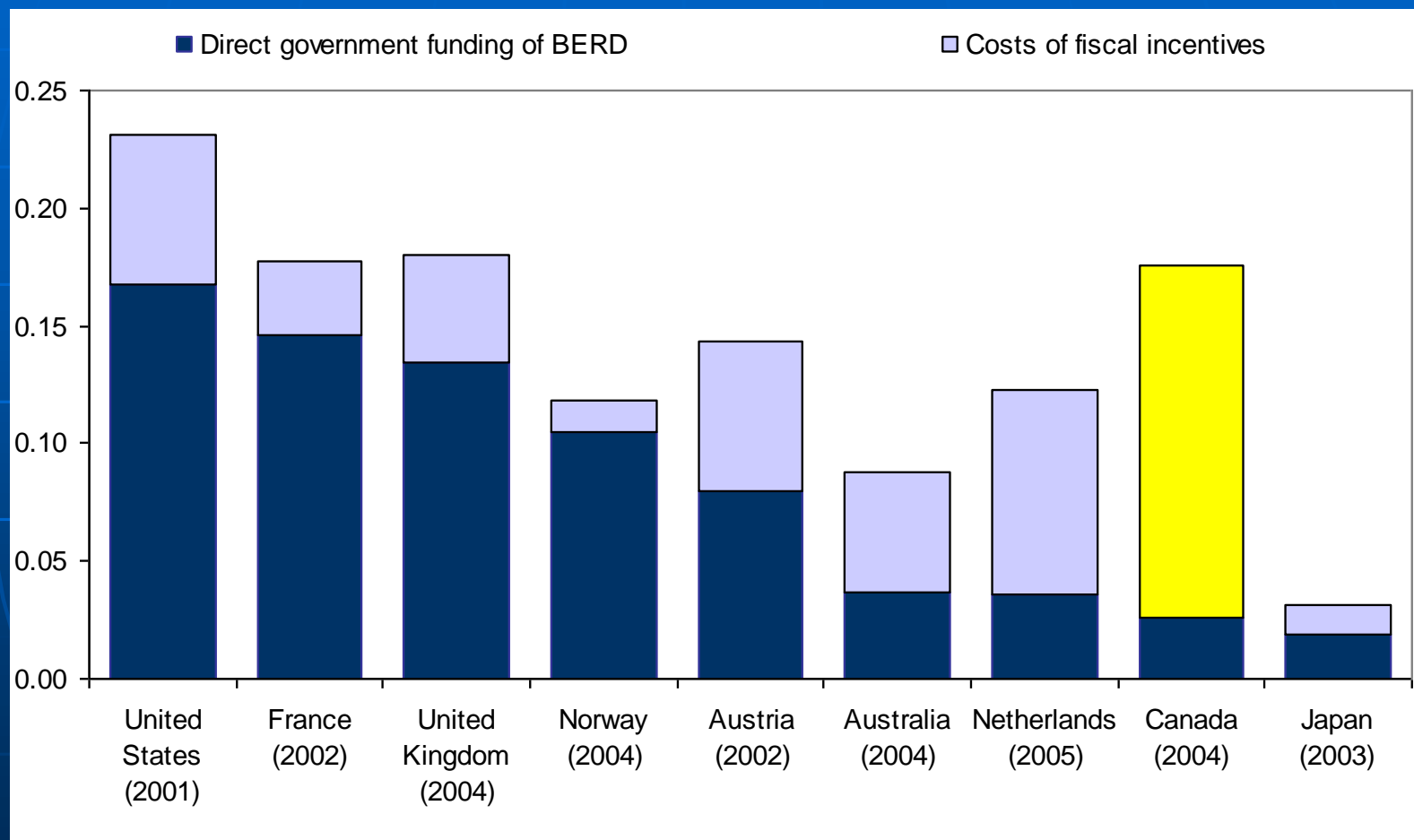
The Sixth Annual Research Money Conference
"Are Canada's Business R&D Incentives Working?"

Ottawa, March 8, 2007

Contents

- Canada and the world
 - Comparisons of fiscal support
- Policy Issues
 - Incentive design
 - Policy options
- Conclusions
 - Future of tax incentives
 - What's next for Canada

Canada relies heavily on fiscal support of R&D (% of GDP)



... but it does not translate into high business R&D intensity

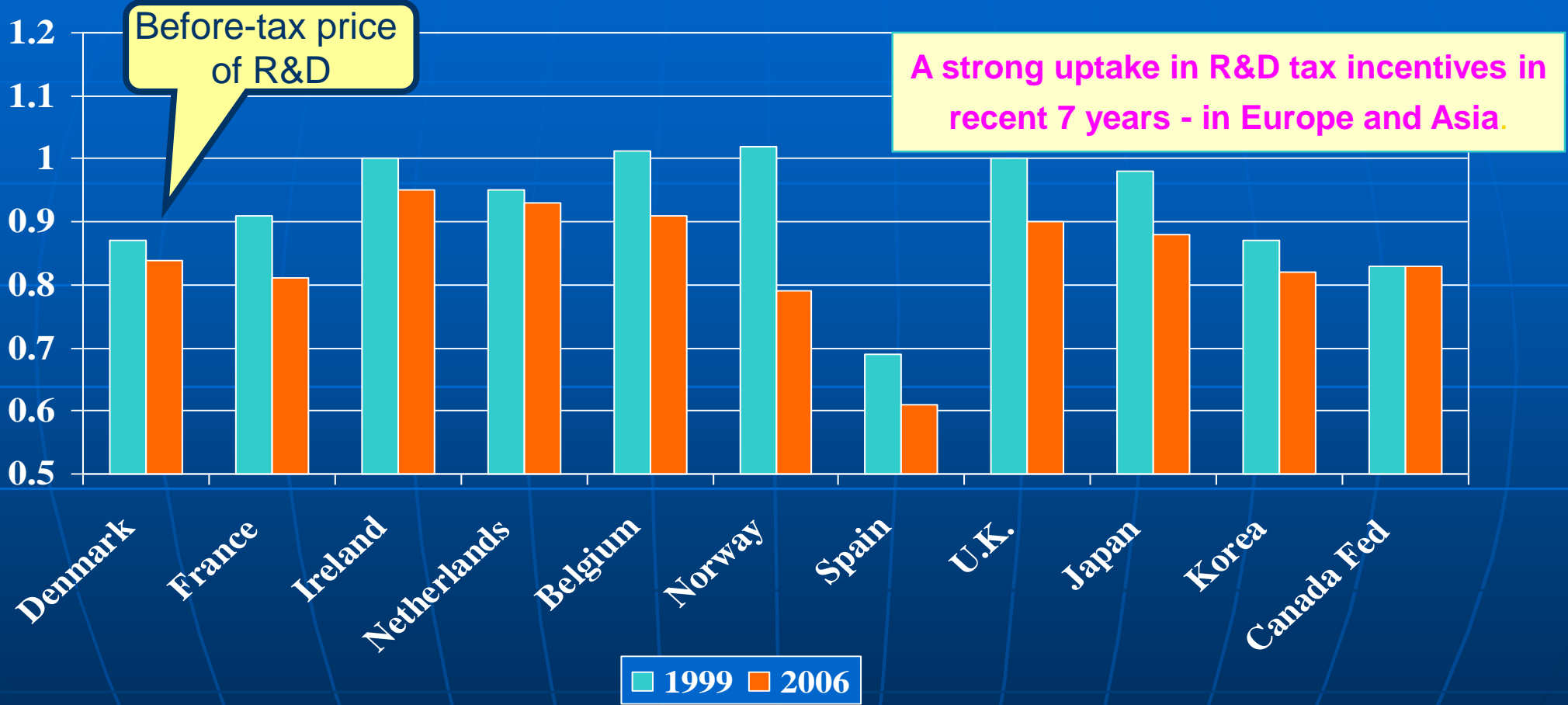
Country	R&D/GDP		BERD/GDP		Availability of R&D Tax Incentives/Trend
	Per Cent	OECD Rank*	Per Cent	OECD Rank*	
Canada	1.96	11	1.03	16	Volume tax credit
Australia	1.64	16	0.86	18	Hybrid tax allowance
France	2.16	10	1.36	13	Hybrid tax credit
Japan	3.13	3	2.35	3	Volume tax credit
U.K.	1.88	13	1.16	14	Volume tax allowance
USA	2.68	6	1.88	6	Incremental tax credit
...
Austria	2.35	9	1.42	11	Hybrid tax allowance or refundable to all tax credit
...
Sweden	3.95	1	2.93	1	Not available
Finland	3.51	2	2.41	2	Not available
OECD	2.26		1.53		

Most improved

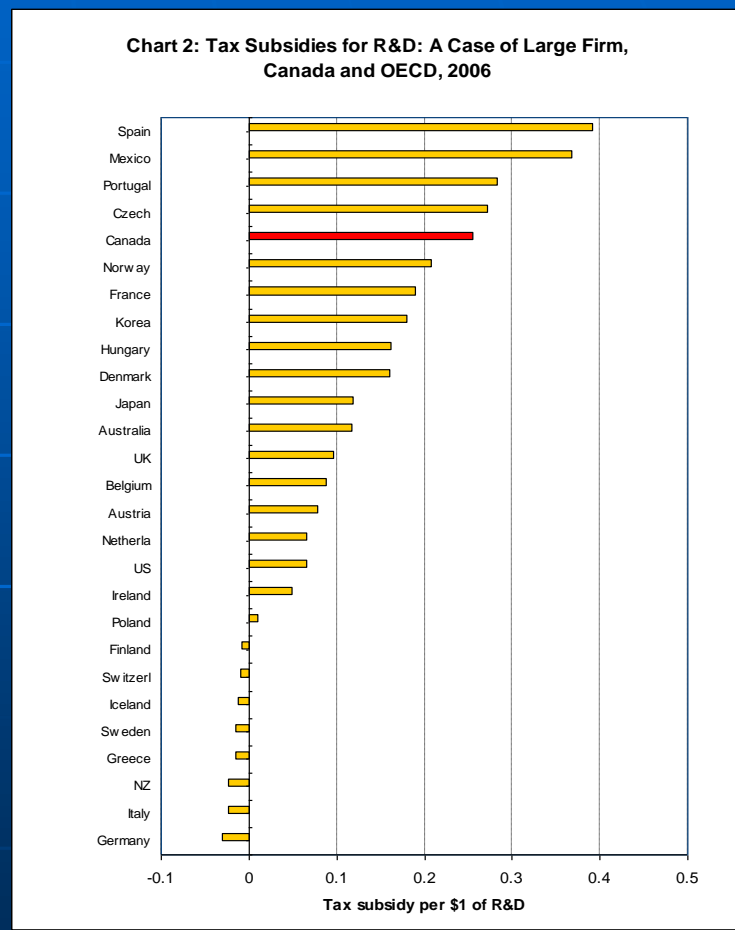
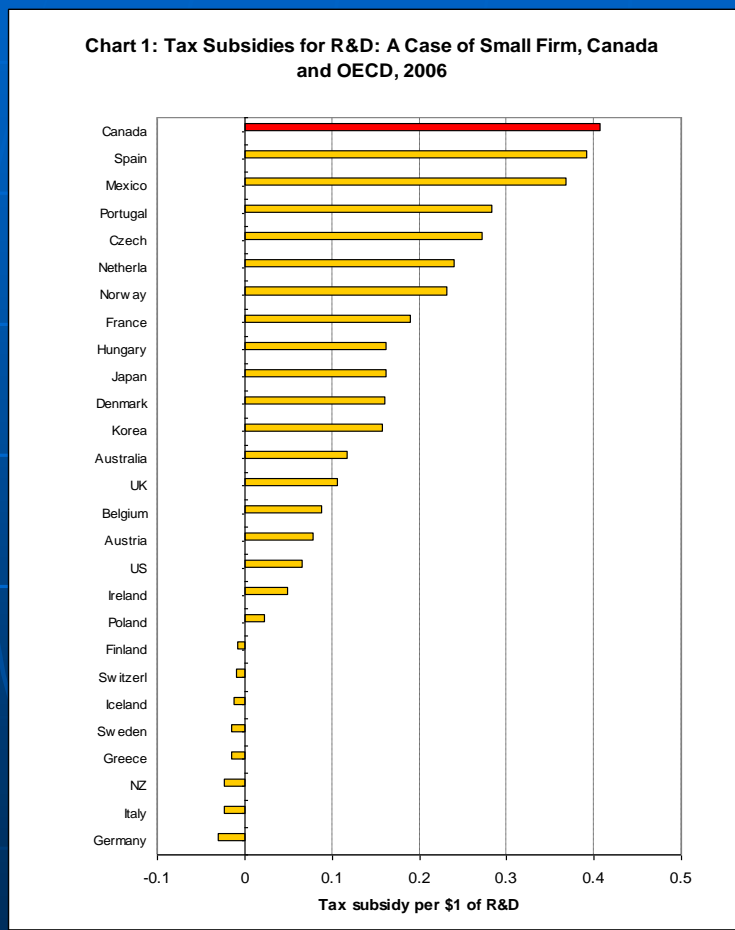
* Of all 30 member countries, 2005 or most recent available year

Source: OECD, *Main Science and Technology Indicators*, 2006 -1, Paris, Tables 2 and 24.

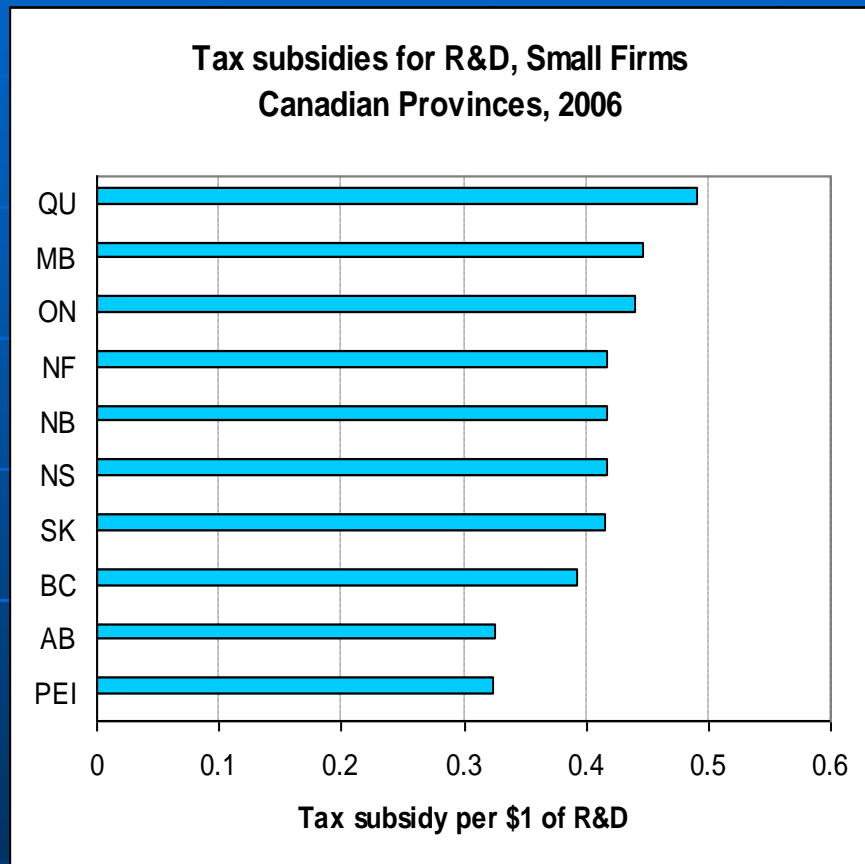
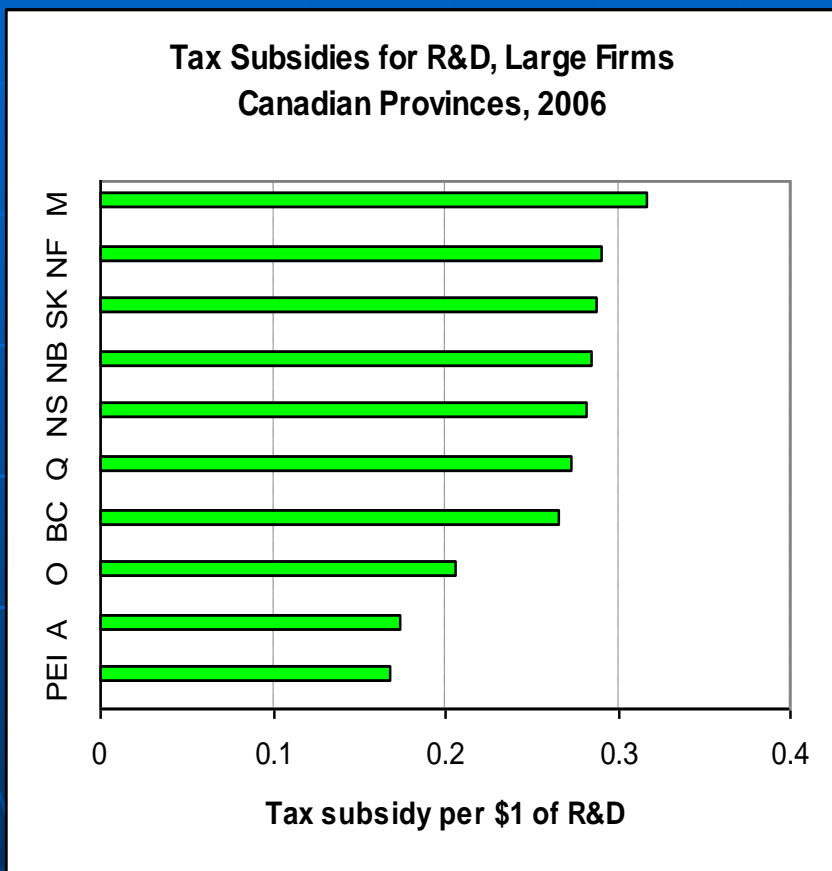
More countries employ tax incentives



Canada's R&D tax subsidies are internationally generous



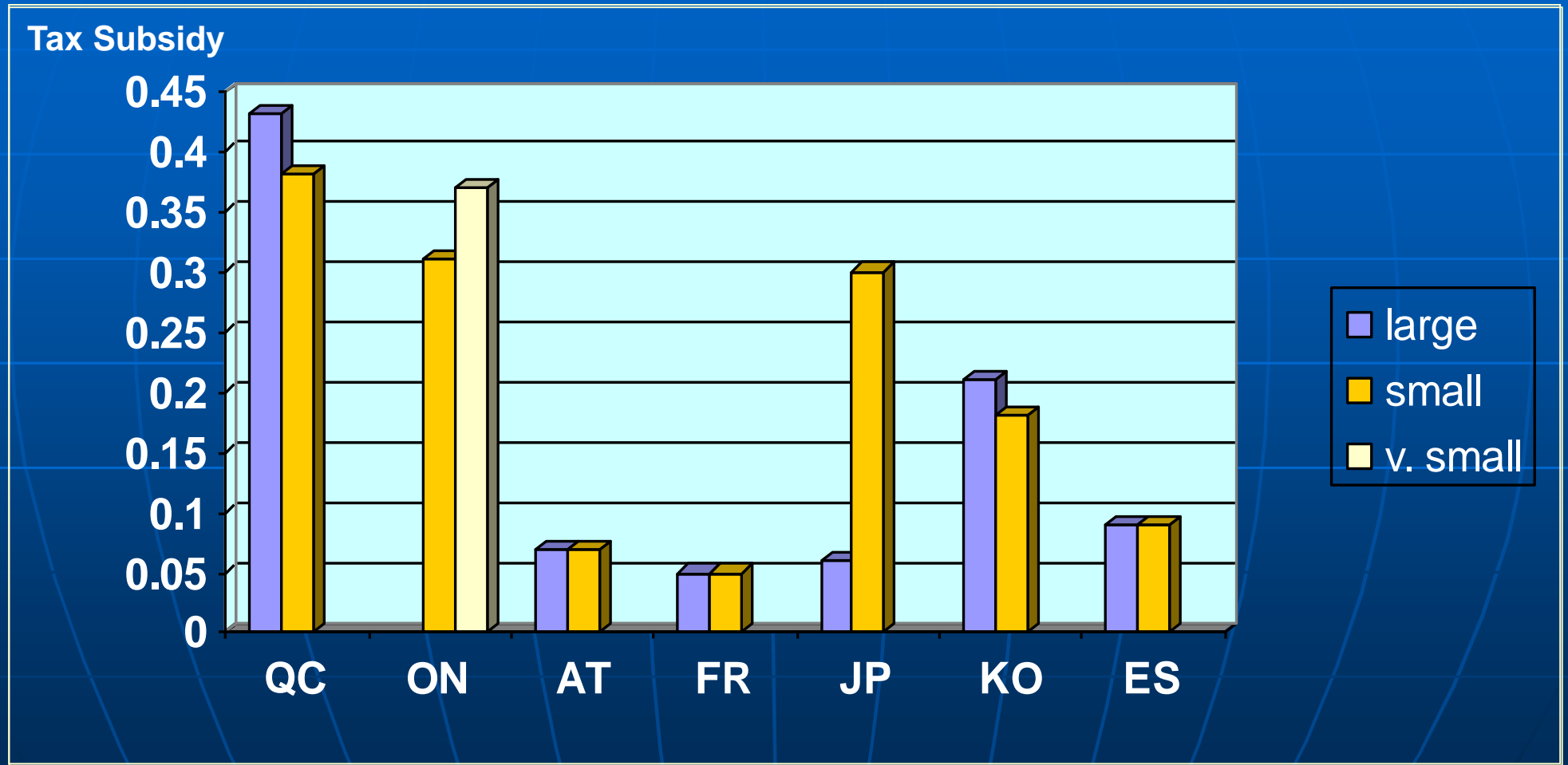
Provinces top up Canada's generosity



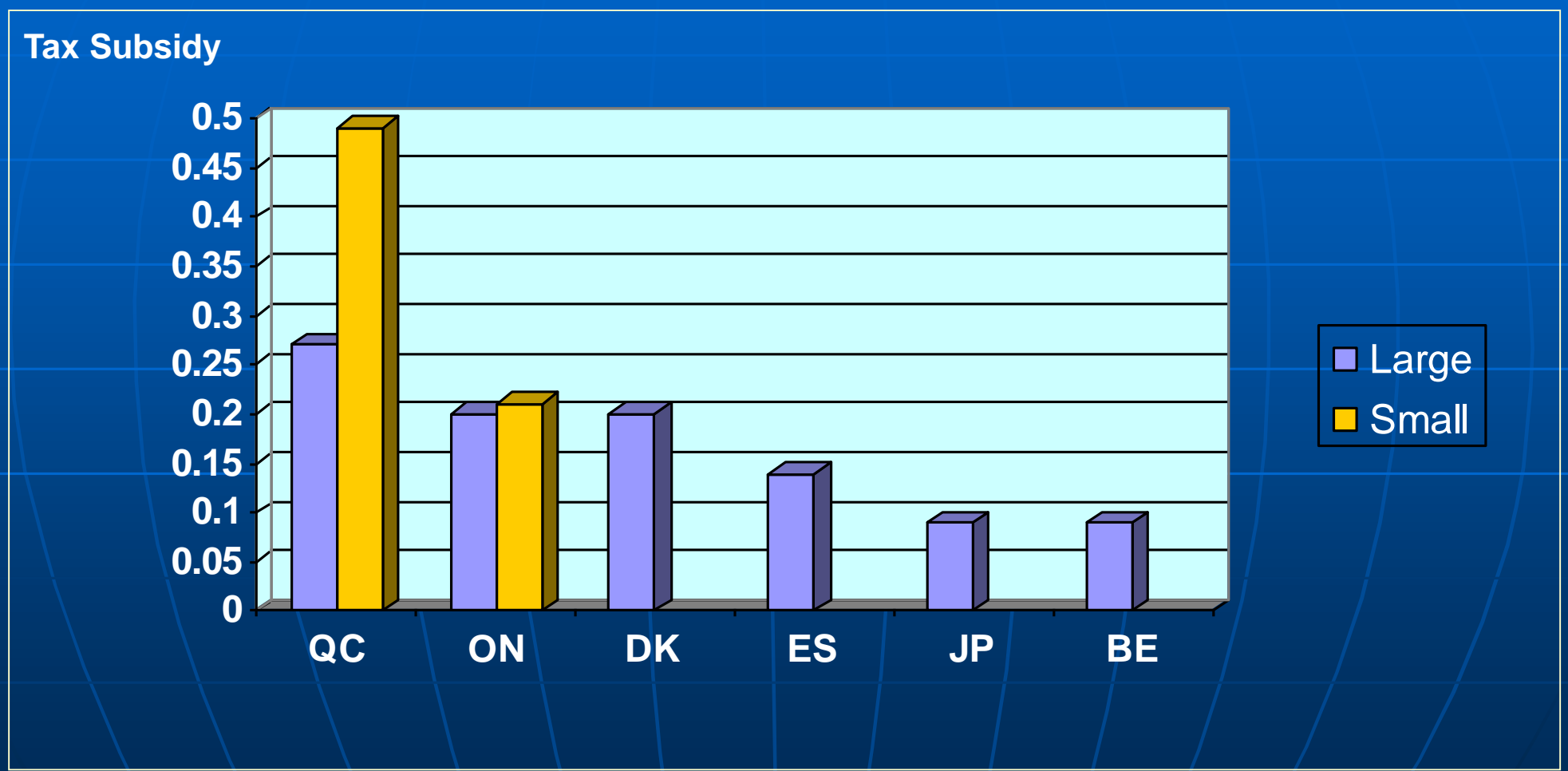
Tax incentives are going beyond R&D

- Incentives for enterprise formation
 - Young innovative companies: FR, BE
 - Venture capital incentives: UK, IE, BC
- Technological Development Incentives: ES, PEI
- Technology Transfer (Patents): ON
- Training Incentives: JP, KO, AT, FR, QUE, ON
- Collaboration incentives: JP, DK, BE, HU, ES, QUE, ON

Training incentives become significant



Collaboration incentives are gaining



Trends in business support

- Two thirds of OECD countries have R&D tax incentives in place
 - Canada *has* a prominent place
- Holistic innovation support emerging
 - Canada's place *not* so prominent
- Where federal Canada is missing the boat – provinces are picking the slack, e.g. in incentives for training and collaboration

Where is the direct public support?

Logic of state intervention



Basic forms of support



Long term?

Short term?

More targeted

Pre-set budget

More costly to administer ?

More neutral

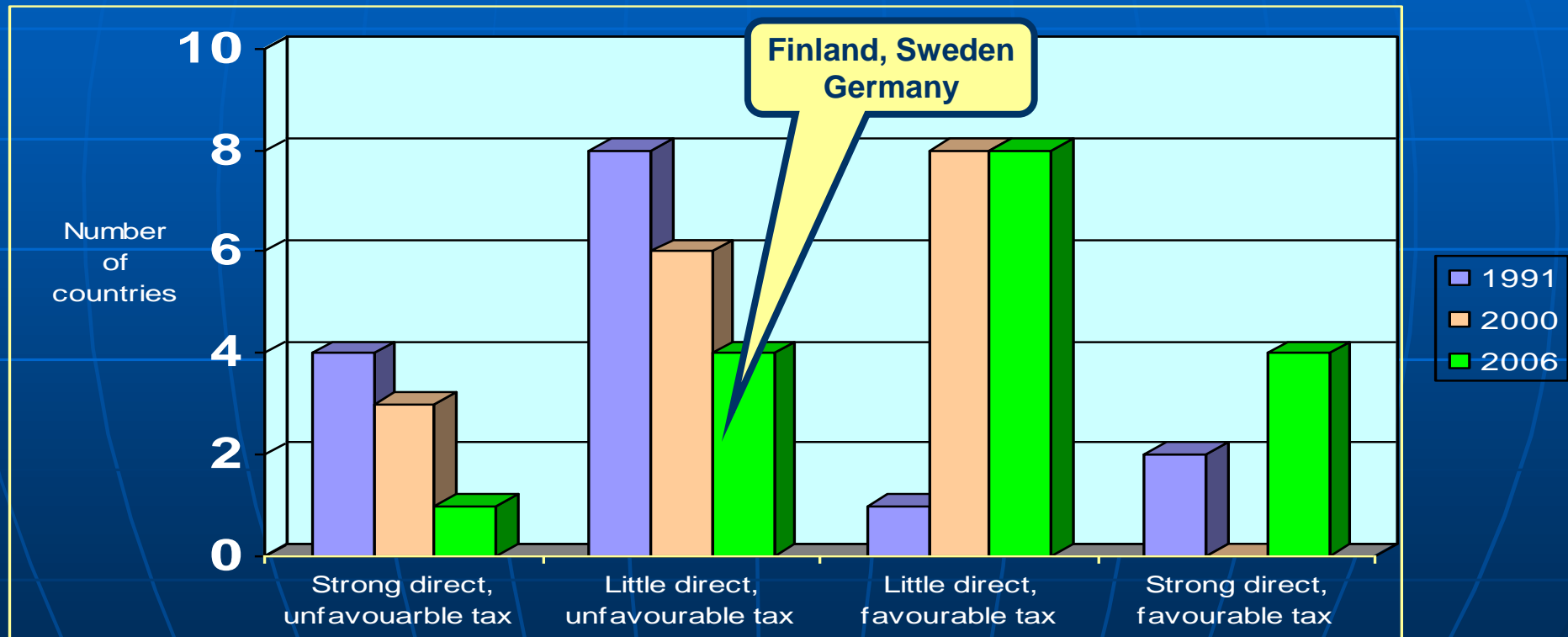
More accessible

Less costly to administer ?

Source: EU/CREST

Direct vs. tax support in EU-17

A Significant Shift to Fiscal Incentives



Policy design depends on national goals

Goal: Increase risky research/ inventions

- Narrower R&D definition
- Narrower expenditure base (less D)
- De-linking from current profits (refund, wages)
- Collaborative R&D

Policy Tools: Grants and subsidies; incremental tax credits

Goal: Increase general uptake of new knowledge and innovation

- Broader R&D definition (e.g. new to the firm) may include innovation
- Broader expenditure base

Policy Tools: Tax credits based on volume of R&D, incentives for innovation, networks, regulations, new facilitating institutions

Policy objective and incentive design

- Explore *novel and generic research directions* (limited appropriation of returns)
 - Grants and subsidies, refundable incremental tax credit, research wages tax credit
- Promote linkages between *elements of the science and innovation system*
 - Non-incremental tax schemes, collaboration incentives, grants and subsidies
- Encourage *uptake of new knowledge by business*
 - Broadest inclusion of R&D costs, a volume-based R&D tax credit, possibly including some innovation costs

What the future holds

- Pressures to address business innovation will continue to influence policy mix
 - *"Direct support to business innovation ... remains important"* (OECD)
 - Focus on innovation linkages (networks, partnerships)
- Tax credits will survive ... but may not be as generous as they are now
 - Countries streamlining: ES, JP, AU
 - Countries evaluating: UK, NO, NL, AT

Do R&D tax incentives work in Canada?

- Evidence supportive but dated
- New evaluation required
 - Include direct support context
- Look at overall business tax regime
 - How do tax incentives interplay with business taxation?
 - How generous should R&D tax incentives be?

What's next for Canada?

- Adapt to current business needs:
 - Expand SR&ED thresholds
 - Make SR&ED refundable to non-CCPCs, etc
- Rethink the balance: fiscal – direct
 - Design new mix of incentives
 - Reward merit and competitiveness of projects
 - Work with provinces
 - New facilitating institutions required?

A quick fix solution?

A better solution?

*“The art of explaining tax expenditures
lies in knowing where to stop.”*

Roger Heath

Thank you

I welcome your questions