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e-brief

The High-Tax Handicap: How the World's Major Economies Shoot Themselves in the Foot with High Corporate Income Tax Rates

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September 20, 2007

Many of the world's largest economies have a common malady handicapping their abilities to generate jobs and government revenues. From the United States, Germany and Japan, to other engines of the global economy, they tend to have high corporate income tax rates that blunt their competitiveness, making it harder for manufacturing and service businesses to adopt better technologies that would boost workers' incomes. Except for the United Kingdom, which is committed to reducing its corporate tax rate to 28 percent in 2008, most of the world's major economies rely on corporate rates in excess of 30 percent. These high rates hurt competitiveness, because when investment moves to low-tax jurisdictions, prospects worsen for economic growth and job creation.

High rates also hurt government revenues. The evidence shows that lower corporate tax rates, on the other hand, may increase rather than reduce revenues, because governments gain revenue from an expanding tax base, as business investment and profits grow, and this helps offset the effect of a lower rate. In other words, governments shoot themselves in the foot when they set corporate income tax rates too high, hurting both competitiveness and revenues.

In this *e-brief*, we provide a ranking of 80 industrialized and developing countries with respect to their effective tax rates on capital for marginal investment projects undertaken by large multinational companies. We also report findings on the corporate income tax rate that maximizes government revenue.

The effective tax rate on capital is the most useful measure of the total tax burden on business, particularly when it comes to making a new investment. It is the ratio of a company's taxes paid to its pre-tax profits. Hence, the effective tax rate on capital takes into account corporate income taxes, sales taxes on business purchases and capital-related taxes on investment decisions. Most importantly, the

effective tax rate can determine whether a new investment gets a green or a red light. For example, if an investment earns a 10 percent pre-tax rate of return on capital, and investors receive a 6 percent yield after taxes, the marginal effective tax rate on investment is 40 percent. If the after-tax rate of return on capital is sufficient to attract financing by investors, who may also pay personal income taxes, the business will go ahead with the project. If the after-tax rate of return is below the minimum return needed to attract investor interest, the investment will not be undertaken.

A Troubling Pattern:

Large Economies Tend to Tax Investment Most

The incidence of high tax rates, of course, can be found in economies of all sizes. Argentina and Chad share the spotlight of having the first- and third-highest effective tax rates on capital among the 80 countries (Table 1). But the most significant finding is that large economies generally tax investment highly, which has negative implications for their individual competitiveness vis-à-vis countries with lower effective tax rates.

China, at 47 percent (despite lowering its corporate tax rate this past year), has the second-highest effective tax rate on capital, in large part due to the non-refundable value-added tax charged on machinery purchases. However, in some regions it is refunded to the producer for whom the effective tax rate on capital is only 18 percent. The United States has the fourth-highest effective tax rate on capital, at 37.8 percent, because of its high statutory federal-state corporate income tax rate (38.5 percent) and because of state sales taxes on capital purchases.

Other large-economy countries, including Brazil, France, Germany and Japan, also tend to tax capital highly. And despite its low corporate income tax rate, Russia has the seventh-highest effective tax rate on capital investments, because it relies in part on a high capital tax applied to fixed assets.

At the other end of the spectrum, Serbia and Belgium have very low effective tax rates on capital investment. In the case of Serbia, fast writeoffs for capital investments are particularly important in reducing tax burdens, while Belgium, in addition to interest expense deductions, has introduced a deduction for equity financing costs. Other countries that have effective tax rates on capital below 10 percent include Ireland, Hong Kong SAR, Bulgaria, Latvia, Romania and Singapore.

When governments levy taxes on capital they also hurt foreign investment. We find that a one-percentage point increase in the effective tax rate reduces inbound foreign direct investment as a share of GDP by three-quarters of a percent (Mintz 2007). In turn, this causes economic growth rates to fall by 0.15 percentage points. Put in human terms, this reduces per capita income by \$3,000 after 25 years for workers earning \$50,000 today.

Because of the harm caused by tax policies that discourage investment, several countries besides the UK are planning corporate rate reductions. Germany plans a seven-point corporate income tax rate reduction from 37 to 30 percent next year, and in 2008, New Zealand is also cutting its rate by three percentage points. Canada is reducing its corporate rate from 34 percent to 30.5 percent by 2011. The Czech Republic will have a corporate income tax rate of 19 percent, and Mauritius

Table 1: *Statutory Corporate Income Tax (CIT) Rates and Effective Tax Rates on Capital by Country, 2007.*

	Statutory Corporate Income Tax Rate	Effective Tax Rates on Capital			
		Manufacturing	Services	2007 Average	2006
			<i>percent</i>		
Argentina	35.0	49.8	47.5	47.9	47.9
China	25.0 (30.0) ^a	48.5	46.8	47.1	49.0
Chad	45.0	45.1	42.7	43.2	43.2
US	38.5	34.7	40.1	37.8	37.8
Brazil	34.0	37.6	36.6	36.6	36.6
Germany	37.0	36.9	35.3	35.7	35.7
Russia	22.0	38.0	34.9	35.7	35.7
France	34.4	33.0	31.7	31.9	31.9
Korea	27.5	32.8	31.0	31.5	31.5
Japan	41.9	35.2	30.4	31.3	31.3
Canada	34.2 (34.4) ^a	23.1	36.4	30.9	36.6
Pakistan	35.0	29.9	31.1	30.8	30.8
Costa Rica	30.0	38.6	30.5	30.7	30.7
India	34.0	28.8	30.1	29.8	29.5
Iran	25.0	31.2	28.8	29.3	29.3
UK	30.0	24.4	29.8	28.8	28.8
New Zealand	33.0	29.9	28.2	28.5	28.5
Indonesia	30.0	30.3	26.9	28.2	28.2
Spain	32.5 (35.0) ^a	29.5	27.4	27.7	30.0
Australia	30.0	27.7	26.6	26.7	26.7
Lesotho	25.0	12.8	30.6	26.7	26.7
Georgia	20.0	27.6	25.5	25.9	25.9
Ethiopia	30.0	30.7	24.8	25.9	25.9
Sierra Leone	35.0	14.0	27.2	25.3	25.3
Botswana	25.0	11.4	25.3	24.4	24.4
Tanzania	30.0	14.8	25.3	23.6	23.6
Norway	28.0	25.8	23.2	23.5	23.5
Italy	37.3	21.8	23.4	23.1	23.1
Jamaica	33.3	14.6	24.4	23.0	23.0
Peru	30.0	27.3	21.9	23.0	23.0
Finland	26.0	22.4	22.9	22.8	22.8
Kazakhstan	30.0	24.6	22.0	22.5	22.5
Bolivia	25.0	26.4	21.2	22.5	22.5
Tunisia	30.0 (35.0) ^a	22.1	22.4	22.3	26.0
Uzbekistan	17.2 (19.0) ^a	23.8	20.4	21.3	22.0
Zambia	35.0	18.9	21.6	21.2	21.2
Turkey	20.0	22.7	20.2	20.8	20.8
Luxembourg	29.6	24.1	20.3	20.6	20.6
Fiji	31.0	-22.7	19.7	20.3	20.3
Austria	25.0	21.6	19.5	19.9	19.9
Kenya	30.0	-25.7	27.8	19.6	19.6
Bangladesh	30.0	12.4	21.3	19.4	19.4
Uganda	30.0	11.0	20.5	19.0	19.0
Malaysia	27.0 (28.0) ^a	20.1	18.3	19.0	19.8
Vietnam	28.0	24.5	17.0	19.0	19.0
Thailand	30.0	19.8	17.4	18.4	18.4

Table 1 cont'd on next page

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	Statutory Corporate Income Tax Rate	Effective Tax Rates on Capital			
		Manufacturing	Services	2007 Average	2006
		<i>percent</i>			
Ghana	25.0	13.3	19.3	18.2	18.2
Iceland	18.0	19.5	17.6	17.9	17.9
Sweden	28.0	19.3	17.5	17.8	17.8
Jordan	25.0	11.6	19.7	17.6	17.6
Madagascar	30.0	23.4	15.2	17.0	17.0
Morocco	35.0	18.9	16.4	17.0	17.0
Switzerland	21.3	16.6	16.8	16.7	16.7
Trinidad	25.0	3.0	21.5	16.2	20.1
Rwanda	30.0	21.8	15.2	16.1	16.1
Portugal	26.5 (27.5) ^a	14.8	16.1	15.9	16.6
Netherlands	25.5 (29.6) ^a	18.2	15.0	15.5	18.5
South Africa	29.0	15.5	15.4	15.4	15.4
Poland	19.0	14.4	15.0	14.9	14.9
Chile	17.0	14.4	13.8	14.0	14.1
Greece	25.0 (29.0) ^a	18.0	13.2	13.8	16.2
Ecuador	15.0	15.6	12.7	13.4	13.4
Denmark	25.0 (28.0) ^a	16.5	12.7	13.4	15.4
Mauritius	22.5 (25.0) ^a	13.8	13.2	13.3	15.2
Mexico	28.0 (29.0) ^a	17.1	12.1	13.1	13.7
Hungary	16.0	12.9	12.0	12.2	12.2
Slovak Republic	19.0	13.3	11.7	12.0	12.0
Ireland	12.5	12.7	11.7	12.0	12.0
Egypt	20.0	10.6	12.4	11.9	11.9
Czech Rep	24.0	13.2	10.4	11.2	11.2
Romania	16.0	10.7	9.4	9.8	9.8
Singapore	18.0 (20.0) ^a	6.4	11.6	9.3	10.6
Croatia	22.0	10.7	8.5	9.2	9.2
Ukraine	25.0	14.4	6.0	8.2	8.2
Hong Kong SAR	17.5	3.6	6.2	5.6	5.6
Latvia	15.0	6.5	5.4	5.6	5.6
Nigeria	32.0	7.6	4.5	4.9	4.9
Bulgaria	10.0 (15.0) ^a	5.0	4.9	4.9	7.8
Belgium	34.0	-6.0	-4.1	-4.5	-4.5
Serbia	10.0	-12.5	-3.0	-5.8	-5.8
Weighted Average^b					
<i>All 80 countries</i>	34.9	31.3	32.4	31.7	32.1
<i>OECD members</i>	36.3	30.9	32.3	31.5	31.8
Simple Average					
<i>All 80 countries</i>	26.8	19.9	20.8	20.6	21.0
<i>OECD members</i>	27.6	21.5	20.8	20.8	21.3

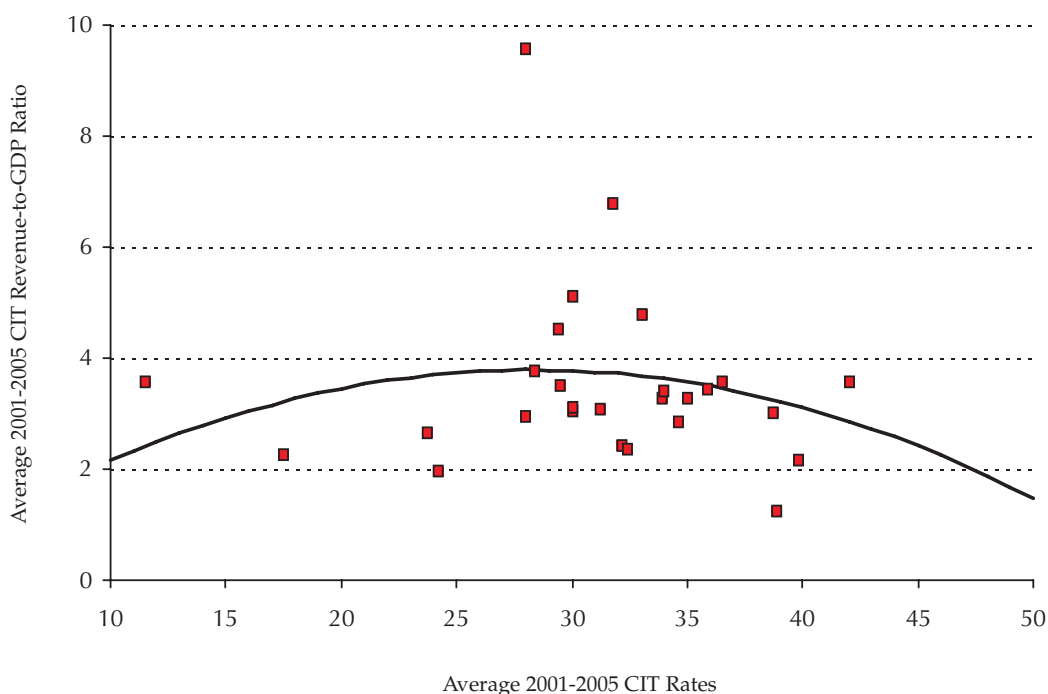
Notes: Effective tax rates on capital investments incorporate corporate income taxes, sales taxes on capital purchases and other capital-related taxes including asset and net worth taxes, stamp duties on securities, taxes on contributions to equity. Special tax holiday regimes operating in some countries are not included in the analysis. Property taxes are not included due to lack of data.

^a Countries with a corporate income tax rate reduction for 2007 are shown with their 2006 corporate income tax rates in parentheses.

^b Weighted by GDP in constant (2000) US dollars for the period of 2000-2005. India's averages are for the 2001-03 period.

Source: Calculations by Duanjie Chen with corporate income tax rates adopted from Ernst and Young, 2007 Worldwide Corporate Tax Guide, International Bureau for Fiscal Documentation, various country chapters; Tax Notes International, various issues in 2007; and certain government websites.

Figure 1 *Corporate Income Tax Rates and CIT Revenue-to-GDP ratios; OECD Countries, 2001–2005*



Source: Same as Table 1; and OECD Statistics Database.

is reducing its corporate tax rate to 15 percent, both by 2010.

Evidence for A Win-Win Corporate Tax Rate:

We find evidence, based on analysis of data for the years 2001 to 2005, that corporate income tax collections as a share of GDP would be maximized at a corporate income tax rate of 28 percent (see Figure 1). In other words, reductions in high corporate income tax rates above 28 percent could increase rather than reduce tax revenues as business activity expands and the tax base broadens. Corporate rate reductions when tax rates are below 28 percent would reduce revenues as expected.

Corporate tax collections are influenced by many factors, such as the size of the banking and resource sectors, economic growth and inflation. But the tax rate also matters. Even though lower corporate income tax rates would normally reduce revenues by taxing profits less highly, corporate net incomes would increase, along with tax revenues, when multinationals grow their operations or shift profits from high- to low-tax countries. For example, multinationals use financial transactions and related-party transactions, such as licensing agreements, to shift costs into high-tax jurisdictions and income into low-tax jurisdictions.

As a case in point, Ireland collects corporate income taxes that are 3.4 percent of GDP (2005), which is more than the US at 2.9 percent of GDP. Yet,

Ireland's statutory corporate income tax rate, at 12.5 percent, is one-third of the US federal-state combined rate of 38.5 percent.

The World Economy Needs Leading Countries to Take Action

High tax burdens on investment hurt a given country's competitiveness, and also that of their trading partners. Large economies, like Canada, France, Germany, Japan and the United States in particular, need to reduce corporate rates, because they are far too high relative to the revenue-maximizing corporate rate.

With the possibility of an economic slowdown resulting from a collapsing housing market in the United States, the harm imposed by the high effective tax rates in the largest economies is not just bad for them, but for the world economy as a whole. President Sarkozy of France, for example, has proposed a sharp reduction in the corporate rate, to 25 percent. Others, especially Japan and the United States, should follow suit.

Reference

Mintz, Jack M. 2007. *2007 Tax Competitiveness Report: A Call for Comprehensive Tax Reform*. C. D. Howe Institute Commentary No. 254. Toronto: C.D. Howe Institute.

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