BLURRED TAX BOUNDARIES: THE NEW ECONOMY’S IMPLICATIONS FOR TAX POLICY

By Tom Neubig and Satya Poddar

I. Introduction

Stan Davis and Christopher Meyer in their business book bestseller Blur, the Speed of Change in the Connected Economy, argue that, in the new knowledge economy, speed, connectivity, and intangibles are causing “a meltdown in traditional boundaries.”¹ The tax systems of the world rely on many definitions that are increasingly blurred as a result of the rapid changes in technology and financial innovations. A major question for tax policy and tax administration at the beginning of the 21st century is whether governments can adapt their tax systems to the new economy with the speed necessary to minimize adverse economic distortions from the blurring of the many tax boundaries.

The increasing importance of intangible assets and the convergence of many different industries in the “new economy” threaten the continued viability of the traditional income, sales, and property tax bases. Business is now conducted across international borders by companies via high-speed broad-band Internet connections. Whereas the tax systems of the industrial age were designed to tax the profits from the buying and selling of tangible goods, those products are a diminishing fraction of the new economy. Services and intangibles — information, brand loyalty, etc. — are a major source of value added. In addition, traditional roles of buyers and sellers are vanishing, merging into a blur of partnerships, strategic alliances, and bartering in which it is difficult to pinpoint who is the buyer and who is the seller.

The speed at which the economy is changing and the growth of intangibles and convergence (connectivity) threaten to leave tax policymakers behind as they scramble to maintain revenue while their definitions of what is taxable are made obsolete or create greater distortions. Policymakers are confronted with the question of what is the appropriate “tax mix” that will ensure governments have revenue sufficient to maintain desired governmental services, while maximizing economic growth and minimizing economic distortions and complexity.

What is an appropriate tax mix (e.g., composition of different taxes) for the United States and other in-
II. Taxes in Major Industrialized Countries

The level and composition of taxation in a country at any given time reflects a series of government decisions and economic events in the past that have combined to determine the existing tax mix. Over time, policymakers have refined their tax systems and most industrial countries now rely on a mix of different types of taxes. In almost all cases, these tax systems were created before concepts such as "knowledge economy," "globalization," or the Internet existed.

To begin thinking about the implication for countries’ tax systems of the blurring of tax boundaries, it is important to understand the level and composition of existing taxes. A cross-country comparison illustrates unique features of the tax systems and particular policy emphasis of different countries.

Table 1 shows the composition of tax revenues in the G-7 countries in 1997. Canada and the United States rely much more on income taxes, and particularly personal income taxes, than the other G-7 countries. Canada and the United Kingdom have lower-than-average payroll taxes, while the United States and Japan have lower taxes on goods and services.

Table 2 shows the trend over time of the major tax categories for the United States. Personal income taxes experienced a sharp growth between 1965 and 1970, and have again increased sharply between 1995 and 1999. Corporate income taxes declined between 1965 and 1985, but have increased during the 1990s. Payroll taxes increased continually through 1990, but have leveled out as a percentage of GDP since the 1990. Property taxes and taxes on goods and services have fallen from their 1960-1970 levels, and have been a constant percentage of GDP during the 1990s.

Table 3 shows the statutory effective tax rates (top rates) for the different taxes: personal income taxes, corporate income taxes, payroll taxes, value added taxes, and the degree of corporate dividend relief. Statutory tax rates may apply to broad or narrow tax bases, so they can differ from the effective marginal tax rates and not correlate closely to the relative importance of the tax mix in Table 2. Table 3 shows that the United States is unique from the other G-7 countries in having no value added tax, nor any corporate dividend relief. Germany has reduced its corporate income tax rates and has proposed reducing the top corporate rate to 25 percent in 2002.

III. The End of Tax Expansion

In the 1970s and early 1980s, activist governments optimistically undertook new expenditure programs. As spending on health care, retirement programs, and education increased, taxes also increased as a percentage of the economy, but in a way that was turbulent...
and often contradictory. The increase in government spending and the need for additional revenue resulted in increases in tax rates (particularly consumption and payroll tax rates), expansion of tax bases and resort to new taxes, such as the value added tax, and increased revenue from real and inflationary growth. At the same time, governments experimented with various incentives that narrowed tax bases and made tax systems susceptible to unanticipated losses of revenue from tax loss trading and tax sheltering schemes. There were also major tax reductions such as the 1981 Economic Recovery Tax Act in the United States.

As a result of these developments, revenues increased during the 1970s and 1980s, but not as fast as the increases in government spending, thus creating fairly significant government deficits in all of the G-7 countries. By the mid-1980s, the consequences of these experiments, and a set of developments in the economy and society, ushered in a period of tax reform and subsequent stability. Tax policy came to be dominated by deficit reduction and “revenue-neutral” tax restructuring during this period in the U.S. and other countries. For example, in the United States, there were tax increases in 1982, 1984, 1987, 1988, 1989, 1990, and 1993, and large social security tax increases were enacted in 1983. The 1986 tax reform, which reduced marginal tax rates, repealed credits, and increased the income tax base, was revenue neutral.

The recession of the early 1990s delayed the revenue payoff from the 1986 tax reform, but this subsequently began to appear, most notably in the income tax revenues. Revenue as a percentage of GDP increased from 27.8 percent in 1990 to a historic 30.7 percent in 1999, due to the tax increases combined with strong economic growth. This is now likely to give way to a period in which downward pressure is being applied to almost all major tax sources. Governments will need to begin responding to the pressures and trends discussed below by initially “freezing” taxes, subsequently followed by measures, both actual and promised, to reduce taxes.

The blurring of the tax boundaries will put specific pressures for reduction in almost all types of taxes (individual and corporate income, capital, payroll, consumption, industry excises, and property). The next section will look at how the general and specific pressures for tax reductions combined with a changing world economy will determine the fashion in which the tax mix changes as the central government sector shrinks.

### IV. Blurring Trends Affecting Tax Systems

A number of important trends are emerging that will influence the future tax systems of the major industrialized countries. The eight trends fall into three general categories:

1. **Intangibles**;
2. **Connectivity or Convergence**: Globalization, e-Commerce, Deregulation, Financial Innovation, and Broader Corporate Ownership; and
3. **Institutional and Demographic Factors**: Aging Populations and the Decline and Decentralization of Government

Each of these trends and their implications for the tax system is accentuated by the speed at which change is occurring in the economy. If the tax rules and regulations cannot keep pace with the rapidly changing economy, this will increasingly cause economic distortions or simply become sidestepped as market innovations and technology avoid its barriers.

In thinking about the implications for taxpayers, tax policy makers, and tax administrators, it is important to recognize the different margins on which households and business operate with respect to changes in relative prices, including taxes. The response to tax factors can involve changes in the timing of transactions, in financial arrangements, and in “real” decisions about consumption, long-term investments, and employment and training. ²

It is generally believed that economic responses to taxation are greater for changes in timing than changes in “real” transactions or financial arrangements. Activity can be adjusted around an effective date easier

than changing the “real” transaction or the debt/equity structure of a corporation. However, financial arrangements are easier to change for tax reasons than “real” transactions. Particularly in the case of the new, “connected economy” the responsiveness to changes in taxes and tax differentials is likely to be greater than in the past for financial arrangements and real transactions.

A major question will be whether, with the accelerating rate of change, tax systems will keep up with these trends and address the tax issues that emerge, or, whether they will lag behind the changes and create a drag on the markets and the economy. In the meantime, businesses will see new opportunities for minimizing their legitimate tax burdens.

A. Increased Importance of Intangibles

As the Industrial Age fades into the Information Age, tangible assets are becoming a smaller portion of companies’ value. Many of the new Internet companies derive nearly all of their value from intangibles, rather than land, equipment, or structures. Patent rights, customer lists, brand names, software designs, etc., have always been part of companies, but have increased in importance and in some cases become separable marketable items. For example, a new exchange for patents (pl-x)\(^3\) has developed new ways of handling valuation and other aspects of making sales of intangibles more efficient and liquid.

The growth of intangibles also reflects the relative growth of human capital in the Information Age compared to physical capital. Supply-chain management with information technology combined with process change is reducing inventories significantly through just-in-time manufacturing. The size of computers and wireless telecommunication base stations continues to shrink physically at the same time the functional capacity grows exponentially.\(^4\) The software is more important than the hardware.

Intangibles and human capital by their very nature are more mobile than tangible assets. They are less dependent on geographic location, and given their high return on investment, will seek lower taxed jurisdictions, which is more likely in a global economy. Transfer pricing tax issues will be more focused on returns from intangibles than quantifying contract manufacturing arm’s length costs.

Intangibles have important implications for income, property, and sales taxation. The creation costs of most intangibles are deducted immediately, unlike tangible property costs that are capitalized and depreciated

\(^3\)The Patent and License Exchange (pl-x.com) is the first online marketplace for the sale of patents, licenses, and other intellectual property.

under the income tax. The expensing of intangibles is equivalent to a zero effective tax rate on the resulting income (or consumption tax treatment), which contrasts to the high effective tax rates on property depreciated using historic cost basis. Attempts to capitalize intangible costs and depreciate them (e.g., IN-DOPOCO issues in the U.S.) are a contentious issue, and the appropriate length of any depreciation allowances is generally difficult to determine and keep current.3

Most property tax systems tax only tangible property, rather than intangible values. Property taxes on formerly regulated industries where intangibles have sometimes been taxed, are likely to move to taxing only tangible assets. The retail sales tax in the U.S. will see base erosion as more products become digitized (converted from tangible property to intangibles), or unbundled, and as separate pricing and markets for the intangible elements of a good or service emerge. Under the VAT, sourcing issues become more difficult for intangible assets.

A number of intangible assets arise from the human capital of specific individuals. These individuals may also be increasingly mobile with respect to opportunities as well as taxes. Labor mobility has generally been considered to be relatively low, except for a few celebrities and the very wealthy. Increasingly, the new entrepreneurs and creators of intangibles are likely to be more mobile. For example, some countries in Europe are losing some of their best entrepreneurs due to high taxes and restricted stock options.6

The increased importance of intangibles is and will have important implications for taxation and tax mix. First, it is generally accepted that it is more difficult to have mobile assets bear tax. By creating new cases of footloose capital, intangible and human, there will be pressure to reduce effective tax rates for such assets that are seen as being beneficial to national economies. Secondly, the expensing of intangibles creates a non-neutrality in the income tax that may create pressure for reduced taxation of other forms of capital. It is generally recognized that immediate expensing of capital is equivalent to zero taxation of capital income, under a consumption or value added tax. It would be extremely difficult to require capitalization and amortization of intangible expenditures over their economic lives without creating significant economic distortions and complexity. From a policy perspective, continuation of the current treatment of intangibles may become an indirect means of achieving an effective reduction in the overall tax burden on capital income.

B. Connectivity and Convergence

Economics professors used to lecture about a fiction known as "perfect markets." Some characteristics of "perfect" markets include:

- Many buyers and sellers;
- Homogenous goods and services (commodization);
- Full information;
- Easy entry into and exit from markets;
- Low transaction costs; and
- Liquidity and access to capital markets.

The perfect market did not exist in real life, of course, because of restrictions on the flow of information, barriers to entry, etc. Only stock and commodity exchanges approximated the perfect market, where debt, equity, and raw materials were bought and sold in real time.

The "new economy," however, is creating more perfect markets. In their book Blur, Stan Davis and Christopher Meyer note "the markets for what economists call "real goods and services" are more frequently behaving like financial markets" and that we are approaching what could be called "friction free capitalism."7

The significant business trends contributing to more market perfection are (1) globalization, (2) e-commerce, (3) deregulation, (4) financial innovation, and (5) wider corporate ownership. These trends are resulting in greater competition, increased information, and removal of geographic and size distinctions. More perfect markets are not only contributing to the increased economic growth in many countries, but also making the current tax differentials more influential in affecting economic behavior. International differences in taxation will have even more important implications for tax policy and the tax mix of developed countries than they have had in the past.

1. Internationalization of commerce and the increasing competitive strength of emerging economies.

The trend toward internationalization of commerce and trade will continue to accelerate. The NAFTA agreement reduced trade barriers and increased trade among Canada, the United States, and Mexico. The European Union has moved to a common currency, the euro, and is actively considering moves toward greater harmonization of their tax systems. Increased foreign investment in China, India, Latin America, Eastern Europe, and the former Soviet republics is evidence of the globalization of multinational corporations and capital flows.

DaimlerChrysler is an example of a truly global company where the headquarters decision was based partially on taxes. Cross-border mergers are becoming more common and will increase with the consolidations that are necessary to compete in the global marketplace due to the power of intangibles, such as branding (see discussion of intangibles above), the growth of electronic commerce, and the deregulation of key industries, such as telecommunications and financial services.

International tax issues will continue to grow in importance as the barriers to international trade, capital flows, and labor mobility are reduced. International tax

7Davis and Meyer, Blur, note 1 supra at 96.
competition will increase rather than abate, especially as emerging countries, such as India and China, become major investment opportunities, where little or no tax on income from capital exists. For example, India offers long-term tax “holidays” to software and Internet companies.

The continued globalization of the economy will put downward pressure on capital taxes, especially intangible capital. Increased international tax coordination is a likely result (e.g., European harmonization efforts, OECD initiatives in the areas of tax treaties and e-commerce). However, it is unclear at this stage whether governments will succeed in forming binding tax coalitions or agreements. Witness the recent failure of the European Union’s tax harmonization efforts.

2. Growth of electronic commerce. The Internet revolution will have a significant impact on the design of tax policy and tax administration in the coming years. Although few of the tax issues are unique to the Internet, the importance and speed of growth of e-commerce, particularly business-to-business commerce, will force long-festering tax issues into prominence. Witness the controversy over the recommendations made by the Advisory Commission on Electronic Commerce on the sales and use taxation of e-commerce.

The Internet has two major effects. First, it significantly reduces transaction costs of communicating and selling without regard to geographic boundaries or size of company. Companies that were previously limited to local markets can now sell nationally or globally through electronic commerce.

Second, the digitization of information, whether it is music, publications, books, financial reports, or advisory services, creates difficulties in defining the source, origin, and destination of both production and consumption. The European Commission recently issued a draft Directive imposing value added tax responsibility on foreign companies for sales of digitized services into the European Union, which raises difficult administrative issues. Wireless telecommunications has grown enormously, and its expansion into data transmission will increase the difficulty of determining where services are produced and consumed. After three years of negotiations between business groups and state and local governments, legislation in the U.S. has been enacted to source wireless calls between jurisdictions to the originating residential or business street address.

Digitization has also blurred the lines for some goods between their tangible and intangible form. In the United States, the retail sales tax generally applies to tangible goods, but not intangible goods or services. Downloaded MP3 music is exempt from sales tax in many states, but the same music bought on a compact disc is taxable. The existing tax rules will create increasing distortions unless modified to reflect the Internet revolution. Indeed, the scope of absolute increases in consumption taxes is limited, because of difficulties created by e-commerce in taxation of distant selling.

In the U.S., the threat of e-commerce to the states’ retail sales tax base is likely to force states to move toward greater simplification and harmonization of their rates, tax bases, and administrative systems. A small to medium-size company that can now sell to a national market through the Internet could face over 7,600 taxing jurisdictions, without the current Supreme Court protection limiting taxing jurisdiction to those with a physical presence.

3. Deregulation of important industries. Deregulation began in the 1990s for some important industries, principally telecommunications, electric utilities, and financial services. In the United States, legislative changes have accelerated competition that the market place was already achieving through technological changes. In many other countries, privatization of previously government-owned monopolies is forcing these industries into competitive markets.

Traditionally, governments have extracted rents from regulated local industries through industry-specific taxes that were higher than on other corporations. In most cases, given the monopoly situation, these higher taxes were passed through to customers. Now, as these formerly regulated entities compete with each other nationally, with nonregulated entities, with technology firms, and with international competitors, the industry- and site-specific taxes are placing the local firms at a competitive disadvantage. The industry-specific, often origin-based, taxes are being reduced and/or replaced with general corporate taxes, often apportioned by destination sales, or broad destination-based consumption taxes.

State insurance premium taxes are an example of industry-specific taxes that are significantly higher than general corporate taxes on other financial service providers. The typical 2 percent premium tax on insurance gross sales is being reduced in many states as they try to level the tax playing field across financial service competitors and attract and retain increasingly footloose insurance operations.

The deregulation of the telecommunications industry combined with new entrants from the technolog-
logical convergence with cable and satellite has resulted in a review of state telecommunications taxes. High property tax assessments on telecommunications properties have been reduced by more than 40 percent in telecommunications reform legislation in Mississippi and Louisiana this year.\textsuperscript{15}

4. Financial innovation. The 1980s and 1990s saw major advances in financial innovation that have lowered transaction costs, unbundled financial products into specialized commodities, and created enormous liquidity. Financial markets have exploded partially from deregulation of the financial services industry, but also from new innovations.

Securitization and secondary markets have changed the banking and thrift industries, where functions and risks are unbundled and then processed or held by the most efficient providers. Many banks now specialize in originating or servicing residential mortgages, while the capital markets, including mutual funds, hold different types of mortgage securities with different risks. This has helped reduce mortgage interest rates, increase liquidity in the market, and create new tax issues for measuring income.

Financial innovation has unbundled, combined, and created new financial instruments. Financial innovation has unbundled previously-embedded options, which have their own value and which the tax systems have not readily handled. Financial innovation has capitalized and turned into financial instruments previously “real” transactions, such as exchange rate risk, catastrophic insurance coverage, and mortgage prepayment risk. Future financial innovation will capitalize more “real options” available to product companies, such as the “real options” in research and development spending. The capitalization of future income streams in divisible and tradeable securities will maximize the value of tax attributes.

Financial innovation was stimulated in part by technological innovations in information technology and economic modeling. The increased information from e-commerce and reduced costs from greater processing speeds will result in further financial innovation. The patent and license exchange is both a new financial innovation and market due to the reduced transaction costs from the Internet that will unlock billions of dollars of liquidity.

Tax systems will need to reduce distortions and arbitrary distinctions as financial innovation liquefies previously real transactions, and as financial innovations unbundle and rebundle different elements of a transaction to reduce the after-tax cost for the market.

5. Wider distribution of corporate ownership. The growth of defined contribution plans has also affected the amount of wealth held by households in stock ownership. The substitution of defined benefit plans controlled by employers with long-term vesting for defined contribution plans controlled by the em-employees has made many more employees feel like capitalists. Employees see their defined contribution assets grow, while defined benefit pension accruals are less transparent and understood. Also, employees are investing an increasing portion of their defined contribution retirement plans in corporate equities, so many more households are holding corporate stock directly or through mutual funds. A recent Federal Reserve study found that close to half of all American households held corporate equities, either directly or through 401(k) retirement plans or mutual funds.\textsuperscript{15}

In addition to defined contribution plans’ investments in corporate equities, the use of corporate stock options has spread beyond the corporate boardrooms to many more employees. Most of the new technology and dot.com companies offer stock options to their employees to reduce their current salary costs and to give their employees additional incentives. This practice is encouraged by tax provisions in the United States.

The increase in corporate stock ownership could have significant implications for corporate and business taxation. Increased corporate ownership will weaken resistance to reduction in capital tax burdens. In the United States, corporate integration plans that provide dividend relief or favorable treatment of capital gains will have wider support. Concerns about regressivity of reduction in capital taxes could also be lessened. In the United States, capital gains tax rates have been reduced below the rates on ordinary income, but major political battles over the distributional effects of capital gains rate reductions have been lessenened with the wider ownership of corporate stock.

C. Institutional and Demographic Trends

Although the growth of intangibles and connectivity will shape the future tax mix and tax bases, institutional and demographic trends will also have a significant effect on the size and composition of the tax system.

1. Decline of government spending. Increases in government spending have been slowing and the next decade could see a decline in government spending as a percentage of the economy. Defense spending has been shrinking in many countries with the fall of communism. In the United States, defense spending fell 40 percent in real per capita terms between 1985 and 1999, and decreased from 27 percent to 17 percent of the federal budget. Many social welfare programs are being reexamined for their effects on structural unemployment with a commensurate reduction in their budgets.

Increases in social retirement programs have slowed as government defined benefit programs have come to be viewed by many as providing low rates of return, particularly to younger workers. Tax-deferred defined contribution programs for employees have grown in...
the U.S. and Canada. Proposals to convert some portion of social security transfers into individual retirement (defined contribution) accounts are receiving more serious consideration.

The one potential area for an increase in government spending in the U.S. is health care, which has plateaued in other countries, and which is the subject of a vigorous debate in Canada.

The economist Herbert Stein once noted that “In this century, rising per capita incomes have been associated with a rising demand for government services and rising willingness to pay taxes. The question now, however, is whether rising affluence is seen as a reason to reduce the need for government programs and thus cut taxes.”

Public sentiment has to some degree swung away from supporting government spending as a response to social and economic issues. Government policy failures in recent decades have created in the mind of the public a poor perception of value from government expenditures linked, in part, to the deadweight of expenditures on interest payments related to the debt overhang.

While the demand for additional government services has slowed, tax revenues have increased with the strong economy and large increases in household wealth from the booming stock markets. Personal income tax revenues have increased significantly without any change in tax rates. Countries are now debating how to spend the surpluses, whether in increased government spending or in tax reductions. Personal income tax reductions are most likely, given that this is where the biggest revenue increases have been occurring. Budget surpluses have stimulated proposals to reduce individual income taxes, without restructuring of the tax system. However, the overall budget surplus has created expectations for tax reductions that extend to some degree to all taxes within the tax mix.

The recent experience of Australia demonstrates a policy response to public demand for tax reductions. In 1999, Australia overhauled its tax system by increasing consumption taxes and decreasing income taxes. This is similar to many fundamental tax reform proposals in the U.S. that would replace income taxes with broad-based consumption taxes, such as the Armey flat tax or the Nunn-Domenici USA tax.

2. Decentralization of government spending (transfer to local governments). As part of the trend to a decline in government spending, sub-national governments (states, provinces, local) are taking a larger role in government spending. Much of this shift is a result of decreases in federal government spending, such as defense and retirement programs, but responsibilities of sub-national governments are increasing. In the general trend toward less satisfaction with government’s role in the economy, more interest in having local governments take more responsibility has occurred. Between 1960 and 1997, state and local government spending increased from 31.6 percent to 38.8 percent of total U.S. government spending, adjusted for intergovernmental transfers.

The shift in the share of government toward local governments has an effect on the optimal composition of the tax systems. Without commensurate increases in revenue sharing programs, local governments are less likely to rely on personal and corporate income taxes than the federal governments. (See Table 4.) Thus, an increase in the percentage of total revenue from consumption, property taxes, and user fees is more likely, but as noted above consumption and property taxes now face pressures from globalization, e-commerce, deregulation, and financial innovation.

Reduced budgetary needs of central governments because of the factors outlined above will facilitate a reduction in income taxes (which are generally levied at the national level). This would cause a shift in the relative tax mix in favor of consumption taxes. This shift would come about not through an absolute increase in the burden of indirect taxes, but through a decrease in income taxation.

The increasing transfer of governmental responsibilities to local governments also reflects a reduced

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Table 4
Composition of Federal, State, and Local Tax Revenues, FY1999

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<th>Federal</th>
<th>State</th>
<th>Local</th>
<th>Total</th>
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<td>5.3%</td>
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<td>Corporate income tax</td>
<td>10.1%</td>
<td>6.4%</td>
<td>1.0%</td>
<td>8.3%</td>
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<td>Social security payroll</td>
<td>33.5%</td>
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<td>0.0%</td>
<td>23.3%</td>
</tr>
<tr>
<td>Property</td>
<td>0.0%</td>
<td>2.1%</td>
<td>71.8%</td>
<td>8.8%</td>
</tr>
<tr>
<td>Sales and excise taxes</td>
<td>3.9%</td>
<td>44.0%</td>
<td>12.8%</td>
<td>12.5%</td>
</tr>
<tr>
<td>Other</td>
<td>4.4%</td>
<td>12.4%</td>
<td>9.2%</td>
<td>6.5%</td>
</tr>
<tr>
<td>Total</td>
<td>100.0%</td>
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ability of government to redistribute income due to the increasing mobility of factors of production, and the increasing necessity of linking taxation to benefits received from governmental programs.

3. Aging of developed nations’ populations. Longer term tax policy changes are also driven by a country’s demographics. Not only do demographics impact on the composition of government spending, such as increased retirement spending for an aging population or increased education spending for a baby-boom(let) generation, but demographics also affect the optimal composition of the tax system.

Payroll tax increases have been used to fund many social programs, such as retirement and unemployment programs. In the United States, the payroll tax has increased roughly 1 percentage point for both employees and employers each decade since the 1930s. Further increases in payroll taxes will be needed unless retirement benefits are reduced. There appears to be an increasing opposition to further payroll rate hikes, as the effect on structural unemployment in Europe and concerns about intergenerational returns from social retirement programs are becoming recognized.

Japan enacted a broad-based consumption tax partially because its aging population would not be paying as much payroll or income taxes. The growing percentage of the population that is age 65 and older, and the improved economic well-being of the elderly, makes them a more important potential source for tax revenues. The most likely sources of new revenue from an aging population are consumption and wealth taxes.

With the growth of tax-deferred private retirement plans, retirees will have a higher percentage of their income from private retirement plans. The benefits from tax-deferred contribution plans will be fully taxable. This will be an important source of future tax revenue.

V. Summary and Implications

The blurring of traditional tax boundaries is occurring rapidly with the increasing importance of intangibles and convergence of economies, industries, and activities. The blurring of these boundaries will have a profound effect on future tax systems, including the tax mix and the taxation of capital.

In addition, institutional and demographic factors will shape the level and composition of taxes. The growth of government spending has slowed and in several industrialized countries has declined as a share of GDP. The fiscal surplus from increased personal income tax collections, and the growth of the elderly population, will likely result in a shift toward reduced reliance on income taxes and more reliance on consumption taxes, bringing the U.S. tax mix closer to the G-7 average tax mix.

All taxes are increasingly under pressure from the more perfect markets due to more footloose intangible capital, increased globalization, reduced transactions costs from e-commerce, increased competition from deregulation, increased access to capital from financial innovations, and more widespread ownership of corporate equity.

The blurring of intangibles, tangible goods, and services; geographic boundaries; truly multinational companies; debt and equity; corporate and noncorporate entities; private and public partnerships; regulated and nonregulated industries; and wages and other forms of compensation; combined with the increasing speed of change, will challenge taxpayers, tax policy makers, and tax administrators.

These trends will have significant implications for future tax policy and administration, not only in the U.S but also in its major trading partners. Some important implications include:

- Increased need for broader-based, lower rate taxes to reduce economic distortions;
- Reduced ability of jurisdictions to be out-of-line with their tax and spending programs;
- Reduced reliance on origin-based taxes, such as income and property taxes, and more reliance on destination-based taxes, such as value added or consumption taxes;
- More focus on establishing procedures, such as Advance Pricing Agreements or depreciation revisions, to adjust tax rules for technological and market changes;
- Increased public/private partnerships to set benefit and tax policies and administration;
- Less reliance on industry-specific taxes;
- Continuing difficulty of administering a destination-based consumption tax from remotely- and electronically-provided intangibles and services; and
- Increased focus on multi-jurisdiction tax treaties, tax policy, and tax administration.

If national and subnational tax systems do not adapt quickly to these fundamental economic, technological, institutional, and demographic changes, the implications will be increasing distortions from antiquated tax rules and increasing complexity as the “more perfect” blurred economy adjusts around the rules.

19Id. at n. 5.