

# The New Political Economy of Taxation in Advanced Capitalist Democracies

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We articulate and test an explanation for the remarkable change and continuity in contemporary tax policy in capitalist democracies. We argue that internationalization, domestic economic change, and budgetary pressures each prompt significant changes in tax policy; yet, together, they create a system of constraints on altering the level and distribution of tax burdens. We utilize 1981 to 1995 data from fourteen developed democracies to analyze the determinants of taxation. We find that capital mobility and trade are associated with cuts in statutory corporate tax rates but not with reductions in effective average tax rates on capital income. Moreover, we find that capital mobility is negatively associated with the tax components of labor costs. Domestically, structural unemployment leads to reductions in labor and capital taxes while public sector debt and societal needs raise taxes. We conclude with a summary of the new political economy of taxation in capitalist democracies.

The globalization theory of taxation suggests that the ability of mobile asset holders to exit national jurisdictions forces policy makers to compete for investment (Tanzi 1995). In the strongest versions of the theory, taxes on capital and other mobile asset holders such as professionals are progressively reduced to the “lowest common denominator.” Tax burdens on relatively immobile factors and activities (i.e., most labor and consumption) are increased (Christiansen, Hagen, and Sandmo 1994). Yet, the empirical record of tax policy change does not fit the globalization thesis; although statutory tax rates, brackets, and investment incentives have been reduced almost everywhere, we find a remarkable stability in the levels and distribution of tax burdens.

Here, we argue that the tax impacts of internationalization are important, but in more complex ways than globalization theory suggests. Specifically, through analysis of data from fourteen developed democracies for 1981 to 1995, we show that rises in capital mobility and trade have systematically preceded cuts in statutory tax rates. We also demonstrate, however, that three factors—internationalization, domestic economic change, and budgetary forces—simultaneously constrain changes in tax burdens and, together, help explain the complexity of tax policy outcomes.

## Taxation in Developed Capitalist Democracies

After World War II, tax policy became a central instrument for achieving social and economic policy goals. Indeed, the regime of high marginal tax rates—combined with generous tax incentives for investment and controls

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**TABLE 1** Marginal Tax Rates on Corporate and Capital Income, 1981–1995

Nation	Top Marginal Rate Corporate Income <sup>1</sup>		Rates of General Invest Incentives <sup>2</sup>		Effective Rate of Tax on Capital <sup>3</sup>	
	1981	1995	1981	1992	1981	1995
Australia	46	33	18	0	47	46
Austria	na	na	na	na	23	22
Belgium	48	39	5	0	39	39
Canada	48	39	7	0	39	50
Denmark	40	34	0	0	na	na
Finland	na	na	na	na	34	34
France	50	33	10	0	28	25
Germany	56	47	0	0	33	25
Ireland	45	40	0	0	na	na
Italy	36	53	0	0	22	33
Japan	42	38	0	0	37	44
Netherlands	48	35	12	0	32	28
New Zealand	42	33	0	0	na	na
Norway	51	28	0	0	44	33
Sweden	58	38	10	0	53	42
Switzerland	10	10	0	0	na	na
United Kingdom	52	33	0	0	63	46
United States	46	35	10	0	45	43
<b>Mean</b>	45	35	5	0	38	36

1 Highest corporate tax rate (combining tax at all levels of government). *Source:* for 1981 to 1992, Cummins, Hassett, and Hubbard (1995); for 1993–1995, Coopers and Lybrand, *International Tax Summaries* (New York: Wiley, selected years) and Price Waterhouse, *Corporate Taxes - A Worldwide Summary* (New York: Price Waterhouse Center for Transnational Taxation, selected years).

2 Rate for general statutory investment incentives. Investment incentives for specific regions and industries, certain forms of fixed business investment, and special investment programs (e.g., Denmark and Sweden's investment reserve fund) are not included. *Source:* Cummins, Hassett, and Hubbard (1995).

3 The total tax burden on capital income equals taxes on property income and immovable property plus taxes on unincorporated and corporate enterprise profits plus taxes on capital and financial transactions all as a percentage of operating surplus, as suggested by Mendoza, Razin, and Tesar (1994). Also see Appendix: Data Sources.

regulating capital export—was a centerpiece of the post-war compromise between capital and labor in all industrialized democracies and contributed to the joint pursuit of equity and growth in the Keynesian welfare state (Martin 1991; Steinmo 1993; Swank 1992). From the early 1980s, national policy makers significantly altered the character of tax policies. The transition in tax policy constituted a shift in policy paradigm: the relative weight accorded the goals of equity and growth, the use of tax policy instruments (e.g., the extent of investment incentives), and the settings of the instruments (e.g., the level of rates) were all notably changed by post-1970s tax reforms.<sup>1</sup>

Table 1 summarizes many of these tax policy changes for corporate and capital taxation. Policy makers cut statutory corporate tax rates on average from 45 to 35 percent between 1981 and 1995. They also eliminated

a broad array of investment credits, exemptions, and grants that had substantially lowered effective corporate tax rates on reinvested profits (Swank 1998; Steinmo 1986; OCED 1993). For instance, all governments eliminated general investment tax credits by the early 1990s.<sup>2</sup> Reflecting the combined effects of declines in marginal tax rates, base-broadening, and other forces (see below), effective average tax rates on capital income have been surprisingly stable between the early 1980s and mid-1990s: the effective capital tax rate in the typical developed democracy has decreased only slightly from 38 to 36 percent between 1981 and 1995. The same pattern holds if we estimate changes in taxes on the most mobile

<sup>1</sup>See Hall (1993) for an exposition of the concept of policy paradigm and the character of paradigm shifts.

<sup>2</sup>See Ganghof (2000) and Genshel (1999) for more complete surveys of tax policy change. The clear exception to the trend of reduction of investment incentives is the maintenance of relatively generous depreciation schedules for plant and equipment. In addition, a few countries (e.g., Italy) have maintained tax-based investment incentives.

**TABLE 2** Labor, Consumption, and Total Tax Burdens

Nation	Effective Rate of Tax on Labor <sup>1</sup>		Effective Rates of Tax—Consumption <sup>2</sup>		Total Taxation as a Percent of GDP	
	1981	1995	1981	1995	1981	1995
Australia	21	22	9	8	30	31
Austria	45	48	na	na	44	42
Belgium	42	48	17	17	45	46
Canada	25	32	14	13	35	37
Denmark	na	na	na	na	45	51
Finland	36	48	25	26	38	46
France	43	49	22	21	42	44
Germany	39	44	16	16	38	39
Ireland	na	na	na	na	33	34
Italy	34	47	12	16	31	41
Japan	24	28	5	6	26	29
Netherlands	50	51	17	18	44	44
New Zealand	na	na	na	na	34	38
Norway	40	40	37	38	49	46
Sweden	52	52	21	23	50	50
Switzerland	na	na	na	na	31	34
United Kingdom	29	25	15	17	36	36
United States	29	30	6	6	29	28
<b>Mean</b>	36	40	17	17	38	40

1 Taxes paid on wages and salaries plus total social security contributions and payroll taxes as a percent of total wages and salaries plus employers' social security taxes, as suggested by Mendoza, Razin, and Tesar (1994). Also see Appendix: Data Sources.

2 General goods and services taxes plus excise taxes as a percentage of private and government consumption spending minus consumption by producers of government services, goods and services taxes, and excise tax payments, as suggested by Mendoza, Razin, and Tesar (1994). Also see Appendix: Data Sources.

forms of capital income—corporate and financial income; effective average tax rates have declined minimally from 26 to 24 percent of income during the 1981 to 1995 period.<sup>3</sup>

Personal income taxation followed a similar pattern: between 1975 and 1995, policy makers significantly cut the top marginal tax rates, reduced the number of tax brackets and indexed them to inflation, and broadened tax bases through the elimination of a variety of allowances, exemptions, and credits (e.g., Boskin and McClure 1990; Pechman 1988; OECD 1993). Reflecting the interaction among declining statutory rates, base-broadening, and rises in social insurance taxes (see below), the trend in actual personal income tax burdens in the 1980s and 1990s is stable. For instance, even relatively affluent citizens experienced largely constant tax burdens: the effective

average personal tax rate on earners at 200 percent of the average production worker's salary increased slightly from 31 to 33 percent of income between 1978 and 1992 (OECD, 1995).<sup>4</sup>

Table 2 displays the post-1970s changes in the effective average tax rates on labor and consumption as well as taxation as a share of gross domestic product. Again, effective average tax rates measure the actual absolute and relative burdens on factors and activities. The tax burden on labor has risen modestly between 1981 and 1995. In fact, the majority of nations have experienced an increase in the effective tax rate that is close to the mean growth of four percent of wages and salaries. It is necessary, however, to disaggregate the labor tax burden to get a complete picture of policy change: personal income taxes rose negligi-

<sup>3</sup>We follow the methodology of Mendoza, Razin, and Tesar (1994) and derive the effective tax rate on mobile capital by multiplying financial income by the effective personal income tax rate, combining this total with corporate taxes paid, and computing financial and corporate taxes as a percent of total financial income and corporate profits.

<sup>4</sup>There are two partial exceptions to the generalization. First, effective average tax rates for the low income worker (66 percent of the average production worker's income) increased from 28.3 to 33.6 percent between 1978 and 1992 (OECD 1995). Second, the effective average (and marginal) rates of the top five percent of the income distribution have declined appreciably in some nations (see Steinmo 1994).

bly from 17.3 to 17.7 percent of income while social insurance taxes rose on average from 18.5 to 23.8 percent of income between 1978 and 1995. Nearly all nations have maintained taxes on consumption within a range of 1 to 2 percent of the effective tax rate in the early 1980s. With regard to tax shares of GDP, fifteen of the eighteen focal democracies experienced a change in tax revenues of three percent of GDP or less.

During the 1980s and 1990s, the advanced democracies experienced substantial change in statutory rates and the uses of taxation. Yet, with only a few exceptions, actual tax burdens on capital, labor, and consumption remained remarkably stable. How can we account for the changes in the content of tax policy and the remarkable stability of tax burdens?

### International Capital Mobility and Taxation: Globalization Theory

Classic political economists such as Adam Smith (1976 [1776]) as well as modern scholars such as Bates and Lien (1985) and Lee and McKenzie (1989) have argued that increasingly mobile capital poses substantial problems for governments that seek to tax mobile assets and pursue policies adverse to the economic interests and ideological orientations of (mobile) business.<sup>5</sup> With globalization, increasingly mobile asset holders seek the highest rate of return in international markets. Governments of all ideological complexions not only have to consider the domestic environment of business investment decisions, but in a world of high-capital mobility, they also have to consider international investment climates and policy assessments of international market actors and mobile enterprises.<sup>6</sup> Thus, the interaction of governments and transnationally mobile capital becomes a prisoner's dilemma: in the face of difficulties in achieving international policy cooperation, governments each face incentives to compete for investment by reducing tax burdens to a "lowest common denominator."

Moreover, in models of taxation in open economies with fully mobile capital, the optimal rate of tax on in-

come from capital (from an economic efficiency standpoint) is thought to be zero; shortfalls of revenue are offset by shifting taxes to less mobile factors such as labor and land (e.g., Razin and Sadka 1991; Gordon and Mackie-Mason 1995). In addition, Tanzi (1995), Genshel (1999) and others have argued that it is not only increased asset mobility itself, but transfer pricing and other new tax avoidance strategies that have pressured tax policy makers: internationalization may lead to reduced revenue collections on transnationally fluid assets and, in turn, an impetus for tax reforms. In sum, globalization theory first predicts that as international capital and labor mobility increase, there should be notable declines in effective tax rates on capital income, corporate profits, and high income earners. Second, it predicts that there should be shifts toward taxation of relatively immobile factors or, where factor mobility is extensive, declines in taxation across most revenue categories (e.g., Lee and McKenzie 1989).<sup>7</sup>

**The evidence.** Empirical studies of the relationship between internationalization and national tax policy have produced mixed results (see Schulze and Ursprung 1999). On the one hand, Rodrik (1997) finds increasing trade openness and, at high levels of trade openness, capital control liberalization are associated with declines in effective tax rates on capital; increasing trade openness is associated with increases in taxes on labor. However, the weight of empirical findings does not support the globalization thesis. Wallerstein and Przeworski (1995) have shown that as long as the cost of investment is fully deductible (i.e., through depreciation), governments can collect substantial revenues from a stable tax on uninvested profits even when capital is fully mobile; capital investment by business will only decline between the announcement and implementation of a tax increase on profits. Garrett (1996, 1998a, 1998b), Garrett and Mitchell (2001), Quinn (1997), and Swank (1998, 2002; chapter 7) have all reported that capital mobility is either unrelated or positively related to various measures of aggregate tax burdens in the contemporary democracies. Finally, Hallerberg and Basinger (1998) find that 1986 to 1990 changes in corporate and personal tax rates are, at best, only indirectly related to liberalization of capital markets.

<sup>5</sup>Annual average capital flows—foreign direct, portfolio, and bank investment—grew on average from roughly seven to 50 percent of GDP between the periods, 1965–73 and 1991–95 (see Table 1 for country sample and the appendix for data sources.) Today, few formal impediments to financial flows exist in the large majority of capitalist democracies.

<sup>6</sup>Although the relationship between taxation and international investment is complex, evidence exists to suggest that taxation is one of a set of determinants of international investment patterns (e.g., Giovannini et al. 1993; IMF 1991; OECD 1991). Results from the quantitative research are supported by extensive interviews with over fifty business managers and policy makers from 1992 to 1997 (Steinmo 2001).

<sup>7</sup>The expected effect of trade openness on taxation is uncertain. As Garrett (1998b) has pointed out, one common view is that trade openness forces policy makers to reduce taxes to promote the competitiveness of goods in the exposed sector of the economy and general economic efficiency. On the other hand, some scholars believe that trade openness promotes a large public economy and associated tax burdens. In this view, trade openness leads policy makers to compensate losers of international competition, insure citizens against risks inherent in international markets, and provide public goods that promote competitiveness.

### **Internationalization and Taxation: An Alternative Theoretical View**

Internationalization should play a significant yet circumscribed role in cuts in statutory rates and tax-based investment incentives. On the one hand, economic pressures on governments from international capital mobility militate in favor of the reduction of tax rates on mobile asset holders. On the other hand, policy makers must maintain revenues in the context of rising needs, the downward stickiness of public expenditure, and an increasingly debt-adverse environment (see below for elaboration). A solution to this dilemma is simultaneously to cut statutory tax rates and reduce or eliminate “tax expenditures.” As Slemrod (1990) has pointed out, a mix of low statutory tax rates and few investment reliefs makes sense for many nations in the context of internationalized markets. Low rates retain taxable income that would otherwise be shifted through transfer-pricing to low tax nations. Cuts in tax reliefs on reinvested profits also bolster revenues: governments can maintain foreign investment and collect taxes from it if the investment comes from nations that provide credits for foreign taxes paid and have significant taxes on reinvested profits. Moreover, statutory marginal tax rates serve as especially important cues to holders of mobile assets (e.g., Ganghof 2000).

In addition, adverse economic conditions from the 1970s to 1990s may have significantly advanced the perception that the old regime of taxation is inefficient. The 1970s economic downturn initially accelerated the use of tax-based investment incentives (e.g., Martin 1991). From the early 1980s, however, governments increasingly associated tax-based reliefs with the inefficient allocation of investment as well as tax avoidance and lost tax revenues (Swank, 1998). Generally, the shift to a structure of lower nominal tax rates and fewer tax-based investment incentives appears to follow the post-1970 slide in economic performance. In sum, we expect internationalization and a secular decline in domestic economic performance to be associated with the shift in the content of tax policy.

Although the content of tax policy has changed, policy makers in developed democracies have faced a complex set of constraints on altering actual tax burdens. Internationalization creates pressures for reductions in the effective tax rate on capital income. The decline in domestic economic performance also calls forth capital tax cuts to promote profitability, investment, and, in turn, job creation. However, shifting the tax burden to labor is difficult. First, capital mobility sensitizes policy makers to the nonwage costs that internationally mobile enterprises face and thus creates pressures for reductions

in taxes on labor. Second, rises in long-term unemployment also encourage reductions in labor taxation in order to mitigate negative “tax wedge” effects on employment generation.<sup>8</sup> In fact, the secular rise in structural unemployment increasingly became the focus of policy maker attention in the 1980s and 1990s (see the OECD Jobs Study; OECD 1994). Rises in public sector debt, however, limit tax policy change and call forth tax increases. Although significant reductions in public expenditure would allow cuts in capital and labor taxes, increased demands for social protection fuel public spending and raise the specter of new taxes; the political limits on welfare state retrenchment also constrain the depth of spending cuts. Finally, as recent experiences suggest (e.g., Japan), expectations of adverse effects on economic growth and employment as well as political resistance make it difficult to shift the tax burden toward domestic consumption.

We hypothesize that, all else constant, internationalization exerts downward pressures on both capital and labor taxation. We also expect that rises in structural unemployment exert downward pressure on capital taxes and engender significant cuts in labor taxation. The need simultaneously to address international and domestic pressures on both capital and labor taxation limits the magnitude of tax policy change in any one area. Moreover, we hypothesize that both accumulated public sector debt and demands for public spending increase tax burdens. In sum, while concerns about efficiency and revenues have led policy makers to shift priorities, rates, and the relative use of tax-based policy instruments, the conflicting pressures created by contemporary international and domestic forces leave little room to alter relative or absolute tax burdens.

### **Evaluating Conventional and Alternative Theories**

To assess core hypotheses, we develop empirical models of tax policy and estimate these with 1981 to 1995 data from fourteen developed capitalist democracies. We focus on the post-1980 period because data for several key variables (e.g., long-term unemployment) do not extend back much before 1980 and the substantive focus of our study concerns changes that occurred primarily after

<sup>8</sup>Tax wedge effects on employment occur where the net wage (the wage after income and social security taxes) employers can offer is too low relative to the net wage potential employees are willing to accept to generate appreciable job growth. Consumption taxes may also influence the size of the tax wedge.

1980; restrictions on data availability also limit analysis to a sample of developed democracies.<sup>9</sup> We focus on changes in statutory marginal corporate tax rates as well as effective average tax rates on capital, labor, and consumption.<sup>10</sup> We construct measures of effective tax rates using the methodology developed by Mendoza, Razin, and Tesar (1994) and described in Tables 1 and 2 above.

We assess the effects of central features of internationalization, domestic economic change, and budgetary pressures. With regard to internationalization, we emphasize tests of the effects of general levels of international capital mobility on taxation. We utilize an index of the liberalization of capital controls developed by Quinn (1997) to measure capital mobility.<sup>11</sup> Our measure of liberalization is a 0.0–4.0 scale of the removal of capital controls where 4.0 indicates the absence of controls. We also examine the effects of trade openness measured as exports and imports as percentages of GDP. We explore the tax policy consequences of structural unemployment—a central feature of post-1970 deterioration of economic performance—in all models. Structural unemployment is measured as the percentage of the civilian labor force unemployed for one year or more.<sup>12</sup> We also control for the impacts of profits, investment, and growth rates in our models of corporate tax rates and capital taxation. For models of labor and consumption, we replace profits and investment with inflation and unemployment rates. Profits and investment are both operationalized as annual percent changes in real quantities; growth, inflation, and unemployment rates are measured as the percentage change

<sup>9</sup>We significantly extend 1970 to 1993 models of taxation developed in Swank (2002, chapter 7). Data for effective tax rates are missing for a number of countries thus limiting analysis to thirteen or fourteen nations, depending on the tax variable. However, our sample—Australia, Belgium, Britain, Canada, Denmark (for the corporate rate model), Finland (excluded for corporate tax rate model), France, Germany, Italy, Japan, the Netherlands, Norway, Sweden, and the United States—represents the developed democracies well.

<sup>10</sup>Statutory marginal rates are instruments subject to direct manipulation but do not necessarily tell us much about actual tax burdens; effective average tax rates on factor income measure actual tax burdens. To simplify analysis, and because of the absence of adequate annual measures, we exclude direct analysis of marginal personal income tax rates and tax-based investment incentives.

<sup>11</sup>The substitution of measures constructed with data on actual capital flows generally confirms our reported results. It is important to note, however, that flow measures based on foreign direct investment duplicate our reported findings; measures constructed with financial flows (portfolio and bank investment) typically produce less consistently significant results.

<sup>12</sup>Alternative measures of structural unemployment such as a standard score index of variations in the trend in general unemployment and long-term unemployment produce results identical to those reported below.

in real per capita GDP, the percentage change in the consumer price index, and the percent of the civilian labor force unemployed, respectively.

We highlight tests of public sector debt (gross public debt as a percent of GDP) and the public spending effects of the elderly population (percent of the population 65 and older). Although business cycle variables capture the effects of need on budgets, the aged population is an especially important source of demands for public spending. Parties seek different amounts of revenue commensurate with their preferred level of welfare and public goods provision. Therefore, we estimate tax effects of government control by Left and Christian Democratic parties in each model. We operationalize party control of government as the percentage of cabinet portfolios held by a type of party. In addition, we include lagged levels of tax variables, which provide an indicator of inertia in the tax policymaking process and are incorporated for technical reasons (see below). Unless indicated, exogenous variables are all lagged one year.

## Estimation

We estimate tax models with pooled time-series cross-sections of 1981–1995 annualized data for thirteen nations. This design presents a variety of estimation problems, including serially correlated errors, contemporaneously correlated errors, and cross-sectionally heteroskedastic errors. We follow Beck and Katz (1996) and estimate the following model with ordinary least squares (OLS):

$$y_{i,t} = \alpha + \varphi y_{i,t-1} + \beta x_{i,t} + \epsilon_{i,t},$$

where  $y_{i,t}$  represent values of taxation in country  $i$  and time  $t$ ;  $x$  is vector of independent variables measured at  $i$ ,  $t$ ;  $\alpha$  is a constant and  $\varphi$  and  $\beta$  are parameters that link lagged values of  $y$  and exogenous variables in  $x$  to  $y$ ; and  $\epsilon$  is an error term. As Beck and Katz argue, inclusion of a lagged dependent variable explicitly models temporal dynamics and typically produces serially uncorrelated errors (confirmed here for all models by Lagrange multiplier tests). We also follow Beck and Katz and derive standard errors from the OLS variance-covariance matrix panel-corrected for contemporaneous correlation and cross-sectionally heteroskedastic errors (Beck and Katz 1996, Equation 9).

Finally, we explore two additional methodological issues. First, we address the possibility that coefficients will vary considerably in direction and significance across countries by estimating specific effects for focal variables within (and outside of) individual nations; we describe

and report these highly stable, country coefficient estimates in Appendix Table 1.<sup>13</sup> Second, we assess the robustness of our estimates in the presence of country and year dummy variables. Although adding time and unit fixed effects to our model may create inconsistency in the estimates and severely increase multicollinearity, exclusion of significant time and unit effects might create bias in our estimates.<sup>14</sup> Estimates from these fixed effects models—reported in Appendix Table 2—closely reflect those reported in Table 3.

### Empirical Findings

Table 3 presents the tests of the effects of international, domestic economic, and budgetary forces on statutory corporate tax rates and on the effective average tax rates on capital, labor, and consumption. We proceed by discussing the findings for each tax variable. Internationalization is indeed related to the shift in the content of tax policy: liberalization of capital controls and trade openness are negatively associated with statutory corporate tax rates, and the substantive magnitude of the effect of capital mobility is large. The short-term impact of a one unit change in liberalization is  $-.0164$ . Given that statutory corporate rates are expressed as proportions, this effect amounts roughly to a one-and-a-half percentage point cut in corporate rates. The long-term effect of a unit change in a causal variable in a model that includes a lagged dependent variable is given by the equation,  $\beta = \beta' / (1 - \varphi)$  where  $\beta'$  is the estimated coefficient for the causal variable and  $\varphi$  is the coefficient for the lagged dependent variable. Thus, the long-term effect of a unit change in liberalization of capital controls is  $-.0164 / (1 - .8747)$ , or  $-.1309$ . The average 1981–1995 increase in liberalization is, however, 0.8 on our index. Thus, for the typical country, international liberalization is associated in the long term with a ten-point cut in statutory corporate rates ( $-.1309 \times 0.8$ ).

That liberalization of capital controls is negatively related to statutory corporate rates merits further com-

ment. Liberalization is a widely used measure of capital openness and taps the formal-legal potential for capital flows; it is, however, also a measure of policy choice. Did liberalization occur concomitantly with rate cuts and associated market-oriented reforms, or did it play a central role in causing subsequent tax policy change?

To explore this question, we draw upon supplementary statistical analysis and our extensive interviews with policy makers. First, using the model of column one of Table 3, we estimated the tax rate effects of liberalization at lags of 0 through 3 years. Liberalization of capital controls is not contemporaneously associated with tax policy change ( $\beta' = -.0001$ ,  $t = -.70$ ); policy makers did not simultaneously remove capital controls and engineer statutory rate cuts and related tax policy changes. Liberalization of capital controls is, however, significantly related to a shift in tax policy after a time lag: the short-term statutory tax rate effect of liberalization at  $t - 1$  (as reported in Table 3) is  $-.0164$  ( $t = -4.32$ ), at  $t - 2$  is  $-.0158$  ( $t = -4.25$ ), and at  $t - 3$  is  $-.0092$  ( $t = -2.64$ ).

From the late 1970s through the early 1990s, policy makers throughout industrialized nations eliminated international capital controls. Deregulation was typically supported by shifts to hard currency policy and an anti-inflationary macroeconomic stance. This liberalization contributed significantly to the expansion of transnational capital flows. For instance, the (long-term) effect of a one unit increase in liberalization ( $t-1$ ) on FDI is equivalent to 1.32 percentage points of GDP.<sup>15</sup> In the wake of rises in the formal-legal potential for capital mobility, general integration of domestic and international markets, and transnational capital flows, we expect for reasons articulated in our theory that policy makers felt increasing pressure to make taxation more market-oriented. Indeed, the view that internationalization required a change in tax policy regime—cuts in statutory business tax rates and the elimination of market distortions in tax policy—consistently emerged from our 1990s interviews with tax policy makers across the developed democracies.<sup>16</sup> In addition, in the wake of liberalization and rises in capital flows, center-right politicians, business, and

<sup>13</sup>We thank an anonymous reviewer for suggesting this exploration. In the Appendix table, we describe and report the results of country dummy variable-independent variable interactions as key tests of homogeneity as opposed to alternatives that rely on individual country time-series models. We do this because of the small number of time points used for each country (fourteen or fifteen). Our results show that in at least eleven of thirteen countries, each key finding reported in Table 3 holds. The few divergences may almost always be explained by distinct and well-known country experiences.

<sup>14</sup>The addition of time and unit dummy variables to a panel model with a lagged endogenous variable can result in inconsistent estimates when  $t$  is small and finite and  $N$  approaches infinity (Kvist 1995).

<sup>15</sup>This estimate emerges in a 1981-to-1995 pooled time-series cross-sections model of foreign direct investment, where  $FDI_t$  is modeled as a function of  $FDI_{t-1}$ , liberalization of capital controls,  $\varphi$ , and economic growth rates,  $g_{t-1}$ ; additional controls for other political economic forces do not alter the findings. The effect of 1.32 is substantial given that the average change in FDI as a percentage of GDP in our sample is 2.8 (from 1.3 in 1981 to 4.1 in 1995).

<sup>16</sup>Illustrative of the common policy maker assessment of the tax impact of international capital mobility, German policy makers in the Ministry of Economics noted that general financial openness and substantial increases in FDI created pressure to cut the statutory corporate tax rate—perceived as a particularly important sig-

**TABLE 3** The Impact of Globalization and Domestic Political Economic Factors on Statutory Marginal Corporate Tax Rates and Effective Average Tax Rates on Capital, Labor, and Consumption 1981–1995

	Statutory Corporate Rate	Effective Tax Rate on Capital	Effective Tax Rate on Labor	Effective Rate on Consumption
Internationalization				
Liberalization of Capital Controls	-.0164** (.0038)	.1431 (.4900)	-.4854** (.2067)	-.1880 (.1584)
Trade	-.0002** (.0001)	-.0023 (.0083)	-.0019 (.0039)	.0038* (.0027)
Domestic Economic Change				
Structural Unemployment	-.0001 (.0011)	-.3450** (.1570)	-.2241** (.1187)	-.0283 (.0782)
Budgetary Pressures				
Public Sector Debt <sub>t</sub>	.0001 (.0001)	.0227** (.0112)	.0068* (.0048)	-.0028 (.0031)
Needs—Elderly Population	.0010 (.0015)	-.0958 (.1495)	.0364 (.0751)	.0726* (.0556)
Tax Rate <sub>t-1</sub>	.8747** (.0408)	.9316** (.0301)	.9945** (.0128)	.9802** (.0134)
General Model				
Growth <sub>t-1</sub>	.0004 (.0016)	.2320* (.1685)	-.0007 (.0612)	.0230 (.0325)
Percent Change Real Profits <sub>t-1</sub>	-.0008 (.0007)	.1588** (.0739)	—	—
Domestic Investment <sub>t-1</sub>	.0003 (.0005)	.0793* (.0555)	—	—
Inflation <sub>t-1</sub>	—	—	.0253 (.0278)	-.0097 (.0164)
Unemployment <sub>t-1</sub>	—	—	.1616** (.0706)	.0254 (.0449)
Left Government <sub>t-1</sub>	-.0001 (.0001)	.0134* (.0078)	.0017 (.0030)	-.0021 (.0019)
Christian Democratic Govt <sub>t-1</sub>	.0003* (.0001)	-.0026 (.0096)	.0102** (.0038)	-.0010 (.0031)
constant	.0902	1.7557	.3642	-.0471
Observations	182	195	195	195
standard error of the estimate	.0282	3.3500	1.3137	.8253
mean of the dependent variable	.4268	39.8040	37.9090	17.0980
R <sup>2</sup>	.8652	.9075	.9849	.9910

Each model is estimated with 1981–1995 data by Ordinary Least Squares (1982–1995 data for the marginal corporate rate equation). The table reports OLS unstandardized regression coefficients and panel correct standard errors. For discussion of this econometric technique, see Beck and Katz (1996).

\* indicates significance at the .10 level or below.

\*\* indicates significance at the .05 level or below.

nal to mobile enterprises—and otherwise make policy more efficiency-oriented (Interview [Swank], Ministry of Economics, Bonn, December 1996). Such views were echoed by tax policy

makers in governments throughout the OECD (for a synopsis of roughly fifty interviews across several years and nations, see Steinmo 2001).

neoliberal economists intensified their calls for market-oriented reforms in social welfare and tax policies, commonly invoking the argument that competitiveness and business location now made efficiency-oriented reforms more imperative than ever (see Swank 2002, chapters 3–6, for extensive case study evidence). Together, these political economic forces contributed to statutory corporate rate cuts.<sup>17</sup>

In addition to internationalization, past levels of tax rates and Christian Democratic governments are significantly related to corporate tax rates. Other factors are, however, insignificant. The absence of an effect of domestic economic change is surprising. Our expectation was that cuts in marginal rates with base-broadening reductions in investment incentives would be prompted by both internationalization and the post-1970 decline of domestic economic performance. However, the rise of structural unemployment, itself, does not appear to play much of a role in explaining reductions in statutory corporate rates in the model of Table 3.<sup>18</sup>

The second column of Table 3 reports results for models of the effective average tax rate on capital. There is no support for the notion that liberalization of capital controls systematically led to reductions in the effective tax rate on capital; the coefficient for liberalization is insignificant.<sup>19</sup> These results are consistent with the argument that while internationalization has influenced the shift in the content of tax policy, the combined effect of statutory rate cuts and base-broadening reductions in investment incentives has left the effective tax burden on capital largely unchanged. The findings are also consistent with the view that the absence of relationship between capital mobility and effective capital tax rates (or even a small positive relationship) may be the result of a systematic decline in the capital tax base through transfer pricing by corporations, international portfolio diversifi-

cation or capital flight by financial capital, and related dynamics (e.g., Genshel 1999; Tanzi 1995). We find no evidence to support this view in our analysis of the impact of the liberalization of capital controls and trade openness on total or mobile capital income.

The impacts of domestic economic and budgetary pressures are important. Rises in structural unemployment are systematically associated with reductions in capital tax burdens. The long-term effect of structural unemployment is relatively large: an increase equal to 1 percent of the work force is associated with a 5 percentage point drop in the effective tax rate on capital ( $-.345/[1 -.9316]$ ).<sup>20</sup> In addition, past tax rates and increases in public sector debt (but not current needs for government spending) are positively associated with capital taxes. For instance, an increase in public debt of 10 percent of GDP is associated with a rise of 3.72 in the effective tax rate on capital. With regard to other forces, Left governments are associated with slightly higher capital tax rates while declines in economic growth, investment, and profits are associated with reductions in effective tax rates on capital. Together, the findings offer some support for our view that while internationalization contributed to the shift in the content of tax policy, it has not resulted in reductions in actual tax burdens on capital. Moreover, domestic economic and budgetary forces exert strong pressures on tax policy makers.

We extend our analysis to the effective average tax rates on labor income and consumption in the last two columns of Table 3. In these models, we omit profits and investment and add controls for inflation and unemployment rates. Otherwise, specification and estimation are identical to procedures for prior models. For the sake of parsimony, we present the main findings succinctly. Liberalization of capital controls is negatively associated with effective tax rates on labor; there is no relationship between liberalization and consumption tax rates. Trade openness is unrelated to labor taxation but has a small positive association with consumption taxation. This finding is consistent with theory that argues trade openness creates needs for domestic compensation and associated taxes and, in turn, sensitizes policy makers to the need to defray some of the costs of that compensation to consumption from profits.

The impacts of domestic economic and budgetary pressures on labor taxation are nearly identical to those for capital taxation. Rises in structural unemployment lead to reductions in the tax burden on labor income. Ex-

<sup>17</sup>We certainly do not deny that the general ascent of neoliberal orthodoxy and parties broadly undergirded both liberalization of financial controls and domestic market-oriented reforms. Our argument is, however, that liberalization (and internationalization more broadly) is clearly linked in a causal chain to shifts in tax policy.

<sup>18</sup>Structural unemployment is significantly related to marginal corporate rates in the fixed effects model of Appendix Table 2. Given the problems with this estimator, we do wish to privilege this finding. For now, we regard the effect of economic decline on statutory rates as indeterminate.

<sup>19</sup>We also estimated the effects of internationalization on the effective tax rate on mobile capital (financial income and corporate taxes only). The results are virtually identical to those reported in Table 3. In addition, we substituted lagged levels of total foreign direct investment and financial flows for liberalization; we found that these measures of capital mobility are unrelated to capital taxation.

<sup>20</sup>It is unlikely that the negative effect of structural unemployment is a manifestation of a fall in capital income due to economic downturn. Controls for general economic growth, profits, and investment will largely capture these business cycle effects.

pansions of public sector debt create upward pressures on labor taxes. However, once debt and other forces are accounted, current needs for government spending do not increase labor taxation. With regard to consumption, other than the effects of past tax levels and needs, forces highlighted in our models do not seem to matter for highly stable tax burdens on consumption.

Overall, findings for effective tax rates on labor income and consumption are consistent with our expectations. Internationalization has not resulted in a shift of the tax burden to labor and consumption as conventional globalization theory predicts. To the contrary, evidence suggests that international capital mobility has sensitized policy makers to potential economic costs of high labor taxes. In addition, domestic economic and budgetary forces play significant roles in tax policy change, especially in the case of labor taxation.

## **Conclusions: The New Political Economy of Taxation**

From the early 1980s to the mid-1990s, governments across the developed democracies have systematically lowered statutory rates on corporate and personal income and eliminated many allowances, exemptions, credits, and reliefs. Concerns about efficiency and revenues have seemingly eclipsed the goal of redistribution through steeply progressive rates. However, this paradigm shift in tax policy has occurred with remarkable stability in levels and the distribution of tax burdens. Our analysis has provided evidence on the distinct sources of the changes in the content of tax policy and the continuity in levels and burdens.

Internationalization has mattered but in much more complex ways that globalization theory suggests. Reforms in the content of tax policy systematically follow rises in international capital mobility and trade openness; increases in capital mobility are also associated with reductions in the tax components of labor costs. At the same time, structural unemployment leads to employment-oriented cuts in effective tax rates on both capital and labor. Public sector debt constrains the scope of tax reduction and even engenders pressure for new taxes on capital and labor.

Overall, the “new political economy of taxation” may be characterized as an environment where policy makers confront three interrelated constraints: internationalization, domestic economic stress, and budgetary imperatives. Capital mobility has not led—and is not

likely to lead—to a “race the bottom” or the evisceration of the revenue-raising capacity of the state: governments can (and do) pursue moderately extensive social protection and public goods provision when they and their electorates so choose. Equally clearly, governments face a new set of challenges from internationalization, and these have contributed to a paradigm shift in tax policy and to some specific tax reductions. At the same time, domestic economic problems call for reductions in tax burdens on capital and labor; these forces compete with international factors for shares of tax reduction. Yet, domestic budget dynamics, especially the size of public sector debt, significantly limits tax policy change. Overall, policy makers in contemporary democratic polities have faced intensifying pressure to reform tax policy to promote economic efficiency. They have found, however, little room for maneuver.

## **Appendix Data Sources (also see notes to Tables 1 and 2)**

### **Data for computation of variables measuring internationalization:**

Total inflows and outflows of direct foreign investment, portfolio investment, and bank lending in current US dollars: International Monetary Fund (hereafter IMF), *Balance of Payments Statistics*. Washington, DC: IMF, selected years; Organization for Economic Cooperation and Development (hereafter OECD), *International Direct Investment: Policies and Trends in the 1980s*. Paris: OECD, 1992.

Indexes of restrictions on capital and financial flows: Dennis Quinn, School of Business, Georgetown University. See Quinn and Inclan (1997).

Exports and Imports of goods and services in national currency units: OECD, *National Accounts of OECD Member Countries*. Paris: OECD, various years.

Gross domestic product in current US dollars: OECD, *National Accounts*. Paris: OECD, selected years.

### **Policy/Government/Politics (and see below on socioeconomic data used for some standardizations):**

General government debt as a percentage of GDP: OECD, *Economic Outlook, National Accounts*. Both Paris: OECD, selected years.

Total and categorical tax revenues (national currency units): OECD, *Revenue Statistics of Member Countries*. Paris: OECD, various years.

**APPENDIX TABLE 1** Estimates of Tax Effects of Core Factors within (and outside of) Designated Countries

		Corporate Taxes– Capital Mobility	Capital Taxation– Capital Mobility	Capital Taxation– Structural Unemployment	Capital Taxation– Public Debt	Labor Taxation– Capital Mobility	Labor Taxation– Structural Unemployment
13Nation Estim.		-.0164**	.1431	-.3450**	.0227**	-.4854**	-.2241**
Australia	$B_1$	-.0167**	.1713	-.3425**	.0233*	-.5075**	-.1945**
	$B_2$	-.0228	1.6192	1.7913	1.7913	-.4366	-1.5812
	$B_3$	.0097	-.5885	-.3441	.0596	-.2201	.2740
Belgium	$B_1$	-.0186**	.2086	-.3602**	.0193*	-.4870**	-.2223**
	$B_2$	-.0847**	.4458	3.2212	.9735	.1632	-.2900
	$B_3$	.0268**	.2584	-.2851	-.0383	-.0820	.0264
Canada	$B_1$	-.0180**	-.0023	-.3248**	.0202**	-.5121**	-.3627**
	$B_2$	-.0052	-9.3722	2.6291	-1.4521	-2.3422	.8415
	$B_3$	.0041	2.7797**	-2.7369	.0205	.5300	-1.8330**
Finland (Denmark- Column I)	$B_1$	-.0146**	.3305	-.3099**	.0316**	-.3631**	-.1918**
	$B_2$	.1054	2.2719	3.9741	5.7608	.0413	.5342
	$B_3$	-.0278	.2515	-1.3302**	-.1484**	.2842	.1661
France	$B_1$	-.0164**	.1106	-.2862**	.0210**	-.4842**	-.2474**
	$B_2$	.0131	-2.4217	2.5942	.0455	.0656	-.1226
	$B_3$	-.0046	.5190	.8764**	.0138	.0813	.1162
Germany	$B_1$	NE	.2235	-.3635**	.0186*	-.4894**	-.2191**
	$B_2$		2.3631	-.1181	-.0927	-1.2254	.0180
	$B_3$		.8726	-.3721	-.0224	.3521	.5756
Italy	$B_1$	-.0161**	.3516	-.3961**	.0118	-.4972**	-.2304**
	$B_2$	.0554	-2.4002	1.9402	-.4117	-2.5447	-.2430
	$B_3$	.0213	1.2834	-.0204	.0234	.7878	.0594
Japan	$B_1$	-.0228**	.0022	-.3707**	.0242**	-.4256**	-.2618**
	$B_2$	-.0887	-15.2110	-4.8023	-21.9490	2.7470	.4287
	$B_3$	.0212	5.5983	9.9060	.3258**	-.7997	.5749
Netherlands	$B_1$	-.0151**	.2667	-.3715**	.0205**	-.3769*	-.2021**
	$B_2$	.0431	-1.5459	.2361	-3.3519	4.9550	.7246
	$B_3$	-.0124	.2300	2.0319	.0326	-1.3458*	-.1991
Norway	$B_1$	-.0127**	.1198	-.4314**	.0187**	-.6018**	-.2456**
	$B_2$	.0640	-.9398	-2.2700	-10.1170	-1.9329*	-.5449
	$B_3$	-.0242	-.3656	.4101	.2079	.5496*	.4057
Sweden	$B_1$	-.0174**	.2091	-.3754**	.0287**	-.4973**	-.2031**
	$B_2$	.1690**	14.2190	1.7195	20.5360	2.9042	-.4998
	$B_3$	-.0557**	-4.4159	-6.6742**	-.3275**	-.8850	1.2120
United Kingdom	$B_1$	NE	NE	-.5407**	.0376**	NE	-.1786*
	$B_2$			5.3163	-8.0396		.7661
	$B_3$			-.5459	.2199		-.3015**
United States	$B_1$	NE	NE	-.3698**	.0239**	NE	-.2291**
	$B_2$			.7030	-.9712		.3993
	$B_3$			-2.7761**	.0412		-.6689

For each designated dependent and causal variable, 13 individual country dummy variable-causal variable interactions are entered one at a time in the focal equations of Table 3. The tax effects of the causal variable within (and outside of) the country may then be computed. For instance, if the interaction is significant, the tax effect of liberalization of capital controls within country  $i$  is equal to  $B_1 + B_3$  from the equation:  $B_1(\text{Liberalization}) + B_2(\text{Country Dummy}) + B_3(\text{Liberalization} * \text{Country Dummy}) + B_{1-k} X$ , where  $X$  is a vector of  $k$  additional causal variables as specified in Table 3 models. The tax effect of liberalization outside of the focal country is given by  $B_1$ . In each cell,  $B_1$ ,  $B_2$ , and  $B_3$  are reported. If the interaction is insignificant, the variable's impact within the country is not different from the 13-nation estimate.

\*significant at the .10 level; \*\*significant at the .05 level. NE: coefficients can not be estimated because of the absence of variance in one or both focal variables in a nation.

**APPENDIX TABLE 2** Reestimation of Table 3 Equations with Fixed Effects for Countries and Years

	Statutory Corporate Rate	Effective Tax Rate on Capital	Effective Tax Rate on Labor	Effective Rate on Consumption
<i>Internationalization</i>				
Liberalization <sup>a</sup>	-.0213**	1.1457	-.2614**	-.0333
Trade	-.0009*	-.0181	-.0091	.0003
<i>Domestic Economic Change</i>				
Structural Unemployment	-.0066**	-1.1466**	-.3588*	.1471
<i>Budgetary Pressures</i>				
Public Sector Debt <sub>t</sub>	.0011**	.0890**	.0532**	-.0074
Needs—Elderly Population	.0106**	1.2641**	-.0177	.0500
Tax Rate <sub>t-1</sub>	.7305**	.8088**	.6712**	.7300**
<i>General Model</i>				
Growth <sub>t-1</sub>	.0001	.2298*	-.0075	.0382
Percent Change Profits <sub>t-1</sub>	-.0007	.1270**	—	—
Domestic Investment <sub>t-1</sub>	.0010**	.0663	—	—
Inflation <sub>t-1</sub>	—	—	.1147**	-.0407
Unemployment <sub>t-1</sub>	—	—	.2803**	-.1142*
Left Government <sub>t-1</sub>	-.0001	.0184**	.0080**	-.0030
Christian Democratic Govt <sub>t-1</sub>	.0003	.0410**	.0014	-.0044
<i>Fixed Effects</i>				
Australia	.0551**	7.0121**	-1.1594*	.7719*
Belgium	.0342	-2.0743	5.3188*	3.1736*
Canada	.0249	2.5108	-1.1338	2.5568**
Denmark	.0101	—	—	—
Finland	—	4.5178	6.2518**	5.6461**
France	.0310*	.3663	7.0518**	4.1151**
Germany	.0510*	-5.4816*	5.5951**	2.4793**
Italy	.0022	-3.1127	2.5580**	2.8337**
Japan	-.0247*	2.2185*	.1103	-.4196
Netherlands	.0598	-1.1690	8.8902**	3.4266**
Norway	.0265	-3.6360	5.1693**	7.9686**
Sweden	-.0353	-5.1945	8.5568**	4.6227**
United Kingdom	.0168	2.6379	.4023	2.8900**
1983	—	-2.9227**	-.1104	.3902**
1984	-.0096**	-1.4393**	-.1982	.4892**
1985	.0052	-1.3130**	.1243	.1568
1986	-.0096*	-.2508	1.1352**	-.0912
1987	-.0257**	-2.8179**	.6260*	.0936
1988	-.0421**	-2.2476**	1.0794**	-.0994
1989	-.0306**	-3.3785**	1.1032**	-.1731
1990	-.0506**	-2.6999**	1.2696**	-.1170
1991	-.0420**	-3.0228**	1.5612**	-.2856
1992	-.0508**	-6.2435**	.1459	-.0865
1993	-.0550**	-5.0375**	.4076	.1309
1994	-.0506**	-4.9117**	.6286	.6753**
1995	-.0451**	-5.8193**	.6868	.0337

(continued)

**APPENDIX TABLE 2** Reestimation of Table 3 Equations with Fixed Effects for Countries and Years  
(continued)

	Statutory Corporate Rate	Effective Tax Rate on Capital	Effective Tax Rate on Labor	Effective Rate on Consumption
constant	.0424	-13.9460	4.5941	2.1323
Observations	182	195	195	195
standard error of the estimate	.0261	3.1914	1.1432	.7658
mean - dependent variable	.4268	39.8040	37.9690	17.0980
R <sup>2</sup>	.9010	.9276	.9891	.9933

Note: Each model is estimated with 1981-1995 data by Ordinary Least Squares (1982-1995 data for the marginal corporate rate equation) and includes t-2 year dummies and n-1 country dummies. T-2 time dummies (as opposed to t-1 fixed effects) are used because of multicollinearity; efforts at estimation produce a singular matrix with t-1 and n-1 dummies. The table reports OLS unstandardized regression coefficients. Significance levels are computed on the basis of panel correct standard errors.

<sup>a</sup> Estimates of effects of capital mobility on the effective tax rate on labor utilize foreign direct investment rather than liberalization of capital controls. Liberalization falls below significance in the labor tax model with a t-statistic of -.93; foreign direct investment (inflows and outflows of direct investment as a percentage of GDP) is significant in all alternative estimations of our model.

\* indicates significance at the .10 level or below.

\*\* indicates significance at the .05 level or below.

Average tax rate on a production worker at 66 percent (and 200 percent) of average production worker's income; one-earner couple, two children: OECD, *The Jobs Study: Taxation, Employment and Unemployment*. Paris: OECD, 1995.

Left and Christian Democratic party cabinet portfolios as a percent of all cabinet portfolios. Sources for party portfolios: Eric Browne and John Dreijmanis, *Government Coalitions in Western Democracies*, Longman, 1982; *Keesings Contemporary Archives* (selected years). Sources for classification of parties: (1) Francis Castles and Peter Mair, "Left-Right Political Scales: Some 'Expert' Judgments." *European Journal of Political Research* 12:73-88. (2) *Political Handbook of the World*. New York: Simon and Schuster, selected years. (3) Country specific sources.

#### Socioeconomic Data:

Consumer price index: IMF, *International Financial Statistics*. Washington, D.C.: IMF, various years.

Percent of the civilian labor force unemployed, wage and salary employees, civilian labor force, population, population 65 and older: OECD, *Labor Force Statistics*. Paris: OECD, various years.

Percent of civilian labor force unemployed one year or more (based on percent of unemployed out of work one year or more): OECD, *Employment Outlook*. Paris: OECD, various numbers.

Gross fixed capital formation, investment deflator, GDP deflator, Gross Domestic Product, net operating surplus of domestic producers, national income, machinery and equipment expenditures (including transport equipment), compensation of employees by resident produc-

ers, private consumption expenditure, compensation of producers of government services, operating surplus of unincorporated enterprises, household property and entrepreneurial income, wages and salaries paid, and operating surplus for nonfinancial and financial corporate and quasi-corporate enterprises where national account aggregates other than deflators are in national currency units: OECD, *National Accounts*. Paris: OECD, various years.

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