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September 19, 1989

To: Members of the Executive Board

From: The Secretary

Subject: The Effects of Tax Provisions on Lending by Commercial Banks to Developing Countries

There is attached for the information of Executive Directors a paper on the effect taxes may have on bank lending to developing countries.

Ms. Cheasty (ext. 8706) is available to answer technical or factual questions relating to this paper.

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INTERNATIONAL MONETARY FUND

The Effects of Tax Provisions on Lending by Commercial Banks to Developing Countries

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Approved by Vito Tanzi

September 15, 1989

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Summary and Main Conclusions

This paper compares bank tax legislation in the eight largest lender countries (Canada, France, the Federal Republic of Germany, Italy, Japan, Switzerland, the United Kingdom, and the United States), from the points of view: (i) of the profitability of new money; and (ii) of tax consequences of debt reduction strategies. A general message of the paper is that, if the impact of taxes is considered in isolation, lending to developing countries in recent years has become significantly less profitable than earlier, so that new money may not be as easily forthcoming. Other main conclusions are as follows:

1. Income from developing country lending is taxed more heavily in the United States, the Federal Republic of Germany, and Japan than in the other countries.

2. Foreign tax credits, intended to avoid double taxation of international loan income, almost never fully remove tax discrimination against foreign lending. Moreover, benefits from tax credits have been severely curtailed in the recent tax reforms in the United Kingdom and the United States (with Japan following suit in 1989/90). The effect of these changes could be to create incentives for banks to shift funds from developing countries to their domestic markets.

3. French, German, and Swiss banks have received relatively liberal tax treatment of their provisioning against expected losses, and have built their loan-loss reserves to more than 40 percent of their developing country loans. This puts them in a relatively good position to offer the kind of discounts on debt envisaged in the Brady Plan, but, because no further tax incentive exists for them to realize their losses, they may be less willing to grant debt relief than Japan, the United States, and the United Kingdom where tax deductions for additions to reserves are more constrained--despite the fact that, in those countries, provisions are relatively low. The banks that have provisioned least against loss may also be most ready to provide new financing to their debtors, as they have least protection against default. Recent rises in provisioning levels everywhere may have reduced banks' willingness to increase their developing country exposure.

4. The restructuring of bank debt, as well as the adoption of a "menu" of financing options, appears to be little influenced by tax rules, as, typically, tax systems seem to be more or less neutral with respect to income from different modalities of financing. The main tax issue at present is the classification of "menu" transactions (as fee paying, capital gains taking, interest-income enhancement, etc.); while certain of the new financing modalities involve discounts/losses that are not, according to regulations, tax deductible, creditor country authorities have so far been flexible in the tax treatment of debt relief.

I. Introduction

Since the onset of the debt crisis, the Fund has supported a solution of "growth out of debt." This strategy, which was based on the continued injection of new money by creditor banks into developing countries, has been augmented but not superseded by the shift in emphasis toward debt reduction embodied in the Brady Plan. The Brady Plan also recommends an investigation into the appropriateness of the tax incentives being offered to banks to participate in new money packages and in debt relief.

There are two facets to such an investigation of tax incentives. First, the higher the tax concession (or the lower the tax bias) on income from developing country lending and on debt relief, the more likely are banks to be interested in participating in initiatives for handling the debt overhang. Second, differences in the tax structure of the different creditor countries may create difficulties in maintaining a coordinated strategy. If, say, the profits of German banks on their developing country loans are greater than those of U.S. banks, the willingness of German banks to participate in a "voluntary" high-exposure debt solution, or the likelihood that an "imposed" solution will be accepted in the Federal Republic of Germany, will differ from the acceptability of the debt resolution proposal to U.S. banks. 1/

This paper examines the effect of the corporate tax structure on per unit profit (and loss) in the eight largest lender countries--Canada, France, the Federal Republic of Germany, Italy, Japan, Switzerland, the United Kingdom, and the United States. Specifically, it asks the question: in which countries does tax legislation for banks relatively favor or discriminate against continued bank involvement in developing countries? 2/ 3/

This relatively restricted question means that there are limitations to the policy conclusions that can be drawn from the paper.

1/ If capital is more or less internationally mobile, banks' marginal post-tax rates of profit will tend to be equated across countries. In the presence of some degree of international capital mobility, then (other things being equal), banks whose taxes on developing country lending are higher may be expected to be relatively unwilling participants in any debt strategy other than capital withdrawal.

2/ The main sources of the paper are the accounting handbooks used by banks. These are described in the Appendix.

3/ The paper restricts itself to an examination of creditor countries, and does not include offshore banking centers, because the paper's main aim is to suggest directions for policy--which are likely to be inapplicable in these tax havens.

Obviously, the determinants of bank profitability extend beyond the tax system. At the most general level, the asset composition of a bank's portfolio will be determined by rates of return and risk--factors which depend as much on the borrower as on the creditor. These factors will in turn be affected not only by all of the taxes for which banks are liable but also--significantly--by the regulations of supervisory authorities and accounting practices. Moreover, regulations and taxes may not act independently of each other. The regulatory structure may soften or harshen the impact of tax rules, and tax rules may likewise distort the effect of regulations. By limiting the scope of this paper to the impact of corporate taxation on bank profit, regulations are implicitly held constant--taken as given.

And many other items, such as credit quality, political structures, purpose of lending, debtors' tax regimes, and future prospects (to name but a few), can also have an important bearing on a particular bank's decisions with regard to a specific credit or block of loans. Its preferred debt management option will also reflect directly its own individual characteristics--the profitability of its other operations, 1/ the size of its loan portfolio, the value of clearly available tax credits, etc. 2/

Another caveat is that the effective tax rates borne by banks can be different than the tax structure would suggest, usually because tax provisions or regulations in areas unrelated to the treatment of foreign lending give the banks added flexibility in minimizing their tax bills. The smaller the cost of the tax structure to banks--for whatever reason--the smaller the change in their behavior that can be expected by policymakers who try to adjust tax rules to influence attitudes towards foreign lending. (This issue is discussed at greater length in the concluding section of the paper.)

No attempt is made in the paper to estimate the magnitude of the impact on lending of any given tax provision, either globally or in any one country. However, it should be borne in mind that a marginal tax change in the United States (whose banking system holds about 35 percent of total developing country exposure) or Japan (whose exposure has been growing most rapidly) may have far more serious implications for developing country debt than a larger tax change in the Federal Republic of Germany (which holds an estimated 7 percent of claims on developing countries). 3/

1/ It is often suggested that a bank cares more about its capital ratio than about its profits. However, it is generally through their effects on profitability that taxes on banks affect capital ratios.

2/ The bank's decision may also be strongly motivated by strategic considerations (e.g., the desire to maintain a presence in a regional market despite short-run losses on individual loans).

3/ See Riggs (1987), p. 19.

Finally, the paper highlights the costs to banks imposed by the tax structure, with the implication that, were this burden lightened, banks might behave differently. But there are broader policy costs attached to the alleviation of bank taxes, and these might render attempts by governments to influence their banks through the tax system undesirable. Tax incentives to promote bank debt arrangements with developing countries are open-ended and nontransparent subsidies. As subsidies, they create inequities in the treatment of banks vis-à-vis the rest of the economy. More specifically, the reduction of government tax revenues that they imply is equivalent to the diversion of public funds to help bail banks out of their bad developing country debts. The recent initiatives toward debt relief have been completely market-based, without any evidence that creditor governments support the extension of debt relief by their taxpayers rather than by their banks.

The paper is divided into three main parts. Section II discusses, in general terms, the options open to banks when a debtor country runs into debt servicing difficulties. Section III describes the main features of national tax systems that will enter the decisions of banks choosing among these options. Tentative conclusions about the implications of these tax rules for the debt strategies that banks in different countries would prefer are outlined in Section IV.

II. How Banks Cope with Debt Problems

When a debtor country runs into debt servicing difficulties, a creditor bank has several options if it wants to maintain a business relationship with the debtor and deter the debtor from total default. These options range from the provision of new money to debt relief, and include intermediate remedies such as rescheduling of the timing of debt payments and restructuring the characteristics of the debt. The choice between the options may confront the bank with differing tax consequences. Each option, and its tax implications, is discussed further below.

1. New money

The bank can provide new money so that the debtor country's immediate financing constraint is eased and it can meet its current obligations, and so that its short- and medium-term growth prospects are improved to enable it to meet coming obligations. 1/ Since the onset of

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1/ The only possible concessional element in the new money option is that banks allocate loans in a way they might not have chosen to, under their guidelines for optimal portfolio management. They may feel that, in maintaining or increasing their exposure, they are foregoing income from less risky sources. On the other hand, presumably, commensurate with the increased risk is a higher expected value of future debt service on existing loans.

the debt crisis, the largest share of the new money extended to debtors has been provided through concerted lending as part of rescheduling packages, rather than as a voluntary, independent increase in exposure. Most often, the provision of new money serves to finance part of the interest payments due to banks, and thus increases the exposure of the creditor bank in the debtor country. Principal is normally rolled over at the same time. Therefore, discussion of the new money option can appear to banks as a debate about the acceptable level of financing interest payments receivable, 1/ and an analysis of the tax implications of new money can be made in terms of whether its tax consequences differ from those of other means of achieving an equivalent postponement of net debt service payments.

A bank's decision to provide new money will be affected by the following tax issues:

a. Banks will make the choice between lending and alternative uses of their assets taking into account, in their assessment of relative profitability, the marginal tax rate on their loan income. Other things being equal, a bank which faces a low marginal tax rate will be more willing to participate in new lending than a bank in a country whose corporate tax on loan income is higher. Banks in high-tax countries may find they can make a higher profit on other activities such as consulting, option trading, debt-equity swaps, etc. than through their lending programs. Section III.1.a. compares tax rates on loan income in the various creditor countries.

b. Once a bank has opted to lend, it has the choice between lending domestically or lending abroad. Its choice will be influenced by any differences in the taxation of domestic and foreign loan income. Taxes paid on foreign loan income may depend not only on foreign and domestic tax rates but also on the foreign tax credit mechanism the bank faces. Withholding tax may be subtracted by the debtor country before it remits its debt service to the bank in the creditor country. Typically, in order to avoid the double taxation of internationally mobile capital, the creditor country will allow its banks to credit the withholding taxes paid against their tax liability in the creditor country. (This concession is usually limited to offsets against income tax liabilities.)

Most creditor countries have put significant restrictions curtailing the extent of their tax credit mechanisms, to prevent the foreign tax credit from exceeding the amount of domestic tax applicable to the income at issue, and to avoid the creation of a moral hazard

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1/ While, in economic terms, new money to cover interest payments is comparable to the effective capitalization of interest, banks consider capitalization a more radical option, as it can create regulatory problems for them and raise undesirable expectations about its automaticity.

problem. The moral hazard issue arises inasmuch as lending banks become willing to pay very high taxes in developing countries--since it will simply reduce their tax bills at home and therefore act as a pure transfer of government revenue from the creditor country to the debtor.

While higher marginal tax rates create larger disincentives for banks to lend (either at home or abroad), the impediment of high rates is offset to some extent in the case of foreign lending when limits on tax credits are defined in terms of domestic tax liabilities. For creditor country banks facing overall limitations bounded by the home country's tax rate, an increase in that tax rate would make the credit more valuable to them than before, and intensify any preference of foreign lending. In this respect, the general trend in industrial countries toward lower corporate tax rates has probably reduced the attractiveness of the foreign tax credit mechanism.

Tax credit mechanisms are less generous to banks when:

(i) limitations are placed on the total amount of withholding tax paid that may be credited in the lending country. Limitations by lender countries on foreign tax credits are listed in Section III.1.b.(i).

(ii) limitations are placed on the extent to which withholding tax paid in various borrowing countries may be aggregated for purposes of offset against domestic tax liability. Limitations on the aggregation of available foreign credits against domestic taxes are discussed in Section III.1.b.(ii).

c. One final tax issue that may affect the marginal return on foreign lending is whether or not a <u>tax-sparing agreement</u> has been signed between the lending and borrowing countries. Even assuming that all withholding taxes were creditable, the existence of a tax-sparing agreement between the lender country and a debtor might imply that a lending bank would be better off in countries where it did not have to pay the withholding tax. Section III.1.c. covers the implications of tax-sparing agreements for bank profitability in the different creditor countries.

2. Debt relief

In cases where, for tax, regulatory, or other reasons, a bank finds it unprofitable to provide new money to a debtor in debt-servicing difficulties, debt relief may prove to be less costly--the bank's foregone income being sacrificed in the hope of preventing a full default on the debt. Debt relief is defined here as a transfer of income from the creditor to the debtor through altering the terms of the loan agreements (lowering interest rates, forgiving principal, etc.). 1/ The tax treatment of debt relief extended by the bank to the debtor should be considered as falling between two extremes: relief could be treated as a loss and be 100 percent deductible when calculating income tax; on the other hand, relief could be treated as a discretionary use of income or disposal of assets and be subject to income tax at the same rate as income actually received by the bank. (In reality, this latter treatment is never observed, as any debt relief that has been extended has been to some extent involuntary on the part of the bank.)

The tax treatment of bank losses has come under more scrutiny than any other element of bank taxation since the debt crisis began and has been highlighted by the large movements in the loan-loss reserves of U.S. banks since 1987. Differences in the tax treatment of expected and realized bank losses are described in Section III.2.

3. Debt rescheduling

In semantic terms, a bank has options other than increased exposure or debt relief in keeping business channels open with a troubled debtor. One such option is to reschedule the debt, where rescheduling is defined in the narrow sense of a change in the timing of the debt service that gives the debtor a more acceptable period in which to come up with financing for debt service but allows the bank to maintain the income stream from the outstanding loans on its books according to the contractual terms of the debt. 2/

Changes in the timing of income received could affect the present value of a bank's after-tax income if (a) income tax rates are progressive; or (b) if restrictions on loss-carryforwards put some limitations on the averaging of income for tax purposes that a bank is permitted to carry out over the period of a loan. As will be evident from Section III.1.a., banks, like other corporations in most countries, have not been subject to significantly progressive loan income tax schedules. Limitations on loss-carryforwards, which might conceivably affect banks' willingness to reschedule their existing debt, are discussed in Section III.3.

1/ Note that this definition is more restrictive than the generally used terminology, where the term debt relief has been applied to any renegotiation of debt service.

2/ In other words, the concession a creditor makes upon rescheduling (narrowly defined) is to change the maturity of the debt and the time path of debt service payments. This affects his liquidity and will usually require rearrangement of his portfolio, but, according to this definition of rescheduling, there is no presumption that he will make concessions in the sense of redistributing income from himself to the debtor. (Note that this definition of rescheduling is more restrictive than the generally used terminology, where the term often refers to any combination of restructuring and retiming the debt.)

It should be noted, however, that regulations and accounting practices governing the recording of income may imply that income for tax purposes is very different from actual realized income. For instance, except in exceptional circumstances, interest income is recorded on accrual, not on receipt, and becomes taxable at that point. Partly due to this accounting convention, banks have, in fact, been loath to reschedule interest, and only two major reschedulings that included interest were concluded prior to 1988.

As a generalization, it appears from casual inspection that the regulatory framework in many countries has acted to even out the timing of reported income and therefore to insulate banks which reschedule their debt (where rescheduling is defined in the narrow sense of a change in the timing of debt service) from most potential tax consequences.

4. Debt restructuring

The rescheduling packages negotiated on bank debt have hardly ever been limited to pure changes in the timing of debt service. Typically they have also included a substantial amount of debt restructuring (and arrears consolidation), that is, of changes in the financing modalities of the debt that give the debtor a higher likelihood of finding resources for his debt service while preserving for the bank the book value of its outstanding loans. 1/ 2/ The diversity of financing modalities--lending instruments with different risk-return configurations--has greatly expanded since the debt crisis began, and has led to the emergence, in more recent rounds of debt negotiations, of the "menu approach" to financing modalities.

Financing modalities may be considered in two parts: traditional modes of financing, and the more innovative options that are capturing the imagination of bankers at the moment. 3/ Traditional modalities include: currency (re)denominations; interest rate options; interest retiming; onlending and relending; new trade credit facilities; cofinancing; and debt conversion (in particular, debt-equity swaps). The menu approach includes, in addition to the traditional options listed above, some recently developed financial instruments. As is the case for the traditional financing modalities, not all menu options have, in practice, been available in all debt renegotiations so far. The newer financial instruments include: alternative participation

1/ Note that this definition is more restrictive than the generally used terminology, where the term restructuring tends to be used more or less interchangeably with rescheduling.

2/ The concessional element of restructuring, according to this definition, is any transfer of risk that takes place from the debtor to the creditor.

3/ The taxonomy and discussion of modalities presented here follow closely International Monetary Fund (1987).

instruments (APIs); securitization; prioritization of debt; interest capitalization; fees; and debt buybacks.

Until now, the tax consequences of restructuring debt have remained unclear, with the result that some banks have been hesitant to participate in these alternative financing options. 1/ Test cases have arisen sporadically in different creditor countries and the outturn of these cases has from then on influenced banks' tax expectations with respect to the various restructuring options. The financing options, and tax issues that might arise from them, are discussed in Section III.4.

5. The renegotiation package

Debt renegotiations to date have typically comprised a combination of new money, rescheduling, restructuring, and debt relief, 2/ with the result that, even though each option is conceptually distinct and could be offered independently of any other option, the choices available to banks have become blurred; to the representative bank, debt renegotiations imply debt relief. For instance, while there is no reason why rescheduling should not be accompanied by adjustments in interest spreads which keep a bank's expected income stream from the rescheduled loan intact, reschedulings are usually accompanied by debt relief, through the maintenance or lowering of the original interest rates.

Hence, the tax issues facing a bank during debt renegotiations, which are described sequentially in the rest of this paper, in fact all come into play simultaneously and must be taken into account by the bank as an aggregate, rather than one by one.

III. The Tax Implications of Debt Strategies

1. The provision of new money

In determining its desired level of exposure to any debtor (and to developing countries in general), one important concern for any bank

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1/ It should be noted, however, that most creditor countries have a fairly general and broad-based definition of income, which has protected banks from changes in tax treatment if they shift from one financing instrument to another.

2/ For example, in the Mexican restructuring of April 1987, US$7.7 billion in new money was tendered, the maturities of the debt were lengthened to up to 20 years, cofinancing and contingency cofinancing arrangements were initiated with the World Bank, and, while no debt was forgiven, interest spreads were lowered from 1 1/2 percent to 13/16 percent over LIBOR, implying a reduction in the present value of the expected income stream of the debt, even without the lengthening of maturities.

will be the size of the aftertax income stream it receives from its new loans (relative to other options for placing its funds). The major tax issues which may be expected to affect the income of banks include (a) the corporate income tax rate; (b) foreign tax credits (determined either by double taxation agreements (DTAs) or by domestic legislation); and (c) tax-sparing provisions. In the discussion that follows, each issue will be examined separately. Obviously, however, what informs and determines each bank's decision about whether or not to provide new money will be the combination of all tax factors that affect income. 1/

a. The corporate income tax rate

Table 1 presents the tax burden implied by the combination of corporate income tax rates applicable in the eight creditor countries under discussion. It should be stressed that a bank which is trying to decide where to incorporate, where to place its loans, and how much to lend, will not look at the corporate tax rate in isolation. It will almost always be demand-constrained by where its loans are needed and by what type of loan is requested. 2/ However, the corporate tax rate gives a preliminary indication of countries' relative attitudes towards the taxation of bank profits.

The range of effective tax burdens presented takes into account any provisions for progressivity (Switzerland, the United Kingdom, and the United States), any distinctions among states or provinces when income taxes differ among tax levying entities (Canada, the Federal Republic of Germany, Japan, Switzerland, and the United States) and any provisions concerning tax concessions for distributed profits (the Federal Republic of Germany and Japan). 3/

The tax burden calculations were made by assuming that banks in each country had the same hypothetical before-tax income base, and applying the different taxes relevant to each country to the base, taking account of instances where some taxes were deductible from the income base of others. These calculations do not include any easing of the tax burden that might occur on the basis of the bank's presumed ability to take foreign tax credits (presumed, given that the income

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1/ The decision to provide new money will also, of course, be a function of the relative profitability of the bank's other options (debt relief, etc.).

2/ Its preferred type of loan and location of loan, however, will simultaneously be determined by the broad menu of tax reliefs available, and these may differ substantively for loans of various types or to various countries, or on account of different types of incorporation.

3/ The calculations have not taken into account taxes levied on individual shareholders receiving dividend income when dividends are distributed. In this presentation, tax regimes where interest income is taxed via split rates will appear more favorable to banks than regimes where interest income is taxed on the basis of avoir fiscal.

Table 1. The Taxation of Banks' Interest Income

(As of end-1988)

Country	Taxes	Rates (in percent)	Effective Nominal Tax Burden 1/ (in percent)
Canada			38-45
	Federal corporate income tax	38	
	Provincial corporate income tax	10-17	
France			42
	Impôt sur les sociétés	42	
Germany, Federal Republic of			44.3-64.8
	Corporate income tax		
	Retained profits	56	
	Distributed profits	36	
	Municipal tax (deductible)	11.1-20	
Italy			46.4
	Imposta sul reddito delle persone giuridiche	36	
	Imposta locale sui redditi (deductible)	16.2	
Japan			41-3-57.2
	Corporate income tax		
	Retained profits	42	
	Distributed profits	32	
	Prefectural enterprise tax (deductible)	12-13.2	
	Inhabitants' tax (percent of corporate tax)	17.3-20.7	
Switzerland			18-34
	Federal corporate income tax	3.6-9.8	
	Cantonal and communal taxes (estimated)	12.2-36	
United Kingdom			27-35
	Corporation tax	27-35	
United States			15-50
	Federal corporate income tax	15-34	
	State/municipal corporate income tax (deductible)	5-25.8	

Source: KPMG (1987a); Price Waterhouse (1986, 1989); Arthur Young International (1988); Diamond (1988); International Bureau for Fiscal Documentation (1988a); and Fund staff estimates.

1/ See text for a description of this measure.

relevant in this paper is on a bank's international loans). Typically, however, once the bank has made the general decision to lend, the availability of these credits is an important element in its choice between domestic and foreign loans; hence, the effect of foreign tax credits will be discussed separately, below. Nor was any account taken of the fact that the income bases defined as taxable might differ for different kinds of taxes in each country. 1/

It may be seen from Table 1 that corporate tax rates in the Federal Republic of Germany and Japan (their "effective" nominal tax burdens) are significantly higher than in other countries. In both countries, even if all profits were distributed and banks located in the regions with the lowest tax rates (which is not likely), tax rates would still be higher than the maximum rates in Switzerland and the United Kingdom. Both countries have announced rate cuts in the corporate tax (in the Federal Republic of Germany the tax is to drop from 56 percent to 50 percent in 1990, and in Japan the tax is to drop from 42 percent to 40 percent in FY 1989/90 and 37.5 percent in FY 2/91 2/) but even these rate cuts will leave the total tax burden higher than in Switzerland and the United Kingdom.

Rates are now somewhat higher in the United States than in Canada, although the higher U.S. rate is significantly influenced by the added tax costs of banking in New York. Canadian provincial taxation varies much less. (The 15 percent rate in the United States is probably completely irrelevant to banks that lend abroad, as it applies only to a bank that earns less than US$75,000, can avoid the alternative minimum tax of 20 percent, and is domiciled in a state which does not have a corporate income tax.) It is interesting to note how the superimposed burden of state income taxes raises total tax liability in the United States far above the burden in the United Kingdom, even though, at the national level, the recent wide-ranging tax reforms in both countries seem to have been very similar and were carried out with the same goals in mind.

France and Italy have traditionally levied the lowest corporate taxes on banks (apart from Switzerland). The tax reform in the United Kingdom reduced rates significantly below those in France and Italy, although a reduction in the French rate to 42 percent in 1988 offset to some extent the differential with the United Kingdom. The tax reform in

1/ The study did not uncover any significant differences in the definition of income applied for different taxes which could affect profits on developing country loans. The definitional difference in income bases which has been most often cited as of interest to banks is that, in the United States, income from municipal bonds is tax exempt at the federal level but not at the state level; exemption from federal taxes has led such bonds to become an important element of U.S. banks' portfolios. (This example, of course, is not relevant to this study.)

2/ International Bureau of Fiscal Documentation (1988b, 1989).

the United Kingdom has been taking place since 1984, when the corporate tax rate was lowered from 52 percent to 50 percent, with subsequent drops of 5 percentage points in each year since then to the 35 percent rate of 1987, which has been maintained throughout 1988. (As in the case of the United States, the 25 percent rate applicable to smaller banks in the United Kingdom is more or less irrelevant to banks who lend abroad. It applies only to banks whose profits are less than 100,000 pounds sterling, with marginal relief for banks with profits up to 500,000 pounds sterling.)

Swiss taxation of banks has always differed in structure from that of other European countries; the federal tax is levied at progressive rates ranging from 3.6 percent to 9.8 percent of after-tax income. "Progressive" rates are based, not on the banks' income, but inversely on their capitalization. This type of schedule is also levied at the cantonal and communal level, with different specifics from community to community. The combination of all taxes brings the effective rate to between 18 and 34 percent, with banks in all of the large urban centers bearing tax rates of over 30 percent.

b. Foreign tax credits

If home country tax rates were the only criterion determining after-tax income, and after-tax income the only criterion underlying the location of banks, all banks would be domiciled in Switzerland or the United Kingdom (or South Dakota--which has no state income tax). However, besides the many nontax determinants of bank income, their income may also be affected by taxation in the debtor's country through withholding taxes on interest paid by the debtor. These withholding taxes can be quite high, as shown in Table 2. Because they contribute an important and relatively stable share of income tax receipts, developing countries have been reluctant to remove them. However, they have granted some concessions on rates in the context of double taxation agreements.

Home countries typically allow their banks to credit withholding taxes paid to foreign governments against home country tax liability, in order to avoid double taxation of income from capital lent abroad. 1/ This credit may be extended either as part of the double-taxation agreement between the creditor and debtor countries, or, when no mutual agreement exists between countries, unilaterally, as part of domestic tax legislation. 2/

1/ Alternatively, they might exempt foreign-source income from tax. However, in the case of banks' income from foreign lending, source rules generally preserve the right to tax of the country where a bank is domiciled.

2/ Restrictions on eligibility for credits are noted in Table 3, below.

Table 2. Selected Withholding Tax Rates on Interest Income

(In percent)

	Domestic Legislation	Under Double Taxation Agreement with: Canada	France	Germany, Federal Republic of	Italy	Japan	Switzerland	United Kingdom	United States
Argentina	15.75	-	20	10, 15	0, 20	-	-	-	-
Brazil	25	10, 15	10, 20	10, 15	15	12.5	-	-	-
Chile	40	-	-	-	-	-	-	-	-
China	10-20	0, 10	0, 10	0, 10	-	0, 10	-	0, 10	0, 10
Colombia	30	-	-	-	-	-	-	-	-
Egypt	32	15	25	20, 15	0, 25	NL	-	15	15
India 1/	25	15	NL	10, 15	15	NL	-	10, 15	-
Indonesia	20	15	10, 15	10	-	10	-	10, 15	-
Malaysia	20	15	0, 15	0, 15	15	NL	10	15	-
Mexico 2/	15	-	-	-	-	-	-	-	-
Morocco	11.2	15	10, NL	10	10	-	-	10	15
Nigeria	15	-	-	-	-	-	-	-	-
Pakistan 3/	30	15, 25	12, 30	0, 20	-	0, 30	15, 30	15	NL
Peru	1-45	-	-	-	-	-	-	-	-
Philippines	15	15	15	10, 15	-	10, 15	-	15	15
South Africa	10	-	-	10	-	-	10	10	-
Taiwan, Province of China	10	-	-	-	-	-	-	-	-
Thailand	10	15, 25	3, 10	10, 25	10, NL	0, 10	-	10, 25	-
Tunisia	20	15	12	10	12	-	-	10, 12	-
Turkey	0	-	-	-	-	-	-	-	-
Venezuela	20	-	-	-	-	-	-	-	-

NL = No limitation on the taxation of the source country.

1/ Rate generally applicable to foreign creditor banks. Rates of 20 to 65 percent on other interest payments.
2/ Rate generally applicable to foreign creditor banks. Rates of 21 to 42 percent on other interest payments.
3/ Super tax of 35 percent is also levied.

A decade ago, foreign tax credits were perceived to be only of marginal importance in determining a bank's decision to lend. Since the 1970s, however, escalating competition in lending, which has led to the reduction of interest spreads, has meant that the profitability of a loan may depend crucially on the bank's ability to credit withholding taxes.

Eligibility for foreign tax credits has tended to be subject to some similar provisions across countries. In all countries except France, relief is provided for domestic tax payable on "loan interest receivable" grossed up by the foreign tax withheld and made net by an adjustment for funding and administrative costs. (In France, interest income is treated net of tax withheld.) The adjustment for expenses differs from country to country, the main difference being that some countries require loan-by-loan or country-by-country allocation of costs, whereas some countries allow an allocation of costs on the basis of aggregate income (implying that all loans have proportional costs). The overall allocation, besides reducing significantly the accounting difficulties of cost assignment, usually materially increases a bank's eligibility to claim credit for taxes paid on its foreign income.

All countries limit withholding taxes eligible for credit to taxes similar to their corporate income tax. 1/ All countries except the Federal Republic of Germany and France extend credits on the basis of actual taxes payable; in the Federal Republic of Germany and (more rarely) France, under the terms of certain double taxation agreements some credits are deemed (notional), often with the intention of providing more favorable credit terms for loans to particular countries. Only Japan and the United States provide for carryovers of credits in excess of actual domestic tax liability.

It appears that two main provisions affect the value of foreign tax credits to a bank: (i) limitations on the overall size of foreign tax credits relative to domestic tax liability; and (ii) limitations on aggregating foreign taxes withheld for the purposes of earning credits against domestic tax liability.

(1) Limitations on the size of foreign tax credits

Some countries put an upper limit on the amount of foreign tax credits banks can claim, usually specified in terms of domestic tax liability. These constraints are as follows:

1/ In the case of Japan, taxes similar to the inhabitant tax are also eligible for credit; in Switzerland the definition of taxes eligible for credit seems to be less clearcut than elsewhere, probably to ensure that all of the many different tax schedules of the different cantons and communes are covered.

Canada: the foreign tax credit is limited to the Canadian income tax (first federal and then provincial) payable on the net foreign interest, or the actual tax withheld, whichever is the lesser.

France: the foreign tax credit is limited to the hypothetical French income tax to be paid on total (grossed up) foreign interest income, less related funding (but not administrative) costs.

Federal Republic of Germany: the foreign tax credit for each country's loans is limited to the German income tax to be paid on foreign interest, less related funding and administrative costs.

Italy: no relevant limitation; actual tax withheld may be credited.

Japan: the foreign tax credit is limited to the hypothetical Japanese tax paid on the share of net foreign income in the total taxable profits of the bank. In practice, this tends to permit far more generous tax credits than tax actually withheld--thereby subsidizing foreign lending. 1/

Switzerland: the foreign tax credit is limited to Swiss income taxes to be paid on foreign interest, less related funding and administrative costs.

United Kingdom: the foreign tax credit is limited to corporation tax to be paid on foreign interest, less related funding and administrative costs.

United States: the foreign tax credit is limited to the federal income tax to be paid on taxable income from "high withholding tax" foreign loans, where "high withholding tax" is a tax of 5 percent or more (i.e., including almost all developing countries) and taxable income is defined by way of a formula which varies with the value of the assets tied up in the loans. The effect of the formula is to curtail severely the amount of credit directly claimable on these loans. However, the United States also provides credit for another type of income--the income of branches located in debtor countries ("financial services" income)--on more favorable terms. Until 1990, these terms will be extended to all income coming from 33 developing countries

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1/ The rules will become more restrictive from 1989/90, when only foreign tax equivalent to less than 50 percent of income will be allowable as the basis for tax credit, and when the share of foreign income to total income must not exceed 90 percent. Probably most significantly, one half of foreign tax-free income will have to be excluded from foreign income as defined for the calculation of the tax credit.

(regardless of whether or not it is recorded as "financial services" income). 1/

The effect of these limitations can be seen in Table 3. The table shows the percentage of interest income withheld as tax that may be credited in each country given the limitations described above. It should be considered as illustrative only, because in Japan, Switzerland, the United Kingdom, and the United States, the percentages withheld vary according to various criteria such as the share of foreign income in total income (Japan) or total assets (United States) etc., as described in the list of limitations above. The assumptions underlying the calculations in the table were chosen with the intention of making the financial situation in each country as comparable as possible. 2/

As can be seen, country policies on foreign tax credits diverge enormously. Japan, at one extreme, provides a generous subsidy to lending abroad, 3/ whereas in the United Kingdom, and in the United States to an increasing extent, there is a penalty of more than 80 percent attached to choosing to locate capital abroad (and pay taxes where the income is earned) rather than in the home country. Italian capital, and some French loans, may be placed abroad with complete neutrality, while the bulk of French loans, as well as German and Canadian loans, are credited with just over half of the tax paid. In Switzerland, the credit is restricted to the Swiss tax that would have had to be paid on the tax withheld had it not been withheld, but, instead, had formed part of income.

(2) Limitations on aggregating foreign tax credits

The second constraint on banks' use of the foreign tax credit mechanism (which could not be reflected in Table 3) is that Canada, the Federal Republic of Germany, Italy, and the United Kingdom limit the aggregation of available credits to a country-by-country or loan-by-loan basis, and the United States limits aggregation by type and source of income, whereas France, Japan, and Switzerland 4/ allow credits earned on a loan in one country to be offset against home tax payable on income from foreign loans earned anywhere. 5/ Banks whose home countries do

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1/ This has the effect of creating a very large discontinuity between income from present loans (with maturities on or before 1990) and income from any new money offered with maturities beyond 1990.

2/ The question was asked: assuming that the same amount of tax was withheld in the borrowing country from each bank, then, having applied all relevant tax credit rules, what maximum percent could be credited against the bank's tax liability at home?

3/ As mentioned, this subsidy is to be reduced significantly in FY 1989/90, though, for the representative bank, it should not disappear.

4/ In Switzerland, the provisions are not clear-cut.

5/ See Frankel (1984).

Table 3. Maximum Percentage of Interest Income that may be Credited Against Lender Country Tax Liability if Withheld as Tax in Debtor Country

(End-1988)

Canada (resident bank only)	53.5
Against federal tax	(38.0)
Against provincial tax	(15.5)
France (DTA only)	
Actual credit	58.0
Deemed credit (unusual)	100.0
Germany, Federal Republic of (resident bank only)	56.0
Italy (resident bank only) 1/	100.0
Japan (resident bank only) 2/ 3/	281.0
Against corporation tax	(233.0)
Against inhabitant tax	(48.0)
Total creditable in any one year 4/	(100.0)
Switzerland (DTA only) 5/	35.0
United Kingdom (resident bank only) 6/	18.7
United States (resident bank only) 7/	
On "high withholding tax loans"	17.4
On "financial services"	61.8

Source: KPMG (1987a); and Fund staff calculations.

1/ Until the end of 1987, relief could be claimed only where DTAs were in force; from January 1988 relief is accorded to resident banks regardless of whether DTAs have been signed.
2/ This is a representative example. The maximum allowable credit rises with the share of foreign income in total income, but falls as total tax due is reduced.
3/ The rules for FY 1989/90 would reduce credit against corporation tax to about 136 percent, and eliminate approximately 40 percent of the subsidy in this example.
4/ The 181 percent credit outstanding may be carried forward for five years (three years after 1989/90).
5/ The available credit varies with the combined tax rate, which differs from canton to canton. The top rate of 35 percent has been assumed here.
6/ This is a representative example. The credit allowable rises with the profit on the loan.
7/ This is a representative example. The credit allowable depends on the definition of interest expenses (which is a function of total assets) and of administrative expenses (a function of total income).

not restrict credits may find loans even to countries with high withholding taxes extremely profitable, as these may permit substantial offsets to the banks' overall tax liability.

The country-by-country and income basket restrictions, on the other hand, curtail enormously the ability of banks to profit by the tax credit mechanism, and, in particular, influence considerably the choice of countries into which banks are willing to put new money. The forms of the U.S. and British restrictions are new--like the overall credit limitations discussed above, the fruit of the recent tax reforms. 1/ Their recent introduction suggests that a sizeable shift has taken place in the relative returns from loans in different debtor countries. Hence, the next several years could see significant movements of foreign capital out of countries which levy high withholding taxes (customarily developing countries). (It was in recognition of this expected capital flight that the United States introduced the transitional procedures in effect for 33 developing countries. However, the transition lasts only until 1990, whereas the average maturity of loans to these countries is probably more than 10 years.) Unfortunately, the effect of the change in relative profitability would be quantifiable only if detailed country-specific information on banks' loans could be assembled.

While Tables 1 and 3 show the effects of tax rates on interest income and foreign tax credit provisions, each considered separately, it will be noted that, particularly since the tax reforms in the United Kingdom and the United States, the impacts of the tax rates and the foreign tax credits tend somewhat to offset one another. In the United Kingdom, indeed, the tax reform was designed so that the loss in revenue from lowering the overall tax rate would be partly financed through extra revenue from reduced tax credits. In other words, banks' before-tax profit rates would be more nearly equalized across the domestic and foreign markets. Because tax credits had been relatively subsidizing foreign lending, the added neutrality was achieved by shifting relative profitability in lending (and thereby incentives to lend) from the high withholding tax levying developing countries to the home market.

Table 4 combines the effect of tax rates and tax credit provisions, to reach a global estimate of the share of pre-tax profit a bank would keep after paying tax in the home country.

The banks in the lender countries fall fairly neatly into two groups: those who take home significantly more than half of their pre-tax profit and those who take home much less than half. All of the banks in the more profitable group have relatively low tax rates, and,

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1/ It appears that, besides having the aim of limiting the transfer of domestic tax revenue to high-tax foreign countries, the limitations were specifically designed to level differences among large and small banks, by eliminating the incentives to diversify country lending which may be inherent in an overall tax credit.

Table 4. Profit After Tax as a Percentage of Pre-tax Profit on a Foreign Loan Extended and Subject to Withholding Tax 1/

Alphabetic		Ranked in order of profitability	
Canada	42.7	1. Switzerland	58.5
France 2/	58.0	2. France 2/	58.0
Germany, Federal Republic of	32.1	3. United Kingdom	56.9
Italy	53.6	4. Italy	53.6
Japan	41.4	5. Canada	42.7
Switzerland	58.5	6. United States 3/	[41.7]
United Kingdom	56.9	7. Japan	41.4
United States 3/	[41.7]	8. Germany	32.1

Source: KPMG (1987a); and Fund staff estimates.

1/ See Appendix for details of calculations.

2/ Resident French banks take home 58 percent of pre-tax profit only when a DTA is in force; their profit when taking tax credits subject to domestic legislation in the absence of a DTA is only 52.2 percent.

3/ The U.S. calculation is not comparable with the others, as assumptions about the asset base of banks had to be made in order to derive the effects of withholding tax on profits.

of these, Italy is the only country to offer a particularly generous (100 percent) tax credit. 1/ In the less profitable group, on the other hand, all banks faced relatively high tax rates. Despite the generosity of the Japanese tax credit (which cannot be fully captured in this table, because only 100 percent is creditable in any single period), high corporate and other taxes in Japan make banks less profitable even than in the United States. 2/ German banks are an outlier, with a potential profit of only just over half that earned by banks in Switzerland, an adjoining country. The calculation of U.S. profitability represents the U.S. position since the 1986 tax reform. A similar calculation has been made for the 1984 tax system, and, for a bank in New York city, the share of take-home profit then would have been only 24.5 percent. 3/ 4/

The United States introduced a further severe restriction on the use of foreign tax credits in early 1989, retroactive to December 31, 1986. The new rule requires banks to apply loan losses against income in proportion to the split between their foreign and domestic business. For instance, a bank earning 60 percent of its income from foreign loans would have to apply 60 percent of its loan losses to its foreign portfolio. As the value of the foreign tax credit rises with the size of foreign profits, banks have, in the past, applied as much of their foreign losses as possible to domestic income. This will no longer be permitted.

c. Tax sparing

Some developing countries, in an effort to attract foreign lending, exempt the interest income of creditor banks, wholly or partially, from the usual withholding taxes. As industrial countries usually furnish

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1/ The computation for France assumed that actual rather than deemed credits were relevant, as the case in which the deemed credit fully offsets the tax liability is rare.

2/ For the purposes of this calculation, it was assumed that 20 percent of a U.S. bank's income was classified as "high withholding tax" income, and the rest as "financial services" income. This ratio was considered representative by the sources used for this study (discussed in the Appendix). The assumption may be reasonable in the short term following the 1986 tax reform, but, as explained earlier in this section, the percent of "high withholding tax" income is likely to be much higher after 1990, even if banks move out of such loans.

3/ Peat Marwick (1984), p. 143.

4/ It should be noted, however, that in 1984 a bank might have been able to lower its effective tax rate by using an alternative method of calculating interest expenses (the separate currency pools method). Possible use of alternative definitions of income and expenses have not been taken into account in any of the calculations above. Hence, the calculations for the U.S. show the maximum tax rates a bank faces on a representative loan.

foreign tax credits only on evidence that withholding tax was paid, banks would gain from the developing country's concession only in cases where relief under the home country's foreign tax credit scheme was less than 100 percent of the tax withheld. (In other words, developing countries should not expect to attract Japanese or Italian banks (or, in some cases, French banks) under a scheme of relief from withholding tax.)

A unilateral exemption of banks from withholding taxes would have the effect merely of transferring tax revenue from the developing country to the tax authorities of the industrial country. Hence, in order to ensure that the targeted lenders receive the maximum amount under the exemption scheme, many developing countries have negotiated tax-sparing agreements with industrial countries, as part of their double taxation treaties. Such agreements provide that a bank which would have been eligible for foreign tax credit if income tax had been withheld in the debtor country may claim the same amount of tax credit or some specified proportion, even if no tax was withheld abroad.

As withholding taxes on interest income can be very high, even under a double taxation treaty, tax-sparing agreements may significantly increase the after-tax profit of a bank. It has been argued that the proliferation of tax-sparing agreements explains in part the lower margins being offered on loans at present compared with the late 1970s and early 1980s.

All lender countries except the United States have signed some tax-sparing agreements, though conditions for each agreement may differ substantially--even those signed by the same lender. 1/ While the tax credit rules in all countries but France require the grossing up of income by interest income withheld, only the United Kingdom requires that interest income be grossed up by spared tax, in the computation of taxable profits. 2/ Canada and the United Kingdom put limits on the number of years during which credit can be claimed for the same source of income, and Canada puts limits on the amounts that may be credited. (It might be argued that upper limits on the number of years a loan is eligible for credit biases downwards the average maturity of loans extended.)

1/ For instance, under the DTA signed by Canada with Brazil, the rate of withholding tax deemed paid is restricted to 15 percent, while the normal rate of withholding tax paid (under the DTA) is 25 percent; that is, the tax-sparing agreement provides for 60 percent relief only. Under the DTA signed by Canada with Thailand, on the other hand, the rate of deemed paid withholding tax is 25 percent, while the normal rate paid is only 10 percent; in other words, Canada more than matches Thailand's exemption and thereby potentially subsidizes loans to Thailand.

2/ The requirements in Switzerland are not clear.

Spared tax must be credited on a country-by-country basis in Canada and the Federal Republic of Germany, whereas in France (and Japan, at least until FY 1989/90) spared taxes may be credited against overall income, though with some other limitations. In the United Kingdom, the terms of the recent reform require spared taxes to be credited only against the British tax liability arising from income of the loan on which the tax was spared. As one of the main functions served by tax-sparing loans has been to allow banks to extend loans with zero or negative margins and still make a profit on their overall operations, net income from the tax-sparing loans themselves has tended to be very low. Hence, the tax reform in the United Kingdom has effectively eliminated the benefits from tax-sparing that banks considered most valuable.

Table 5 provides some information on the tax-sparing agreements. Note that France is not included in the discussion following the table, as the available information did not permit meaningful comparisons to be made. However, it should be noted that, in several fora, French bank representatives expressed a preference for new money over every other form of debt strategy, because of the favorable income consequences of tax-sparing agreements. They also commented that some U.S. banks had set up subsidiaries in France to take advantage of tax sparing.

The United Kingdom has by far the greatest number of tax-sparing agreements, which suggests that the loss to developing countries from the changeover to credit taking on a loan-by-loan basis may be relatively widely felt. Except in Japan, all countries have upper limits on the amount of withholding tax that may be deemed paid, regardless of what the actual withholding tax in existence in the debtor country is. In Japan, seven tax-sparing agreements are open-ended. Higher limits (in Italy compared with the United Kingdom, for example) do not necessarily mean that a lender country is subsidizing its debtors (in the sense of making it cheaper for a bank to lend there than at home); withholding taxes in the debtor countries with whom the lender was dealing may simply have been very high at the time the tax-sparing agreement was drawn up. In fact, only in the Federal Republic of Germany are a significant number of deemed taxes higher than the representative actual withholding taxes in the debtor countries.

All countries except Canada allow banks to claim the actual withholding tax spared. Canada "taxes" concessions made to banks by Cameroon, Guyana, and Pakistan, by deeming a lower withholding tax spared than was actually foregone by the tax authorities in these borrowing countries.

2. Debt relief

The willingness of banks to offer debt relief, and to bear a corresponding accounting and real loss, may depend on the tax treatment of that loss.

Table 5. Tax-Sparing Agreements: Some Information

(Early 1988)

	Number of countries 1/	Range of permitted credit (percent) 2/	Number of "subsidies" 3/	Number of "taxes" 4/
Canada	24	10-20	2	3
France	1	n.a.	...	...
Germany, Federal Republic of	25	10-20	9	--
Italy	15	10-25	1	--
Japan	12	10-unlimited	7	--
Switzerland	6	10	--	--
United Kingdom	34	0-15	--	--
United States	--	...	...	...

Source: KPMG (1987a); and Fund staff calculations.

1/ The number of countries with which the lender country has signed a tax-sparing agreement.
2/ The spread between the highest and lowest deemed tax rates creditable.
3/ The number of countries where the deemed credit in the agreement is higher than the usual actual withholding tax. If a deemed credit may exceed the actual withholding tax, the lender country is subsidizing the borrower. If the deemed credit represents the upper limit of withholding tax that may be credited, then the subsidy might be termed "potential" or "relative," in the sense that it gives debtor countries incentives (or, at least, freedom) to raise their rate of withholding tax, without providing any disincentive to foreign lending.
4/ The number of countries where the deemed credit is smaller than the actual credit, implying that less than the full amount of withholding tax foregone by the borrowing country is allowed as a credit in the lender country. This may be interpreted as a (relative) lender country tax on debtor country tax concessions to banks.

The practice of accounting for losses differs widely across countries. A distinction must be drawn between expected losses and realized losses. The tax treatment of realized losses will be covered below in Section III.3. Expected losses are measured by the loan-loss reserve of a bank, and it has often been argued that the capacity of a bank to extend debt relief will depend on the adequacy of the provisioning it has made for the loss to which the concession will correspond. 1/ In turn, the willingness of a bank to provision will depend on the tax treatment of loan-loss reserves.

A bank may provision either for losses expected on a specific loan or for an overall expected value of losses (where the loans expected to bear losses are not identified). The tax treatment of specific reserves often differs from that of general reserves, and tax concessions on general reserves may be restricted to certain classes of loans or to loans to specified debtor countries.

While encouragement of a high level of provisioning through favorable tax treatment may increase the ability of banks to extend debt relief, it may, on the other hand, reduce their willingness to do so, as the gain from realizing the expected loss is diminished if tax relief on the loss comes prior to realization. Furthermore, it has also been argued that, once banks have satisfactorily provisioned against existing country risk, their incentive to offer new money--in order to generate growth in developing countries and thus reduce country risk on outstanding debts--is far less. Hence, depending on whether the first priority of creditor governments is to protect the solvency of their banks against write-downs of debt, to have banks roll debt over, or to encourage them to erase it, the tax deductibility of additions to loan-loss reserves may be advisable or not. The ambivalence shown by policymakers about the benefits of a favorable tax treatment of loan-loss reserves may stem, in part, from countries' different perceptions about what constitutes an optimal debt strategy.

Table 6 presents information on the tax deductibility of loan-loss reserves in creditor countries. The tax benefit may be expected to be greater the higher is the deduction and the more general are the eligible reserves. 2/

Differences in the form of eligibility for tax deductions on loan-loss reserves make it difficult to judge the relative favorableness of cross-country tax treatment. However, British and U.S. banks have

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1/ See, for example, Bird (1988).

2/ In some countries, the speed at which existing reserves may be added to is also subject to regulation and will affect expected tax benefits.

Table 6. Tax Deductibility of Loan-Loss Reserves */

(Mid-1988)

	Specific (percent deductible)	General (percent deductible)
Canada 1/	yes	yes
France 2/	yes	yes (5 percent of credits)
Germany, Federal Republic of 3/	yes	yes
Italy 4/	yes (5 percent of credits)	yes (5 percent of credits)
Japan 5/	no	yes (0.3 percent of credits)
Switzerland 6/	yes (30 percent of credits)	yes (30 percent of credits)
United Kingdom 7/	yes	no
United States 8/	yes	no

*/ Unless otherwise noted, tax rules for loan-loss reserves are applicable to the overall transactions of banks, rather than applying specifically to developing country loans.

1/ In Canada, since early 1988, general reserves are deductible only with respect to loans made to borrowers in 34 heavily-indebted countries.

2/ In France, specific provisions are, in principle, deductible without limit, on a case-by-case basis. Besides the 5 percent limit on deductibility of general credits, the change in provisions may not exceed 5 percent of net profit before taxes. In general, the tax authorities question total provisions of above 40 percent of outstanding loans.

3/ In the Federal Republic of Germany, "minimum statutory reserves" are tax deductible. The minimum statutory reserve is specified as 0.5 to 1 percent of unsecured loans. Beyond the minimum reserve, it appears that tax authorities have liberal attitudes toward deductibility of specific reserves to any level.

4/ In Italy, "charges to loan loss are deductible under a specific formula until they exceed 5 percent of outstanding loans." (See Price Waterhouse (1986), p. 202.)

5/ In Japan, while specific allowances must be made for estimated uncollectible receivables (on the approval of the Ministry of Finance), they are not tax deductible. Deductions may be made for general provisions of up to 0.3 percent of all outstanding loans, a limit low enough to make the value of the provision negligible to banks. Until 1990, an additional allowance of 1 percent of new and rescheduled loans bearing sovereign risk (as defined by a basket of 36 countries) is tax deductible.

6/ In Switzerland, tax deductibility of provisioning is "relatively generous," and is similar from canton to canton. Recent regulations require provisions of 30 percent against loans to countries on a problem list (about 100 debtors)--which were to be achieved by the end of 1987; these are to be tax deductible. Furthermore, higher provisions will also be approved for tax deductions on a discretionary basis.

7/ In the United Kingdom, specific deductions have been allowed, to any level observed to date (up to 75 percent, for Bolivia), as long as they have been made in the global accounts of a bank (and not just, for instance, in the accounts of a British branch of an overseas bank). No general provisions are tax deductible at present, though there is some discussion of a move to a basket regime for provisioning.

8/ In the United States, since the 1986 tax reform, "large" banks (with assets exceeding US$500 million) are able to get tax deductions only for specifically charged-off debts. Bad debt reserves are no longer deductible, and furthermore, banks are being required to recapture their existing loan-loss reserves in income.

claimed that the taxation of general reserves has made provisioning (and therefore debt relief) particularly unattractive. 1/

An alternative approach is to prejudge the issue and look at actual levels of provisioning for developing country loans across countries, on the argument that they may indicate which countries have been treating provisioning most liberally. Illustrative figures for actual levels of provisioning are presented in Table 7. 2/ Two sets of figures are quoted: average levels of provisioning and known upper bounds to provisioning. The distinction becomes important in the context of the evolving debt strategy and rapid tax reforms in several countries. The average levels should give a measure of the relative attractiveness of tax treatment to date, while the upper limits probably indicate adjustments following tax reform or a perceived deterioration in the likelihood of recovering loans.

Briefly, Table 7 suggests that German banks are best positioned to write off debt, as it would cost them only a small proportion more than they have already provided for. On the other hand, German banks are least likely to provide new money, given that they have least to gain if the new money were to help them recapture their existing loans. Japan, the United States, and the United Kingdom, however, are still vulnerable to default by debtor countries, a fact which could explain why U.S. banks have been the driving force in the majority of debt renegotiations and concerted lending packages to date. 3/

As is readily observable from Table 7, levels of provisioning do not seem to be closely related to the tax treatment of provisions (although, as mentioned above, it is difficult to compare tax treatments across countries). In particular, Japan, the United Kingdom, and the United States are moving determinedly toward continental European levels of provisions, even though, in the United Kingdom and the United States,

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1/ Regulations limiting or prohibiting the inclusion of reserves in the definition of bank capital may also make the accumulation of general reserves costly for banks.

2/ The data should be considered as representative rather than precise, as they result from informal discussions with bankers during 1987/88.

3/ On December 15, 1987, the Bank of Boston, one of the largest U.S. regional banks, increased its reserves to 63 percent of its developing country exposure, a move unprecedented in the United States until then (and at least double the reserve level of Citicorp after its reserve increase of May 1987). It appears that the reserves of regional U.S. banks have become much larger than those of the large lending banks. It is argued that this polarization of banks is likely to make regional banks far less likely to cooperate in future concerted lending packages, and hence, to force the big lending banks to increase their own reserves and/or find alternative ways of dealing with their debt which does not depend on a concerted approach.

Table 7. Actual Levels of Provisioning on Developing Country Loans

(Mid-1988)

Percent of loans	Average	Upper limit
Germany, Federal Republic of	45	75
France	42	50
Switzerland	45	55
Canada	40	45
United Kingdom	30	35
Japan	10	n.a. 1/
United States	27	30 2/

1/ Conflicting reports of upper limits between 10 and 35 percent have been recorded for Japan.
2/ Money center banks; some U.S. regional banks have provisions of up to 50 percent.

tax deductions for provisions have been slashed recently. (At the end of 1987, average provisioning levels were 10 percent in the United Kingdom, 5 percent in Japan, and 2 percent in the United States.) It is likely that other regulatory requirements for and related to provisioning play a more decisive role in determining the size of banks' reserves in different countries than do taxes. 1/ On the other hand, it may be observed that the general trend in provisioning has been strikingly upwards in every country. This may reflect a general perception that the debt problem has not been solved and is becoming more intractible. Given such a perception, tax preferences might make only a marginal difference in banks' preferred levels of reserves.

3. Rescheduling the debt

The main impact of rescheduling (as defined in this paper) is to change the timing of a bank's revenues. While such changes may have important effects on liquidity, the composition of a bank's portfolio, and its capital adequacy at any time, they have typically had far fewer consequences for banks' loan income as defined for tax purposes--which may be one reason why rescheduling was the earliest method banks used to try to cope with the debt crisis. Changes in the after-tax value of a bank's income after rescheduling might, however, occur for two reasons: (a) If rescheduling were to generate losses in the near term, with offsetting future gains, the present value of the pre- and post-rescheduling income flow would remain equivalent only if loss carryforwards (or perhaps carrybackwards) were permitted over the entire period of the rescheduling. 2/ (b) If the tax system were to change (through, for example, a tax reform or transitional/temporary provisions) during the period in which the rescheduled debt was being serviced. 3/

In this section, limitations on loss offsets are discussed. The question of the changes in tax systems that have taken place since the debt crisis began and debt renegotiations were introduced goes beyond the scope of this paper. However, it should be noted that the 1980s have been a period of great flux for the tax systems of nearly all the lender countries under discussion. Hence, undoubtedly, many of the terms in debt renegotiations were set in anticipation of tax changes or

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1/ Canada, France, Japan, and Switzerland have some mandatory provisioning requirements, and the Bank of England issues quasi-mandatory guidelines for British banks.

2/ Even then, without indexing of losses, inflation would erode the real value of the income stream.

3/ Rescheduling fees, which may be significant, could also conceivably affect the income of banks--though, typically, it appears that banks have managed to offset them by corresponding increases in expenses. In the main creditor countries, fee income has been taxed in the same way as loan income, though with some distinctions being made between the fees of resident banks and branches.

in adjustment to costs imposed by unanticipated tax changes, rather than as simple single-period profit-maximizing with respect to the tax system in place at the time of the renegotiations.

If losses can be carried forward indefinitely, then, for a given present value of an expected income stream, a bank will not care about what year the income is paid in. 1/ However, any limitations on the provision for carrying losses forward will make banks less willing to defer income as it will create a direct relationship between the volatility of receipts and the amount of tax paid. 2/ If interest income were to be rescheduled, as part of a debt renegotiation, banks would have to defer receipt of expected income, compared with their original plans, leaving them open to losses in the near term, to be offset against higher than planned earnings in the longer run. Loss offsets, thus, would make a bank more willing to bunch its earnings in the future.

Table 8 shows the periods over which banks in different countries are permitted to offset their losses.

In the United Kingdom, there is no disincentive to rescheduling through limitations on loss offset. In the United States, the period over which losses may be offset is longer than the average maturity of developing country debt, and so effectively presents no barrier to

1/ Assuming that the corporate income tax is not significantly progressive.

2/ This may be illustrated by a simple example, where, despite an unchanged present value (PV) of loan income, tax paid depends on carryforward rules. (Note that the example is simplified by assuming a zero discount rate; despite the simplification, the results are general.)

	1981	1982	1983	1984	1985	PV of loan income	Tax paid
Constant earnings:							
Earnings	10	10	10	10	10	50	
Tax (40 percent)	4	4	4	4	4		20
Losses: no carry forward:							
Earnings	-10	-10	10	30	30	50	
Tax (40 percent)	--	--	4	12	12		28
Losses: carry forward:							
Earnings	-10	-10	10	30	30	50	
Tax (40 percent)	--	--	--	8	12		20

Table 8. Provisions for Loss Offset

(In years)

	Carryforward	Carryback	Total relevant accounting period
Canada 1/	6	3	10
France 2/	5	3	9
Germany, Federal Republic of 3/	5	2	8
Italy 4/	5	--	6
Japan 5/	5	1	7
Switzerland 6/	2	--	4
United Kingdom 7/	unlimited	1	unlimited
United States 8/	5	10	16

1/ Canada: Information here is for the federal tax only.
2/ France: Tax is refundable after ten years if the offset has not exhausted the credit from the loss.
3/ Federal Republic of Germany: The carryback is limited to DM 5 million from any one year.
4/ Italy: Loss offsets may be taken against the national corporate income tax but not local tax.
5/ Japan: The carryforward is permitted only for firms with approved bookkeeping procedures; the carryback was suspended between 1984 and 1986.
6/ Switzerland: The basis for income tax is usually the average income of two financial years, which, in itself, provides some relief for losses occurring in any one year. Carryforward is limited to one taxable period. Besides the federal tax, losses may be offset against most, but not all, cantonal taxes.
7/ United Kingdom: Carryback may be extended to three years if the loss was attributable to "first year allowances."
8/ United States: Losses must be carried back before they can be carried forward.

rescheduling either. It may be argued, however, that carrybacks curtail banks' ability to plan their tax payments; in that sense they may represent a smaller concession in the tax system than carryforwards are claimed to. 1/ If this is the case, U.S. banks will not have as much room to maneuver as British banks over the life of a loan.

Carryforwards are permitted for five years in all of the other countries except Canada, which grants relief over six years, and Switzerland, where the loss offset is restricted to one taxable period and is subject to certain conditions which limit a bank's flexibility still further. Under this criterion, it would seem, thus, that Swiss banks would be most reluctant to participate in any rescheduling of developing country debt. In all countries, except the United States, carrybacks are less likely to be granted than offsets to future income.

4. Debt restructuring

Active portfolio management of outstanding liabilities is playing an increasing role in the debt strategy, through the proliferation of debt restructuring options that tailor the characteristics of debts to suit specific banks and specific debtors. An interesting point to be noted in the evolution of the "menu approach" is that, typically, tax systems tend to be more or less neutral with respect to income from different modalities of financing. This characteristic is a tribute to the fairly wide definitions of income employed in the tax codes of the large creditors, so that changing the source of income tends not to change the way the income is taxed; the corporate income tax on financial institutions tends to be relatively broad-based and neutral. Hence, the attraction of restructuring instruments has tended to be the perception that they will raise the present value of the income stream of a loan to a bank by lowering default risk by the debtor by more than they raise funding risks, etc. to the lender. The specific modalities and the benefits they are perceived to offer are listed below, with a discussion of how the benefits may translate into tax-related consequences.

On the other hand, banks run the risk that gains/losses from the new financing modalities will be classified as arising from capital rather than as forming part of current income. Especially in the United Kingdom and the United States, where the tax treatment of capital gains is not globally specified, uncertainty about the definition of the source of the gain could deter banks from participating in the "menu approach."

It will be noted that the rest of this discussion is particularly tenuous; besides the problem of defining the source of gains, the intricacies of the treatment of income arising in different exchange

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1/ On the other hand, they imply a quicker reduction in tax payments.

rates, etc. are in many countries not fully specified in the tax code, but, so far, have been left to the discretion of the tax authorities to varying degrees.

More widely used ("traditional") financing options have included:

a. Currency (re)denominations. The denomination of new or existing loans in a creditor bank's currency of preference may allow the bank to reduce funding risks and costs, and exchange rate induced movements in capital-asset ratios. The debtor will gain if currency diversification reduces the impact of exchange rate movements on debt service payments, through, for example, redenominating debt service in the currency of his main export receipts, or even, if his domestic currency is internationally convertible, eliminating exchange risk altogether. 1/ The tax issue is whether or not the currency swap is, according to tax law, a cost of the loan transaction, or a separate transaction. In Canada, despite the fact that, in several cases, currency swaps were deemed to be separate transactions, the fees and other payments related to these swaps were not considered to form part of taxable interest income and were hence not subject to tax. However, these adjudications did not necessarily cover swaps used to eliminate open positions nor mismatched payments under swap arrangements. 2/

b. Interest rate options. The interest rate base on new or existing loans may be chosen (among, for example, LIBOR, a domestic interest rate, the prime rate, or a fixed rate) to reduce intermediation costs and possibly financing costs (if more market-related interest rates are chosen) or, perhaps, the vulnerability of debtors to interest rate fluctuations (if interest rates are fixed or made more stable). It seems that tax laws in all the countries under discussion do not discriminate among interest rates, or penalize shifts in interest bases.

c. Interest retiming. An extension of the interval between interest payments--for example, a change from quarterly to half-yearly payments--(with, usually, a change in the interest rate base to make it compatible with the new periodicity) allows a debtor to defer one or more interest payments. For the bank, the extension represents a way to extend finance without committing new money. If the new base reflects the cost to the bank of a longer payment period, so that the bank's income remains constant, then the only possible tax consequences would be related to any change in the timing of reported income, as discussed earlier in the paper.

d. On-lending and relending. The reallocation of credit to different borrowers within a debtor country allows a bank to reallocate its credit risk, and, more generally, to support businesses and exports,

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1/ International Monetary Fund (1987) notes that, so far, limits have been placed on amounts that may be redenominated.

2/ See Wilkie (1987), pp. 43-45.

etc. of clients in debtor countries, without increasing its exposure. Relending allows the original borrower to repay his debt, without, for example, reducing the net reserves of the debtor country; on-lending transfers the obligation to repay from the original borrower to a (presumably creditworthy) new obligor in the debtor country. Some tax authorities discriminate between loans made to governments and loans made to nonsoverign borrowers, for purposes of granting tax credits or in determining the tax deductibility of loan-loss reserves. This type of discrimination could generate tax costs for banks from on-lending and relending.

e. New trade credit facilities. New money may more willingly be lent by banks in the form of trade, rather than general purpose, financing. Banks may view trade-related debt as less risky, if they think debtors assign a higher priority to its debt service, or if they consider it fosters growth in the debtor country, through its support of a certain level of imports. In Japan and the United States at least, and probably in the United Kingdom, trade credits are favored relative to other forms of financing, as they are excluded from provisioning requirements; hence, the tax cost implicit in provisioning is avoided.

f. Cofinancing. Participation with development agencies in financing packages may allow banks to extend the maturities of their loans beyond their norm. Alternatively, a development agency might guarantee the later maturities of a loan, or contingency financing. There appear to be no tax consequences in any country to this sort of guarantee. (Of course, the longer the maturity of the loan, the greater the likelihood that the tax system will be changed during the period in which loan income is being received. According to economic theory, the greater element of uncertainty would translate into a higher interest rate.)

g. Debt conversion. Debt may be swapped for domestic financial assets (usually equity), either by the foreign banks or by debtor-country holders of foreign exchange (e.g., from flight capital). Equity holdings of U.S. banks are limited by "Regulation K," 1/ and in the United Kingdom, banks are required to deduct equity from their capital, so, in both countries, banks' benefit from debt conversion has come from the opportunity it provides them to rearrange their portfolio of loans (e.g., concentrating them in "strategic" countries) or to reduce their overall developing country exposure (perhaps in order to avoid participation in concerted lending packages).

Debt conversion has usually taken place at a discount, which may imply a financial concession to the debtor--of at least part of the discount. In other words, beyond the transformation of the debt

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1/ Regulation K was liberalized in August 1987 to allow some holdings resulting from debt equity swaps, but constraints on bank equity holdings are still important. See Blackwell and Nocera (1987), p. 18.

instrument, there has also usually been a fairly large element of debt relief involved in debt conversions. In Japan, losses from transactions at a discount may not be taken as tax deductions but must be subtracted from after-tax income. Hence, debt conversion has been a relatively unpopular option--though recent flexibility in the interpretation of the tax laws suggests that this may change. 1/ In a limited number of cases, banks have donated their claims to charitable organizations working in debtor countries, who have redeemed the claims in local currency. In November 1987, the United States Treasury ruled that such donations would be eligible for full cost deduction against tax liability. 2/

In general, banks have feared the effect of accepting discounts on some debt on the valuation of their remaining debt (contamination effects). This is an area where regulations appear to be unspecified in every country (except perhaps the Federal Republic of Germany), and the regulatory uncertainty, even more than unfavorable tax treatment accorded, explains the failure of debt conversion schemes to restructure any significant portion of the debt. In the United States, the carry-forward rules for losses arising from debt exchanges/conversions are slightly more favorable than for losses on loan income. Instead of the 10-year back, 5-year forward carrying provisions on bank interest income, losses on debt exchange may be carried forward for 15 years and back for 3 years.

Other, more recently introduced, elements of the "menu approach" include:

a. Alternative participation instruments (APIs). APIs have low interest rates and long maturities. Banks who wish to reduce or extinguish their exposure to debtor countries may exchange existing claims for APIs, on the argument that the lower interest stream compensates for the fact that they will no longer be required to participate in new money packages. Banks benefit if they consider the foregone income from the swap to an API to be less than the foregone income from continuing to put new money into the debtor country rather than lending elsewhere. Debtors benefit from the easier terms of debt service. The use of such "exit bonds" has been very limited, and their tax treatment has apparently not been specified. However, banks fear

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1/ An alternative scheme, unique to Japan, has been introduced, whereby a "factoring company" located offshore (in the Cayman Islands) may purchase Japanese debt. While the terms of the purchase are not clear, apparently transfer of bank debt to the factoring company affords Japanese banks tax relief they are not able to get from other forms of debt conversion.

2/ This information is taken from International Monetary Fund (1989), forthcoming, Section III.3, which discusses debt-for-good and debt-for-nature (to conservation agencies) conversions in more detail.

that they will be subject to the same unfavorable tax treatment accorded other losses from trading at a discount.

b. Securitization. Securities may be issued, either by banks or by debtors, backed by existing bank loans. Banks will benefit if securities, being more tradable than bank claims, allow them to reorganize their portfolios, or if securities are defined as being ineligible for rescheduling, that is, given a higher priority for payment than other types of debt. Debtors may benefit if the issue of securities provides them with greater access to nonbank financing. As long as no discount is involved in the substitution of a security for unsecured debt, it appears that security income should involve no different tax treatment than interest income from an unsecuritized loan. The only country in which the appearance of a discount would have changed the tax treatment of the loss is France. In France, losses on securities are treated as capital losses, and must be deducted from capital gains (subject to a 15 percent tax rate) rather than from interest income.

In the case of the Mexican-U.S. debt exchange of February 1988, where the securities (zero-coupon U.S. Government bonds) were backed not by the debtor but by a creditor government, the further issue arose as to whether definitions of developing country exposure had changed and therefore whether provisioning levels should be affected. In France, Japan, and Switzerland, the collateralization through U.S. securities was determined to change the nature of the claim so that it was no longer treated as Mexican risk for provisioning purposes. In the United States, only the excess of the valuation of the claim over the present value of the collateral was treated as Mexican risk.

It is not clear that the fees involved in this type of securitization may be counted as expenses for tax purposes.

c. Prioritization of debt. A more general form of b., above, is the definition of certain types of debt as having priority in debt servicing and full or partial exemption from rescheduling. Such a specification raises a bank's expected return on the prioritized loan. Prioritization, while it may be perceived as necessary for the elicitation of new money, can create a diplomatic dilemma for the debtor, and legal problems in cases where previous reschedulings have included sharing clauses. 1/ Particularly in countries where loan-loss reserves are tax deductible on a case-by-case basis, prioritization could conceivably change a bank's tax bill, by signaling that a loan against which the bank wished to provision was more or less likely to be paid. However, no such instance has been noted.

1/ Succeeding rounds of prioritization could remove the advantage offered in early rounds, negating the usefulness of the instrument.

d. Interest capitalization. The formal deferral of interest payments and the inclusion of deferred payments in amortization might benefit banks if capital and interest were treated differently by regulators and the tax system. However, in Japan and the Federal Republic of Germany at least, this has not been the case. Capitalized interest has been treated as accrued income for tax purposes, a treatment considered very unfavorable to banks.

e. Fees. Fees or bonuses may be paid to banks who commit early to new money packages or to debtors who service their debt punctually or early. These fees tend to redistribute the costs of uncertainty between lenders and debtors. The tax issue is whether these fees are separated from interest income--when paid to banks, and whether they are deductible expenses for tax purposes--when paid to borrowers. As in the case of rescheduling fees, fee income in creditor countries appears to be subject to the same tax regime as interest income. In Canada, where the issue has arisen, it seems that receipt or payment of fees has had minor tax consequences, if any. 1/

f. Debt buybacks. The debtor may buy back its outstanding loans, almost always at a discount, reflecting their risk-adjusted value to the bank. Despite the element of debt relief inherent in the discount, banks benefit by the reduction in their exposure, possibly by exclusion from new money packages, and from any sharing of the value of the discount with the debtor. The debtor benefits by the whole or part of the discount on the value of the debt. In Japan, regulations require that the loss from the discount be ignored in the calculation of taxable income, a treatment so unfavorable as to make this modality unpopular with Japanese banks. 2/ However, in fact, tax deductions have recently been allowed for the losses incurred in buybacks by Bolivia and Chile. In other countries, it appears that the loss from the discount has been treated in the same way as other losses for tax purposes.

IV. Conclusions and Caveats

The 1980s have been a time of great uncertainty for banks. Not only have they had to face the debt crisis, but at the same time, in most countries, the tax system was also changing significantly. This paper has explored the idea that the structure of a national tax system may affect the way that country's banks respond to the debt crisis. From the discussion in the paper, some tentative conclusions may be drawn.

1/ This result is inferred from Wilkie (1987), p. 43.
2/ It should be noted that it is the treatment of the discount, and not the early amortization, that creates the tax cost. It seems that there has been no tax ruling on the effect on bank funds of claims redeemed prior to maturity.

However, while the comments below reflect not only the data presented in this paper, but also informal opinions presented in discussions in banks, in newspapers and at conferences, an important caveat about the limitations of this study must be highlighted. The conclusions have been drawn on the basis of the nominal tax legislation, rather than on the basis of effective tax rates. Even de jure tax rules are extraordinarily difficult for the layman to interpret; definitions of income, expenses, deductibility, etc. can differ radically from country to country by virtue of subtleties in local law which are not discernible to an outsider.

Differences in definition, and, probably much more importantly, the economic impact of small provisions that in fact act as large loopholes, may mean that nominal tax rates provide very little information about the taxes that banks actually pay from country to country. Banks in a country with high tax rates but many exemptions and exclusions may have far more profitable foreign lending operations than is evident from a casual examination of their tax code. As it would still be in their interest to lobby for reductions in tax rates, the intensity of bank complaints about their tax system cannot be taken as proof that they are paying particularly onerous taxes.

It has not been possible to find cross-country data on effective tax rates. A study of 1982 effective tax rates in the United States estimated that "financial institutions" paid 24.3 percent of their income in taxes, slightly more than half of what the nominal rate schedule would have suggested. It is, of course, not unusual that effective rates should be lower than nominal rates, as effective rate calculations factor in all exonerations and preferences that do not show up in the nominal schedule. The question is, rather, whether there are significant variations in the ratio of effective to nominal rates from country to country. Though this question is important, it cannot be answered here.

The results of the U.S. study of effective rates support the evidence, observed earlier in the paper, of a discrimination against foreign lending implicit in the U.S. tax system. The estimates presented distinguished between taxes on income earned in the United States and taxes on foreign income. It appears that U.S. banks paid 33.9 percent tax on their foreign income, whereas they had a negative effective tax rate of 3.8 percent on U.S. income. As U.S. banks chose to lend money to foreign countries in 1982, the inference may be drawn that, on average, before-tax rates of return to foreign lending were about 38 percent higher than in the United States. 1/

Given the straitened circumstances of many developing countries at present and their low growth rates, it seems extremely unlikely that rates of return have remained that high in debtor countries. Add to

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1/ See Joint Committee on Taxation (November 1983), p. 11.

that the increasing discrimination against foreign lending in the United States, introduced in the 1986 tax reform, and the likelihood of new money being extended in future becomes even more problematic. (A study of the impact of the 1986 tax reform on effective tax rates on worldwide income estimated that the reform would raise banks' effective rate by more than 20 percent, from 24 percent to 29 percent. 1/ Hence, even if no other factors changed, rates of return to U.S. loans to developing countries would have had to jump by 5 percentage points in order to keep lending at the same level as before the reform.)

A further caveat to be borne in mind is that banks may be far more significantly influenced by the regulations of supervisory authorities and by accounting practices than they are by taxes. The policy objectives underlying regulations and accounting rules may be quite different from those of the tax authorities. At the moment, reforms in regulations at least equal in magnitude to the tax reforms are taking place or are being proposed in several countries. Hence, while tax rates seem to be large enough to be important, they are certainly not the prime movers of banking behavior. In particular, the definition of a bank's capital ratio, determined primarily by regulators (though adversely affected by increases in income tax liability), is often considered to be the overriding determinant of bank behavior. The recently-agreed Bank for International Settlements' guidelines for capital adequacy (which come into force in 1992) may lead to large changes in bank behavior during the coming years.

Bearing in mind (a) the limitations of an analysis based on nominal tax rates, and (b) the partial equilibrium nature of conclusions about lending that are based only on tax rates and abstract from regulations and other important determinants of bank behavior, the paper suggests the following conclusions:

1. Banks in Switzerland, France, the United Kingdom and Italy appear to make relatively more after-tax profit, unit by unit, on their foreign income than do banks in the Federal Republic of Germany, Japan, the United States, and Canada, and, other things being equal, should therefore be more willing to provide new loans in the furtherance of a solution to the debt problem. (See Table 4.)

2. However, all countries except Japan and Italy (and in exceptional cases, France) appear to discriminate against foreign lending compared to lending at home, in the sense that foreign tax credits allow less than 100 percent of debtor country withholding tax to be offset against home country tax liability. The recent tax reforms in the United Kingdom and the United States seem to have severely increased the discrimination against foreign lending, so, in adjustment to the new tax rules, large shifts of funds out of developing countries and into industrial markets may be predicted. (See Table 3.)

1/ See O'Brien and Gelfand (1987), p. 601.

3. The pattern of lender-country discrimination is repeated to some extent in the distribution of tax-sparing agreements, except that the large number of tax-sparing agreements to which the United Kingdom has been party reflect the previous, more liberal, foreign lending regime rather than the post-reform tax rules, under which the tax-sparing agreements are expected to be almost worthless. (See Table 5.)

4. As a general comment, any kind of tax discrimination against foreign lending means that before-tax returns have to be higher in developing countries than in the home countries before banks will be willing to lend there. Present attempts to cope with the debt crisis have included significant pressure on banks to accept lower interest rates on rescheduled and new money than were common in the early 1980s. 1/ This trend lowers the likelihood that it will be profitable for banks to go on lending abroad, even if the intensification of the apparent discrimination through the U.S. and British tax reforms had not taken place.

5. While British and U.S. banks may have scant incentive to provide much new money to developing countries in the future, they are, on the other hand, least likely to face tax distortions on account of debt service deferrals which lead to more volatile income streams. In all of the other countries (and particularly Switzerland) loss offsets may be taken only over a period which is shorter than the average maturity of a developing country loan. (See Table 8.) Hence, loan rescheduling might be expected to be more attractive to British and U.S. banks than to Japanese and continental European lenders.

6. In most countries, the tax treatment of innovative restructuring options does not yet seem to have been clearly defined, but is being treated on a case-by-case basis by national tax authorities. Where restructuring is narrowly defined to exclude the debt relief (or concessional) element which has accompanied many of the financing options in the "menu approach," the tax issue appears purely to be one of classifying the various types of transactions inherent in the financing modalities (as fee paying, capital gains taking, interest-income enhancement, etc.), so that the transactions can be interpreted more readily in terms of provisions in existing tax codes.

7. Unfavorable tax treatment of the discounts attached to some of the financing modalities in the "menu approach" appears to have made banks in the Federal Republic of Germany and Japan, and probably elsewhere, wary of extending debt relief "indirectly" in the financing packages. As banks have also expressed concern that the recognition of discounts on some of their debt may have regulatory consequences for the valuation of the rest of their debt, the treatment of discounts on loans

1/ This is clear from Table 28 of International Monetary Fund (1987), p. 75, ff., which lists the terms and conditions of bank debt restructurings and financial packages between 1978 and 1987.

is clearly one of the more pressing policy issues that needs to be tackled by country authorities if they are to develop a coherent debt strategy. In cases that have arisen so far, tax authorities have been flexible.

8. If banks will be in a better position to extend debt relief when they have made adequate provisions for loss taking, then German, French, and Swiss banks, whose average provisioning levels are far higher than those of the other lender countries, should be relatively better placed to grant concessions. (See Table 7.) In each of these countries, additions to reserves have been tax deductible on a "liberal" basis. On the other hand, Japanese, U.S., and British banks remain significantly unprotected against possible losses, compared with other lenders. The drastic transfers to reserves taken since mid-1987 by large national and regional American banks is an indication of the shortfall in judicious provisioning that had emerged. In all three countries, only specific charge-offs are tax deductible, a restriction that has been tightened in the United Kingdom and the United States by their recent tax reforms. (See Table 6.)

9. However, in the countries with tax relief only on specific charge-offs, <u>incentives</u> to pass through losses to debtors in the form of debt relief are higher than in countries where tax concessions have been granted at the time losses were provisioned for but not written down.

10. On the other hand, these banks, which have provisioned least adequately against loss, should be most ready to seek alternatives to debt relief as a solution to the debt crisis. This is consistent with the view that American banks have, to date, in some sense led the debt renegotiations. As provisioning levels rise in the United States and Japan, it is possible that willingness to increase exposure to developing countries will ebb. (In light of the increasing cost to provisioning in the United States, and assuming that regulations have not changed radically since 1986, the recent large reserve increases must be interpreted as a belief by American banks that the present debt strategy is not working.)

A Note on Sources and Methodology

The main sources for this paper were the country handbooks for banks issued by international accounting firms (KPMG, Price Waterhouse, and Coopers and Lybrand). These handbooks are intended to provide international banks with sufficient operational knowledge to set up operations in the country under discussion. As such, they provide detailed information on tax obligations for banks, in a fairly uniform format across countries, together with worked examples of the computation of taxes due in each country, starting from a uniform pretax amount and composition of income. The uniformity of the calculations has the benefit of implicitly holding bank profits on domestic operations constant, and restricting the analysis to the effect of banks' international exposure on their profitability.

The most consistent and wide-ranging set of data and calculations were available from KPMG, so KPMG sources were used wherever possible in the paper, supplemented by other sources only when necessary, and updated by reference to the tax news services (International Bureau for Fiscal Documentation (1988b, 1989) and Diamond (1988)). However, it should be stressed that, in a significant number of cases, the accounting firms give conflicting information, and it has been necessary to retreat to the tax laws for verification. Some conclusions drawn directly from the tax laws are open to interpretation.

In many countries, the tax treatment of banks designated as resident and banks designated as overseas branches of foreign banks differs. This difference has not been treated in the text, which discussed tax procedures only for resident banks. In general, though with exceptions for specific tax issues in one or two countries, the tax treatment of branches of overseas banks is similar or less favorable than the treatment of resident banks. Except in Canada (where branches of foreign banks are not allowed), the form of incorporation of a bank is a matter of discretion of the parent bank, regardless of whether it is domestic or foreign, and it is to be expected that, where the treatment of resident banks (not only in terms of taxes but also in terms of more general regulations) is more favorable than that of branches, the majority of overseas banks will establish in a country as residents.

The method underlying the calculations of KPMG that were used to derive the text tables is detailed in KPMG (1987), p. 20. Specifically, banks in all countries are assumed to make a 15 percent profit before all taxes. They are assumed to receive income of four different classes: 10 percent from foreign interest which has suffered foreign withholding tax of 15 percent; 52 percent from foreign interest on which no withholding tax was levied; 25 percent from local interest; and 13 percent from other income (such as management and participation fees). Of expenses, 6 percent are administrative and the rest are interest costs. These assumptions form the basis for all calculations here, with a slight variation for the United States (where foreign tax credit eligibility also depends on the assets of the bank). The assumptions were chosen by KPMG as being representative. However, their main virtue lies not in their absolute magnitudes but rather in the fact that using them allows the different bank tax systems to be compared as if applied to the same pre-tax financial position.

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