



The long-term effect of the size and the mix of public spending on growth and inequality

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<http://www.oecd.org/eco/the-effect-of-the-size-and-mix-of-public-spending-on-growth-and-inequality.htm>

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Key messages

Changes of public spending size, mix and effectiveness can have large effects on growth and inequality

- Improving student performance yields large gains for all by raising skills.
- Higher public investment is associated with large growth gains and lifts “all boats” as it raises average incomes without any adverse equity effects.
- Reducing the share of pension spending and of subsidies boosts growth. Lower pension spending has no adverse effects on disposable income inequality, but lower subsidies increase inequality.
- Spending more on family and child care benefits reduces inequality as they benefit lower-income families more.
- Room for improvement is limited in Denmark.

Country-specific characteristics matter

- The design of education policy matters more than education spending.
- The growth gains from higher investment decline at a high level of the public capital stock, though virtually all countries have room for additional spending.
- The effect of government size depends on government effectiveness.

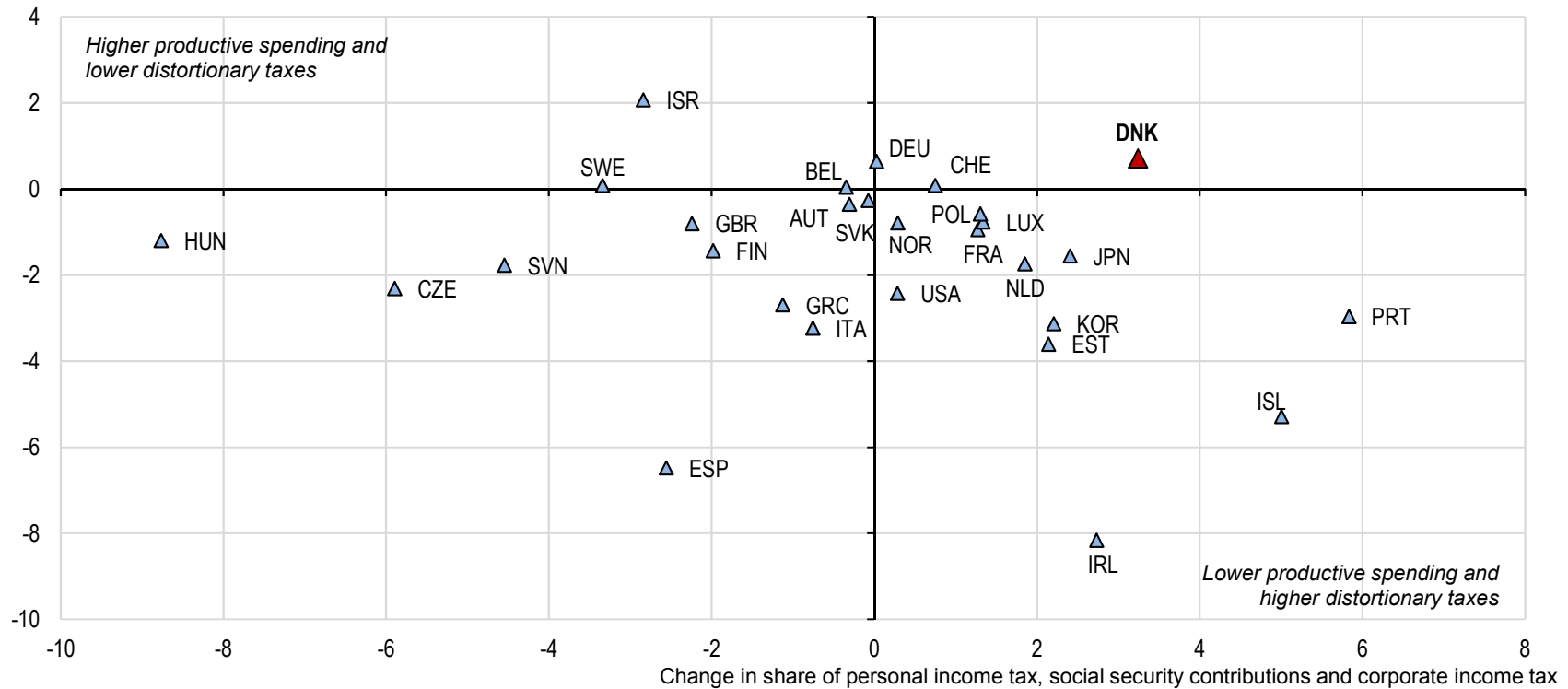


1. Motivation and approach



Changes to the spending and tax mix have gone in the wrong direction between 2007 and 2013

Change in education and public investment share



Source: OECD Public Finance Dataset, forthcoming.

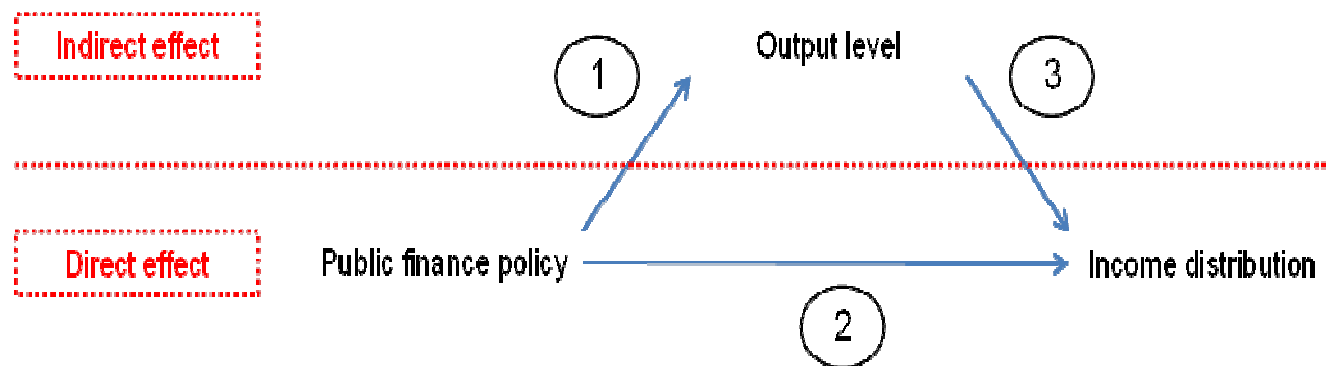


Design of public spending, growth and inequality: the approach

Key issue: Raising long-term growth while addressing inequality

Empirical setup:

- **Growth:** Neoclassical convergence model
- **Inequality:** Estimation of the impact of the mix of spending along the distribution of household income
- The overall effect of public finance on the distribution of disposable income is the sum of the direct effect on disposable income and the indirect growth effect.

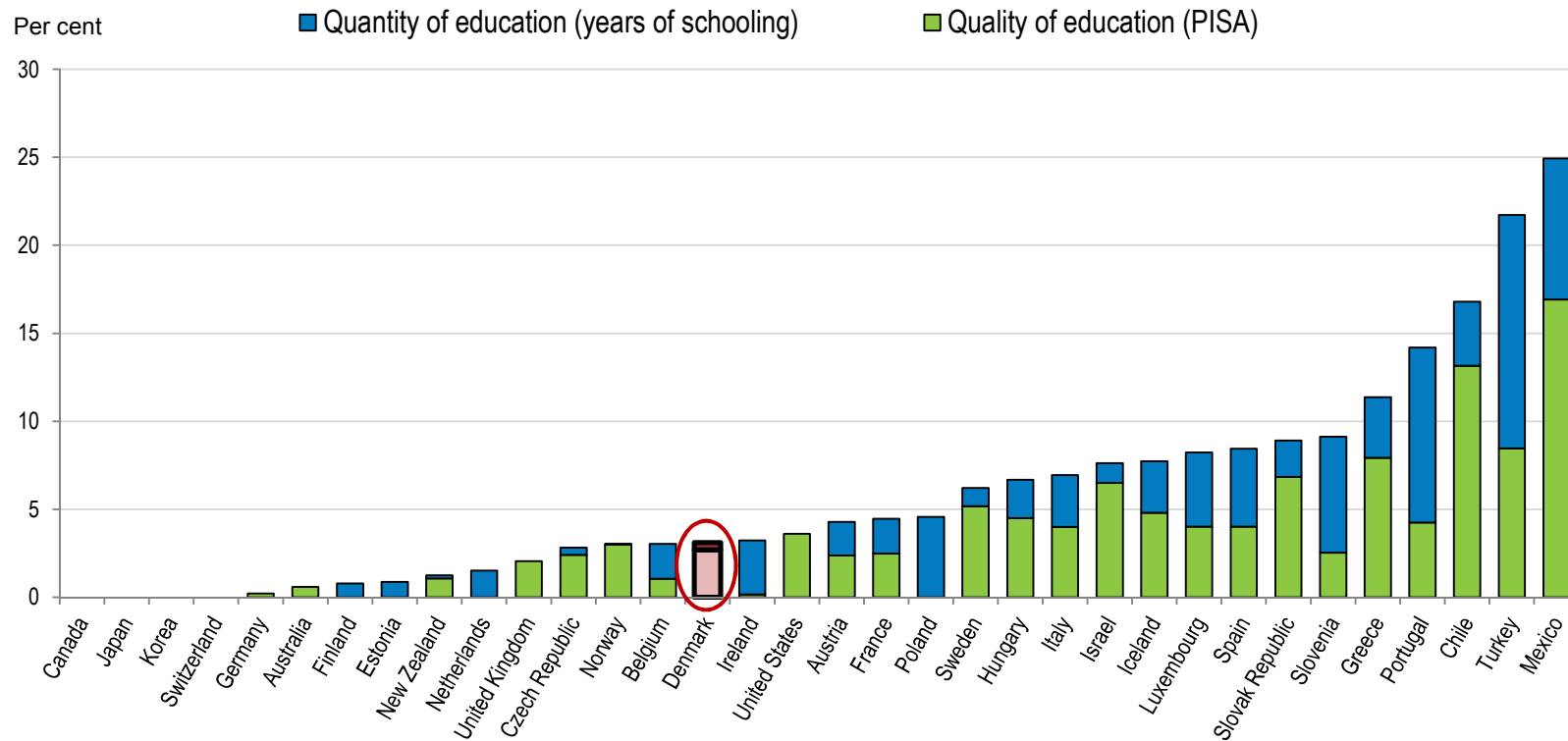




**2. Growth and inequality effects can be large.
Room for improvement is limited in Denmark**



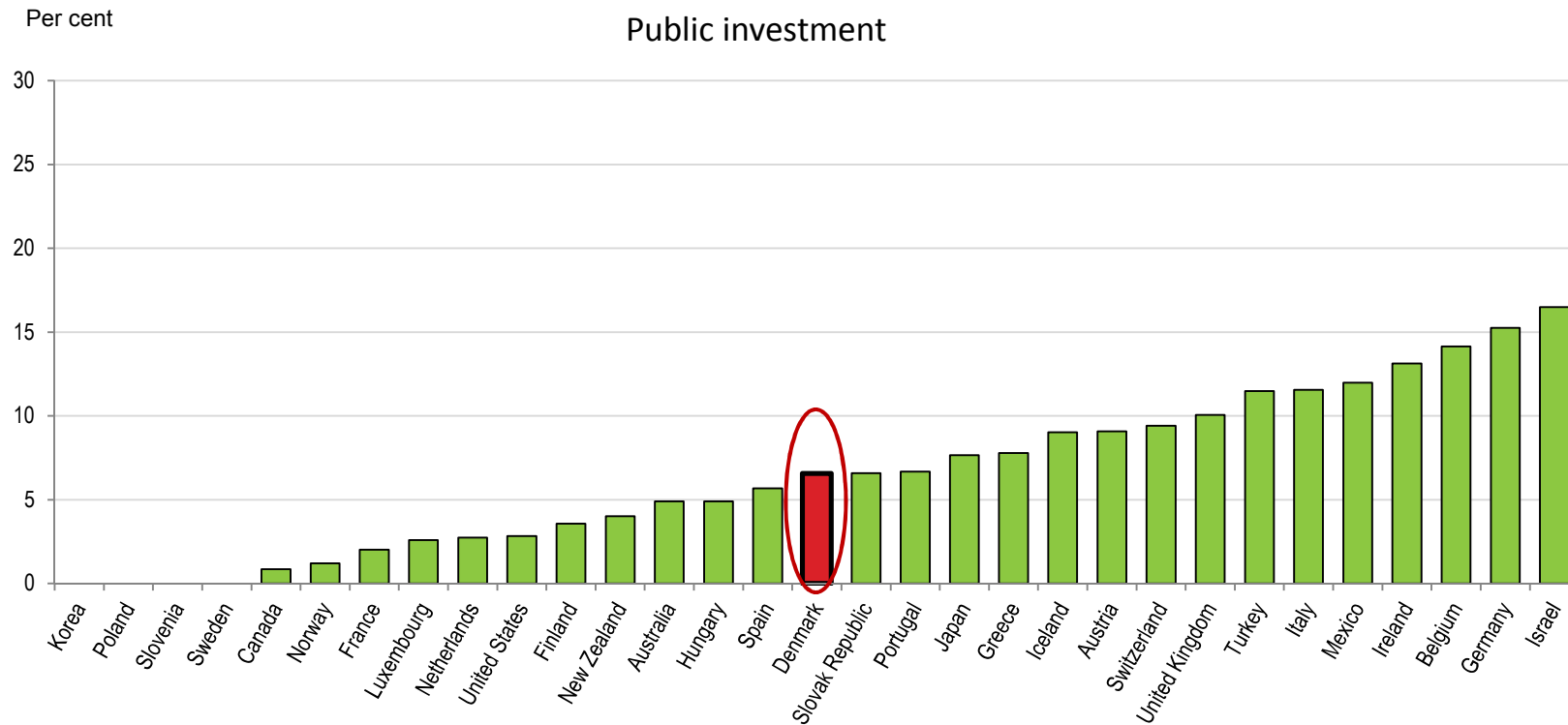
Illustrative long-term growth effects of an increase in the education level



Note: In countries where the mean PISA score or average years of schooling are below the average level of countries in the top half of the sample, educational attainment is assumed to gradually converge to this level. The figure reports the effect after 45 years of a reform phased in over 45 years.



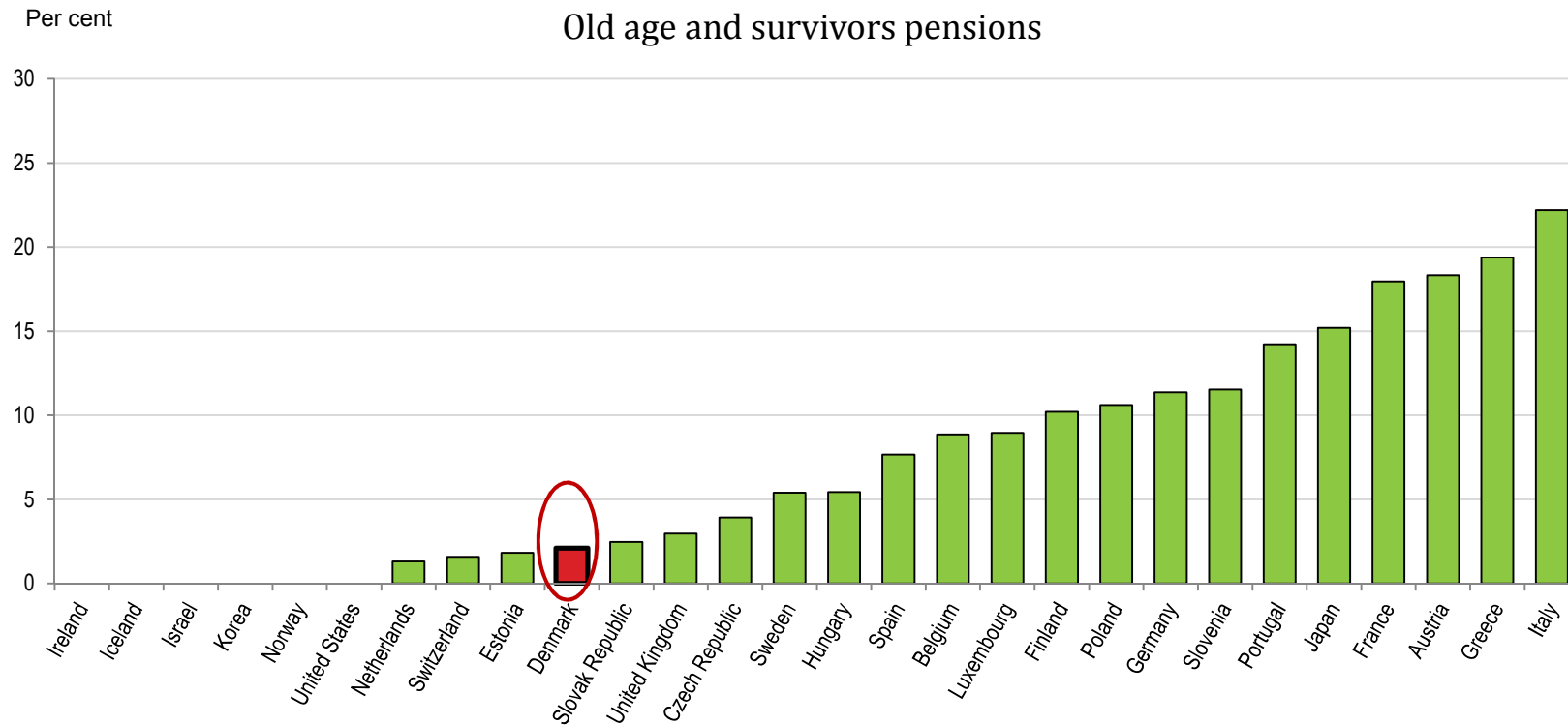
Illustrative long-term GDP gains from increasing public investment



Note: In countries where public investment to potential GDP is below the average ratio of countries in the top half of the sample, public investment will converge to this average ratio. The figure reports the effect after 45 years of a reform phased in over 10 years.



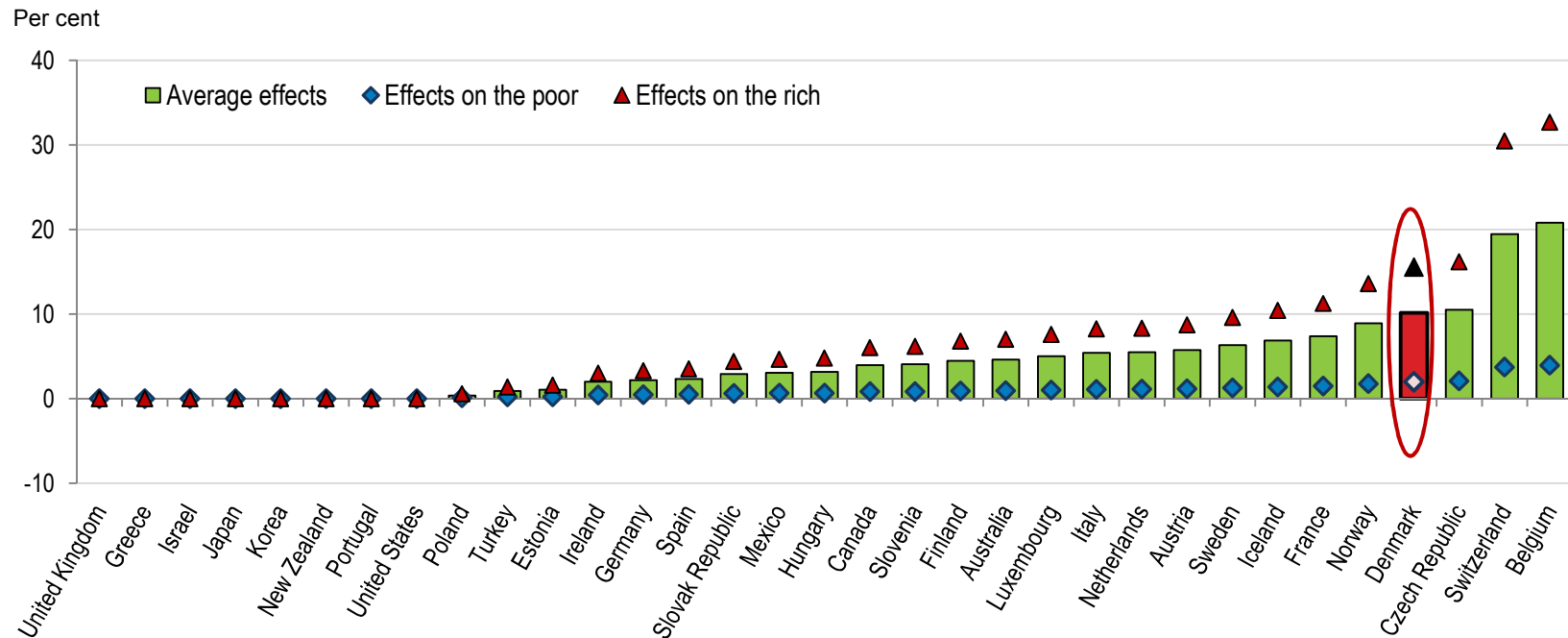
Illustrative long-term GDP gains from decreasing pension spending



Note: In countries where spending to the potential GDP ratio on pensions is above the average level of countries in the bottom half of the sample, spending will gradually decline to this level. The figure reports the effect after 45 years of a reform phased in over 10 years.



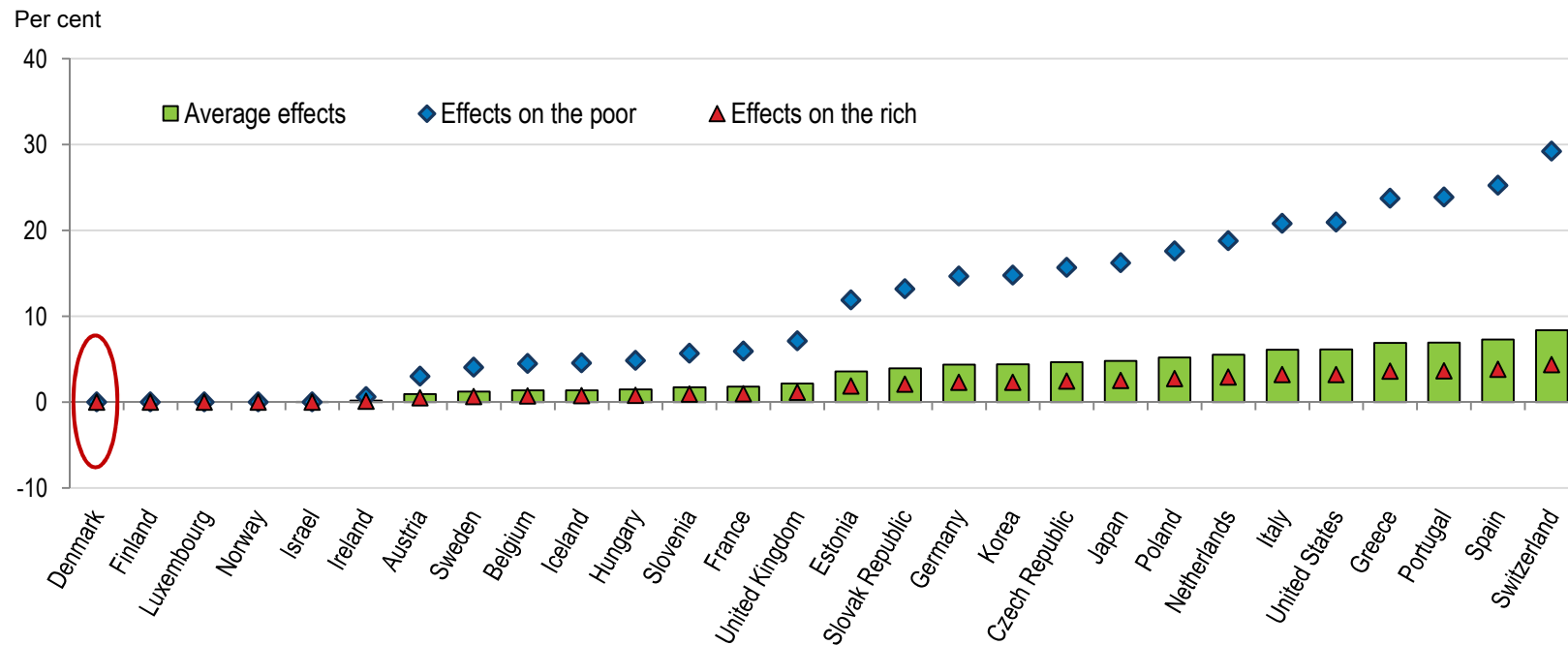
Illustrative gains from decreasing public subsidies



Note: In countries where subsidies to potential GDP are above the average ratio of that of countries in the bottom half of the sample, subsidies will gradually decline to this ratio.



Illustrative gains from raising family and child benefits on disposable income



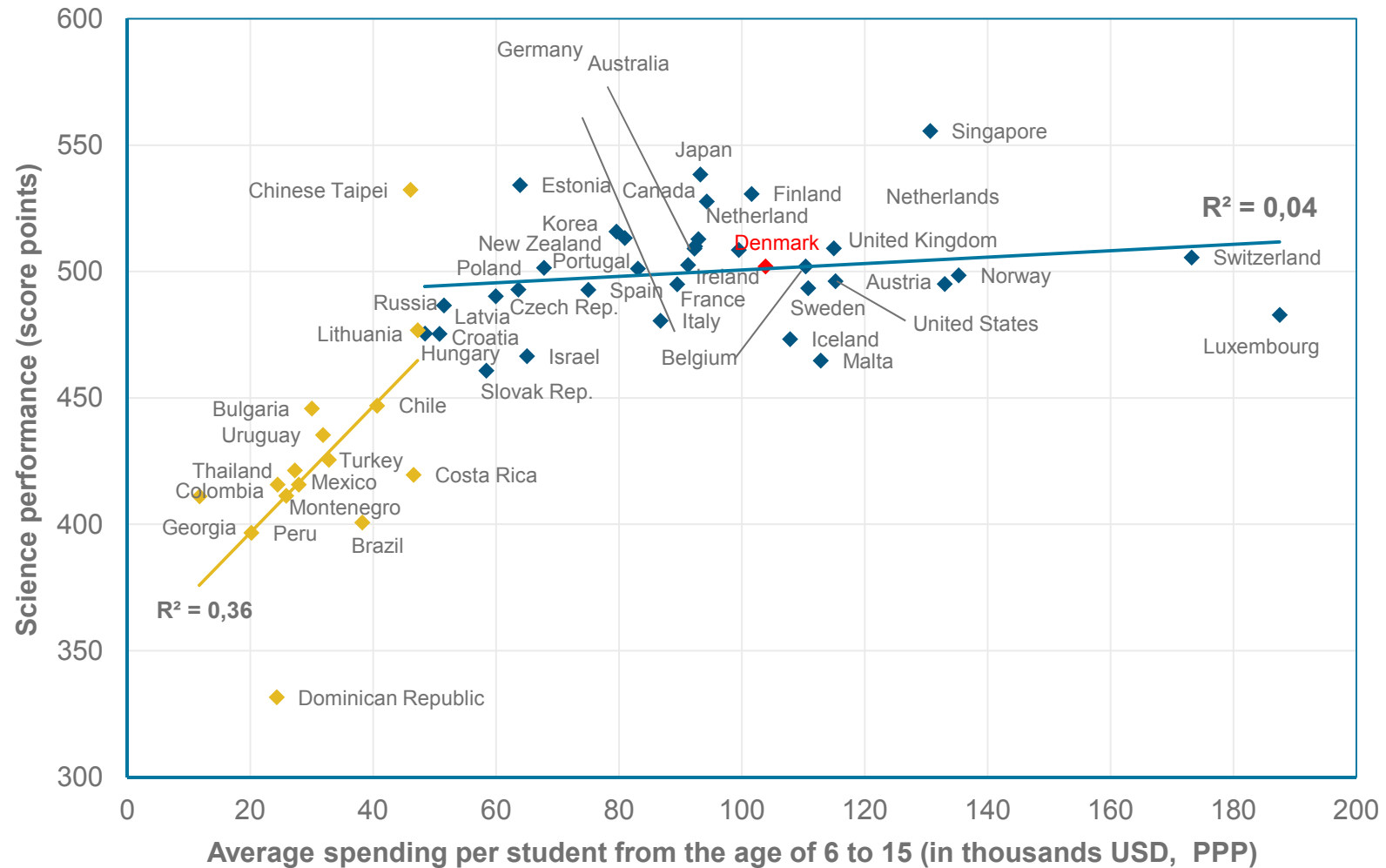
Note: In countries where family benefits to potential GDP is below the average ratio of that of countries in the top half of the sample, family benefits will gradually converge to this average ratio.



3. Country-specific characteristics matter



In advanced economies, the link between education spending and student performance is weak

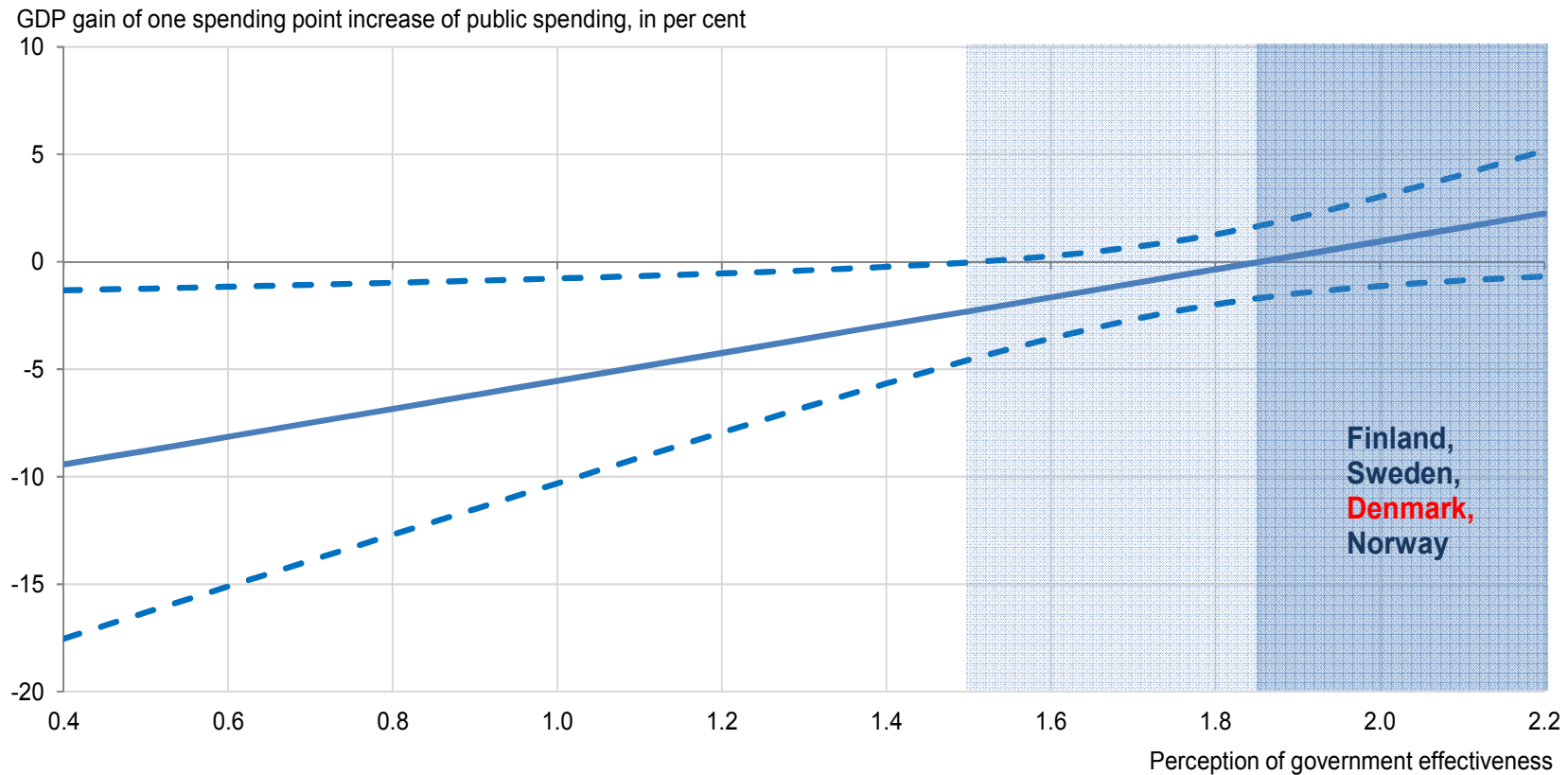


The analysis provides no evidence of the growth effect of education spending.



Government size and effectiveness

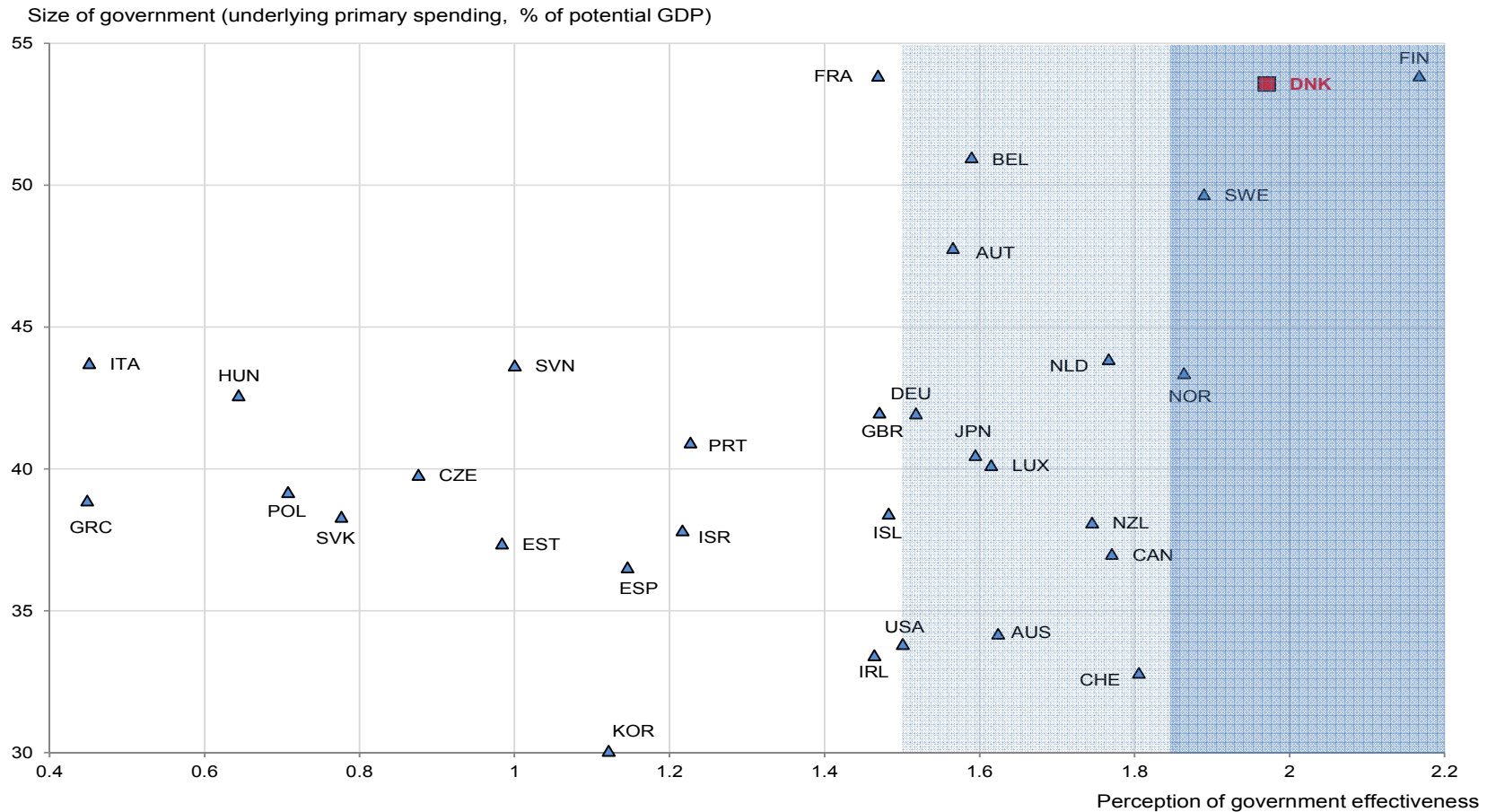
The adverse effect of government size on potential GDP decreases with government effectiveness





Government size and effectiveness

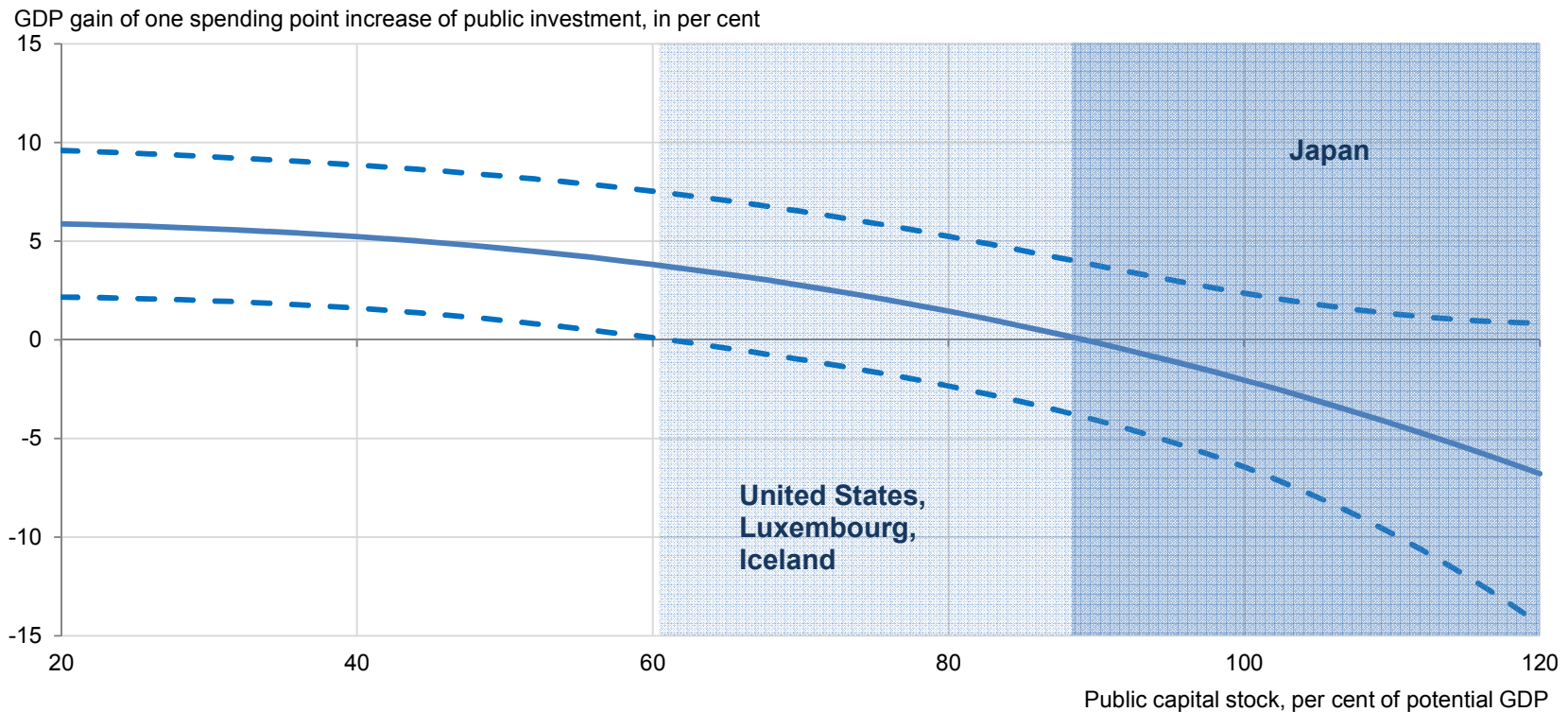
Size of government and citizens' perception of their effectiveness, 2013





Estimates of decreasing returns to public investment

The effect of public investment on potential GDP decreases with the level of capital stock

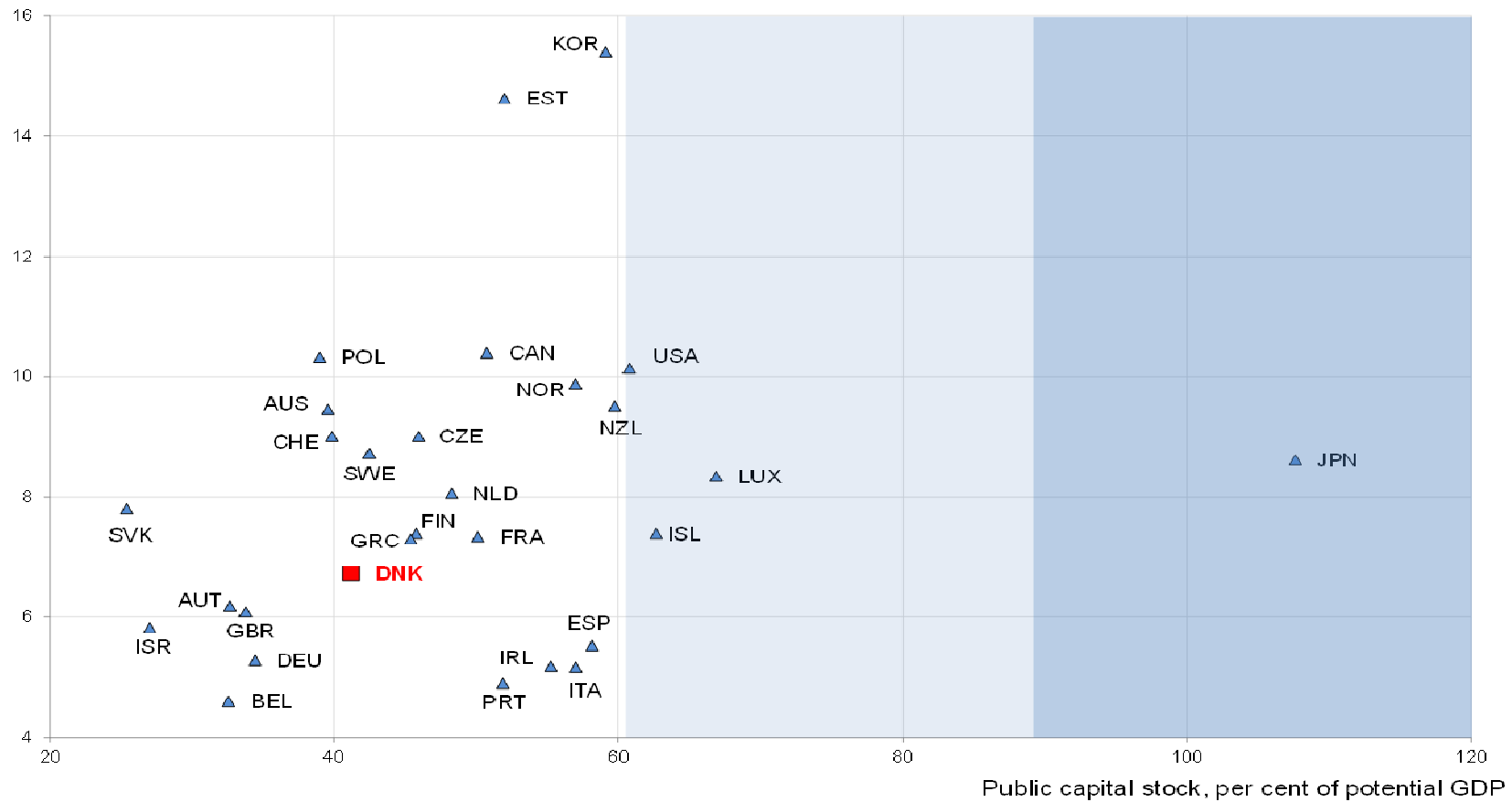




Estimates of decreasing returns to public investment

Most countries have room to increase the stock of public capital (2013 data)

Public investment, per cent of cyclically-adjusted primary spending





More information

Fournier, J-M. and A Johansson (2016), “The effect of the size and mix of public spending on growth and inequality”, *OECD Economics Department Working Papers*, No. 1344.

Bloch et al. (2016), “Trends in public finance: Insights from a new dataset”, *OECD Economics Department Working Papers*, No. 1345.

Johansson, A. (2016), “Public finance, economic growth and inequality: A survey of the evidence”, *OECD Economics Department Working Papers*, No. 1346.

Fournier, J-M. (2016), “The positive effect of public investment on potential growth”, *OECD Economics Department Working Papers*, No. 1347.

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Impact of different instruments on growth and equity

Policy		Growth	Equity	Income of the poor	Countries with the most room for growth gains
Decreasing the size of government	Low to moderate government effectiveness	+	-	+	BEL, CZE, FRA, GRC, HUN, ITA, POL, PRT, SVN
	High government effectiveness	n.s.	-	-	
Increasing government effectiveness		+	+	+	FRA, GRC, HUN, ITA, SVN
Increasing education outcomes		+	0/+	+	CHL, GRC, MEX, PRT, TUR
Increasing public investment (including R&D)		+	n.s.	+	BEL, DEU, GBR, IRL, ISR, ITA, MEX, TUR
Reducing pension spending		+	n.s.	+	AUT, DEU, FIN, FRA, GRC, ITA, JPN, POL, PRT, SVN
Increasing family benefits		n.s.	+	+	CHE, ESP, GRC, PRT
Decreasing public subsidies		+	-	n.s.	BEL, CHE

Note: + stands for a positively significant, – for a negatively significant and n.s. for non-significant effect.

Source: Fournier and Johansson (2016), “The Effect of the Size and the Mix of Public Spending on Growth and Inequality”, OECD Economics Department Working Papers, No. 1344.