

Taxes and the Global Allocation of Capital

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Carnegie-Rochester | April 20, 2007

Capital and taxes

The Economist, February 2007

With capital mobile and economies increasingly interlinked, money will continue to move to places where costs, including taxes, are low.

Financial Times, April 2007

British-based multinationals would be allowed to repatriate billions of foreign profits tax-free under proposals being drawn up by Britain's Treasury to improve the competitiveness of the country's tax system. ... Business groups say the change would help the UK attract more corporate headquarters and boost investment.

Wall Street Journal, April 17, 2007

Europe's major economies are competing with one another to cut corporate taxes as they fight to attract and keep investment, fueling a trend that has taken Europe's corporate tax rates below those of other regions.

France

The Economist, February 2007

Presidential candidate Segolene Royal hinted at the idea of “taxing capital more than work”.

“Supply-side economics,” 1990

I now believe that neither capital gains nor any of the income from capital should be taxed at all. [But my] personal experience has led me to a certain suspicion of definitive answers to tax questions.

Our question

Can corporate taxes explain some of the cross-country differences in capital-output ratios?

Answer: probably.

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Outline

Capital and taxes in theory

Evidence on capital-output ratios

Evidence on corporate taxes

Evidence on capital and taxes

Open questions

Premise

Markets equate after-tax marginal products of capital

With CES production, mpk depends on capital-output ratio

Countries with high tax rates have low capital-output ratios

Theoretical example

One-good world, many countries i

Equate marginal products of capital across countries

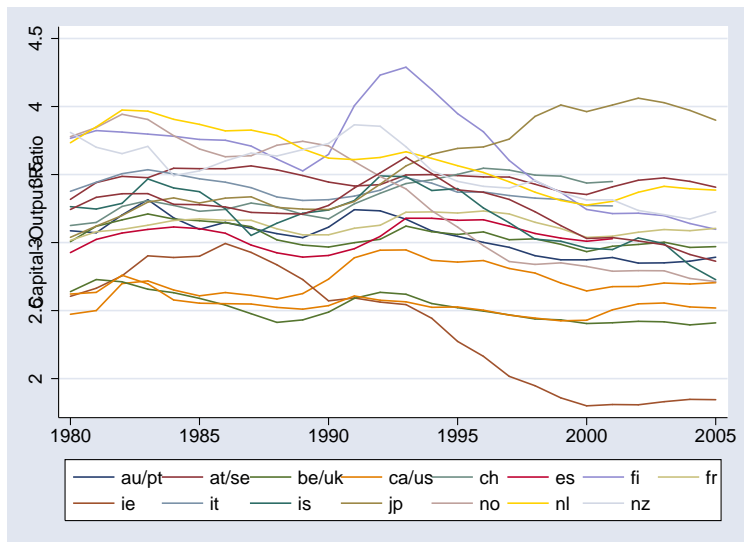
$$1 + r_{t-1} = 1 + (1 - \tau_{it}) [f_1(k_{it}, z_{it} n_{it}) - \delta].$$

With CES production function

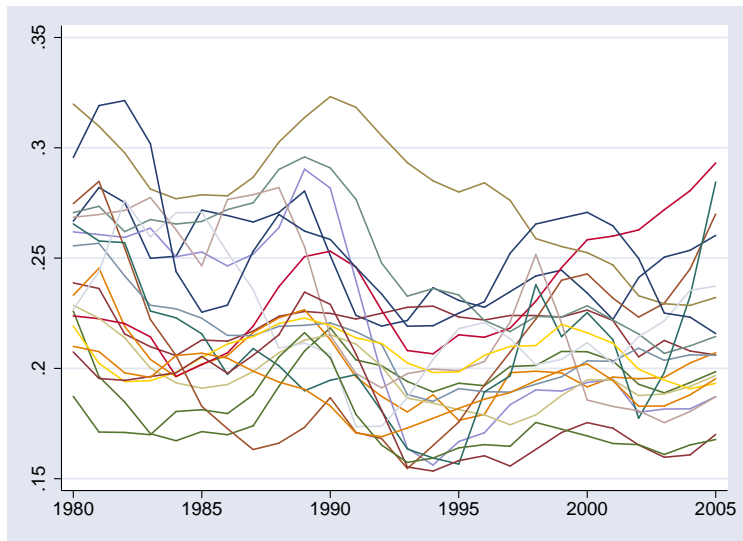
$$f_1(k_{it}, z_{it} n_{it}) = \omega_i (k_{it}/y_{it})^{-1/\sigma}$$

$$\Rightarrow \log k_{it}/y_{it} \approx \beta_0 + \beta_t + \beta_i + \sigma \log(1 - \tau_{it})$$

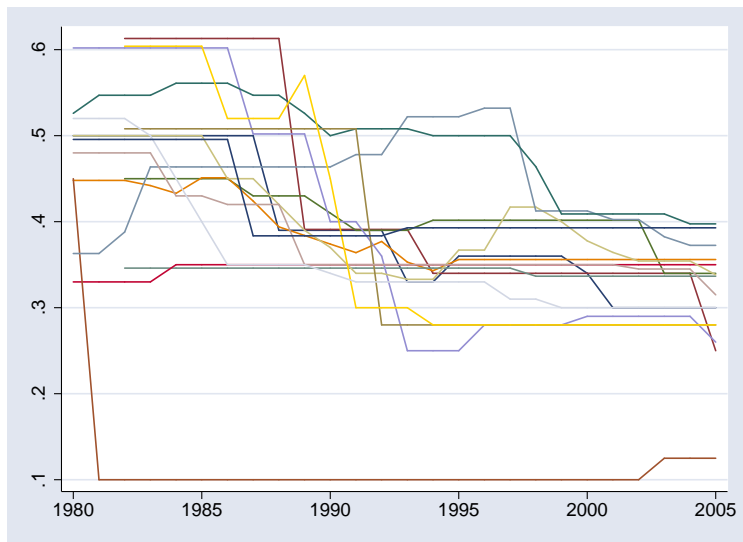
Capital-output ratios



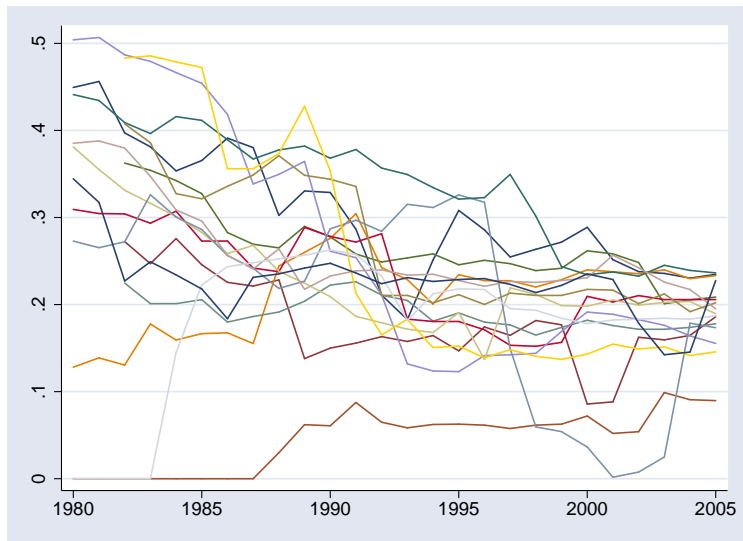
Investment-output ratios



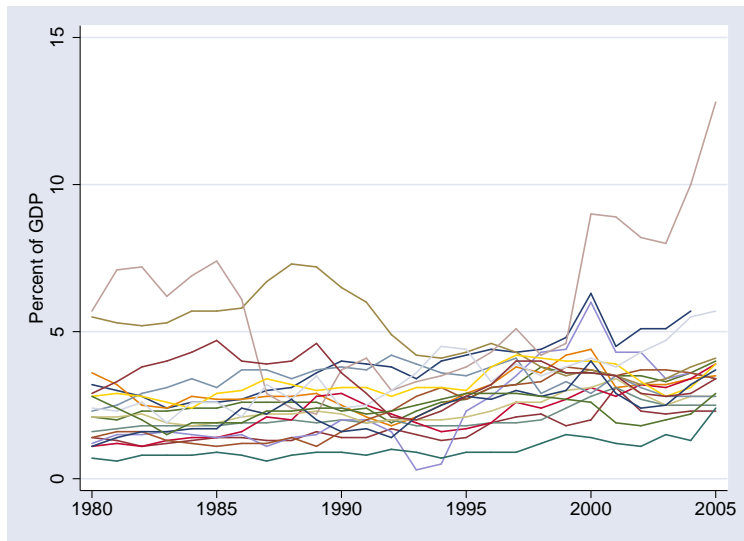
Corporate tax rates (statutory)



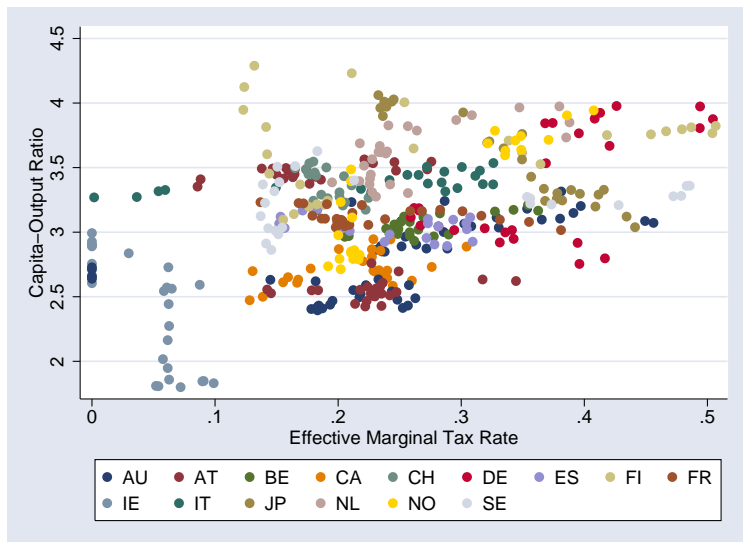
Corporate tax rates (effective marginal)



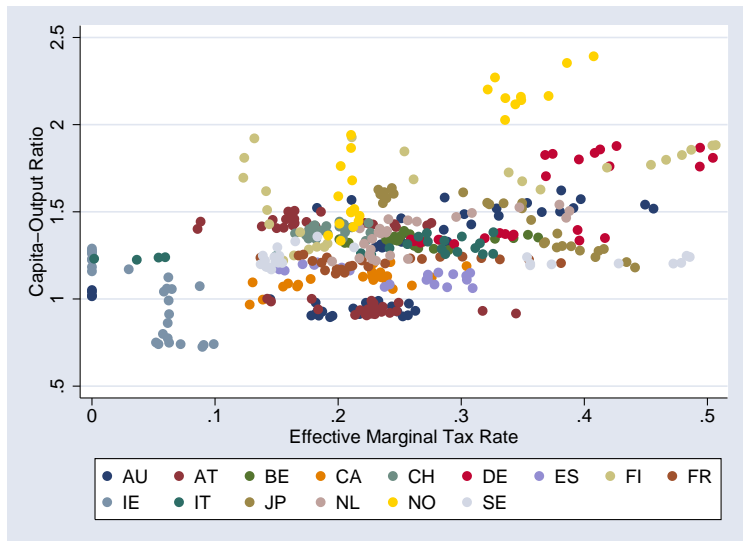
Corporate tax rates (tax revenue)



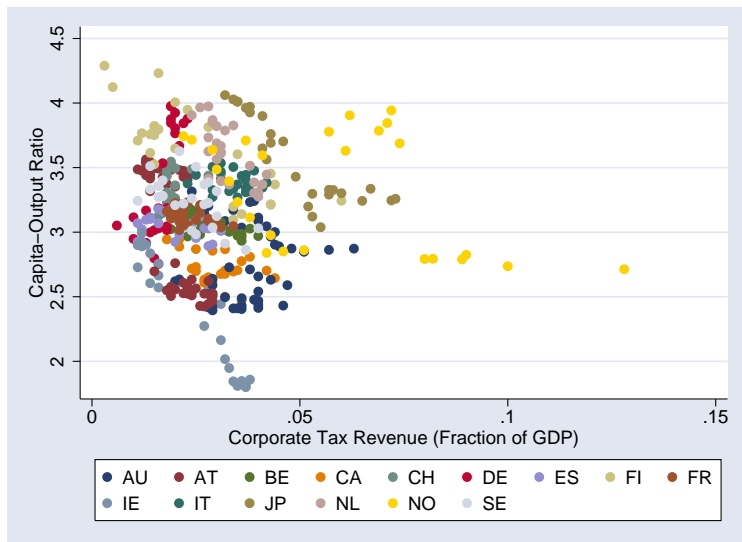
Capital and taxes (effective marginal tax rate)



Capital and taxes (business capital)



Capital and taxes (corp tax revenue)



Panel data regressions

Regressions based on panel of countries

Fixed country effects (may) reflect differences in production functions

High tax revenue associated with low capital-output ratio

Some role for revenue from wealth taxes — and maybe distributions

Evidence stronger since 1990 (greater capital mobility?)

Last thoughts

Are capital-output ratios related to corporate taxes?

- ▶ Yes, if we measure them with tax revenue

Open questions

- ▶ Why are cross-country differences in capital-output ratios so large?
- ▶ Is there direct evidence on pre-tax rates of return?
- ▶ Could impact of taxes be wildly different from our example?
 - ★ International activities blur impact of local taxes
 - ★ Taxes on households may play a role
 - ★ Could taxes be less distortionary than we think?