

Tax competition

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Tax competition is a phenomenon that has been given much attention recently, both in the media and in academic debate. The idea behind this is that in a globalised world capital has become mobile. This means that firms and individuals not only invest in their own country, but also abroad, at very low transaction costs. If governments want to increase investment in their country, they can try to make their country more attractive. The most obvious way to do this is by cutting taxes. If all countries do that however, then everybody will raise less taxes and less money will be available for public services. The total amount of investment however will not change very much. This is the general idea, but we will see in this article that the issues are in fact more complicated, and the results of tax competition rather ambiguous.

Tax competition in theory

The key to understanding the conflicts that arise in tax competition is to distinguish between the interests of a single country and the interests of all countries together.

Think first of a single country that decides on the level of taxation it wishes to set. To get to some results we first need to make some assumptions. The most important ones are that the country is small and open. "Small" here means that a country cannot influence world prices, including the interest rate, which can be thought of as the price of capital. "Open" means that capital, be it financial or real, can be moved costlessly across countries. For the time being, let us also assume that the only taxes feasible are taxes on profits. These taxes are source-based, i.e. only domestic profits can be taxed.

In order to determine the optimal rate of tax the country will have to weigh the benefits of public goods and services that can be provided with the taxes against the cost the taxes impose on the economy. Ideally the country should increase taxes up to the point where the benefit of providing one more unit of public goods equals exactly the cost of taxation. First imagine the economy were closed, i.e. capital could not move abroad, no matter how high the tax. There would be some optimal tax level that could be estimated by economists.

What will happen if this economy suddenly becomes an open economy? The benefit of public goods will not be affected by this. The cost of taxation however will increase. This is because any tax increase will now lead to capital being driven out of the country to countries with lower taxes. On the other hand tax cuts will have much less severe revenue effects. This is because tax cuts will attract new capital into the country. The profit from this new capital can be taxed, and this will partially offset the loss of revenue due to the lower tax rate on the existing capital. There is thus a stronger incentive to cut the tax rate, compared to the closed-economy case.

The same argument holds individually in all countries. So all countries will face incentives to cut taxes. If however all countries cut taxes, then the benefit of tax cuts will disappear: no capital will be attracted to the tax cutting country, if taxes have decreased in all other countries as well. So we end up with lower tax rates everywhere. The total capital stock will not be affected (except to the extent that lower taxes may generate more investment and thus a larger world capital stock). But tax revenues in each country will be lower and therefore less can be spent on public goods. This process of falling tax rates is often referred to as a “race to the bottom”. Assuming that prior to the opening up of the economies optimal tax rates were chosen, all countries must now be worse off.

It is easy to think of a solution to the problem: if all countries can agree not to compete over tax rates, then every country would be better off. In practice this is difficult to achieve though. What if countries have reasons for charging different tax rates, e.g. if their citizens’ preferences for public goods differ? And imagine the political controversy of giving up the sovereignty to determine one’s tax rate. Finally, think of a situation where a group of countries, e.g. the European Union, agreed to co-ordinate their taxes. This would only increase the incentives for countries outside that group to cut their taxes, as they would know that this group of countries would not follow suit.

And in practice?

The analysis above provided interesting insights. But before we get too excited about the “race to the bottom”, it would be interesting to see what has happened in the real world. The first thing we may want to check is whether corporation taxes (which are the main profit taxes) really have fallen a lot recently. After all it is often said that the world is becoming more globalised and hence capital more mobile. In the European Union this is certainly true with the completion of the common internal market.

Table 1 summarises some data on tax rates. The table shows data for the UK and averages for the EU and G7 countries. The data on the corporation tax rate seems to confirm the fear that there is a strong downward pressure on taxes. This is true both for the UK and on average in the EU and across the most industrialised countries. But note that this does not prove that the theory of tax competition is correct. After all it is possible that a completely different process led countries to lower their tax rates.

Table 1

	Corporation tax rate			Corporation tax revenue (% of GDP)		
	UK	EU average	G7 average	UK	EU average	G7 average
1982	52%	48%	50%	3.8%	2.2%	2.9%
1983	50%	48%	50%	4.0%	2.3%	2.9%
1984	45%	48%	50%	4.3%	2.4%	3.1%
1985	40%	47%	50%	4.7%	2.5%	3.2%
1986	35%	46%	49%	4.0%	2.6%	3.2%

1987	35%	44%	47%	3.9%	2.6%	3.4%
1988	35%	44%	46%	4.0%	2.6%	3.5%
1989	35%	41%	45%	4.6%	2.7%	3.6%
1990	34%	38%	43%	4.2%	2.6%	3.3%
1991	33%	37%	43%	3.3%	2.5%	3.0%
1992	33%	37%	43%	2.7%	2.4%	2.8%
1993	33%	36%	43%	2.4%	2.5%	2.6%
1994	33%	36%	43%	2.7%	2.5%	2.7%
1995	33%	36%	43%	3.3%	2.7%	2.8%
1996	33%	36%	43%	3.7%	3.1%	3.1%
1997	31%	36%	44%	4.3%	3.4%	3.3%
1998	31%	35%	42%	4.1%	3.5%	3.0%
1999	30%	35%	40%	3.8%	3.5%	3.1%
2000	30%	34%	39%	3.7%		
2001	30%	33%	37%			

Notes: Tax rate data: These rates include local taxes and surcharges. In countries with multiple tax rates, the highest rate in the manufacturing sector is chosen. The EU average excludes Denmark and Luxembourg due to missing data.

Tax revenue data: This includes all taxes paid by companies on profits and capital gains. The EU average excludes Portugal due to missing data.

Sources: Tax rate data: Devereux, Griffith and Klemm (2002) "Can International Tax Competition Explain Corporate Income Tax Reforms?" paper presented at the 35th Panel Meeting of Economic Policy in Madrid.

Tax revenue data: OECD Revenue Statistics 2001.

In any case tax rates may not be a good measure. The amount of tax a company pays does not only depend on the rate applied, but also on many other features of the tax system, e.g. the generosity with which the depreciation of assets is treated. All of these rules differ across countries. Rather than comparing every rule and calculate its effect on the tax burden, we may think that we can instead obtain a good approximation by looking at tax revenue data. To control for inflation and differences in country size, it is necessary to scale tax revenues, e.g. by dividing them by GDP. Table 1 also presents this measure for the UK, the EU and G7. The result seems surprising: As a proportion of GDP, tax revenues have not in fact fallen at all, despite the cuts in the tax rates! So tax competition may not be an issue after all. Countries may have just decreased tax rates and at the same time made other rules of the tax system less generous, without any net effects on the amounts of tax raised. Or profits may have increased as a proportion of GDP to such an extent that a lower tax rate can now raise as much as a higher tax rate used to raise.

Should we be concerned?

So is there any tax competition? We cannot rule it out. So far it has not harmed revenues very much, but there is a possibility that this will happen in the future.

But what would happen if capital became even more mobile and taxes on profits were finally driven to very low levels, perhaps even to zero? Even then it is not so clear what the consequences would be. Our simple model completely ignored the fact that there are taxes other than profit taxes. In practice we have income taxes, consumption taxes and many more. Some of them are raised from immobile factors. Taxes on labour for example are likely to have much smaller effects on relocation, as we would expect very few people to move country for tax considerations. We would therefore still be able to raise taxes to pay for public goods, even if profit taxes disappeared.

In conclusion we do not know whether tax competition has had a great impact so far or what role it will play in the future. What we do know is that just looking at tax rates and noticing that they fell is too simplistic. And we also know that while tax competition will affect some taxes (taxes on mobile factors), there are always other taxes. This does not mean that tax competition cannot be harmful. After all, other taxes would have to be raised to compensate for lower profit taxes, and these other taxes would also have distortionary effects. It means however that tax competition in itself is unlikely to be a threat to the ability of governments to finance public goods or to fund the welfare state if they wish to do so.