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NATIONAL TAX POLICY AND GLOBAL COMPETITION

Jack M. Mintz*

I. INTRODUCTION

In the past two decades, we have witnessed a deepening of economic integration at the international level. Most industrialized countries have seen an increase in exports, imports, and inbound and outbound capital flows as a share of GDP. Service industries, which have dominated employment growth in the past decade, increasingly have become subject to international competition. Many businesses are now multinational with investments in at least two countries and alliances with foreign partners. Moreover, we are observing an era of international consolidation of businesses, which results in the creation of large global entities that have the flexibility to transform business inputs from different parts of the world into products and services to be sold worldwide.

The process of globalization has raised a number of concerns with respect to the capacity of governments to pursue national tax policies in the interest of funding public goods and services. Some experts have warned that “globalization” will result in smaller governments since it will be more difficult to tax mobile businesses and individuals who can shift their activities to low-tax jurisdictions. Others have argued that governments increasingly will shift taxes away from capital income to consumption or payroll since income from capital is internationally mobile and can escape taxation. Further, others have suggested that industrialized countries will need to harmonize their tax policies with those of other countries. This is illustrated by recent initiatives of the Organization of Economic Cooperation and Development (OECD) and the European Union (EU) to curtail “harmful tax competition” or to agree to a code of conduct.

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Given the potential impact of international economic integration on the ability of national governments to raise revenues, there is much at stake. The most important taxes levied by OECD countries are personal income, payroll, and consumption taxes. Corporate income taxes are less than 10% of revenues for many countries. Property taxes and other wealth taxes are relatively small sources of revenue.

Globalization can make it much more difficult for governments to levy the two most popular taxes today: income and value-added taxes (VAT). The income tax, which includes the corporate income tax, will be more difficult to levy since the source of income will be harder to determine, especially for multinational corporations. As Mintz and Chen have argued, the corporate income tax is likely to whither given the rapid reductions in statutory corporate income tax rates around the world. The growth of the multinational sector will make it increasingly difficult for governments to tax corporate income that is harder to define within the jurisdiction. With the demise of the corporate income, the personal income tax, which depends on income derived from corporations, will be more difficult to levy since individuals will be able to avoid the payment of personal income tax on income left at the corporate level. Consumption taxes, especially the VAT, also will face pressures since the VAT on service transactions depends on determining the place of supply. If the service income can be stripped out of income from one jurisdiction to another, governments will be competing for VAT base, just like under the corporate income tax.

If governments try to shift away from income and VAT to other sources of revenue, alternative taxes may become too inefficient to levy. For example, high payroll taxes, which exist in the EU (except the United Kingdom), are often avoided by contracting work to self-employed workers rather than by hiring employees. High property taxes result in distortions in the use of land and structures. Thus, while some taxes are less affected by globalization in terms of their administrative and economic practicalities, they cannot fully substitute for any losses in income and other tax revenues.

1. See Table 1.
The worldwide financial turbulence of 1997 might raise questions as to whether “globalization” will be a process facing near death. However, despite some dire warnings of the end of worldwide capitalism, we must remember that technological innovations that have resulted in the recent internationalization of business cannot be reversed in the long run. The pace of globalization may slow down as businesses and governments may be more cautious about the benefits. But globalization as a process is not about to stop since there are substantial national benefits arising from the international transfer of technology and management skills.

This article will discuss how globalization will impact on national tax policies. Although there are a number of pressures that will be felt by tax systems worldwide, governments have several strategies available to them that would not necessarily lead to a loss of independent policy. In fact, globalization might present opportunities that could result in better fiscal decisions over time.

II. GLOBALIZATION

A. What Do We Mean by “Globalization?”

Some analysts view “globalization” simply as the increased mobility of business inputs—especially capital—to other parts of the world. The effect of “globalization” is, therefore, to make inputs much more sensitive to differences in net-of-tax incomes earned in countries. Thus, any changes in economic conditions, including fiscal policies of governments, would have a substantial impact on the flow of capital and other related business inputs between countries. Under this definition of globalization as greater mobility of portfolio capital across national boundaries. For a different approach, see, for example, Eckhard Janeba, Corporate Income Tax Competition, Double Taxation Treaties and Foreign Direct Investment, 60 J. PUB. ECON., 423, 423-45 (1996). See also Jack M. Mintz & Henry Tulkens, Optimality Properties of Alternative Systems of Taxation of Foreign Direct Investment, 60 J. PUB. ECON., 373, 373-400 (1996) (using an approach that models capital mobility explicitly for foreign direct investment). For a recent empirical approach that uses an aggregate international production function for firms rather than country-specific independent production functions to show how national tax policies affect multinationals, see ROSANNE ALTSHULER & JASON G. CUMMINS, TAX POLICY AND THE DYNAMIC DEMAND FOR DOMESTIC AND FOREIGN CAPITAL BY MULTINATIONAL CORPORATIONS (Technical Comm. on Bus. Taxation, Working Paper No. 97-4, Finance Canada 1997).
“globalization,” governments would tend to avoid taxing internationally mobile factors of production since the economic cost of the tax is greatest when business inputs easily flow to other jurisdictions. Instead, governments would prefer to tax immobile factors, including real estate and unskilled labor, since the economic cost of imposing the tax is less for these immobile bases.

In my view, the above common definition of “globalization” is too narrow and misses an important element of the process. Although the mobility of business inputs is an important aspect of “globalization,” one easily could focus on portfolio capital—bonds and other financial assets—to study the effect of “globalization” on fiscal policies of governments. This would be too simplistic of an approach. Instead, “globalization” is a richer process that implies more than just the mobility of business inputs. When businesses become multinational, they are able to produce goods and services from complementary inputs that are linked within a single process across different countries. The operations of a multinational enterprise cannot be viewed as the sum of entities operating in each country since production in one country is not independent of the multinational’s operations in other countries.

Therefore, the problems that arise for national tax policies are twofold. First, it can be difficult to measure the mobile tax base since income or transactions are not easily identified to a particular location. Second, differential tax policies across countries can impact on the efficiency of worldwide production since businesses seek to allocate resources to tax-favored regions of the world. The interconnectedness of business production at the international level is at the heart of why a country might be so concerned about the international competitiveness of its economy.

B. Implications of Globalization for Tax Policy

The implications of “globalization” are profound. Tax policy requires not only the identification of the tax bases, but also the ability of governments to tax them. The specific issues raised by globalization can be divided into three distinct areas. The first set is related to movements of physical inputs (people, machines, structures, and inventories). The second set is related to the shifting of reported profits. The third set is relat-
National Tax Policy

ed to the administrative problems of measuring income earned at source. The following list includes some examples.

1. Movements of Physical Inputs

With globalization, differences in tax regimes across countries will have a more profound influence on the allocation of capital. Thus, international tax systems significantly will distort business decision-making at the international level. For example, elements of double taxation will deter cross-border transactions while tax-planning opportunities will result in excessive cross-border transactions.

Historically, countries tend to tax more heavily industries with substantial economic rents, including resource-based, manufacturing, banks, and utilities. However, globalization is making it more difficult to tax such rents (except for origin-based rents associated with resource industries) since some inputs can be shifted to foreign jurisdictions. Moreover, economic rents increasingly are related to services and technological innovation that is not tied to a location. Consumption taxation offers a way for governments to tax rents at the international level as such rents are incorporated in the prices of imported goods and services.

Larger countries tend to attract resources because of "agglomeration" effects—businesses locate near each other to pool information and have greater access to heterogeneous labor resources. Thus, these countries may find it easier to "export" taxes onto foreign jurisdictions by taxing products or capital that result in higher prices on exports or lower incomes earned by foreigners.

With globalization, cross-border movement of employees is becoming a more significant factor for businesses. In turn, employee relocation has created a number of complexities for personal income and payroll tax systems in determining residence to avoid double taxation of income or to ensure that individuals do not escape taxation altogether.

2. Income Shifting

Countries find that high tax rates for very mobile tax bases result in significant base erosion. This is especially an issue for income taxes, including corporate income and withholding taxes. Even though physical capital may not be as
mobile, profits are very mobile and respond to differences in statutory tax rates across countries. Taxpayers are able to easily shift profits by changing their financial structures or manipulating transfer prices for transactions. A country with a high corporate income tax rate therefore can lose substantial revenue to other jurisdictions even if the physical input does not move.  

Cross-border flows of income, especially interest, royalties, and fees, have created pressures on governments to reduce withholding taxes on payments since the non-residents may not be able to credit withholding taxes on gross payments against taxes paid to their own governments on net income.

Finally, third-country financing provides opportunities for multinationals to deduct expenditures for interest or service contracts, more than once, by routing income through intermediary entities that are little taxed (or not at all).

3. Inability to Administer Taxes

Under the income tax, globalization makes it more difficult to determine where mobile income is earned for tax purposes. If we cannot say that a taxpayer is a resident of a particular country or has earned a particular source of income in the jurisdiction, then it is impossible to levy the tax on the basis of “residency” or “source.”

Under the VAT systems, the identification of the place of the transaction makes it more problematic to determine which country has the right to tax export and import transactions. For example, VAT may be applied on services used to process goods in a country for export. Intangible expenditures by businesses can be used to strip value-added from one jurisdiction to another where little or no tax applies (e.g., royalties for research and development).

The taxation of financial services is already problematic at


the international level for income tax systems. Financial derivatives make it more difficult to distinguish between income and capital gains since asset returns can be replicated by a combination of financial derivatives (such as zero coupon bonds, calls, and puts) that could result in quite different tax results.\(^6\) Financial income is almost impossible to tax at the international level under the arm’s length and separate accounting principles. Transfer pricing regimes now effectively use allocation methods to determine how global financial trader income should be apportioned across countries.

The growth of electronic commerce will have a significant impact on the ability of governments to levy income and sales taxes on bases harder to identify, especially for transactions made that are outside of the government’s jurisdiction.\(^7\) Concepts such as “permanent establishment” and “carrying on business” will be more difficult to apply unless governments agree to a common set of rules to determine how Web-based transactions will be subject to tax. Further, electronic commerce can create new opportunities for taxpayers to evade taxes and launder money.

C. Inefficiencies of Uncoordinated Tax Policies

The above examples demonstrate the pressures that globalization can have on the development of national tax policies, especially with respect to income, withholding, and, to a certain extent, consumption and payroll taxes. Generally, taxation policies of one jurisdiction not only have a significant impact on the efficiency of its own economy but also on the efficiency of other economies linked to it.

Economists identify two sources of inefficiency that arise from the uncoordinated actions of governments in determining their tax policies. The first inefficiency is “tax exportation;” whereby one jurisdiction will increase its taxes on bases knowing that non-residents will bear the tax (e.g., on intermediary products sold abroad, tourists, or income paid to foreigners).

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The tax exportation inefficiency results in tax rates that are set “too high” since a government only is concerned about the harmful impact of taxes on the welfare of its own citizens, not on the welfare of citizens in other countries. Tax exportation results in barriers to the free flow of goods and services, and tax prices for public goods and services become distorted in the presence of tax exportation opportunities.

The second inefficiency is related to “tax base flight” whereby higher taxes in one country may cause the tax base to flee to neighboring jurisdictions with more favorable tax systems. The “tax base flight” inefficiency results in tax rates that are “too low” since a government does not take into account the beneficial impact of “tax-base flight” that increases the amount of resources received by other jurisdictions. With “tax base flight,” some cross-border transactions are taxed lightly and perhaps, not subject to tax at all.

In theory, at the international level, these inefficiencies imply that all countries are made worse off in terms of reduced economic output since tax distortions inhibit the free flow of resources across international boundaries. Thus, there are gains to international cooperation to improve national tax systems by reducing fiscal distortions. Countries can maximize their opportunities for economic growth and job creation if they coordinate actions to improve tax systems. Further, without international cooperation, national policies can be constrained by globalization since some taxes are more difficult to levy.

III. HOW COULD GOVERNMENTS RESPOND?

In practice, however, the best response for a government in designing its tax policies is to choose the most efficient tax system that is both possible and in its own interest. There are various actions that can be taken by governments in response to globalization and these include:

A. stop globalization;
B. reduce the size of government;
C. change the tax mix;
D. globalize taxes with major trading partners; and,
E. create a national advantage in global markets.
A. Stopping Globalization: The “Island” Mentality

If globalization is a “problem” that constrains national tax policies, one response is to try to make the “problem” go away, or at least reduce its impact on independent national policies, by reducing the international mobility of the tax base. Such constraints would allow a country to operate more as an island, limiting access to its resources. Capital controls, a “Tobin” tax on financial transactions, work permit restrictions, tariffs on imported goods, and export taxes are all examples of “island mentality” policies, whereby governments might try to lessen the dependence of an economy on the international economy so that sovereign national policies are less constrained by globalization.

While such policies are often popular as a “quick fix,” they can be very costly to an economy in the long run. The analogy can be found with trade protection. We know that import competition can hurt domestic industries so that there is a desire to reduce import competition faced by these industries. However, we also know that free trade that allows for increased specialization in the export of those goods and services in which a country has comparative advantage can result in substantial economic gains to the economy.

An attempt by a government to stop the forces of globalization increases the risk that its economy will be left out of eventual economic productivity resulting from the international transfer of technology and innovative management.\(^8\) We have seen what happens when countries such as China and India try to shield themselves from international influences—they might be able to control better their destinies, but at the cost of lower economic growth in the long run since they cut off access to technology and management.

Thus, despite recent anxiety over international financial instability and the resulting risks to the world economy, it is doubtful that countries would wish to take on an “island mentality” by limiting the trade of goods, services, and capital.

B. Cutting Down the Size of Governments

If globalization makes it harder to impose taxes on mobile factors (even though it is more feasible to export taxes on foreigners), governments could respond by reducing their size to levels not seen since the 1960s. As public economists have pointed out, an efficient allocation of resources between public and private goods in the economy is achieved when the benefits from public expenditures is at least as great as the economic cost of taxation. If globalization causes resources to shift easily to low-tax foreign jurisdictions, then the economic cost of raising additional tax revenue is greater, which therefore implies that public expenditure should be reduced. For an extreme case, such as in the case of financial capital, the base may be so mobile that there is little point in taxing it at all.

Despite the trend towards international globalization during the past two decades, governments have increased the amounts of resources they draw from the economy. As shown in Table 2, the tax/GDP ratios of OECD countries generally have increased from the period 1976 to 1995. Governments have gotten larger rather than smaller in the face of globalization. However, as pointed out in several studies, the increased size of government has arguably reduced the annual economic growth rate of a country by almost one half point per year. Moreover, governments seem to be peaking in size and some have argued that governments should be no more than 30% of GDP.

Without international coordination of tax policies, one response to globalization that likely will be seen over the coming years is for governments to become more efficient and provide fewer public goods and services so taxes can be reduced. Some countries with significant market power, however, may be able to maintain relatively high tax/GDP ratios if they...
are able to rely on taxes that largely are exported to foreigners.

C. Changing the Tax Mix

A third response to globalization is to change the mix of taxes by relying less on bases that are mobile and more on those that are less mobile. Specifically, some have argued that governments should eliminate taxes on mobile capital income in favour of taxes on consumption or payrolls. Others have suggested relying more on “benefit” taxation whereby the taxes are more closely matched to specific program expenditures (this would include user fees for public-provided goods and services).\(^\text{13}\)

There may be much to commend for economic reasons to shift tax bases to consumption, payroll, or benefit taxes. The elimination of taxes on capital income that could be achieved under alternative taxes would reduce the bias of income taxes against savings and improve incentives for investments in technology and human capital that can have important effects on productivity.\(^\text{14}\) However, as discussed above, globalization does not necessarily imply that alternatives will be that easy to impose. VATs for international transactions are difficult to handle (especially determining the place of supply for services). Payroll taxes on employment can be avoided by contracting services from self-employed individuals—including foreigners. Benefit taxation also may be difficult to impose at high rates since imported goods and services may not bear similar levels of tax.

Even if some taxes, other than those on income, are arguably better from an economic point of view, governments have been reluctant to eliminate income taxes since they play a significant role in achieving fairness in the tax system. Therefore, globalization impedes the use of some tax powers by national governments and constrains the choices they make. In other words, globalization results in a bias towards the taxa-

\(^{13}\) For a very thorough discussion of user fees and benefit taxation, see Richard M. Bird & Thomas Tsiopoulos, User Charges for Public Services: Potentials and Problems, 45 CAN. TAX J. 25 (1997).

\(^{14}\) However, as pointed out in some studies, the more narrow tax base would result in higher taxes on work effort. See Alan J. Auerbach et al., The Efficiency Gains from Dynamic Tax Reform, 24 INT'L ECON. REV. 81 (1983).
tion of more immobile tax bases that would otherwise not be
taxed as much by governments if globalization was a less im-
portant factor.

The reality is that those governments that tend to rely
more greatly on taxes on mobile bases will find it in their best
interest to shift taxes to more immobile bases over time.

D. Coordination of Global Taxes

An alternative to reducing the size of governments or
changing the tax mix is for countries to improve the coordina-
tion of tax policies at the international level. One type of coor-
dination is to make a country’s tax system more similar to
others—in other words, harmonize taxes. Other approaches
include agreements to minimum or maximum rates of tax,
bilateral agreements to avoid the double taxation of cross-bor-
der flows of income, transfer pricing, competent authority ar-
rangements, and multilateral agreements to curtail “harmful”
tax competition (assuming “harmful” can be defined or agreed
upon). All these forms of coordination result in what I would
term as “global taxes.” The extreme form of a global tax is for
governments to agree to a similar base and rate and allocate
revenues according to some revenue sharing formula as seen in
many federations.

A global tax reduces the sovereign power of a government
since bilateral or multilateral agreements limit national discre-
tion. However, such agreements may provide more policy flexi-
bility for a government compared to not imposing a tax on a
mobile base. If governments wish to maintain income tax and
VAT systems, they may prefer to seek global tax arrangements
rather than choose less efficient or equitable taxes.

In my own view, we are at the cusp of global arrange-
ments with respect to income taxes and VATs. The taxation of
mobile bases, which are increasingly difficult to assess at the
international level, will force governments to seek alternative
arrangements to tax corporations and individuals. One of these
arrangements is to harmonize taxes with neighbouring coun-
tries. For example, the recent consolidation of businesses from
national to supra-European entities is a noticeable trend that
will create greater pressures on the EU members to harmonize
corporate income taxes. Indeed, the EU already has eliminated
withholding taxes for cross-border flows of income since the
early 1990s and has come to an arrangement to harmonize VAT policies with respect to cross-border trade.

Even the allocation method increasingly is becoming important for the determination of income within a jurisdiction. Given the administrative problems in measuring income for a country on a non-arm's length basis for multinational companies, transfer pricing methods based on the allocation of profits associated with a transaction are forcing governments towards an allocation method. Already, global financial trading income is effectively taxed on an allocation basis.

E. Creating the National Advantage

Rather than trying simply to be reactive, a country could choose to be proactive in its policies by embracing globalization. Policies could be geared to improve productivity, such as encouraging workers to acquire skills through education, improving infrastructure, and research and development. The intent would be to create a national advantage so that the economy can realize growth potential through international trade and economic linkages.

There are two general approaches for tax policy that can foster a national advantage. The first approach is a concerted effort made by governments, businesses, and households to join together in a coordinated national plan of action that would result in improved productivity. This approach, similar to the Asian national plans that fostered growth until recently, would require the public and private sectors to set achievable objectives for national economic planning. Such coordination, however, does have its limitations. It requires participants to be knowledgeable about the future—this could make private and public sectors less responsive to actual economic trends as they unfold after plans have been set. Further, many of the Asian countries undertook plans that targeted subsidies and tax incentives to certain industries since winners and losers had to be picked. However, it is not always apparent which industries are to be winners in the future.

The second approach is to foster competition and a level-playing field in the private sector. Taxes would be kept as low

as possible by ensuring that governments are efficient in the delivery of needed public services. Public policies would be reformed to reduce those barriers that impede economic efficiency and misallocate resources. Taxes would, therefore, be levied on broad bases with low rates. Incentives only would be provided if there were clear market failures resulting in inappropriate levels of activities. This approach, recently common to several Latin American economies, helps to create an economic environment that is conducive to economic growth by creating a clear national advantage.

IV. CONCLUSION: IMMEDIATE IMPLICATIONS FOR INDUSTRIALIZED COUNTRY TAX POLICIES

Industrialized countries' tax structures likely will undergo considerable change over the coming years. The most pressing issue will be with respect to corporate tax systems. As shown in Table 3, corporate tax systems have undergone substantial reform throughout the 1980s and 1990s. The typical case reform in the 1980s was to broaden the tax base and to lower corporate income tax rates; with either corporate revenues kept constant or increased as in the United States and Canada. Reforms in the 1990s are taking on a different shape. Governments are reducing corporate income tax rates even further. However, in some cases, such as Italy, they are shifting business taxes from levies on profits to a wider base such as value-added (origin-basis). Business taxes are also shifting from taxes on income to profit-insensitive taxes such as on capital, property, or business inputs, as shown for Canada. Mintz and Chen have shown that the average statutory corporate income tax rate has fallen from almost 48% in the early 1980s, to roughly 34% in 2000. Rates are to be even further reduced in many countries including Canada, Germany, and Ireland. Given tax competition and administrative pressures on the corporate income tax, one could expect even further reductions in corporate income tax rates as governments try to shore up corporate revenues.

The shrinkage of corporate income taxes, and perhaps,
their eventual demise will have a profound impact on tax structures. Personal taxes on capital income would be harder to levy and governments likely would rely on increased taxation of payroll and property as substitutes. Governments possibly will look towards greater reliance on user fees and benefit taxes to fund public expenditures.

Revenues will be harder for governments to raise, thereby making it more difficult for governments to grow as they have in the past 40 years. However, all this may create incentives to spend and tax smarter over time with a more efficient use of public resources. This may not be a bad outcome at all.
### Table 1

**International Comparisons: Tax Mix in 1992-1995**  
(as a percentage of GDP)

<table>
<thead>
<tr>
<th></th>
<th>Canada</th>
<th>United States</th>
<th>United Kingdom (unweighted)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Income Tax</td>
<td>13.8</td>
<td>9.8</td>
<td>9.6</td>
</tr>
<tr>
<td>Corporate Income Tax</td>
<td>2.3</td>
<td>2.3</td>
<td>2.8</td>
</tr>
<tr>
<td>Property Tax</td>
<td>4.0</td>
<td>3.2</td>
<td>3.4</td>
</tr>
<tr>
<td>Social Security</td>
<td>6.1</td>
<td>7.0</td>
<td>6.2</td>
</tr>
<tr>
<td>Goods and Services</td>
<td>9.5</td>
<td>4.9</td>
<td>12.1</td>
</tr>
<tr>
<td>Total*</td>
<td>36.5</td>
<td>28.2</td>
<td>34.5</td>
</tr>
</tbody>
</table>

*Other taxes are included in the total calculation.

Table 2

Tax/GDP Ratios: International Comparisons for
Total Government Receipts
(as percentages)

<table>
<thead>
<tr>
<th></th>
<th>Canada</th>
<th>United States</th>
<th>United Kingdom</th>
<th>Weighted Average G-7</th>
<th>OECD Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>1976-79</td>
<td>31.1</td>
<td>26.5</td>
<td>33.9</td>
<td>31.3</td>
<td>33.0</td>
</tr>
<tr>
<td>1980-83</td>
<td>32.9</td>
<td>28.8</td>
<td>37.0</td>
<td>34.5</td>
<td>34.0</td>
</tr>
<tr>
<td>1984-87</td>
<td>33.6</td>
<td>26.1</td>
<td>37.7</td>
<td>36.2</td>
<td>35.2</td>
</tr>
<tr>
<td>1988-91</td>
<td>35.6</td>
<td>29.4</td>
<td>36.4</td>
<td>36.4</td>
<td>36.2</td>
</tr>
<tr>
<td>1992-95</td>
<td>36.5</td>
<td>29.8</td>
<td>34.5</td>
<td>37.2</td>
<td>37.3</td>
</tr>
</tbody>
</table>

Notes: Weighted average G-7 tax/GDP ratio is the G-7 tax/GDP ratio, weighted by the proportion of GDP to the total GDP of all G-7 countries.

### Table 3
Corporate Income Tax Changes Relating to Base and Rate Schedule since 1986*

<table>
<thead>
<tr>
<th>Country</th>
<th>Year for Base Broadening</th>
<th>Year for Rate reduction</th>
<th>CIT Rate (%) in 1985</th>
<th>Rate change in 2000 (percentage point)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>1988</td>
<td>1988</td>
<td>46.0</td>
<td>-16.0</td>
</tr>
<tr>
<td>Austria</td>
<td>1989</td>
<td>1989</td>
<td>55.0</td>
<td>-21.0</td>
</tr>
<tr>
<td></td>
<td>1994</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Belgium</td>
<td>1989</td>
<td>1989</td>
<td>45.0</td>
<td>-4.8</td>
</tr>
<tr>
<td>Canada**</td>
<td>1988</td>
<td>1988/91</td>
<td>49.0</td>
<td>-5.5</td>
</tr>
<tr>
<td>Czech Republic***</td>
<td>1995/96</td>
<td></td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>1993</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1993</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td>1990</td>
<td></td>
<td>64.8</td>
<td>-26.8</td>
</tr>
<tr>
<td>Greece</td>
<td>1988</td>
<td></td>
<td>49.0</td>
<td>-11.5</td>
</tr>
<tr>
<td>Hungary***</td>
<td>1999/2000</td>
<td></td>
<td>19.0</td>
<td>NA</td>
</tr>
<tr>
<td>Iceland</td>
<td>1993</td>
<td></td>
<td>51.0</td>
<td>-21.0</td>
</tr>
<tr>
<td>Ireland**</td>
<td>1990</td>
<td>1988</td>
<td>50.0</td>
<td>-22.0</td>
</tr>
<tr>
<td>Italy</td>
<td>1989/1991/1992</td>
<td></td>
<td>52.2</td>
<td>-10.5</td>
</tr>
<tr>
<td></td>
<td>1998</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>1988/1989</td>
<td></td>
<td>58.6</td>
<td>-17.6</td>
</tr>
<tr>
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*Source: Mintz and Chen [2000]. ** With lower rate applicable to manufacturing or certain international financial sectors. *** Not a member of OECD in early 1990s. ****The 1991 rate.