"TAX-DRIVEN REGULATORY DRAG: EUROPEAN FINANCIAL CENTERS IN THE 1990's"

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I. Introduction

The competitive dynamics of financial markets over the past quarter century has been affected by three powerful forces -- product innovation, process innovation and technological change.[1/] **Product innovation** encompasses several dimensions -- new financial products (e.g., caps, futures, options, swaps) along with the ability to replicate certain products by bundling existing products (synthetic securities) or to highlight only a single financial attribute by unbundling an existing product. **Process innovation** encompasses contract design (e.g., cash settlement futures contracts), methods of settlement and trading (e.g., the Chicago Mercantile Exchange link with the Singapore International Monetary Exchange, or the London Stock Exchange's SEAQ system of automated stock price quotations), methods for efficient margin calculation, methods of contract pricing (e.g., the Black-Scholes option pricing model and the delta-hedging technique for risk management), passive or index-based portfolio investment techniques, along with a range of other innovations. **Technological change**, primarily in telecommunications and information processing, has greatly facilitated the drive to create and broaden the market for such product and process innovations.

The growth of automated trading systems provides an appropriate example. In December 1989 the London International Financial Futures Exchange (LIFFE) inaugurated the Automated Pit Trading (APT) system to simulate electronically the dynamics of an open-outcry market. Beginning with Euromark futures contracts and capable of processing about 100 transactions per second, the

APT system is intended to extend the trading day and make the LIFFE accessible to a much wider range of international users. Besides actual trading, the APT system can receive and route orders, clear transactions, handle order-processing, and monitor compliance. In many ways it is similar to another system (Aurora), under development by the Chicago Board of Trade. Meanwhile, the Chicago Mercantile Exchange is completing work on Globex -- an order-matching system which will list the products of various exchanges around the world when the floors of those exchanges are closed.

The end result of these forces is that communications costs and financial transaction costs are lower and capital mobility higher than at any time in living memory. Both financial firms and the users of financial services can access a broad range of location choices -- including an array of foreign or offshore operations. This is certainly true at the wholesale end of the industry, and it is becoming more true at the retail end as well through the origination and distribution of asset-backed securities as well as unit trusts or mutual funds. Under such conditions, we will argue that it is becoming less feasible for a state or a nation to impose financial market regulations or costs that stand very far apart from world norms.

The overall cost of financial regulation and taxation of capital market activities -- what we define as the Net Regulatory Burden (NRB) -- will become increasingly important as EC financial liberalization is implemented in 1990, as the 1992-related initiatives in the real sector take hold, and as

governments increasingly recognize the real costs of inefficient domestic financial markets. The magnitude and dispersion of these Net Regulatory Burdens across countries will be influenced as well by rapid growth in institutionalized savings throughout Europe, particularly funded pension programs, that will of necessity be far more performance-oriented than individual savers have been in the past.

In Section II of the paper, we outline the conceptual reasoning underlying the competitive dynamics of financial markets in an open economy. In particular, we review how competitive forces affect both users and suppliers of financial services, as well as how they affect regulators. In Section III, we consider securities taxation in Europe, specifically taxation bearing directly on the investor and taxation bearing on primary- and secondary-market transactions. We assess the incidence of tax rates across the EC countries and Switzerland and conclude that tax-related costs imposed on securities activities in Germany and Switzerland have generally been high relative to competitive financial centers. These costs have constituted a regulatory "drag" for both of these countries that may have inflicted significant and possibly long-lasting damage on their role as competitive locations for securities and other financial transactions. This is an important conclusion given the heightened level of global financial competition, but especially as Europe faces still fewer restrictions on capital mobility in the 1990s. Section IV concludes with a review and outlook for the future.

II. Dynamics of Financial Market Regulation in an Open Economy

A. Financial Market Participants and Competitive Behavior

In order to analyze the dynamic effects of regulation on financial markets (and vice versa), it is convenient to consider three sets of market participants: (1) individuals and institutions that demand financial services, (2) firms that supply financial services, and (3) regulatory bodies that set the rules and monitor various aspects of financial transactions. Beginning around the turn of the century, a complex set of regulations has evolved to circumscribe the activities on both the demand and supply sides of financial transactions. These regulations can entail both costs and benefits for users as well as suppliers of financial services.

Looking first at the demand side, individuals will benefit to the extent that regulations act to reduce the negative externalities associated with a fully competitive banking and financial system, or to the extent that regulations provide a subsidy to the consumer of financial services. Financial markets are often characterized by imperfect information, which is of particular interest to the small investor, who gains to the extent that regulators produce increased information. However, regulations that restrict the menu of financial products, raise transaction costs, or otherwise reduce financial efficiency or mobility will reduce individual welfare.

Considering next institutions that supply financial services, a given regulatory regime bestows both benefits and costs on individual financial-services firms. Regulations that (1) assure

the stability and orderliness of the financial system over time and promote public confidence in financial institutions, (2) restrict entry into the industry and monitor anti-competitive pricing arrangements, (3) provide ancillary services -- such as deposit insurance or wire transfers -- at below private cost and other transaction-cost-savings measures, all benefit private firms. Regulations may also result in revenue losses from (1) foregone interest on required reserves, (2) foregone earnings on high capital requirements, (3) cost of regulatory information and compliance, and (4) foregone revenues from limitations on geographic activity or product offerings, as well as explicit charges. The difference between these costs and benefits defines the Net Regulatory Burden (NRB) placed upon private firms.[2/]

In an individual, closed economy with a lone regulatory body, competition will spark a dynamic interplay between demanders and suppliers of financial services, much as in any market situation. Users of financial services will vote with their feet, seeking similar or superior services if justified by cost and risk considerations. Private firms will seek to reduce their NRB and increase their profitability. If they can do so at low cost, financial firms will actively seek product innovations and new venues that (legally) avoid cumbersome regulations.

However, the familiar story of competitive equilibrium must be extended in two directions: First, to include the case of multiple and sometimes overlapping domestic regulatory bodies, and second, to the case of many countries, with many suppliers of financial services and many regulatory bodies.

A single economy may have multiple regulatory bodies at the

national level, complemented by a host of other regulatory groups at the state and local levels in countries organized politically along federal lines. In the case of the United States, at the Federal level financial activities could fall under the domain of the Federal Reserve Board, the Comptroller on the Currency, the Securities and Exchange Commission, and the Commodity Futures Trading Commission, to name only the major regulatory agencies. Each of the fifty States has its own regulatory bodies to deal with banking and insurance. Every city and municipality has an agency responsible for local income taxes, real estate taxes, transfer taxes, stamp duties, and so on, all of which affect the NRB falling on financial institutions. In practice, the situation is complicated still further by ambiguity regarding the definition of a "bank," a "security," an "exchange," and so forth -- which may blur the categorization of a financial service as well as raising questions about which regulatory agency holds jurisdiction.

In a provocative article, Edward Kane has argued that regulation itself may be thought of in a market context. Via a political process, regulatory bodies may be established along geographic, product, or functional lines.[3/] These regulators then compete with one another to extend the reach of their regulatory domains. Domestic financial firms understand this competition, which widens their scope for reducing the NRB, and for enhancing their market share or profitability. In this game-theoretic setting, domestic regulators are likely to respond to private initiatives with reregulations in an effort to recover part of

their lost regulatory domain.

In the open, international economy with many governments and many regulatory authorities, we find a still more fertile ground for firms to reduce their NRB. National regulatory authorities may compete among themselves on the basis of NRB to preserve or reclaim their regulatory domain. Again, private firms benefit from such international competition, especially if financial innovation and technological change allows them to operate successfully at a distance from their home bases. Users of financial services also benefit to the extent that competition forces financial firms to pass-through to them the lower NRB. An important question (discussed below) is whether society as a whole gains or loses as a result of the lower world-wide NRB brought about by regulatory competition.

B. Competition Among Regulators and Contestable Markets

Compliance with regulations in onshore financial markets creates opportunities to develop a parallel, offshore market for the delivery of similar services. Barriers must exist to keep all activity from migrating offshore. In this case, political risk and minimum transaction size temper the flow of deposits and investments offshore, while size and and credit quality perform a similar role for borrowers. In addition to the narrow provision of bank deposits and loans, offshore markets can be used to replicate a variety of non-bank, financial instruments (e.g., long-term forward contracts, short-term commercial paper, long-term bonds, Eurocurrency interest rate futures, and the like), many of which may also be regulated by onshore financial

authorities. Consequently, offshore markets raise a general competitive threat to onshore financial services activities.

The rise of offshore markets underscores the fact that market participants face a range of alternatives for executing transactions in any of several financial centers. Consequently, if domestic regulators desire to have the transactions conducted within their respective financial centers -- driven by the regulators' desire to maintain an adequate level of prudential regulation, to sustain their revenues from the taxation of financial services, to support employment and output in the financial services industry and linked economic sectors, or simply to maximize their regulatory domain -- the regulatory requirements cannot be set arbitrarily.

Indeed, as Kane has argued, domestic financial regulations are determined competitively and endogenously after taking account of regulations (both present and prospective) in other financial centers. The essence of his analysis is that the market for suppliers of financial regulation is highly competitive. As such, the movement to liberalize regulations affecting financial institutions is not the result of a sudden outpouring of laissez-faire behavior, but rather the result of an endogenous process as national regulators vie for market share. The market for financial regulation is contestable in the sense that other national regulatory bodies offer (or threaten to offer) rules that may be more favorable than those of the domestic regulator. This actual or threatened competition serves to constrain the actions of financial regulators and tax authorities.

This view results in what has been referred to as a

"regulatory dialectic" -- a dynamic interaction between the regulator and the regulated, where there is continuous action and reaction by all parties. The players in this game-theoretic setting may behave aggressively or defensively. To the extent that the parties behave adaptively, even if underlying factors (such as communications technology and the level of financial transactions, for example) remain constant, it is likely to require considerable time for an equilibrium regulatory structure to emerge.

In a changing environment, players will adapt with varying speed and degrees of freedom. Kane (1987, p. 115) summarizes the "average adaptive efficiencies" of various players as follows:

(1) Less-regulated players move faster and more freely than more tightly regulated ones;

(2) Private players move faster and more freely than governmental ones;

(3) Regulated players move faster and more freely than regulators;

(4) International regulatory bodies move more slowly and less freely than all other players.

Given this ordering of adaptive efficiencies, we expect that the lag between a regulation and its avoidance is on average shorter than the lag between avoidance and <u>re</u>regulation. The lag in re-regulation may be shorter for industry-based, self-regulatory groups than for governments. It may be longest when international regulatory efforts are involved. Appreciation of this likelihood seems to have affected the style of tax and regulatory harmonization that the EC has adopted.[4/]

C. Net Regulatory Burden and Structural Arbitrage

Private firms thus monitor their NRB and transfer activities into another regulatory regime when, ceteris paribus, their NRB can be reduced. In a perfect capital market with no entry or exit costs, no transaction costs, no barriers between countries, and no sovereign risk, we would predict that all banking and securities activities will migrate to the country with the lowest NRB, inclusive of taxes. In the real world, a variety of imperfections exist that permit some dispersion of NRB across countries. For example, when transaction costs and information costs are positive, firms will need to be located in those countries where they intend to sell financial services. Nevertheless, this dispersion among NRB_i cannot be too great, otherwise private firms will have an incentive to relocate their activities. Entry and exit costs, currency conversion costs, and distance-related delivery costs, plus uncertainties surrounding these costs and other control measures, act as effective barriers to complete NRB equalization across countries. Technological change that has markedly lowered communications and information processing costs, combined with the rapid growth of international financial transactions has cut the gap in NRB needed to induce arbitrage.

In a similar fashion, regulators have also become more willing to compete on the basis of NRB. The regulator must insure that his regulatory revenues (when combined with supplementary budgetary support that comes willingly from informed taxpayers) are sufficient to produce a given set of regulatory services. If this condition is not met, the regulatory burden is not

sustainable, and re-regulation will force it back into line. However, if the regulator is generating more than enough revenues to cover his costs, he needs to be concerned that private firms will migrate to lower NRB regions unless the associated transactions costs and information costs exceed the tax savings and/or regulatory savings. In this case, the regulator could either lower his NRB or impose taxes and controls to stop the migration of financial activity.

Since taxes and controls are easily avoided, the policymaker is likely to alter his NRB. The question is therefore: "What is the long-run, equilibrium, sustainable value of the net regulatory burden (NRB^*)?"

A somewhat separate, but related, question involves social welfare and whether a reduction in the NRB that shifts the fiscal burden from financial market participants to other segments of society serves general welfare optimization goals. Our point is simply that, as any factor of production or economic activity gains mobility, it becomes increasingly difficult to subject it to tax. Of necessity, the fiscal burden will be redistributed onto less mobile factors or activities.

D. Implications for Regulatory Coordination [5/]

Even within a single economy, the optimal design of financial regulation is a complex matter. Continuing to think of regulation as a net tax from the perspective of financial market participants, the issue we wish to consider is whether a government will necessarily be able to collect a tax that is considered by those taxed as "excessive."

Regulations impose costs that, in part, will be transferred to clients. Costly regulations create incentives for financial firms to innovate in order to reduce their costs and capture a larger market share. Money market mutual funds and off-balance sheet financing techniques are two well-known domestic examples that exist in a number of countries. The greater the regulatory costs, the greater is the incentive to innovate or to avoid the domestic financial system. In the United States, for example, the 1,200 mile shift of Citibank's credit card operations from New York to South Dakota (in part, to escape New York's usury ceilings) illustrates this kind of mobility within federal states. The limiting case might be found in a country experiencing hyperinflation, in which case residents may shift into commodities as the medium of exchange or avoid domestic financial institutions altogether.

In the international setting, the scope for governments to collect excessive regulatory taxes is reduced because there is greater competition among national regulatory environments. Each domestic financial center faces competition from foreign and offshore financial centers. As transactions costs and information costs decline, the cost of using an offshore financial center declines as well. The development of offshore currency and bond markets in the 1960s represents a case in which borrowers and lenders found that they could carry out the requisite market transactions more efficiently and with sufficient safety by operating offshore -- in a parallel market. Capital flight from LDCs is an extreme example of residents escaping the local

inflationary tax or fleeing from low or highly variable real rates of return. While the capital flight example appears extreme, Michael Dooley has argued that under some definitions the shift by Americans of $250 billion from domestic to Eurocurrency accounts in 1980-82 could equally be interpreted as capital flight.[6/]

In the past, policymakers have often set financial regulations as if no international feedback effects would occur. The obvious point is that in today's world, communications costs are low and capital mobility is high, so that it is becoming less feasible for a state or a nation to impose a NRB that stands too far apart from world norms. In the 1970s and 1980s, U.S. and European financial institutions have moved a large part of their operations offshore, suggesting that they judged the cost of domestic financial regulations to be excessive. If we assume that transaction costs, information costs and communication costs continue to decline, would it follow that the NRB* on financial institutions is zero -- i.e., that a financial institution would migrate rather than pay any positive regulatory tax?

In our judgement, a long-run equilibrium can be maintained with a positive NRB. Financial transactions involve uncertainty -- about the monetary unit of account, about the creditworthiness of the financial institutions and other counterparties, and about the political stability of the financial center. Financial institutions ought to value their access to lender of last resort facilities, the opportunity to be headquartered in a stable political climate, and the like. Indeed, we observe that those markets which are largely unregulated, with a NRB approaching

zero, have not in fact completely dominated financial transactions subject to location-shifting, such as the Eurocurrency markets. If financial institutions find it in their interest to pay some regulatory tax, the economic question then concerns the sustainable magnitude of this tax.

It is evident that NRB will be an important determinant of the location of financial activities in the Europe of the 1990s. Competition between London, Luxembourg, Zurich, Paris, Frankfurt and Amsterdam in particular has intensified, and there is active debate regarding future concentration or dispersion of financial transactions based on market depth, liquidity, efficiency, client location, and other factors. The conventional wisdom is that the size, openness of markets, trading activity, sophistication of institutional investors, quality of research, transaction services, and innovative thinking that have traditionally characterized London will be subject to challenge in specific areas by various continental financial centers, with significant implications for local employment and other real-sector considerations.

The volume of transactions potentially subject to differentials in NRB is impressive. Table 1 shows new issues of debt and equity securities exceeding $1 trillion in the United States, Europe and Japan in 1987. While no consistent data exist on trading in fixed-income securities in the various domestic and offshore markets, Table 2 indicates trading volume in equities in various countries as a percentage of global trading activity. These figures show the sharp decline of U.S. market share from

over 60% in 1982 to only 25% in 1988, and a similar sharp decline in Switzerland. Japan's share of world trading volume more than doubled from 16% to 42% while Germany and Taiwan each gained five percentage points.

INSERT TABLES 1 AND 2 ABOUT HERE

III. Securities Taxation in Europe

Taxation of investment income and securities transactions may well represent a significant component of the NRB with respect to the evolution of financial systems in an international competitive environment. This issue comes to the surface especially when other (non-tax) distortions of competitive conditions are eliminated, as is true in the European context with respect to the EC 1992 initiatives. Differences in securities taxation among financial centers can involve (1) levies placed on financial assets themselves, (2) interest and dividend income, (3) capital gains and losses, and (4) securities transfer (stamp) taxes. In the European environment, where Luxembourg has often been considered the logical tax base for securities activity, taxation differences will certainly affect where securities transactions are executed and settled, where securities are issued and held, and where investment funds are managed. We focus our attention first on investment income taxation followed by transfer taxes.

A. Investment Income Taxation

Tax rates applied to investment income have differed widely among EC member countries. In 1988, for example, France applied

up to 45% in personal income tax on interest receipts and a 25% withholding tax on dividend income, while Luxembourg imposed a 15% resident tax on stock dividends and no taxes at all on bond and bank interest receipts. Withholding tax rates for 1988 on dividend and interest income applied to non-residents in each EC member country and Switzerland are given in Table 3.

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Investment income taxation becomes particularly important in the light of liberalization of European transactions in mutual funds. The EC directive governing the operation and sale of mutual funds -- Undertakings for the Collective Investment of Transferable Securities (UCITS) -- was the first set of conduct of business rules on investments to go into effect. The UCITS directive, which came into force on 1 October 1989 after 15 years of negotiation, specifies general rules for the kinds of investments that are appropriate for mutual funds and how they should be sold. The regulatory requirements for fund management and certification are left to the home country of the firm, while specific rules for adequacy of disclosure and selling practices are left to the respective host countries.

Consequently, funds duly established and monitored in any EC member country such as Luxembourg -- and that are in compliance with UCITS -- can be sold to investors in local markets Community-wide, and promoted and advertised through local selling networks and direct mail, as long as selling requirements applicable in each country are met. This includes high-

performance "synthetic" funds, based on futures and options, not permitted in some financial centers such as London. Under UCITS, 90% of assets must be invested in publicly traded companies, no more that 5% of the outstanding stock of any company may be owned, and there are limits on investment funds' borrowing rights. Real estate funds, commodity funds and money market funds are excluded.

In the light of free intra-EC capital mobility and the UCITS initiative, a decision on narrowing or eliminating intra-EC differentials in taxation of capital earnings has been of great interest to such high-tax countries as Denmark and France, which vigorously advocated full harmonization of national taxes on interest, including imposition of a common withholding tax. The United Kingdom just as vigorously resisted direct tax harmonization on the grounds that it would represent a step in the direction of monetary unification and fiscal integration, and was probably unnecessary in preventing serious tax evasion.[7/] The U.K. also resisted threats to the Eurobond market, where bearer securities offer potentially tax-free income to investors.

The withholding tax issue was also related to the sensitive question of financial confidentiality, where both Luxembourg and Switzerland have high stakes, although serious controversy surrounding common policies on financial oversight in the OECD suggested limited progress could be made in this area as well.[8/]

In February 1989 the European Commission formally proposed a minimum 15% withholding tax (administered at source) on interest income of investments (bonds and bank deposits) by Community residents in other EC countries. Euro-securities and non-EC

residents were exempted from the withholding tax proposal. Also exempted were savings accounts of young people and small savers that were already exempt from taxation in a number of EC countries, although member states would be free to impose withholding taxes above the 15% floor. Governments could exempt interest income subject to withholding at source from declaration for tax purposes. Also exempted were countries that already apply equal or higher withholding taxes on interest income. Additional aspects of the proposal concerned cooperation in enforcement and exchange of information among EC fiscal authorities. Dividends were omitted from the proposals because they are generally less heavily taxed by EC member countries and because national income tax systems were thought to capture this type of income relatively effectively.[9/]

Supporters of abolishing investment income tax differences within the EC argued that tax harmonization was essential if a common capital market was not to lead to widespread tax evasion after the final removal of intra-EC capital restrictions on July 1, 1990. The effort was led by France, together with Belgium, Italy and Spain. All four countries argued that absence of tax harmonization would weaken their currencies in relation to those of other EC members. All four have tax collection systems that are relatively weak in other respects.

Opponents, mainly the United Kingdom and Luxembourg as well as the Netherlands, argued that tax harmonization is both unnecessary and harmful to the functioning of efficient capital markets, and that substantial investments would subsequently flow

outside the EC, especially to Switzerland and Caribbean tax havens. Indeed, they argued that the proposal failed to recognize that Europe is part of a global capital market and that EC securities returns might have to be raised to levels providing equivalent after-tax returns in order to prevent capital outflows from becoming a serious problem. The United Kingdom was also concerned about the special role of the Isle of Man and the Channel Islands (which are "semi-detached" from the EC) and their treatment in the withholding tax initiative.

Any single EC country has the power to veto the EC withholding tax initiative. In this case, attention focused on the United Kingdom and Luxembourg. According to Jacques Delors, President of the EC Commission, "If Luxembourg does not agree, it will have to choose between that and its European calling. Everyone has to make sacrifices and concessions for each other."[10/] Nevertheless, in a subsequent meeting of EC finance ministers every country other than France raised specific objections to the plan -- ranging from British and Luxembourg objections in principle to German objections to the proposed 15% rate, which was felt to be excessive, as well as the implied erosion of banking confidentiality.

After two years of intense debate on the issue, the 15% EC withholding tax proposal collapsed in mid-1989 as the Germans withdrew their support of the Commission's initiative and joined the opposition. Nevertheless, there was little doubt that the proposal for a uniform tax on capital income and closer cooperation between EC tax authorities would eventually be revived -- although harmonization of withholding tax rates and

collection methods remained constrained by the possibility of capital flight to low-tax environments outside the EC.

In 1988, Germany unilaterally introduced a 10% withholding tax on interest and dividend income in what became an embarrassing demonstration that such taxes can provoke immediate and massive capital flight. Overall, Bundesbank estimates show a total long-term capital outflow of $ 42.8 billion during 1988, while the 10% withholding tax was being discussed. An estimated $10.7 billion of German investment funds flowed into the Luxembourg bond market following the announcement that the tax was to be effective January 1, 1989. Investor reactions to the German tax bid up the price of Euro-DM issues and depressing yields to the point where in early 1989 it was cheaper for PepsiCo to borrow in DM than it was for the German federal government to do so on the domestic market. The German authorities were subsequently induced to allow "coupon washing" -- permitting investors to sell bonds immediately prior to the interest payment date and buy them back immediately afterward in order to escape the tax -- by shifting the coupon payments to tax-exempt investors.[11/] On April 27, the German authorities announced that the withholding tax would be abolished on July 1, 1989.

Two financial centers (Luxembourg and Switzerland) are particularly sensitive to the issue of investment income taxation in terms of its impact on their competitive positioning in financial services.[12/] We review their cases in more detail.

Luxembourg has for many years focused on building up investment funds and private banking business as a way of further developing the financial services industry -- employing 8% of the work force and accounting for 20% of GNP in 1988 -- based on strict secrecy, low costs, central location, multilingual capabilities, professional funds management, regulatory stability and favorable tax environment. As of 1989, Luxembourg had some 160 registered banks (compared with 37 in 1970 and 143 at the end of 1988) and over 660 approved mutual funds and unit trusts (compared with 75 in 1981), half of which are approved to market their services throughout the EC. UCITS investment funds are not subject to any income tax, and are only subject to a registration tax of LFr 50,000 plus an annual fiscal charge of 0.06% of the net assets invested. Luxembourg is an attractive base for UCITS also because tax treatment of investment companies is based only on the underlying securities and funds may be open-ended, as is the case in the Channel Islands. There is no withholding tax on fund distributions and no value added tax on gold transactions.

Luxembourg's drawbacks include high labor costs, and concerns over the adequacy of the operations infrastructure and financial supervision. Suspicions of money laundering through Luxembourg financial institutions were countered in 1989 with strict legislation that includes significant criminal penalties. The Luxembourg view is that taxation is a matter for the country of residence of the asset-holder, and the authorities will not respond to enforcement requests except in criminal cases.

Switzerland levies withholding taxes, payable on interest and dividend income, set at a high 35% level. However, this exerts

virtually no drag on Swiss financial markets since the withholding tax is waived for foreign bond issues and fiduciary account holders. Switzerland thus remains a withholding tax-free environment for the bulk of international business transactions and could have benefitted from the attempt to impose a uniform 15% withholding tax throughout the EC. The defeat of the proposal confirmed that the London-based Euromarket and Luxembourg's status as a European financial center would not in fact be taxed out of existence and driven to Switzerland.

B. Securities Transfer Taxes

As deregulation and competitive forces push their way through Europe against the backdrop of the 1992 reforms and an increasingly performance-oriented market for investments, movement towards linking national markets into a common, intra-European securities market can be expected.[13/] This increases the sensitivity of securities activities to even small inter-country NRB differences in the form of transactions taxes.

In the absence of a high NRB through such taxes, London has already begun to function as an intra-European trading center. In French stocks, for example, London secondary market trading in 1988 accounted for the equivalent of about 20 percent of the daily volume on the Paris Bourse.[14/] In this respect, London has several advantages in addition to the absence of transactions taxes. It is the home not only of the Euromarket (Eurocurrency deposits, Euroloans, Euronotes, Eurocommercial paper, and Eurobonds) and many large, globalized institutional investors, but also of the SEAQ system and a related (but different) system,

International SEAQ, for the trading of equity shares attractive to international investors.

Efforts by French and Dutch securities firms to become part of the SEAQ system have met strong resistance from London. There is every reason to believe, however, that the system will ultimately be expanded further to include the principal stocks from all of the major European financial centers. Many of these stocks are already traded on International SEAQ. Incorporating broker/dealers from other countries into the system would not be technically difficult. For many European stocks (and virtually all international bonds) the market linkages are already in place. The technology and the know-how for a major market expansion exists, has been debugged, and is relatively easy to install.

If markets are to be made abroad in the internationally popular stocks of a country, it seems reasonable for that country to take steps to recapture a substantial proportion of that business. Expanding an existing intra-European SEAQ system to include national market makers not only in the stocks that the foreigners want to buy, but also in the foreign stocks that national investors wish to purchase, would seem a practical way to begin the process or forming an active pan-European equity market.

The United Kingdom, for its part, has tried to hang on to its historic role as the wholesale financial center for Europe and the home of the offshore markets in its time-zone. After twenty-five years of activity, the London-based Euromarket

continues to be the single most important market for new issues and secondary market trading of fixed income securities. Its creation and rapid growth was in large part driven by NRB-related considerations, both U.S. and European. But in the process, it has become by far the most technically developed market in Europe. The United Kingdom levies a stamp tax of 0.5% on most domestic equity trades, but none on trades in foreign-registered securities.

In equities as in debt securities, a necessary condition in a recapture scenario by the continental European financial centers is the creation of a level playing field with respect to securities transfer taxes, which are levied by neither London nor Luxembourg, yet have been applied by all four of the remaining principal financial centers -- Germany, Switzerland, Holland and France. Whether the abolition of securities transfer taxes will be sufficient to enable a recapture of business is problematic, given the head start enjoyed by London and Luxembourg.

France. The emergence of Paris, formerly one of the most regulated financial markets in Europe, as an international financial center is a notable additional pressure on other European financial centers to reduce fiscal drag on their markets. France has made significant efforts to increase its attractiveness, including liberalization of exchange controls, opening-up the Paris Bourse, major investments in market-making and efficient securities settlement, privatizations in the financial sector, new markets for options and futures -- with some 168 foreign-based banks (second only to London and New York) -- and a clear aim to be the premier financial center on the

continent. Among the shortcomings has been the view, particularly by foreign-based players, that insider transactions remain a serious obstacle along with the existence of a stamp duty on securities transactions.

The Netherlands. Amsterdam has likewise promoted itself as a significant financial center for the 1990s by encouraging deregulation and innovation in local debt and equity markets as well as its European Options Exchange. By leveraging off traditional skills in investment management and developing an efficient infrastructure, Amsterdam is attempting to overcome its relatively small domestic financial sector.

Securities transactions in the Netherlands have been taxed at a rate of 0.12%, with a cap of HFl 1,200 per transaction in place since 1987 -- relatively low by European standards and raising not more than HFl 100 million annually. In late 1989 it was announced by the Finance Ministry that the tax would be scrapped on 1 January 1990. 15/

Federal Republic of Germany. German stamp taxes are of two types: (1) those imposed on primary equity issues and (2) those imposed on secondary market transfers of equity and debt securities. Payment of tax is evidenced by the affixing of a stamp to the document of transfer. Registering authorities and notaries are under legal obligation to report whether or not the appropriate stamp is affixed.

Taxes on primary equity issues in Germany range from 0.5% to 1%, with the lower rate applicable to issues where the equity is impaired or for certain types of corporate reorganizations.16/

Secondary market or "exchange turnover" stamp taxes are imposed on the acquisition of any security including stocks, debentures, other types of bonds, and rights issues. Rates are 0.25% on equity shares, 0.20% on bonds and 0.10% on government debentures.[17] Interdealer, interbroker and some interbank transactions are exempt from the tax.

The German government has been under strong criticism for maintaining its stamp tax structure, allegedly resulting in the Federal Republic becoming a large importer of financial services from London. Consequently, the government committed to abolishing stamp taxes by 1993 in the interest of stimulating the domestic financial sector particularly in the context of the EC 1992 initiatives. However, it was reluctant to do so quickly, since stamp taxes contributed almost DM 1 billion annually to the federal Treasury in 1988. On 31 October 1989, bowing to financial community pressure and reacting to a severe price slide on the German stock exchanges (which exceeded the severity of the decline in New York two weeks earlier), the Economics Minister announced that on 1 January 1991 -- two years earlier than originally planned -- stamp taxes on both primary and secondary market transactions will be abolished. It was hoped that Germany could recapture much of the trading in shares which had reportedly migrated to London's International SEAQ system, and in bonds to the DM-denominated sector of the Eurobond market.[16]

Such a revision would still leave Germany as a relatively high NRB country in the international competitive context, however. Personal and corporate taxes remain high, and trade taxes raise the incidence of corporate taxation to the 55-60%

range. While this affects all German corporations, its incidence on financial firms operating in Germany may well have a significant impact on the future role of Frankfurt as a financial center.

Switzerland. The Swiss bond capital market has traditionally been the largest in continental Europe, driven in part by an international investor penchant for discretion. The banking industry in Switzerland accounted for some 10% of GNP in 1988, contributed over SFR 7 billion in tax revenues, and employed about 4% of the work force. Some 117 foreign banks operated in Switzerland in 1988. Like the other domestic markets within the EC, it has traditionally been dominated by large financial institutions -- three universal banks -- particularly with respect to new issues of securities. The Swiss Cartel Commission in 1989 proposed that ad hoc underwriting syndicates be allowed, and that the single syndicate for government issues -- together with fixed brokerage and foreign exchange commissions, and restrictions on private placements of securities -- be abolished.

The Swiss stamp tax structure involves transaction taxes payable on securities purchases and sales. [19] The stamp tax was first imposed in 1918, and subsequently revised several times -- as in 1974 and again in 1978. Notwithstanding the name, payment is not evidenced by "stamping" of documents. For purposes of tax liability, foreign branches of Swiss banks are considered to be separate entities, legally distinct from their Swiss parents, and therefore not subject to stamp taxes on their transactions abroad. The incidence of taxation is the same for both bearer and

registered securities.

Stamp taxes affect Swiss capital market transactions in two principal areas: (1) primary equity issues and (2) secondary market transfers of equity and debt securities.

With respect to domestic primary equity issues, the rate (payable on the greater of the face value of the transaction or the transaction amount) is 3% on issues of new shares, dividend certificates and participation rights certificates, 1% on participation rights associated with merger and acquisition (M&A) transactions and 0.9% on investment fund rights issues. Stamp taxes on new issues of debt securities in the Swiss market are 0.315% payable by borrowers and 0.3% payable by investors.

With respect to secondary market transfers of equity and debt securities, the rates in general are 0.15% on transfers of domestic market securities and 0.3% on transfers of foreign securities. For money market securities of less than 3 months maturity, however, the rates are 0.1% and 0.2% for domestic and foreign securities, respectively. The secondary market tax affects all transactions in stocks, bonds, investment fund units, bills of exchange, participations and subparticipations and money market instruments, regardless of how the transaction occurs -- on the floor of an organized exchange, through a broker or dealer, or by direct private sale. Liability for the tax on secondary market trades is split evenly between the buyer and the seller. Stamp duties are also levied on payment of insurance premiums.

The Swiss stamp tax has tended to force offshore all capital market transactions that can be undertaken abroad with

incremental costs that are less than the applicable tax on the domestic transaction. This has led to the absence of a viable Swiss money market, and has represented a serious drag on the national stock and bond markets, in particular the development of an active secondary securities market of international stature. Swiss banks have been increasing their share placement and secondary market trading in London in order to avoid the tax -- with shares ultimately lodged in Swiss accounts -- while certain new issues and swap-driven transactions have likewise migrated to London.

In an apparent effort to create an active money market, the Swiss government has relaxed its application of stamp tax to certain short-term transactions. So-called "paperless commercial paper" programs have been developed to avoid the tax, with government acquiescence. The Swiss federal government itself has used such an approach since 1979 to avoid the stamp tax. However, the approach was not used commercially until 1988. Then, in a succession of transactions beginning in mid-1988 and led by Credit Suisse and Swiss Bank Corporation, offshore paperless commercial paper programs were arranged for Unilever, Fiat, the Beecham Group, the Export Development Corporation of Canada, and the World Bank. The facilities were apparently structured to use only book-entries to avoid stamp tax liability.

The stamp tax law has thus been seriously bent, with the tacit understanding of the authorities, to begin to accommodate the development of a Swiss international money market. The market now appears to be established for non-Swiss companies

(withholding taxes making it prohibitively expensive for domestic corporations) although it remains exceedingly small by international standards.[20/]

In order to partially compensate for the tax-induced regulatory drag, the Swiss National Bank has ruled that all Swiss franc denominated bond issues should be lead-managed by banks domiciled in Switzerland. The presumption is that this rule too will go once the stamp duty on securities transactions is abolished, resulting in both a reduction in transaction costs and an increase in competition for new securities issues as foreign-based players compete for deals.

A fundamental reform of the stamp duty has been very actively debated in Switzerland. In view of the fiscal role of the tax as a significant source of revenues, contributing approximately SFr 2.2 billion annually to the Treasury, the government has been reluctant to abolish it, or has said that revenue losses from any repeal of the tax should be fully compensated from unspecified new taxes on financial services activities. This position appeared to be in conformity with the views of a sizable domestic constituency opposed to awarding "gifts" to Swiss banks that are perceived to both financially profitable and politically powerful. Indeed, as opposed to eliminating or seriously modifying the stamp tax, the Swiss Finance Minister in 1988 proposed that other countries adopt similar taxes in order to cut their budget deficits.

For their part, bankers have argued persuasively that the tax seriously impedes competitiveness of the Swiss market in international finance, forcing them to move securities operations

offshore, with adverse effects on Swiss employment and other macro variables. An array of studies documenting the relative decline of Zurich as a financial center seem to confirm their arguments. [21]

In October 1988 the Swiss Bankers' Association issued a report formally calling for the abolishment of the stamp tax, together with various stock market reforms and an easing of capital adequacy requirements. In effect representing a compromise solution worked out jointly with the Swiss tax authorities, the proposals specifically recommended elimination of the stamp tax on money market transactions (paper up to one year maturity), any securities held purely for trading purposes, trading of foreign securities between foreign clients, and new issues of Eurobonds. To compensate partially for the loss of tax revenue, the proposals included an issue tax on new domestic debt securities and cash bonds (Kassenobligationen) as well as insurance premiums, although the net revenue loss would still amount to some SFr 450 million.

Presumably in order to accelerate the debate, in late 1988 Robert Studer, chairman of Union Bank of Switzerland, issued an ultimatum in a presentation addressed to the Swiss finance minister, that the bank's underwriting of Swiss franc bonds would be moved to London within a year if the stamp tax was not abolished.[22] Soon thereafter, it was determined that over 80% of Swiss financial respondents in an opinion poll took the view that stamp taxes should be revoked or significantly modified.[23]

In September 1989, the lower chamber of the Swiss federal

parliament voted by a large majority for a rapid revision of the stamp tax in order to relieve the burden on the competitiveness of Swiss banks and the international financial role of Switzerland. The upper chamber of parliament voted 33 to 5 in December 1989 to cut the stamp tax, having defeated a plan to compensate for an estimated SFR 350 million in lost revenues by compensatory levies on life insurance premiums and Swiss fiduciary accounts -- thereby shifting the tax incidence to activities that are presumably less sensitive to NRB. Both actions de-linked the stamp tax revisions from a broader overhaul of the Swiss tax structure as a matter of competitive urgency. However, the Social Democratic Party threatened to put the entire issue to a referendum, with any material change unlikely to occur before 1993.

Table 4 summarizes the differences in NRB represented by securities transfer taxes in various European financial centers, as well as New York, Singapore and Tokyo, for a variety of sample transactions. In particular, the debilitating nature of the Swiss stamp tax becomes evident.

INSERT TABLE 4 ABOUT HERE

IV. Summary and Conclusions

In the context of the EC 1992 initiatives, the banking centers of Europe are caught in a vigorous struggle for market-share in primary- and secondary-market financial transactions that are likely to grow rapidly in volume. Amsterdam, for example, has positioned itself as the "financial gateway to

continental Europe." Frankfurt is seeking ways to rationalize Germany's fragmented system of eight regional stock exchanges, restructure its poorly developed markets for fixed-income securities, and overcome the entrenched interests of the universal banks. Paris has pushed through liberalization of currency controls, introduction of derivative markets, and stock exchange reform. Zurich grapples with the increased institutionalization of investments and long-standing limits to financial competition, as well as the far-reaching consequences of EC harmonization for Switzerland. Luxembourg consolidates its role as a private banking and investment center to replace its traditional position in Euro-syndications, and keeps a wary eye on the harmonizers in Brussels.

In each of the continental financial centers there are powerful entrenched interests, and differences of view between the government and the financial services industry that may yet limit the competitive challenge to London, even as there are open questions as to the location of the policymaking and operational arms of a future EC central bank.

The free flow of capital throughout the EC should eventually lead toward a single, integrated European capital market rather than back to the traditional, fragmented collection of separate national markets.[24/] Institutional investors will operate within Europe as a whole, seeking the most attractive opportunities. Both borrowers and bankers will tap into the common pool of funds to build a market in various real and synthetic securities that suit their needs.

In this context, we assume that access to the Euromarket

will continue to be free and unregulated. The NRB in the national markets may well remain greater than in the Euromarket, especially if initiatives for EC withholding taxes on investment income are eventually carried through. Given a choice, most market participants will prefer an unregulated market to a regulated one, particularly if both can be accessed simultaneously. Retail investors, still representing the major part of the Euromarket, will prefer to remain beyond the view of tax collectors or other authorities that they have always sought to avoid.

Much more likely than decline and collapse of the Euromarket as a consequence of the EC 1992 initiatives is therefore the emergence of a new intra-European integrated financial marketplace that is built upon and encompasses both the various EC domestic markets and the London-based Euromarket. In such an integrated financial market, issues aimed at national investors can also be sold to Euro-investors at the same time. Larger, regional issues normally targeted at the Euromarket should come to be marketable in national markets as well, once common prospectus requirements, issuing procedures and withholding tax matters have been harmonized. In time, the distinctions between national markets and the Euromarkets will fade, and non-national investment banks will compete, on a performance basis and in other dimensions, for the business of national companies. A substantially unified capital market that draws from all parts of Europe, from the national markets as well as from the Euromarkets, will be the most efficient way to marshal capital

resources.

In this context, tax-related regulatory drag that takes the form of differences in NRB between European banking centers can be assumed to have increasingly thin tolerances and will be subject to rapid convergence in the period immediately ahead. The Euromarkets will provide an anchor against which the maximum feasible NRB in each center may diverge without committing financial hara-kiri. Logically, such tolerances ultimately should approach those found interregionally in the United States.

Notes

1. See Richard M. Levich, "Financial Innovation in International Financial Markets," in M. Feldstein (ed.), The United States in the World Economy, Chicago: University of Chicago, Press, 1988.

2. Note that because some regulations may not generate revenues and some regulations entail externalities, the value of net regulatory benefits received by firms need not equal the net regulatory costs collected by the regulatory authorities.

3. Edward J. Kane, "Competitive Financial Reregulation: An International Perspective," in R. Portes and A. Swoboda (eds.), Threats to International Financial Stability, (London: Cambridge University Press), 1987.

4. A basic tenet of the 1992 plan is a common core of regulation shared by all EC countries and intended to safeguard certain fundamental public goods dealing with the safety and solvency of the financial system, as well as setting minimum standards for investor, depositor and consumer protection. The principle of mutual recognition leaves scope for accommodating differences in regulation across countries. Rather than to "straight jacket" regulation across the EC, this feature allows for competition and dynamic adjustment. See Richard M. Levich, "The Euromarkets After 1992," NBER Working Paper No. 3003, June 1989.

5. This section draws heavily on Richard M. Levich and Ingo Walter, "The Regulation of Global Financial Markets," in T. Noyelle (ed.), New York's Financial Markets, (Boulder, Colorado: Westview Press), 1988, pp. 71-74.

6. Michael Dooley, "Comment," in D. Lessard and J. Williamson (eds.), Capital Flight and Third World Debt, (Washington: Institute for International Economics), 1987.

7. "Future Perfect?" The Banker, November 1988.

8. Ingo Walter, Secret Money, Second Edition (London, Unwin-Hyman, 1989), Chapter 10.

9. See Steven Greenhouse, "Withholding Tax Plan on Investments in Likely in Europe," New York Times," 11 February 1989; see also David Buchan and Tim Dickson, "Commission Tax Proposal Meets Hostile Reception," Financial Times, 2 February 1989; "Europe's Withholding Tax: Fizzling Out," The Economist, 11 February 1989; and David Buchan, "Plans for EC Minimum Savings Tax Get Rough Ministerial Ride," Financial Times, 14 February 1989.

10. As quoted in "Plan to End Europe Havens," New York Times, 6 February 1989.

11. "Papering Over the Euro-Cracks," The Banker, November 1988; see also Stephen Fidler, "Swiss Gain Most from Securities Euro-Tax," Financial Times, 4 February 1989.

12. For a more detailed discussion, see Ingo Walter, The Secret Money Market (New York: Harper & Row, 1989).

13. Ingo Walter and Roy C. Smith, Investment Banking in Europe: Restructuring for the 1990s (Oxford: Basil Blackwell, 1989).

14. "Boursemanship," The Economist, 8 October 1988.

15. Laura Raun, "Dutch Stamp Duty to be Scrapped Next Year," Financial Times, 5 November 1989.

16. Deloitte, Haskins and Sells, Taxation in Germany, (New York: DHS, 1982).

17. Laura Raun, op. cit. supra.

18. "Germans in Early Move to Abolish Stock Exchange Turnover Tax," Financial Times, 11 January 1989.

19. Swiss Bank Corporation, Taxation in Switzerland (Basel: Swiss Bank Corporation, 1987); Coopers & Lybrand, The Swiss Federal Stamp Duties Act (New York: Coopers & Lybrand, 1986).

20. "Fiat Unit Sets SFR Paperless Borrowing Scheme" Money Report, 3 June 1989; "Beecham Group Signs for Paperless Programme," Money Report, 1 June 1989; "World Bank Launches New Swiss Franc Instrument," Money Report, 21 September 1988.

21. Swiss Bankers Association, Bericht der Arbeitsgruppe "Finanzplatz Schweiz" betreffend Revision des Stempelgesetzes (Basel: Swiss Bankers Association, 1988).

22. Stephen Fidler, "Europe Falls Behind in the Securities Race," Financial Times, 25 January 1989.

23. Tony Shale, "A Litany of Woes," Euromoney, December 1988).

24. For an elaboration, see Ingo Walter and Roy C. Smith, Investment Banking in Europe: Restructuring for the 1990s (Oxford: Basil Blackwell, 1989).

Table 1

Volume of Capital Market Financing
by Regional Corporations in Their Respective Regional Markets

($ billion of proceeds at yearly average exchange rates, 1987)

United States

	Financial	Non-Financial	Total
Equities	25.3	28.1	53.4
Bonds	143.2	220.1	363.3
Total	168.5	248.2	416.7

Europe

	Financial	Non-Financial	Total
Equities	13.8	75.8	89.6
Bonds	170.1	31.5	201.6
Total	183.9	107.3	291.2

Japan

	Financial	Non-Financial	Total
Equities	14.0	28.5	42.5
Bonds	227.9	103.1	331.0
Total	241.9	131.6	373.5

World Total

	Financial	Non-Financial	Total
Equities	53.1	132.4	185.5
Bonds	541.2	354.7	895.9
Total	594.3	487.1	1,081.4

Notes:
1. Equities are total gross shares sold through public distributions, including privatization issues.
2. Bonds include private placements where reported.
3. Capital market issues by domestic firms outside of their home regions are excluded, e.g. U.S. corporate issues of Eurobonds. However, total includes European coporate issues of Euro and foreign issues estimated at $35.7 billion in 1987.
4. Data for Japan include discount notes issued by banks, many of which can be considered short term.

Source: OECD as of October 1988 (based on data supplied by central banking authorities)

Table 2

Percentage of Global Trading Volume in Equities Attributable to Individual Countries

Country	1982	1983	1984	1985	1986	1987	1988
Australia	0.55	0.72	0.38	0.46	0.43	1.01	0.72
Austria	0.01	0.01	0.01	0.04	0.04	0.03	0.04
Belgium	0.21	0.21	0.20	0.18	0.21	0.19	0.20
Canada	1.56	1.90	1.52	1.85	0.63	1.34	1.04
Denmark	0.01	0.02	0.01	0.01	0.02	0.03	0.10
Finland	0.01	0.02	0.03	0.03	0.06	0.10	0.13
France	1.04	0.98	0.78	1.05	1.91	1.73	1.41
Germany	1.81	3.02	2.64	4.58	4.75	8.36	6.54
Hong Kong	0.00	0.00	0.00	0.00	0.48	0.80	0.44
Italy	0.30	0.30	0.30	0.70	1.41	0.57	0.59
Ireland	0.06	0.07	0.08	0.04	0.07	0.11	0.09
Japan	15.98	17.88	21.13	18.89	30.03	30.76	41.73
Korea	0.29	0.18	0.28	0.24	0.34	0.44	1.49
Luxembourg	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Malaysia	0.15	0.26	0.18	0.14	0.04	0.07	0.05
Mexico	0.09	0.07	0.15	0.20	0.18	0.29	0.14
Netherlands	1.11	1.64	1.86	1.94	1.90	1.40	1.16
New Zealand	0.00	0.00	0.05	0.05	0.08	0.05	0.02
Norway	0.02	0.07	0.20	0.21	0.11	0.16	0.09
Singapore	0.26	0.43	0.28	0.16	0.12	0.08	0.12
South Africa	0.23	0.28	0.19	0.15	0.09	0.10	0.06
Spain	0.13	0.07	0.13	0.17	0.39	0.53	0.39
Sweden	0.51	0.77	0.63	0.55	0.63	0.35	0.35
Switzerland	5.96	5.11	4.86	5.24	3.95	3.79	3.64
Taiwan	0.00	0.00	0.60	0.28	0.58	1.49	5.16
Turkey	0.00	0.00	0.00	0.00	0.00	0.00	0.00
United Kingdom	7.12	6.60	7.27	7.69	8.37	11.23	8.90
United States	62.58	59.38	56.24	55.14	43.18	34.99	25.39
Europe	18.30	18.88	19.01	22.43	23.81	28.58	23.64
Pacific Basin	17.24	19.48	22.90	20.23	32.10	34.70	49.72
World ex UK	92.88	93.40	92.73	92.31	91.63	88.77	91.10
World ex US	37.42	40.62	43.76	44.86	56.82	65.01	74.61
World ex Japan	84.02	82.12	78.87	81.11	69.97	69.24	58.27
World	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: Goldman Sachs & Co., Anatomy of World Markets, 1989.

Table 3

Base Withholding Tax Rates, 1988
for Most Nonresident Individual Bank-Account Holders

	Dividends %	Bond Income %	Savings Interest %
Luxembourg	0[a]	0	0
Netherlands	25	0	0
Portugal	12	12	15
Belgium	25[b]	25[b]	25[b]
Denmark	30	0	0
France	25	0	0
Ireland	0	0[c]	0
Spain	20	0	20
Britain	0	25	0
Greece	42-53	0	0
W. Germany	25	10[d]	10[d]
Italy	32.4	12.5	30

Notes:
a. Except on dividends of Luxembourg corporations, usually 5%.
b. Exempt under certain circumstances
c. Government intends to introduce 10% withholding tax
d. As of January 1, 1989. Abolished as of July 1, 1989.

Source: European tax authorities, as reported in European Wall Street Journal, 15 February 1989.

Table 4

Securities Transfer Taxes in Major Financial Centers on Domestic and Foreign Transactions

Transaction Type	ZRH	FRA	LON	LUX	NYC	TYO	SIN
Purchase of local debt (a)	.75	0	0	0	0	0	0
Purchase of local equity (b)	.75	0	5	0	0	0	2
Purchase of locally-traded foreign debt (a)	1.50	0	0	0	0	0	0
Purchase of locally-traded foreign equity (b)	1.50	0	5	0	0	0	3
Foreign resident purchases locally U.S. debt traded in New York (c)	1.50	0	0	0	0	0	0
Foreign resident purchases locally U.S. equity traded in New York (d)	1.50	0	max-5	0	0	0	0
Foreign resident sells via local bank debt traded in London (e)	1.50	0	0	0	0	0	0
Foreign resident sells via local bank equity traded in London (f)	1.50	0	0	0	0	max-5.5	0

Notes:

a. Purchase tax in Frankfurt: 1.25% if foreign client has account with a German bank. Securities sales in Tokyo subject to 0.3% tax.

b. Purchase tax in Frankfurt: 1.25% if foreign client has account with a German bank. London: No tax on equity sales. Tokyo: Equity sales subject to 5.5% tax.

c. Tokyo: Maximum tax on sale 0.3% New York purchase assumed direct.

d. London: No tax on equity sales. Tokyo: Equity sales subject to 5.5% tax. New York purchase assumed direct.

e. Tokyo: Maximum tax on sale 0.3% London sale assumed direct.

f. Tokyo: Equity purchases not subject to tax. London sale assumed direct.

Source: Swiss Bankers Association.

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