

Taxing Financial Activity

By

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Introduction

In most countries, substantial business activity is related to financial intermediation: banking, trusts, investment companies and insurance. Financial businesses play a crucial role in the economy by matching lenders with borrowers as well as facilitating governance of businesses through close monitoring of funds lent to businesses. Financial institutions also reduce risk faced by investors by pooling investments over many different types of business activities and insuring against property, casualty and death risks. A significant part of the financial sector is regulated but an impressive array of financial activities is undertaken by unregulated and informal parts of the economy.

Unlike other industries, tax systems often treat financial activity in a special way. Why is so? Much of this special treatment arises from the nature of its business. Financial activity services are not priced directly since a financial business often receives as its return for the use of labor and capital, the difference between the income earned on assets and the cost of borrowed funds. With the absence of an observable price for financial services, it is problematic to apply income, value-added or sales taxes on the sector.

Further, returns received by financial intermediaries are not easy to observe since some forms of receipts, like income (or capital gains) from the sale of assets, are simplest to compute when financial assets are actually sold. Yet, the income tax, which is based, in principle, on the inclusion of accruals for income and expenses, must be formulated to deal with complex issues related to the tax treatment of financial income. Otherwise, the income tax system distorts financial and economic activity by favoring some forms of income over others.

Therefore, financial activities receive special treatment under income, value-added and other sales taxes for technical reasons. But there are other reasons why financial intermediation is often subject to special tax considerations. First, financial businesses are very mobile, easily setting up offshore facilities to provide financing for non-financial businesses and households in a jurisdiction. Given this mobility, countries must take care in developing their taxation systems with respect to financial income so as not to induce capital flight. Second, many financial institutions, especially deposit-taking ones, are highly regulated. Such institutions play a prominent role in many countries and are even sometimes protected from competition by governments. Third, financial institutions are powerful entities in an economy, closely working with central banks (for monetary policy reasons) or other regulators for investment and insurance. Politically, banks and other large intermediaries are often subject to special levies simply because they are large and profitable even though tax policy considerations might suggest that such activities should bear tax no differently than others to avoid distorting the allocation of resources in the economy.

In this module, I shall review the rationale and technical issues related the taxation of financial activity in the following sections:

- What is financial intermediation?

- What are the roles of financial service providers in the economy so as to guide policy makers regarding the appropriate design of taxes?
- How are individual types of taxes designed to deal with special considerations related to financial activities?
- What are the economic impacts of taxes on financial activity?

What is Financial Activity in an Economy?

To understand tax issues related to financial activity, it is important to outline the specific roles of financial intermediation in an economy. The basic role of financial intermediation is to provide an efficient mechanism to match lenders with borrowers of funds. Those who consume less than their available resources wish to invest in assets to yield the highest possible returns. Those who have consumption expenditures in excess of resources wish to borrow funds at the least cost.

The demand and supply for funds is further related to several motivations that consumers have for financial intermediary services. These motivations are the facilitation of transactions (the payment system), risk diversification and monitoring of investments.

Payments System: Typically, people are paid on a periodic basis for their work (weekly, bi-weekly or monthly). As the income received at the beginning of the period of payment is more than their flow expenditures, people must hold their funds sufficiently liquid to cover their expenditure commitments over the period in question. In principle, a person could store the funds under a mattress requiring no intermediary services (the person is therefore providing intermediary services to themselves). Instead, to secure the funds, the person might use a bank or similar financial institution to hold the funds for them. Payments for expenditure commitments can be drawn from the account. Thus, typically, people will hold demand deposits with a financial institution to facilitate payments. The account will be in positive balance, drawn down until the next payment is received (if the account is overdrawn, effectively the person is borrowing from the institution).

Money can be drawn from financial institutions in the form of cash, cheques and electronic transfers. A bank or financial institution charges for these services either directly in the form of fees or indirectly by paying little or no interest on the balances held during the period in question (in the meantime, the financial institution can use demand deposits to invest funds in interest-bearing assets, including government short-term treasury bills). Banks and other financial institutions now provide credit cards (these have also been used to secure payments for goods and services provided by businesses) and debit cards (for electronic transfers).

Banks and other financial institutions provide foreign exchange services that facilitate international transactions. In effect, foreign currency becomes a financial asset that is traded to match the demand and supply for each foreign currency.

Risk-Management: Investors look for the best risk-adjusted rates of return that can be received. Any particular investment is usually risky in some way and investors may be willing to give up a part of the return in order to avoid risk. Investors will therefore invest in assets until the rate of return, net of the imputed cost of risk, is the same across assets.

Risks faced by investors are many:

- *Operating income risk* arises when the returns from a project are uncertain due to fluctuations in product prices, labor costs or demand.
- *Capital risk* arises from uncertain capital good prices, unknown lives and obsolescence that make investment costs highly uncertain over time since assets must be replaced or new ones purchased for expansion.
- *Inflation risk* arises from asset returns being denominated in nominal values (e.g. 6% of the principle amount negotiated at a point of time) but the purchasing power of the asset is uncertain due to unknown increases in prices over time.
- *Financial risk* is borne by investors when businesses may become bankrupt or wound up leaving little or nothing left to satisfy their claims on assets.
- *Insurance risk* is faced by individuals when facing unknown contingencies with respect to the loss of life, disability and property.

To reduce risk, investors diversify portfolios to hold assets with different prospects so that, if any one asset has a poor return, the others may do sufficiently well that the investors earns a relatively good return on the overall portfolio. A strategy of “not putting all your eggs in one basket” often implies that investors will give up some potential but uncertain returns on an investment to insure them against any large losses.

However, not all investors are the same in their tolerance towards risk. Some investors might be indifferent to risk in that they are only interested in the expected returns for investments (“risk neutrality”) while others might be willing to give up returns to avoid risks as much as desired (“risk aversion”).

Investors can reduce risk by investing in assets with uncorrelated (or negatively correlated) returns offered in stock and bond markets. Alternatively, they could purchase assets issued by financial institutions (banks, investment funds and trusts) that take the funds provided by investors and invest them in large number of assets that diversify risks for the whole portfolio. Financial institutions could then charge a fee for the service or, alternatively, be compensated by the difference between the returns on the portfolio and the income paid to owners of assets issued by the institution. Whether a person is willing to invest directly in assets (and pay fees to brokers) or through a financial institution depends on the transaction costs incurred to diversify risks.

The principle of avoiding risk also applies to insurance policies. Individuals are willing to pay a premium to receive a benefit to cover an economic loss if a catastrophe, such as a fire, automobile accident or death, occurs. If no catastrophe takes place, the insured is

then out of pocket. Thus, by insuring a broad part of the population, a premium charged at full actuarial value covers the benefits to be paid out to those who face the catastrophe. Insurance businesses provide property and casualty, disability and life insurance. While property and casualty insurance specifically applies to risks, life insurance not only insures against the losses incurred with death but also provides income for retirement (including annuities). Thus, premiums paid to life insurance companies provide not only death benefits but are a form of savings that provides income after retirement. Premiums are therefore in part an investment for a stream of benefits provided in the future. The benefits are paid from the principal and accumulated income built up in the insurance plan. Thus, a tax system must deal not only the treatment of insurance but also income derived from savings through life insurance plans.

Reducing Information Costs: Some risks, like those arising from poor management practices, can best be avoided if investors have information about the operations of a business. Investors obtain information by using “signals” that indicates the quality of firms -- this mitigates so-called “adverse selection” problems when investors cannot judge high quality from low quality businesses. Further, investor controls on businesses can limit “moral hazard” problems when managers take actions that are of non-pecuniary benefits to them but increase financial losses to the firm.

Monitoring managed-assets is difficult for individual investors who do not have the time or ability to research and audit companies. Instead, investors could pay a fee for analysts to provide the information the need to understand companies. However, analysts are not able to monitor closely companies on an arm’s length basis. Instead, lenders to companies (like financial institutions) have greater financial clout to monitor closely a business that would not be operating on an arm’s length basis from the lender who has the right to review books and management plans. The spread between lending and borrowing rates received by the financial institution is in a part a payment for monitoring expertise.

Measuring the Value of Financial Intermediation: To engage in their activities, financial intermediaries must use labor, capital and other inputs to provide transaction, risk-diversification and monitoring services to their clients. The “outputs” of financial intermediation are easy to identify in theory but difficult to measure in practice – transaction services for demand deposits, loans to businesses, real estate mortgages, consumer debt, investment counseling, insurance, leasing, foreign currency transactions, placement and underwriting of securities, financial derivatives, among others. As discussed above, an explicit fee might be charged for some services but a substantial form of income earned by a financial intermediary is the spread between income from investments and borrowing costs that compensates the intermediary for its use of labor and capital inputs.

Essentially, like telecommunications, transportation and other complex businesses, a financial institution is a multi-product business operating in many markets. Without

explicit fees charged for each service, one can only compute the value of the bundle of services provided by the intermediary to determine the value of its services.

As illustrated in Table 1 below, a financial business earns income from interest charged to borrowers (such as 8% on \$10 million in loans) and explicit fees. The costs incurred to provide financial services is equal to salary and wages (\$300,000), supply costs which are purchases from other businesses (\$200,000), capital costs (\$100,000) and interest paid for borrowed funds (4% rate on \$750,000). The difference between revenues and costs is the profit earned by shareholders. The profit of \$100,000 received by the financial intermediary is needed to compensate shareholders who have invested \$2.5 million of their capital (to fund \$10 million in assets) in the financial business, implying a rate of return on equity investment equal to 4% (\$100,000 divided by \$2.5 million).

Table 1: Financial Institution’s Value-Added and Profits

	Amounts (\$US)
Revenues	
■ Interest on loans (8% on \$10 million in loans)	\$800,000
■ Fees and premiums	\$200,000
■ Total Income	\$1,000,000
Costs	
■ Salaries and wages	\$300,000
■ Cost of equipment and structures (depreciation, leasing expenses, etc.)	\$100,000
■ Supplies	\$200,000
■ Interest on borrowed money (demand deposits, time deposits, bonds etc.) (4% on \$7.5 million in deposits)	\$300,000
■ Total Costs	\$900,000
Profits	\$100,000
Value-Added (Difference between revenues and non-labor/capital costs or Profits plus Salaries and Wages)	\$400,000

The value of financial intermediary services is the compensation paid to labor and capital to provide services. The “value-added” of financial services is therefore equal to \$400,000, which includes a payment of \$300,000 to employees and \$100,000 for the cost of equipment (computers, buildings etc.) used to provide financial services¹.

¹ “Value-added” for financial intermediaries may be viewed as the consumption value derived from financial services that a lender would pay to purchase the service. Structures and machinery could be expensed in computing costs rather than depreciated. An issue to be discussed further below is that any

Financial intermediaries receive as income the following components:

- dividends from equity securities and interest on loans and debt instruments;
- capital gains on the sale of property both real (structures, machinery and equipment, land and inventory) and securities;
- fees explicitly charged for foreign exchange, underwriting fees, insurance, bank drafts and leasing of property;
- income from financial derivatives, which provides returns based on the returns of underlying securities. Financial derivatives include interest, currency, swaps, options and futures contracts for foreign exchange and commodities. The income includes fees and the return on assets held by the intermediary.

An important distinction is made between “trading” and “property” income under most tax systems. Financial institutions earn trading income because these businesses are primarily engaged in financial activities using real resources (labor and capital) to provide services. Households and non-financial business earn property income on portfolio transactions, which is not a significant part of their activities. Few resources are needed by the non-financial entities to transact financial claims. Thus, little financial intermediary services are provided.

The above Table 1 will be a basis for further discussion below on taxation and financial services.

Types of Financial Providers

Countries have two types of financial service providers – financial intermediaries and direct finance institutions (Dobson and Jacquet [1998]). These companies are granted licenses to operate in the jurisdiction according to the law of the state.

Financial intermediation includes commercial banking, savings institutions (near banks), and non-bank institutions (insurance, investments (mutual funds and unit trusts), contractual savings (pension and provident funds), finance, credit and leasing funds.

Direct finance institutions include brokerages and securities firms (underwriting of and buying and selling shares, bonds and financial derivatives).

In the past, many countries would regulate financial businesses by distinguishing among “four pillars” -- banking, near banks, investment houses (direct finance) and insurance. Businesses were regulated to remain within a particular sector, unable to offer services provided by other financial sectors. In the past two decades, the distinctions among different financial service providers have become increasingly blurred as regulators have allowed financial businesses to become engaged in a larger array of financial services.

financing costs associated with buying capital goods should not be deducted since the capital purchases are expensed if one were taxing “value-added”. For some elaboration, see Mintz and Richardson [2001].

However, an important distinction can be made between those financial institutions that participate in the payment system and those that do not. Those in the payment system take deposits directly from households, businesses and the government. Deposit-taking institutions have large branch networks to facilitate the payment system. They also tend to service most of the population in a country. For this reason alone, they are often assist governments in collecting taxes owing by households and businesses to the government.

In order to ensure confidence in financial markets, these financial institutions are closely monitored by governments since public authorities often provide deposit insurance in case a bank experiences difficulties in meeting its obligations. The central bank in a country may also be a “lender of last resort” to provide funding to those institutions that might face bank runs. Further, in many countries, deposit-taking institutions are regulated to minimize risk – for example, they might have to have a minimum amount of shareholders’ equity and reserves as proportion of total assets. Deposit-taking institutions might also have to hold reserves that are invested in deposits with the Central Bank as part of its conduct of monetary policy (in recent years some countries have abandoned required reserves held by deposit-taking institutions).

Deposit-taking institutions use their funds to invest in loans and mortgages to businesses and consumers and, if permitted, shares issued by companies. They also provide foreign exchange services, investment counseling and other related financial and payment services. Some countries may also allow deposit-taking institutions to sell insurance, brokerage and leasing services. Thus, deposit-taking institutions, as multi-product businesses, compete with other financial service providers in various markets unless they are prevented from participating in a market due to regulation.

The distinction made amongst different types of financial service providers is important for the review of taxes below.

Taxes and Financial Intermediation

Major taxes levied by governments in developing economies include the income tax (corporate and personal taxes), withholding taxes on payments to non-residents, value-added taxes and selective taxes on financial transactions (asset-based taxes, financial transaction taxes and insurance taxes).

Each of the taxes as they pertain to financial intermediation is discussed in term of their effect on efficiency and equity objectives that are used to assess tax policy.

Efficiency is defined as achieving the best allocation of resources among competing uses. In market economies, households base their economic decisions on prices charged by suppliers of goods and services and their decision to work depends on the income derived from work. Goods and services are produced according to the prices and profits earned by businesses. If taxes distort the prices faced by households and businesses, then

resources may not be allocated to their best economic use. Only in special circumstances – such failures by markets to achieve the best allocation of resources – will tax distortions potentially improve the allocation of resources. For example, a tax on “dirty goods” might be appropriately charged to discourage the consumption of products that contribute to pollution.

Equity is concerned with the level of taxes faced by households or individuals in society. Horizontal equity is related to similar taxes levied on similar individuals. Vertical equity is concerned with the distribution of taxes – often interpreted that households with greater resources available to them should pay more tax. I shall specifically consider how taxation of financial intermediation relates to equity objectives.

Income Taxes

Income taxes are principle applied to consumption plus the net increase in wealth (Haig-Simons definition). Using the identity that uses must be equal to sources of income, an income tax applies to employee compensation, business income, property income (interest, dividends, rents and capital gains) and other sources (including government transfers). Financial institutions that derive most of their income from financial transactions earn profit as the difference between revenues (interest on loans) and costs (interest expense for borrowing, employee compensation, depreciation on capital goods and non-capital purchases). Tax policy makers when dealing with financial intermediation face specific issues. These include the recognition of income and costs, treatment of trading and portfolio income and integration of corporate and personal income taxes.

1. Recognition of Income and Expenses

Most income earned by financial intermediaries is financial so the typical issues arise with respect to the taxation of financial income, including the distinction between trading and portfolio income that is discussed below.

Some specific issues must be considered with respect to the taxation of financial income.

Interest: Income tax systems apply tax to interest income and provide a deduction for interest expense from taxable income. However, many bonds may not provide for the explicit payment of interest. Instead, the lender repays the principal at a higher value than the original value of the bond. For example, a zero coupon bond pays no interest but the lender receives a gain equal to the difference between the value of bond when it expires and the original purchased amount. If the increase in the principal is exempt or treated favorably as capital gains, zero-coupon bonds would be favored over regular interest-bearing bonds. To deal with this issue, tax authorities require for reporting purposes that lender adjust the cost basis of the asset and income to reflect the interest that would be paid if fully charged on an accrual basis.

Loan Losses: A specific issue is related to the income derived from loans. Unlike marketable debts, financial loans are thinly traded so that there is no clear “price” that determines their value. If a financial loan is expected to be unpaid (a “doubtful debt”), the financial institution may incur a loss on its loan portfolio that could be booked as such to its financial accounts. However, some subjective valuation is made as to whether a debt will be repaid or not. If a deduction is taken when the debt is doubtful, the financial institution may need to include in income amounts when actually repaid. This potentially gives rise to a mismatching of income and expenses since the financial institution might claim doubtful debts in order to defer taxes owing on loan interest to a later time.

To minimize tax planning, governments have resorted to two types of deductions. The first is to estimate how much loan losses are incurred as a percentage of assets and provide a percentage deduction for loan assets as a reserve. When debts are written off as unpaid, amounts incurred are claimed against the reserve. The problem with this approach is that the government gives an interest-free loan to the financial institution to the extent that deductible contributions to the reserves are greater than actual experience with loan losses.

The second is to allow only unpaid bad debts, not doubtful debts, to be deducted. While the second approach eliminates any mismatching of income and expenses, it is often inconsistent with regulatory measures that require financial institutions to build up reserves to avoid bankruptcies.

Insurance Reserves: Similar to loan losses, property and casualty and life insurance may be required to hold reserves to meet payments to policyholders. For tax purposes, such reserves can lead to a mismatching of the recognizing income at a later time than the deduction for expenses incurred to earn such income. In the case of life insurance, policies usually have elements of both savings (usually for retirement purposes) and contingencies (death or disability). Reserves thus have a built-up component reflecting the income earned on savings and should therefore be subject to tax – otherwise taxpayers would favor life insurance instead of other savings instruments. However, it is difficult to separate reserves into components held for contingency and savings purposes. At best, the built-up income must be estimated by, for example, multiplying the reserve by an interest rate such as a treasury bill that would be “riskless” since the balance of the fund must cover benefits to compensate insureds for risks.

Dividends:

Dividends received by financial institution from other companies are often not taxed since, in principle, they have already been subject to tax when a company distributes income from after-tax profits. An additional tax on dividend income of financial institutions would result in the double taxation of income. Further issues on the integration of company and personal income taxes are discussed greater detail below since this topic is complicated but highly relevant in terms of financial decision making and market behavior.

Capital Gains:

Capital gains are often treated separately than other sources of income since tax is paid only when assets are disposed as opposed to taxing the gains on an accrual basis, subject to mark-to-market taxation in tax system for financial traders (see below for further discussion).

The rationale for tax capital gains only when assets are disposed rather than on an accrual basis is twofold. The first reason is that a tax on gains as they accrue (when the market value of the asset increases without selling the shares) places hardship on taxpayers who do not have the means to pay for tax liabilities unless they sell their assets. This can be especially important for owners of real estate such as farmers. The second reason is that some assets are difficult to value on a year to year basis since they are specialized assets that are infrequently traded. Specifically, shares in private companies (those with shares that are not listed on stock exchanges) and infrequently traded assets like land and structures have values that can only be approximated unless comparable assets are actually sold in the market.

For both these reasons, governments often tax capital gains on a deferred basis when assets are finally sold. Some have argued for a penalty tax on asset disposals to account for the postponement of tax payments until assets are sold (Auerbach [1991]). However, the penalty tax would need to be estimated based on the holding period of the asset, the marginal tax rate of the investor over time (which would be unknown each period) and inflation.

Since investors can choose when to dispose assets – thereby being subject to capital gains tax – they will often delay disposals to defer the tax. This results in a “lock-in” effect whereby investors do not sell their assets for some time to defer payment of capital gains taxes. Investor can borrow funds to purchase assets with capital gains – income and expenses are therefore mismatched as the income is earned after the interest expense has already been occurred.

Capital losses are usually only written off other capital gains or, alternatively, against other income on a limited basis. When losses can be fully claimed against other income, governments effectively fully share the losses, not just the income earned by the investor through the tax system. Loss deductions are thus equivalent to a deduction for the cost of risk from returns.

However, it is rare for governments to fully share risks by allowing taxpayers to write off unlimited capital losses from all sources of income. The limitation for capital loss claims is generally related to the fact that taxpayers are able to time disposals to avoid payment of tax on other sources of income while defer the recognition of capital gains until assets are sold. Further, if a country provides far more generous treatment for loss deductions compared to international norms, multinational companies would have an incentive to dump losses into a country (such as shifting debt interest deductions to a jurisdiction) to take advantage of loss deduction measures.

Capital gains are often given preferential treatment by exempting a whole or part of the gain from taxation or assessing a lower rate of tax on the gain. The logic of reducing tax on capital gains is threefold. First, capital gains reflect anticipated changes in after-tax income so there is an implicit tax already on the gain (this argument is similar to the one raised above with respect to dividends). Second, capital gains on assets held for long periods reflect rising prices in an economy – therefore the gain is in part compensation for inflation. Some reduction in tax paid is often provided on this basis as well. Third, because of limitations to loss deductions, capital gains taxes can result in higher effective tax rates on risky assets since the gains are fully taxed but the losses only partly deductible if at all. A lower tax on nominal capital gains is a rough but imperfect offset for risk costs that would otherwise be fully shared through full loss write-offs.

As a final point, capital gains and income are often treated as ordinary trading income for financial institutions and others carrying on financial business. Losses are fully deductible in these cases.

Mismatching of Income and Expenses – the Problem of Interest Expense:

Since it is often the case that some forms of income may be partly or fully exempt or, in the case of capital gains, deferred, a mismatching of income and expense will arise that provides advantages to taxpayers able to claim deductions of greater tax value than the tax on included income. The most significant issue with respect to mismatching is related to interest expense. Interest and other expenses incurred with investments are usually deductible with the reasonable expectation of earning income. However, in some cases no income is expected to be subject to tax or such income might be deferred as in the case of capital gains.

Further, the recipient of interest income may be exempt from tax (as in the case of a pension fund or non-resident taxpayer who may or may not be subject to tax elsewhere). Thus, company income that is neither subject to tax at the corporate nor personal level may avoid tax altogether.

Authorities in various countries have limited deductions for interest expense according to several approaches. Some approaches are limited to interest paid to non-resident related parties. In other cases, a more general approach is used to limit interest deductions for both resident and non-resident taxpayers. None of the approaches is entirely satisfactory

- The first is “tracing” whereby interest expenses may be disallowed if the borrowing is traced to an exempt investment. Tracing is difficult to monitor as taxpayers with sufficiently different investments have the opportunity to use borrowings to finance taxable investments while using cash to finance exempt investments.
- A second approach is an “earnings” method whereby interest deductions to investment and other qualifying business income earned by the taxpayer are

limited to a percentage or all of the income (gross of borrowing expense) with the balance carried forward to future years. Although this approach seems reasonable especially when the taxable base is deferred, it results in the denial of interest deductions when an investor must write off a failing investment that had a reasonable expectation of earning profit.

- A third method is to capitalize interest expenses in the cost of assets until income is recognized and provide a deduction for interest expense over time (as in the case of depreciation). This approach has been used for projects with some duration such as in the case of resource exploitation and the construction of buildings and other developments.
- A fourth method is a general “thin-capitalization” rule applied to all businesses that would disallow interest deductions for borrowing in excess of some ratio of debt to equity (shareholder capital and reserves). This approach has often been criticized for being unfair to those businesses, like financial intermediaries, that have high debt-equity ratios for business purposes. However, this approach is often used for related-party debt in the international context.
- The fifth method is the use of an allocation formula whereby interest expense is disallowed according to the share of exempt assets to total assets held by the taxpayer. This approach can have some unintended consequences – interest expense incurred to finance a taxable asset may be only partly deductible if the taxpayer has other exempt assets. The approach has been used by a few countries for the tax treatment of international income.

Financial Derivatives:

The differential treatment of income and expenses, especially capital gains and interest, have given rise to the development of some financial derivatives that provide tax benefits by differences in the recognition or timing of receipts and expenses. For example, a return on stock can be mimicked by a combination of a zero coupon bond and call and put options. If the bond return is fully taxable while the call and put options are treated as capital gains or losses at differential rates, taxpayers could exploit these differences to increase cost deductions and reduce income recognition in order that tax payments can be reduced.

These issues have given rise to considerable complexity in tax law since financial products with different income characteristics can give rise to differential tax treatments. The problem is partially avoided in the case of financial traders when they must treat financial income as ordinary income and mark their assets and liabilities to market. Mark-to-market rules require assets and liabilities to be valued according to the market and such market value changes as they accrue must be included in income. In this case, all financial income, including financial derivatives, is included in income and taxed at regular rates. However, the tax system influences the financial choices of taxpayers who

are not financial traders when differential tax rates on financial products are faced by investors.

2. *Trading versus Portfolio Income*

Typically, income tax systems distinguish between trading and financial income. Portfolio income earned by taxpayers is compensation for the postponement of current consumption (in order to save for the future) and risk. Trading income, which is a form of business income, compensates traders for not only the postponement of consumption and risks but also for the effort persons engage themselves in the process of financial intermediation.

The above distinction is an important one in income tax systems. As discussed above, financial traders are subject to tax on all their financial income (mark-to-market basis) at regular rates (and can use losses against other forms of income). In principle, financial trading income is viewed to have a substantial share of income as compensation for work effort and therefore similar to employment income and other forms of business income. On the other hand, portfolio income is treated differently from other sources of income on the presumption that taxpayers, not engaged primarily in financial trading, are not expending effort.

The above point is important to recognize in the following context. As Bradford [1996] points out, a financial institution receives compensation for the use of labor and capital in the financial intermediary process as the difference between income from loans and interest paid on deposits or the “loan yield spread”. The interest paid on the deposit is only part of the total compensation inherent in the financial intermediary service. The other portion of compensation is the loan yield spread. If a person were a trader they would receive the loan yield spread (and deduct any costs incurred in financial intermediation including wage expenses paid to employees). With portfolio income, the loan yield spread is earned by the financial institution or trader taking decisions for the investor. The investor pays tax on the portfolio income accordingly. The distinctions in the tax system for trading and portfolio income arise from the differential tax treatment of trading and portfolio income where the latter might be preferentially treated as in the case of capital gains.

3. *Integration of Personal Income with Company Income Taxes*

A frequent issue faced by tax authorities is whether company and personal income taxes should be integrated or not. If no integration is considered, the company income tax is viewed as a separate tax (the “classical” system). The result, however, is that profits – distributed or reinvested in the company – which are not deductible from the company tax base, are double taxed when both dividend and capital gains taxes are levied at the personal level.

Without integration, businesses would prefer to use debt to finance capital (since interest is deductible for the company). They would also prefer to pay salaries, wages and

bonuses to employees rather than profits giving rise to dividends or capital gains. Corporate reorganizations are affected as partnerships may be preferred compared to corporate status. Taxpayers would also prefer to organize their businesses as unincorporated businesses rather than companies if company profits were subject to double taxation.

Tax systems have accommodated integration by providing some sort of tax relief for shareholders receiving capital gains. Some countries provide a dividend tax credit to shareholders to reduce personal income taxes, intended to compensate for company level taxes. Other may partly or fully exempt dividends and capital gains on shares as discussed above. In the past, a few countries, notably Germany, levied a lower company tax on distributed profits, in principle similar to providing a partial deduction for dividends paid from profits.

The aim of dividend tax relief systems is to establish neutrality for different forms of financing, employee compensation and organization of businesses (companies, partnerships, trusts, unincorporated businesses). As shown in Table 2 below, a dividend deduction, tax credit or exemption (partial or whole) are intended to remove the bias against equity ownership of businesses. With a similar combined company and personal tax rates on dividend, interest and salary income, taxpayers would not have tax incentive to choose debt finance over new equity issues, salary compensation compared to profit shares for employees, or partnership over company forms of organization.

**Table 2: Example:
Company earns \$100 to distribute to owner as a dividend.
Personal tax rate is 30% and the corporate tax rate is 35%.**

	<u>Double Taxation of Dividends</u>	<u>Dividend Deduction</u>	<u>Imputation: Gross-Up and Credit</u>	<u>Exempt Personal Income</u>
Profit	\$100	\$100	\$100	\$100
Company Tax (35%)	\$35	\$0	-\$35	-\$35
Dividend	\$65	\$100	\$65	\$65
Gross Dividend (1/.65)	n/a	n/a	\$100	n/a
Personal Tax (30%)	\$19.50	\$30	-\$30	\$0
Dividend Tax Credit (35% of gross dividend)	n/a	n/a	\$35	n/a
After-Tax Income	\$45.50	\$70	\$70	\$65

When a company is not paying taxes – as when it is given fast write-offs for capital expenditures bringing taxable income to zero – the exemption of dividends for the recipient provides relatively more relief than it would if such profits were fully taxed as

other income. One could judge it appropriate not to take further actions if the benefits of tax preferences are intended to flow through to investors.

Some countries such as in Europe until recently have addressed the above issue with a compensatory tax on dividends paid by the issuing company to financial institutions and other shareholders to ensure that the dividends have been fully taxed prior to their distribution. The regular company tax is creditable against compensatory tax (to enable foreign companies to claim foreign tax credits for home tax liabilities on income paid to parents) with some carry forward and carry back provisions to recognize the differences between distributions and profits. If the compensatory tax is less than the company tax, no extra tax is paid². An alternative approach, followed in Mexico and proposed in the United States, is to exempt dividends but only if they are paid from taxable income (otherwise they would be subject to withholding or income tax for the recipient). Australia and New Zealand provide a dividend tax credit by matching the amounts to company tax paid by company issuing the dividend.

4. *Summary*

Income taxes on financial income differentiate taxpayers according to whether they are engaged in financial business or not. Therefore, financial institutions and financial traders in general often pay tax accordingly on mark-to-market basis. A line must be drawn by authorities to determine whether the taxpayer is engaged in financial business or not. Those with portfolio income are usually subject to their own tax regime.

The differences between the treatment of financial traders and portfolio investors is based on the notion that income that financial traders receive is not just compensation for postponing current consumption to the future and risk but also as a reward for effort. Portfolio investors are presumed not to expend effort on their portfolio decision. The truth is that these distinctions are somewhat arbitrary. Some effort may be made by portfolio investors in choosing their investments although the degree of effort is substantially less than traders. If one could tax all forms of financial income on an accrual basis, especially capital gains, no special distinction would be needed between financial traders and portfolio investors.

A complicating issue in the tax treatment of financial income is related to the deduction of interest expense incurred to finance the acquisition of assets. Taxpayers are provided an advantage if financial income that is exempt or deferred and interest expense is deducted when incurred. Further, the interest income may be paid to non-taxable entity like a pension fund. Remedies are used to mitigate tax avoidance but none are entirely satisfactory.

Thus, typically, income taxes on financial income vary across different assets and taxpayers resulting in various economic distortions. Tax authorities try to minimize such distortions as best as possible.

² Recent European Court of Justice decisions have led to the abandonment of compensatory taxes in the European Union. See Gammie [2003].

Withholding Taxes

Many countries levy withholding taxes on interest, dividend, rent, royalties and fee payments to non-residents (and in some cases residents as well). If a tax treaty is signed with foreign governments, often withholding taxes are reduced on payments to qualifying non-residents in the treaty country. Typically, non-residents are able to credit the withholding tax against taxes owing to their resident governments on receipts. In some situations, the withholding tax might be a final tax if the foreign country exempts such income.

The intent of withholding taxes is to ensure that a government, hosting foreign investment in its jurisdiction, receives tax on income earned by non-residents within its borders. If such withholding taxes are credited against foreign tax liabilities paid by non-residents on their worldwide income, they are even more desirable for a host country to levy since they simply result in a transfer of revenue from foreign public treasuries to the host government. However, withholding taxes, if not credited abroad, could increase the cost of finance for borrowers in the host country, as further explained below (Brean [1983] and Huizinga [1994]).

Most countries often assess higher withholding taxes on portfolio income compared to payments where a non-resident has a significant share of ownership in a company operating in the host country (the threshold as determined by votes and/or value of participatory shares). Frequently, interest paid on government bonds (and other international organizations such as those part of the United Nations group) is exempt from tax.

A special case also arises in the case of non-resident financial institutions whereby interest may be exempt or subject to little withholding tax. The problem for financial institutions is that withholding taxes are applied to *gross interest income* when the profits earned by financial institutions will be the *net yield* (interest income net of interest expense). A small withholding tax rate on interest may not be credited if the financial institution's profits are just a small fraction of the transaction. For instance, a withholding tax rate of 5% on a bond yield of 10% is equivalent to 0.5 percentage points of the bond's value. Profits on interest-bearing financial assets are often less than 0.5 percentage points of large financial transactions. Thus, only a small part of the withholding tax is credited. Non-credited withholding taxes then become another cost of doing financial business in a country and the financial institutions would need to receive higher interest income to compensate for such withholding taxes imposed by the host country. The net result is to raise the cost of borrowed funds in a jurisdiction, especially impacting on investments.

Thus, many countries exempt or tax at a very low rate interest paid to non-resident financial institutions. However, the exemption does provide an opportunity for borrowers in a country to avoid paying withholding taxes on other forms of interest. For example, many countries levy significant withholding tax on interest paid by a company

to a related foreign company (such as the foreign parent of a subsidiary operating in the host country). To avoid payment of withholding taxes on related-party debt, a subsidiary might borrow from an offshore company that in turn borrows from the parent. Unless back-to-back loan provisions are introduced (which may be difficult to monitor), it is difficult to enforce withholding taxes on interest income.

One final point with respect to withholding taxes is the tax treatment of financial products including financial derivatives. The primary problem is that withholding taxes are often assessed on payments rather than accruals of income.

For example, a zero coupon bond, as discussed above, does not pay interest but compensates lenders with payment in excess of the original principal. One could in principle assess interest on an accrued basis for the owner. But, if the asset is frequently traded in markets (such as government treasury bill), the identity of the owner to which the interest is accrued is not possible to determine for withholding taxes based on payment of receipts. Either such assets must be exempted from withholding tax (as in the case of governments bonds) or the withholding tax must be applied to the recipient of the final payment who might have owned the asset for a short time. In some countries where a withholding tax is applied to zero coupon bonds, such markets have not evolved since foreign purchasers could not pass on the withholding tax to the seller by bidding down the market price of the zero coupon bond.

In general, many financial derivatives such as interest rate and currency swaps are often exempt from withholding tax on the presumption that such assets do not give rise to the payment of receipts.

Value-Added Taxes

Value-added taxes (VAT) are one of the most important commodity taxes faced by financial businesses. Financial activity is also one of the thorniest issues for VAT design.

A theoretical issue raised in recent literature is whether value-added attributed to financial services should be subject to tax (see Whalley [1991], Grubert and Mackie [1999] and Jack [1999])). The argument is that users of financial services are choosing saving portfolios to maximize their risk-adjusted returns. Since, under a consumption tax, the return to savings should not be subject to tax³, then, it is argued that such financial intermediary services should be exempt from taxation. Therefore, financial intermediary services should be “zero-rated” -- no VAT would be assessed on sales and

³ A consumption tax with equal rates of tax on all goods and services would apply the same tax on current and future consumption goods. A saver defers taxable current consumption for taxable future consumption by investing in assets that yield a return for future consumption needs. If the return to saving is subject to tax, a saver not only pays consumption tax twice on the consumption derived from the income earned on savings – the first being the consumption tax applied directly on the goods and services purchased from savings but also the consumption tax applied to the return to savings. Thus, saving should be exempt from tax in order to avoid higher effective tax rates on future consumption.

an input tax credit would be provided for any VAT assessed on supplies used for financial intermediary services.

The above theoretical claim, however, can be dismissed for two reasons. First, as discussed above financial service fees are charged by financial businesses to compensate for the effort expended by financial service providers facilitate the transaction. A person that uses financial services to purchase goods and services is deriving consumption by saving effort and time (Bradford [1996] and Auerbach and Gordon [2002]). Second, households borrow funds from financial intermediaries to finance consumer durables such as housing and automobiles. If the consumer leased assets instead, the lease payment for the use of the consumer durable would be assessed VAT with the cost of the service reflecting financial intermediary costs. If the financial intermediary service were exempt from tax, a component of costs incurred to produce a product would not be subject to tax. Businesses could reduce the VAT charged to consumers by choosing techniques in favour of financial service-intensive production.

The key source of the problem in applying VAT to financial transactions arises from complexity of including such transactions under an invoice-credit VAT. A consumption-based VAT is applied to the sale of invoiced goods and services sold to consumers by a business registered for VAT purposes. Since it is not known by the vendor as to whether the purchaser is a business or a consumer, VAT is applied to all sales (except those going to export or explicitly exempted from VAT by the government). Registered businesses purchasing goods and services subject to VAT can claim an input tax credit for VAT on transacted business inputs. Otherwise, with only a partial input tax credit, or none at all, VAT would be cascaded upon each other resulting in high effective tax rates faced by the consumer.

In order to tax the financial intermediary component as part of VAT similar to other services, the VAT on financial transactions would be designed so that a tax would apply to the value of the financial transaction and an input tax credit could be claimed by registered businesses on financial intermediary sales. Clearly, if a fee is explicitly assessed for a financial service (such as fees for brokerage advice, foreign exchange transactions, etc.), then the VAT could be applied to fee and a business can easily identify the input tax credit on a purchase invoice.

However, here is the nub of the problem. As discussed above, most financial intermediary activity is not explicitly charged by institutions and traders on financial transactions. Instead, financial businesses implicitly charge for intermediary activities by collecting the loan-yield spread as the difference between income from assets and borrowing costs. No explicit price can be identified with a single transaction since one cannot trace borrowed funds to an asset. Only aggregated values can be observed.

In principle, therefore, one could apply VAT to the financial service provider by applying a tax to interest income and loan principal (Institute of Fiscal Studies [1978], Poddar and English [1995]). The financial firm would be able to claim a tax credit for any VAT charged on interest expense and the borrowed principal (if loans and borrowings are

matched the principal would net out leaving the difference in income and interest expense as the “value-added” allowing one to use only income and expense components for the tax base)⁴.

But, for the above system to work, non-financial businesses should also be able to claim a tax credit for any VAT charged on bank loans. In turn, if the non-financial business lends money to others, they should in principle charge VAT on financial sales. Thus, in the end, most financial assets and liabilities held by financial and non-financial businesses would need to be subject to VAT. Financial derivative transactions would also need to be subject to VAT although some netting of transactions as in the case of hedge transactions could simplify some of the calculations.

Two issues are readily apparent from the above discussion.

The first is that the inclusion of most financial assets and liabilities of registered VAT businesses create a significant problem for tax authorities in terms of collection and auditing the VAT base. One could simplify the system by only applying the VAT on financial transactions of financial institutions (especially regulated businesses) with an input tax credit claimed by non-financial businesses for VAT-inclusive transactions from institutions. However, by only assessing transactions of qualifying financial institutions for VAT, competitive issues become important. Financial institutions subject to VAT are put at a disadvantage compared to the non-regulated financial sector. On the other hand, non-financial businesses would prefer borrowing from financial institutions subject to VAT since they can recover the VAT through an input tax credit.

The second issue arises with international financial markets. If VAT is charged on transactions within a country, financial intermediaries could shift the point of sale to foreign jurisdictions where no VAT is charged. Non-registered purchasers of financial services could therefore avoid the VAT by transacting abroad.

For these two reasons, almost all VATs around the world apply VAT only to fees explicitly charged for transactions and registered businesses can claim an input tax credit for any VAT charged on financial fees. However, to avoid escaping VAT altogether, financial service providers are only exempted under a VAT – no input tax credit is given for supplies used in providing non-taxable financial services. The implication is that input supplies used in financial intermediation are subject to VAT. In order to recover the tax on inputs, the financial service provider must charge a higher interest rate on loans to recover the tax. The borrower, including non-financial firms, faces a higher cost of funds from the financial service provider.

One specific issue that sometimes arises is the treatment of financial transactions in the presence of company reorganizations (amalgamations, share-for-share mergers and acquisitions). If such transactions are subject to VAT (being treated as a financial transaction), businesses undertaking reorganization might find that a significant part of

⁴ The system described here is similar to the real plus financial transactions base (R+F) discussed in the Meade report (1978).

their input tax credits may be disallowed if some of the input tax credits on business purchases are attributed to the reorganization (this can happen under a formulary approach to determining input tax credits). To avoid VAT taxes applied to reorganizations, no attribution should be made except for those transactions explicitly involved with the transaction as in the case of a financial trader.

Thus, the VAT applied to financial services distort final consumer prices to the extent that non-financial businesses must rely on financial service inputs and, in turn, must charge consumers higher prices. The VAT can also affect the competitiveness of the financial industry which is quite mobile internationally. Outside of “zero-rating” financial services – that erodes the consumption base – tax authorities are faced with a conundrum that is not easily solved.

Asset-Based Taxes

Some countries impose taxes on company gross assets or liabilities (Canada) or net worth (Mexico, Colombia and Venezuela, for example). In many cases, such taxes operate as minimum taxes in that they are credited against corporate income tax. The asset-based tax may also only apply to financial institutions and not other entities.

If the tax is applied to gross assets, deposit-taking financial institutions are often provided special treatment in that assets net of deposits and other similar financial claims are exempt. A net worth tax usually applies to shareholders’ equity for both financial and non-financial firms.

Asset-based taxes can be avoided by companies in two ways. The first is to for companies to lease assets from non-taxable entities including trusts and partnerships, including those that might operate offshore. The leased asset will then be exempt from the asset-based tax if the entity is not subject to the tax. The second is to “securitize” assets by letting non-taxable entities (either exempt domestic or offshore financial entities) hold the assets with guarantees provided by a financial institution for the payment of a return to owners.

Financial Transaction Taxes

Another form of taxation relevant to financial activity is financial transaction taxes including stamp duties. Financial transaction taxes are assessed as a percentage of the value of a transaction, usually denoted by a contract or bill that indicates that a change of ownership has taken place. The transaction taxes are often assessed on land or real estate transfers, security sales (bonds and equities sold in markets) and sometimes on cheques and other contractual means of payment.

Although financial transaction taxes or stamp duties have been used as a source of revenue for many centuries – often because this was a easy tax base in early years of

development – there is really no strong justification for their application (save for some specific situations discussed below). Financial transactions are not indicative of a person's stock of wealth (that may or may not be traded) or the ability to consume goods and services (such as expenditure or income). At best, the financial transaction tax provides some revenue that would otherwise not be available to a government.

Two specific issues are involved with financial transactions taxes. The first is that financial transaction taxes are paid only when a transaction takes place. Frequently-traded transactions are therefore subject to greater tax than those transactions that are only infrequently done. Thus, trading in bond and stock markets generate more tax revenue than would trading of private company shares among family members. The result is to tax more highly publicly-held securities. Thus, similar to capital gains taxes applied on a realized basis, financial transaction taxes encourage taxpayers to hold assets for longer periods to avoid the tax (the so-called “lock-in” effect).

The second is that the financial transactions taxes may be avoided if there is a non-taxable payment that could be used to substitute for a taxable one. For example, cash transactions will be used to substitute for cheques subject to a financial transaction tax. Investors might buy and sell securities in offshore markets where no financial transaction tax applies. For example, a financial transaction tax in Sweden reduced local trading of bonds by 85 percent and trading of futures of bonds and bills by 98 percent in one week (Campbell and Froot [1994]).

A financial transaction on foreign currency trades has been suggested by James Tobin [1974] as a means of enhancing economic stability and performance (“putting some sand in the wheels of foreign exchange markets” (Greenaway [1995])). The Tobin tax has been proposed as a means of curbing speculative short-term activity in foreign exchange markets so that the foreign exchange rate would be less sensitive to differences in national interest rates levels. However, to the extent that currency prices reflect a market's perception of anticipated changes to an economy, periodic adjustment in prices can forestall large abrupt shifts in prices that could have adverse effects on the economy. Speculation could also improve the liquidity of financial markets for a country if investors are better able to hedge and swap currencies.

Financial transaction taxes are still quite common in many countries for real estate transactions. The tax is less easily avoided since the transaction can only happen in a jurisdiction with the property. However, the tax will result in a “lock-in effect” as mentioned above since property is held for longer periods to defer payment of the tax. Some stamp duties remain for stocks and bonds in financial markets (Hong Kong and the United Kingdom) although both countries have been reducing their reliance on such taxes in order to maintain the competitiveness of their capital markets.

Insurance Taxation

As discussed above, insurance is provided to mitigate the cost of unexpected losses for insurees as well as provide a means of savings for retirement purposes (life insurance).

Under the personal income tax, the tax treatment of insurance could be dealt with in two ways. In the case of property and casualty insurance, the first approach would be tax the benefits received but allow a deduction for insurance premiums. Alternatively, benefits could be exempt with no deduction provided for premium payments. Since premiums are often more than the expected benefits paid out (to cover transaction costs), most countries will simply ignore the property and casualty insurance transactions for personal income tax purposes.

With respect to life insurance, however, personal tax treatment is more complicated. If, for example, death benefits are non-taxable and premiums are not deductible from the tax base, then it would still be appropriate to tax the built-up investment income earned through an insurance plan when paid out as retirement benefits to the insured. This requires an identification of benefits associated with the investment income, not the return of principal or coverage of liability at risk. As this approach to insurance-related investment income is not easy to accomplish, it is left to the company tax to ensure that such income is subject to tax.

As discussed above, under the company income tax, it is appropriate to provide the insurance company a deduction for reserves held to cover the payment of benefits to insureds. However, to the extent reserves are invested to provide income at retirement, then income tax should be applied on built-up income earned by insurance company. Segregating reserves into those covering contingencies and investment income is an impossible task. Therefore, some countries have imposed a special insurance tax on income earned by holding reserves, the income determined by an interest rate applied to the value of reserves.

An alternative approach to taxing insurance is to simply apply a special tax to insurance premiums (this is widely done in many countries including Europe and North America). However, the insurance premium tax is simply a sales tax and is not at all linked to the investment income earned by companies.

Value-added taxes have been applied to insurance companies. The sales are the insurance premiums which are the payments made by insureds to cover risks. However, the true cost of insurance for an insured risk is premiums. This would imply, therefore, that VAT should be charged on premiums.

Economic Impact of Taxing Financial Activity

As argued above, financial activity is often subject to a special tax regime because of the nature of its business. However, politicians find it easy to levy taxes of banks and other large financial institutions simply because lenders of capital are often viewed as powerful players in the economy. And, to the extent that financial activity is difficult to tax, politicians would find it difficult to exempt financial institutions from taxation altogether.

Income taxes are perhaps most difficult to apply to financial institutions since financial business activity is not simple to measure on a source basis, especially taking into account financial products that have become complicated and widespread. The VAT systems exempt financial transactions but this exemption results in the non-recovery of VAT levied on goods and services purchased by financial firms thereby resulting in some cascading of VAT as non-financial businesses bear a higher cost for finance in producing taxable goods and services sold to consumers. Governments will often levy specific taxes on financial institutions including insurance premium taxes and financial transaction taxes simply in order to raise revenue from the financial sector.

How can one best evaluate the appropriate level of taxes on financial activity? Assuming a given level of taxes to be raised by governments, taxes are best evaluated in terms of their impact on allocative efficiency (the impact of taxes on the allocation of resources in the economy) and equity (horizontal equity -- equal treatment of equals -- and vertical equity -- differential treatment of taxpayers according to ability to pay taxes), as discussed above.

In principle, to the extent that taxes on financial income are avoided, then alternative taxes might be appropriate to consider rather than levy higher rates of tax on other existing bases. However, in some cases, an evaluation would need to be made about the impact of taxes on financial activity relative to other business activities. There are no simple answers to these questions until a specific analysis is considered. Further, given the mobility of the tax base, one would have to evaluate taxes on financial activity relative to other neighboring jurisdictions (See Mintz and Richardson [2001] who compared taxes as a percentage of the cost of doing business for financial activity in various Southeast Asian countries).

The equity issues are particularly important to understand. Financial businesses, like any other businesses, do not bear taxes -- instead, consumers (through prices), workers (through wages) and shareholders bear taxes. Since financial businesses often operate internationally, taxes levied on them are less likely to fall on shareholders. Instead, they tend to fall on consumers of financial products (households and non-financial businesses) or possibly workers. When taxes on financial institutions often fall on consumers, the distributive impact of these taxes will depend on the consumption of financial services relative to income of the taxpayer. If the proportion of consumption services rises (falls) with income, the tax is progressive (regressive). Some financial services, such as facilitating the payment of transactions is likely borne more heavily by the poor, while others, such as the trading of stock, are borne more by the wealthy. Taking into account the mobility of the tax base, it is difficult a priori to determine the incidence of financial-related taxes on the economy.

Thus, many policies adopted for taxing financial businesses result from attempts to apply income and consumption taxes more generally in the economy. Given the complexities involved -- as discussed in detail above -- at best taxing authorities must muddle through. Policies should be aimed to minimize distortions in the economy that arise from the application of taxes.

Conclusions

Taxation of financial activity is one of the specialized areas of tax policy. Difficulties arise with the identification of financial income under the income tax, especially with the development of specialized financial products. Further, financial income is in part a return to savers holding financial assets and a return to effort for traders choosing the best investments. Both income and VAT law have often separated those primarily engaged in financial trading from those who simply hold property in order to reduce complexity and economic inefficiencies.

However, by drawing lines between traders and other engaged in financial transactions, anomalies are bound to arise in which some forms of income may be fully taxed while other forms of income are partially taxed. Taxpayers facing different tax treatments of assets and liabilities will exploit differences in effective tax rates. Thus, income and VAT taxes will have some distortionary impact on financial markets. No satisfactory solution can be found except, perhaps, to limit distortions as best as possible.

References

- Auerbach, Alan [1991], "Retrospective Capital Gains Taxation", *American Economic Review*, 81(1), March, 167-78.
- Auerbach, Alan and Roger Gordon [2002], "Taxation of Financial Services under a VAT", *American Economic Review*, 92(3), May, 411-416.
- Bradford, David [1996], "Treatment of Financial Services Under Income and Consumption Taxes", in *Economic Effects of Fundamental Tax Reform*, edited by Henry Aaron and William Gale, Brookings Institution, Washington D. C.
- Brean, Don [1983], *International Issues in Taxation: The Canadian Perspective*, Canadian Tax Foundation, Toronto.
- Campbell, John and Kenneth Froot [1994], "International Experiences with Securities Transaction Taxes", in *The Internationalization of Equity Markets*, edited by Jeffrey Frankel, University of Chicago Press, Chicago, 277-308.
- Dobson, Wendy and Pierre Jacquet [1998], *Financial Services Liberalization in the WTO*, Institute for International Economics, Washington, D.C.
- English, Morley and Satya Poddar [1995], "Taxation of Financial Services under a VAT: Applying the Cash Flow Approach", mimeograph.
- Gammie, Malcolm [2003], "The Role of the European Court of Justice in the Development of Direct Taxation in the European Union", *Bulletin for International Fiscal Documentation*, 57(3), 86-98.
- Greenway, David [1995], "Policy Forum: Sand in the Wheels of International Finance", *Economic Journal*, 105, 428, 160-61.
- Grubert, Harry and James Mackie [1999], "Must Financial Services be Taxed Under a Consumption Tax?", *National Tax Journal*, 53(1), March, 23-40.
- Huizinga, Harry [1994], "International Interest Withholding Taxation: Prospect for a Common European Policy", *International Tax and Public Finance*, 277-91.
- Institute for Fiscal Studies (Meade Report) [1978], *The Structure and Reform of Direct Taxation*, George Allen and Unwin London.
- Jack, William [199], "The Treatment of Financial Services under a Broad-Based Consumption Tax", *National Tax Journal*, 53(4), Part 1, December, 841-51.

Mintz, Jack and Stephen Richardson [2002], “Taxation of Financial Intermediation in Hong Kong”, *Tax Notes International*, 25 (7), February 18, Washington, D. C., 771-796.

Technical Committee on Business Taxation [1998], *Report*, Department of Finance, Ottawa, Canada.

Tobin, James [1994], *The New Economics One Decade Older*, Princeton University Press, Princeton, New Jersey.

Whalley, John [1991], “Taxation and the Services Sector”, in *Taxation to 2000 and Beyond*, edited by Richard Bird and Jack Mintz, Canadian Tax Paper 93, Canadian Tax Foundation, Toronto.