

**Institutional Arrangements for a Levy on
International Currency Transactions¹**

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I. The Objectives of a Tobin tax

Support for a Tobin tax, and more generally for taxes which dampen financial volatility, has increased in recent years, as a result of several very serious episodes of financial instability and of their high costs to the real economy. In particular, the 1987 October crash lead distinguished and influential economists, like Joseph Stiglitz and Lawrence Summers² to propose new taxes on securities transactions.

Furthermore, recent volatility in world financial markets, and in particular the 1992 crisis of the ERM and the 1994 Mexican peso crisis, have generated interest in different policy instruments that could be used to reduce destabilizing capital flows, thus reducing volatility of variables such as the exchange rate, and the cost of such volatility on real economies. In the context of this broader debate, there has been an important growth of interest in the 1978 proposal by Professor James Tobin of a tax on foreign currency transactions.³

Simultaneously, the present financial constraint on the United Nations has led to the idea that the burden of financing the UN could be shifted from national to global sources.⁴ This would allow the UN to more effectively promote "international public goods" and fight "international public bads", activities which are increasingly important in a growingly interdependent world. The Tobin tax, on foreign currency conversions, would seem to be a prime candidate for such global taxation, given its' potentially high yield. The view that the Tobin tax could become an important source of revenue for the United Nations was put forward with particular force in the 1994 UNDP Human Development Report; a more in-depth study of its' feasibility is currently being carried out by UNDP; this paper focuses, within this project, on institutional arrangements for an international currency transactions' tax.

The idea of "killing two birds with one stone", that is implementing a Tobin tax with both the purpose of diminishing volatility in capital flows and raising significant

² J Stiglitz, (1989) "Using tax policy to curb speculative short-term trading" Journal of Financial Services Research; L H Summers and V Summers (1990) "When financial markets work too well: a case for securities' transaction tax" in D Siegel (Ed). Innovation and Technology in the Markets. Chicago, IL, Probus Publishing Co.

³ See, for example D Felix "The Tobin tax proposal. Background, issues and prospects". Futures. Vol 27, no 2, March 1995; P Spahn, "International Financial Flows and Transactions Taxes: Survey and Options". IMF Fiscal Affairs Working Paper. June 1995; also for an important re-statement of the Tobin tax, see B Eichengreen, J Tobin and C Wyplosz "Two Cases for Sand in the Wheels of International Finance" Economic Journal. January 1995.

⁴ See, for example, I Kaul "Beyond financing. Giving the United Nations power of the purse" Futures. Vol. 27, no 2, March 1995. Special Issue: the UN at Fifty: Policy and Financing Alternatives.

revenue for global institutions, such as the UN and the World Bank, is clearly an appealing one.

As regards the objective of limiting volatility of international capital markets and their negative effects on the real economy, a uniform, constant Tobin tax may be too blunt an instrument for assuring that the right amount, and at the right time, of "sand in the well-greased wheels" is thrown at global financial markets, to prevent or reduce speculative attacks on particular currencies. A Tobin tax would be useful to discourage speculative flows in general. However, because there is evidence that it could impact destabilizing short-term speculation more than stabilizing long-term speculation, and as a result it could reduce the variance of the exchange rate⁵. However, its' proposed level (even at 0.5%) would not be high enough to discourage speculation, in cases when the speculators are assuming with very high probability that they could make large profits - or avoid large losses - if there will be a major devaluation (e.g. 10% or more). Though the existence of a 0.5% Tobin tax, could provide some discouragement of speculation in such a case, the disincentive it would provide would be fairly marginal. However, by discouraging short-term speculation in general, the Tobin tax could play a helpful role in avoiding build up to crises. More generally, there is evidence that a reduction of speculation in more normal times will lessen the number of incidents of larger scale speculative instability. Furthermore, a 0.5% Tobin tax could eliminate the attractiveness of a 5% devaluation expected with 20% probability⁶ (the expected benefit of the transaction is 1% ($5\% \cdot 2$), which would exactly offset the cost of a 0.5% tax paid twice in a round trip). However, major speculative attacks on currencies usually occur when speculators and other market actors expect a rather large devaluation (e.g. over 10%), and expect it with a fairly high probability (e.g. over 50%). The expected benefit of a transaction (over 5%) would therefore in those cases be significantly higher than the additional cost (1%) which a Tobin tax would imply. Therefore, it would seem more appropriate to use the Tobin tax, as one of several policy instruments that can be deployed to discourage speculative or unsustainable short-term capital flows.

Indeed, in the context of capital flows to developing countries, the IMF and the G-77 have recently suggested a number of policy measures to try to prevent Mexico-style

⁵ See, J. Frankel "How Well Do Foreign Exchange Markets Function: Might a Tobin Tax Help?", paper in this volume.

⁶ See, B Eichengreen and C Wyplosz "What Do Currency Crises Tell Us About the Future of the International Monetary System?" Paper prepared for FONDAD, September 1995 seminar on "Can currency crises be prevented or better managed?"

⁷ See, for example, Halifax Summit, Communiqué, June 15-17, 1995.

crises. These include sound fiscal and monetary policies in each country and improved early warning systems, via improved and effective surveillance of national economic policies and financial market developments. The IMF⁸ has also begun to recognise that measures taken by recipient countries, to discourage unsustainable short-term capital inflows have a valuable role to play. Such measures include taxing short-term inflows, imposing reserve requirement deposits on liabilities associated with short-term borrowing in foreign currency (e.g. Chile) and even quantitative limits on inflows (e.g. Malaysia, Indonesia and other Asian countries). However, all these measures may be insufficient, and may need to be complemented by measures taken by the regulatory authorities of source countries to discourage unsustainable short-term capital inflows to countries with very large current account deficits. In this context, it has been suggested⁹ that, for example, securities' regulators in source countries could discourage or limit securities and other private short-term flows going to fund current account deficits in developing or transitional countries, where these flows are funding too large a current account deficit e.g. of over 3% of GDP or more (or a similar "rule of thumb" could be used). The above described instruments, such as measures by recipient or source countries to regulate short-term flows or others can be quite specifically tailored, and hopefully suitably adapted, to different circumstances in which discouraging short-term flows are necessary; they would therefore be fairly sharp policy instruments targeted to a specific objective, and circumstances. They would be complemented by a Tobin tax, which would also provide more general discouragement of short-term inflows (and outflows).

Another alternative would be to define the Tobin tax, at a minimum level and then allow individual countries or groups of countries to raise it, in times of excessive inflows" or "speculative outflows".¹⁰ This idea is conceptually attractive. However, given that the objective is to have as universal a tax as possible, it would imply involving many countries reaching agreement for raising the tax in some of them (and distributing such revenues equitably) it may be too difficult, to make such a

⁸ IMF, 1995. International Capital Markets, Developments and Prospects, and Key Policy Issues. For a previous analysis, supporting such measures, see, for example R Ffrench-Davis and S Griffith-Jones Coping with Capital Surges: The Return of Finance to Latin America. Lynne Rienner. Boulder Colorado. See, also R Ffrench-Davis and M Agosin "Managing capital inflows in Latin America". September 1995. Paper for ODS - UNDP meeting.

⁹ See, S Griffith-Jones, How can future currency crises be prevented or better managed? Paper presented at FONDAD Conference, at the Central Bank of Holland. September, 1995. Amsterdam.

¹⁰ Such a proposal, consisting of a two-tier rate structure - with a low rate transaction tax plus an exchange surcharge, applied during phases of speculative trading - is developed by Spahn, op.cit.

proposal practical. It would seem better to adopt the above suggested option, with a Tobin tax acting gently as a general disincentive to short-term flows, and sharper instruments (e.g. higher taxes, reserve requirements or other measures, including possibly regulations, adopted by recipient countries and maybe by source countries) being tailored to specific circumstances. This option would be particularly compatible with focusing on the Tobin tax, more as an instrument to raise significant revenues, to help fund global institutions such as the UN.

II. The practicalities of a Tobin tax

Further support for a Tobin tax needs to be gained by several methods. At the intellectual level, further work is required to persuade critics or sceptics that the Tobin tax will have a beneficial effect on reducing volatility. Statistical work may play a role here. Furthermore, critical arguments need to be examined carefully; for example, it has been argued that taxes on financial transactions also may increase volatility due to a reduction in market liquidity¹¹.

However, perhaps the best way of taking the idea of a Tobin tax forward is to focus on the details and practicalities of how - if agreed - it would be implemented.

Amongst practical issues that need defining are the following: What coverage should a Tobin tax have? What type of transactions would be taxed? How would international agreement best be reached? How would such a tax be implemented? What would be the role of national governments and/or of international institutions? Once these, and other, practical issues are answered (or alternatives scenarios are designed), the Tobin tax will become far more specific, and the discussion would focus far more on the details, rather than on the more metaphysical question, whether it should be adopted or not.

Before briefly discussing some of these issues, it seems interesting to stress that a recent IMF study on financial transaction taxes,¹² while somewhat sceptical of the impact of a Tobin tax on reducing volatility, is however fairly optimistic about the ease with which a framework for the administration of the Tobin tax could be established and operated. This would be facilitated by the fact that the foreign exchange market is relatively well structured, the number of licensed participants is

¹¹ A Lo and J C Heaton "Securities' Transaction Taxes: What Would Be Their Effects on Financial Markets and Institutions?" Catalyst Institute. Chicago, December 1993.

¹² P Shome and J Stotsky (1995) "Financial Transaction Taxes" IMF Working Paper. Fiscal Affairs Department. August.

limited, and registered dealers execute the majority of transactions. The IMF study further stresses that tax administration would be facilitated more by the fact that foreign exchange transactions in all relevant markets rely heavily on automated processing and on telecommunications networks. Furthermore, tax collection would be facilitated by the fact that the bulk of relevant transactions occurs in a small number of countries. Thus, in 1992, the US, the UK and Japan accounted for 55% of all countries' turnover; if Singapore, Switzerland, Hong Kong and Germany are added, about 78% of total trading is accounted for.

Finally, in a recent IMF Working Paper on the subject (Spahn, op.cit), the form in which automated processing and telecommunications networks could make tax administration particularly simple is developed further. It is emphasised that tax assessment rules could be built into existing computer algorithms. Indeed, it is interesting that this study concludes very convincingly that: "Generally speaking, there seems to be no major administrative problems associated with the operation of a Tobin tax, although difficulties may arise in detail, in particular in the derivatives' markets. The main problems relates to international cooperation and legal enforcement.

A. International agreement of the tax

In terms of coverage, clearly the ideal would be for the tax to be universally applied, by all countries. If not all countries (or at least not all major countries and financial centres) agree there would be a tendency for foreign exchange operations to be booked through countries where the tax was not levied.¹³ Thus, the best way forward would be for an international agreement to be reached, and for national governments to charge the tax for relevant transactions carried out within its' jurisdiction.

This international agreement would probably need to take the form of a Convention, which would need to be ratified by all the States that will participate. The procedures would be that one country - or more - proposes such a Convention. Then, other countries may approve such a convention; such approval will be subject to their parliaments ratifying it. Such a Convention can be approved for an indefinite period, or could be approved for a limited period (e.g. 5 or 10 years), after

¹³ Eichengreen, Tobin and Wyplocz, "Two cases for sand in the wheels of international finance". Economic Journal, January 1995 stress that the tax would have to be "universal...and would have to apply to all jurisdictions".

which it will be reviewed. It is important to stress that an international Convention starts to operate when the 15th country approves it.

An alternative route would be for the rules to be established by an international organisation, such as the IMF. Indeed, if there was sufficient agreement among the major member countries, it would be possible to amend the IMF Articles so that all countries would have to impose a Tobin tax, as Tobin himself has suggested. As changing the Fund's Articles of Agreement is a very major exercise, it would seem far more likely, however, for major countries to reach an international agreement amongst themselves for a Tobin tax.

The option of an international agreement including all the major economies and the major financial centres seems clearly therefore the better institutional option to follow, due to its' far higher political feasibility. Indeed, it would seem far less likely that major countries and / or major financial centre countries would be willing at present to give up part of their sovereignty on tax matters to an international organisations, such as the IMF. However, the first option does have the disadvantage that it will make it somewhat more difficult to assure universal participation by all countries, which would create the risk of some evasion via transactions fleeing to countries without the tax. This problem would, however, be far less serious if all the major countries and / or major financial centres participated in the Tobin tax; moving a large proportion or all of countries' foreign exchange operations from a major financial centre to an offshore Tobin tax haven would probably be too costly to be worthwhile and could be too risky. Furthermore, the countries participating in the Tobin tax could design measures to avoid this happening. The fact that national tax authorities are not powerless in the face of tax-evading financial operators is clearly illustrated by the way UK tax authorities have modified the UK stamp duty on registration of securities.¹⁴ The UK tax is a stamp duty on registration, so it generated an incentive for the creation of bearer instruments, which can be traded without using registration services. To offset this incentive, UK stamp duty applies at triple the rate on any bearer instruments, even when these are traded abroad. This reportedly has been effective in reducing wavier of the stamp duty by the creation of bearer or related instruments. Similarly in Sweden, the transaction tax on the purchase and sale of equities, applied in the mid and late 1980's, imposed a tax equal to three times the round-trip tax on equity applied to funds moved offshore.

¹⁴ See, K Froot and J Y Campbell "Securities transaction taxes what about international experiments and migrating markets? Catalyst Institute Chicago. 1993.

The very successful UK stamp duty (see below), provides very encouraging precedents for the effectiveness of reducing potential Tobin tax evasion by imposing a higher tax on all transactions with non-taxing sites as Kenen¹⁵ suggests. As Kenen, op.cit, rightly suggests, the Tobin tax for operations with tax-free trading sites would have to be far higher than the normal Tobin tax, and would be particularly effective to avoid the creation of special trading sites for Tobin tax avoidance purposes. However, to avoid Tobin tax avoidance by moving operations to established trading sites, the best option is to make sure that the proposed tax is applied and enforced in all countries with major dealing sites.

Even if the Tobin tax were implemented by an international agreement, the IMF could and probably should still play a major co-ordinating and supervisory role of the Tobin tax. Alternatively, an autonomous intergovernmental commission could be set up for such a purpose.

Therefore, two choices need to be made. The first one is whether the task of agreeing the Tobin tax and defining a fairly detailed blueprint internationally should be done by an existing international financial organisation or whether a new agency or commission should be created for this purpose. The second choice, if the former is thought more desirable, is to elect an appropriate international institution.

Before suggesting what seems the best institutional option, it is important to outline the basic functions of such a body. Kenen, op.cit, suggests three key tasks: drafting a tax code, interpreting and amending the code and collecting the part of the tax revenue, which is to be used for international purposes. This institution would also make an input into the decision on how the revenue would be distributed, though governments would need to take the ultimate decision on that.

On balance, it would seem preferable to base the procedure on an existing international institution, though a small separate inter-governmental commission could be created to lead this task. The reason to use an existing international institution is that there is much resistance, especially amongst several major industrial governments to create new international public institutions. (It should, however, be stressed that one of the main reasons for this is that new institutions cost more money; however, an institution to raise a Tobin tax, could be raising so

¹⁵ P Kenen "The Feasibility of Taxing Foreign Exchange Transactions" August 1995. Paper prepared for this volume .

much revenue, that this argument is somewhat weakened.) Secondly, it may be easier for an established international institution, both to have the authority to help impose and monitor the tax, and to have the financial expertise to centralise the collection and distribution of the large funds involved, particularly the part used for international purposes. As it is true that, as Kenen, *op. cit.*, point out, the existing institution may wish to lay too large a claim on those resources, it would be useful to complement its' function, with the activities of a small autonomous inter-governmental global tax commission, where for example proposals for distribution of the tax proceeds would be made and discussed. As pointed out above, this commission could be established in the context of the UN, but it may need to be established with weighted majority voting, and particularly in such a way so as to encourage and to ensure the participation and collaboration of the major countries and/or major financial centres.

As regards the existing institution to be chosen to take a lead for such a purpose there seems to be three options: the IMF, the BIS, and the World Bank. The choice is not a straight forward one, as none of these institutions - or any other - have an explicit mandate for, or experience of, collecting international taxes. Indeed, there is at present no global Treasury. The IMF has strong advantages for this task in that its membership is practically universal, its' views are rather influential amongst many countries, and indeed it could even use its' powers, by different mechanisms to encourage its' member countries to collect the tax; (these type of measures however seem relatively unlikely to gain political support); furthermore the IMF also has considerable expertise in international financial matters. More broadly, it could be argued that a central purpose of the IMF is to promote international monetary cooperation. Under its heading the IMF is indeed intended to further exchange rate stability and to maintain orderly exchange arrangements among its' members. As an important part of the objectives of the Tobin tax are similar to those described above of the IMF, it would seem particularly appropriate for the Fund to play a role in implementing the Tobin tax. The problems with using the IMF as a key institution are that it does not specifically have expertise in international taxation (though it has expertise on national taxation) and that in some of its' analysis of the Tobin tax, though positive about its' desirability, ease of implementation is somewhat sceptical about its desirability. The BIS has the advantage of being an influential body amongst developed countries, and particularly with the Central Banks of those countries, with which it has very close links; it also has more informal links with many Central Banks of developing and transitional economies. The BIS has also considerable expertise in international financial matters, and was indeed originally

established to administer financial settlements. The main disadvantage for this purpose of the BIS is that its' formal links are with the G-10 countries; though these include most of the large financial centres, they exclude several major ones, like Singapore and Hong Kong. Furthermore, the links which the BIS has with developed countries is exclusively with their Central Banks and not with their Treasuries. This would make it even more problematic for the BIS to play this role. A third institution that could take the lead would be the World Bank. Like the Fund, it has the advantage of practically universal membership; its' views are influential among developing countries. It has also considerable expertise in dealing with international and national financial markets (in some aspects far more than the IMF because it borrows on the markets to fund a large proportion of its' operations). Given its' development mandate, it would probably be one of the institutions involved in using the proceeds of this tax, for example via its' lending to the social sectors and or to support the environment. However, it is less clear that a global public development finance institution should be involved in raising global tax revenue. It would therefore seem that it would be most appropriate for the IMF to take the lead on the Tobin tax, with the World Bank also being a possible lead institution. However, an important criteria for deciding which institution should take the lead is the enthusiasm with which the management, and the staff of those institutions would have for taking on such a role. In any case support from the IMF and World Bank - both technical and political - would be very valuable for establishing and implementing the tax.

Major policy decisions (such as the decision of and date for the establishment of the tax, determination of its' rate, how transactions with non-taxing financial centres would be taxed, broad coverage of transactions, broad use of the tax, etc.) would have to be taken by the Finance Ministers and / or Central Bank governors, (or their representatives) of all the governments that were willing to impose the tax. A first meeting of such a group could for example precede or follow on the Annual Meeting of the IMF and World Bank, where most of the senior financial figures of all countries meet.

Once the broad blueprint would be designed (including the key institutional aspects), the leading financial institution, (which would probably be the IMF) with the help of the special intergovernmental commission for global taxation would make more detailed proposals. Once implemented the latter would then take decisions on those more technical matters. Indeed, this autonomous intergovernmental commission, which could be attached to, for example, the IMF,

would play an important role in the process of establishing and collecting the Tobin tax. Once this intergovernmental commission has defined and approved a detailed blueprint, the legal process of establishing an international Convention would proceed. Once the Convention was approved by a sufficiently large number of relevant countries, the intergovernmental commission would start the work of tax collection, in cooperation with national tax authorities, which would act as its' agents for collecting the tax. Once a year, e.g. on the day preceding or following the IMF / World Bank Annual Meetings, progress on implementation could be evaluated, and major outstanding issues could be discussed. If major decisions needed to be taken in the interim, this could be done by circulation or in special circumstances a special meeting could be convened. (Busy Finance Ministers and / or Central Bank Governors may be reluctant to come to special meetings, particularly to discuss a tax whose proceeds will mainly have international uses; therefore, using the Annual IMF/World Bank meetings may be very appropriate).

B. Precedents for taxing financial transactions

Before looking at practical issues as they relate to levying the Tobin tax (either on a national or market basis), it is interesting to analyse available international experience in different countries, as important lessons can be learned from that experience. The first point to make is that many countries already tax financial transactions (see Annex I) and several of them do so very successfully. One of the countries which taxes financial transactions most successfully is the UK. The UK experience is very interesting, not just because the tax obtains a very high yield in revenue (£830 million, that is around US\$1,300 million in the fiscal year 1992/3 with higher yields in some other years), but also because the UK Treasury manages to obtain such a high yield in one of the most sophisticated financial markets of the world, and therefore one where market actors would be expected to be the most likely to find mechanisms to evade the tax.

We will therefore outline the main details of the UK tax. As pointed out above, the UK securities' transaction tax is known as "stamp duty". It is interesting that it began as a tax on the transfer of a financial instrument from one owner to another, transfer that could be made legally effective once a stamp was put on the instrument. It therefore originally taxed registration of ownership. Certain loopholes arose, for example investors did not have to pay stamp duty when they bought and resold shares within the same two-week London Stock Exchange account period, thus avoiding the transfer of registered ownership and the tax. Furthermore, stamp duty

was not applicable to transactions in "renounceable letters of allotment or acceptance", that are traded instead of the shares, during the six months after shares are first issued to the public. In 1986, the UK tax authorities closed such loopholes, by introducing a stamp duty reserve tax, (SDRT), which paid at the same rate as the stamp duty and which is payable in the two cases mentioned above (double trade within two weeks and trade during first six months after issuance). This again illustrates how tax authorities, if agile, may cover loopholes. Furthermore, it points to the fact that the possibility of most of the loopholes are discovered after a tax is imposed; therefore in the Tobin tax even more than in other taxes, sufficient flexibility must be left for modifications of the tax required after it begins to be implemented. This flexibility, and the capacity to respond to major loopholes, must be worked into the institutional arrangements - and in particular into the internationally approved Convention - from the start. This is particularly crucial in the medium and long term, as long run elasticities of substitution are higher than short-run ones.¹⁶ As a result, any tax on financial transactions needs to be updated by governments, to avoid erosion of the tax base through financial innovation.

UK stamp duty applies to transactions in ordinary shares and in assets convertible to shares (such as convertible bonds using US terminology), while the conversion option is exercisable. Futures and options are not taxable, but the exercise of an option is treated as purchase of a share, and is taxable. Transactions in shares of investment trusts (closed -end funds in US terminology) are taxable, as are transactions carried out by managers of investment trusts. Purchases and redemption's of units in unit trusts (open-ended funds in US terminology) are taxed as if they were the transaction in the underlying shares.

UK stamp duty applies to both primary and secondary transactions. In new shares, the issuer pays the tax, whereas in secondary trading, the purchaser pays the tax.

The rate of UK stamp duty has varied over the years. Its' highest level has been 2% (between its' creation and 1963, and again between 1974 and 1984). Since 1986, it has been at 0.5%.

It is interesting that the British stamp tax does not distinguish between domestic and foreign investors. It is a tax on the transfer of legal ownership of UK shares.

¹⁶ See E Kane (1987) "Competitive Financial Regulation: An International Perspective" in R Portes and A Swoboda (Eds) Threats to International Financial Stability. CUP.

Transactions in some non-UK shares, mainly South African, Australian and Irish are settled in the London Stock Exchange. It is interesting that stamp duty is payable at the South African and Australian rates for South African and Australian rates, while the UK and Irish authorities share stamp duty revenues for purchases of Irish shares through UK brokers. The latter in particular provides an interesting precedent for the Tobin tax of how tax authorities of different countries can easily tax financial transactions involving actors of different countries and how the tax proceeds can be shared.

Finally in comparing the UK stamp tax with financial transactions taxes on other countries (e.g. the Swedish transaction tax levied directly on registered Swedish brokerage services), it can be seen that such taxes fail to yield significant revenue - as in the Swedish case - when they tax a transaction that has close untaxed substitutes; on the other hand, the UK experience shows that a tax on financial transactions is far more effective in generating revenue if substitution of the transaction is impossible or very difficult.

C. National and international arrangements for levying the tax

Though the rule for a Tobin tax would be defined internationally, national tax administration would assess and collect the tax.

The foreign exchange market is composed of two parts, the interbank or wholesale market (which is the largest market) and the retail markets.

Kenen, op.cit points to three clear separate steps in the interbank market: a) deal is struck; b) deal is booked and c) deal is settled.

For a number of reasons, mainly related to reducing evasion, Kenen convincingly recommends that the tax should be levied at the moment the deal is struck. Indeed, even without a Tobin tax, booking operations are transferred to centres with low taxation and regulation.¹⁷ However, it would need to be established that legally it is possible to tax the transaction at the moment when the deal has only been struck (and neither booked or settled). Furthermore, what would happen, in the case of deals that were struck, but later cancelled? Thirdly, it needs to be carefully established that taxing at the point the deal is agreed, is tax-avoidance proof. Could not dealers find some mechanism whereby they could directly book and

¹⁷ Interview material.

settle the transaction? Any eventual loopholes would need to be closed, with the help of the tax authorities of the different countries.

The application of the tax at such an early stage could be assisted by adding an electronic routing slip to the transaction, which would track the tax record and its' payment till the transaction was settled on a central bank account. At that moment, the central bank could discount the tax from the amount being settled and transfer the amount, partly to its national Treasury and partly to the international organisation centralising the proceeds; a special account, by country, would be established in this organisation; countries would deposit their Tobin tax proceeds in this account, for example, every 3 months for the share of the Tobin tax collected that will be internationally assigned. The organisation would then distribute the proceeds of the tax to organisations and governments, according to a previously defined formula.

Kenen, op.cit also suggests that the Tobin tax be levied on a market basis, rather than on a national basis. This would imply that the tax due on a particular transaction would be paid to the bank's host country, that is where the dealing site is located. This would work particularly well if all the major foreign exchange markets imposed the Tobin tax. To achieve this, an important incentive may be necessary, whereby the governments where the tax was levied would keep a non-trivial share of the tax. There is here an important precedent from the supranational VAT tax that helps fund the European Union's structural funds. EU national governments keep 10% of the proceeds they collect for this purpose; national governments are very keen to keep this incentive, due to the additional revenue provided to them. This has somewhat regressive implications on the international distribution of the tax, as the countries with large international financial centres tend to have levels of income per capita well above the world average. The solution would be to use a composite redistribution formula, on which : a) part is kept on the basis of volume of transactions and revenue collected (a sufficiently large percentage to be kept by the financial centres to provide them with an incentive to join the scheme and set it up properly, but a sufficiently small percentage to allow the majority of the proceeds to be used more equitably); b) part could be distributed to national governments, according to criteria such as the size of their IMF quota, which would favour more smaller and less developed countries; c) part would be allocated to institutions like the United Nations, the IMF and the World Bank, to be spent on developmental activities and d) an extremely small proportion of the Tobin tax proceeds could be used to fund better regulation of financial markets generally,

so that those markets become more efficient, and costly financial crises are avoided, etc. Often such regulation is not undertaken, because regulating agencies are underfunded. It would therefore seem a valuable use of an extremely small proportion of Tobin tax revenues to be used for such a purpose.

The definition of a formula for distributing revenues that is both attractive enough to the major financial centres, and equitable enough, to allow for a meaningful impact on reduction of poverty (both by allocating sufficient resources to poorer countries' governments and to international organisations, helping support development such as the UN, World Bank and IMF) seems crucial for increasing the chances that the Tobin tax is approved. Another element that needs to be carefully clarified, to maximise chances of approval is accountability in spending¹⁸. This would imply not only defining carefully the aims for which the Tobin tax would be used by LDC governments and international organisations, but specifying criteria for monitoring and accountability.

As regards collection of the tax, banks would have to collect the tax on all their foreign exchange transactions with their customers. Where deals involved two banks, each bank would pay half the tax to avoid double taxation (unless the bank with which it dealt with, was not collecting the tax).

There may be difficulties with cross-border transactions between non-bank institutions. Spahn, *op.cit*, suggests these could be overcome by an international licensing for all foreign exchange market participants (including brokers, securities' companies, pension funds, etc.). This licensing, which could be centralised in an institution like the BIS, would become the legal basis for their being subject to tax. However, the problem with this procedure could be the rather large number of foreign exchange market operators internationally, which could make such licensing complex and costly. Nevertheless, it does seem important to have relatively full coverage, not so much because of the size of transactions by non-banks, but because excluding them could encourage transactions to be channelled through them.

Another important practical issue to decide would be the type of transactions to be taxed.

¹⁸ Interview material.

The original 1978 Tobin tax proposal was to be applied to all spot foreign exchange transactions. Since this proposal was made, the increased volatility of exchange rates - and more general financial deregulation - has encouraged a veritable explosion of instruments to transfer risks (such as exchange rate and interest rate risks), as well as exploit the profit opportunities, which these fluctuations offer. It is somewhat paradoxical that the existence of these instruments, broadly known as derivatives, create some additional problems for applying a Tobin tax, tax which would contribute somewhat to curb large oscillations of exchange rates, and therefore might diminish the need for those instruments.

However, the problem of derivatives can be handled, though their existence does complicate the design of a Tobin tax, as operations could be switched from the cash to equivalent operations in the derivatives market to avoid the tax.

The fact that derivatives are not an insurmountable obstacle to imposing taxes on financial transactions is illustrated by the existence of national securities transaction taxes in jurisdiction where derivatives are very developed. Indeed, it may be interesting to see how one of the most successful securities' transaction taxes, the UK one,¹⁹ deals with the problem. It is worth noting that the UK securities' transaction taxes (currently a 0.5% stamp duty tax on purchases) has a fairly high yield in revenue. Indeed, the UK stamp duty raised £830 million (that is around US\$ 1,300 million) in revenue in the fiscal year 1992-93. In this context, it is interesting to examine how the UK stamp duty deals with derivatives. In the UK case, futures and options transactions are not taxable, but the exercise of an option is treated as a purchase of ordinary shares at the exercise price and is therefore taxable, this seems to provide a way of dealing with options.

As regards taxing future contracts, though desirable, this is not easy.²⁰ Even deciding what to tax is difficult, as fluctuations in cash flows in futures trades relate not to notional values, but to the contract's value. A tax which attempted to tax the notional value, at a rate of 0.5%, would be so onerous that it could possibly destroy the futures market, which would be undesirable as they perform useful functions. One alternative would be to apply a lower rate to options. Another alternative, which would be to have a per-contract tax structured to reduce distortions of investors' choices of cash market versus futures trading, would be difficult to calibrate. Another alternative would be not to tax futures trades at all, as is the

¹⁹ For details, see K Froot and J Y Campbell, *op.cit.*

²⁰ For a good discussion, see G Hubbard "Securities transaction taxes: can they raise revenue?" Catalyst Institute. Chicago, 1993: see, also, IMF Paper, *op. cit.*

case of the UK stamp tax. The fact that the UK stamp tax is not levied either on futures and options (except in the latter case, when the option is exercised), and that there is no major reported flight from spot transactions into those transactions in the UK for tax avoidance reasons, would further justify Kenen's, *op.cit.* suggestion that it may not be essential for a Tobin tax to be levied on futures and options, particularly if the main purpose of this tax is aimed mainly at raising revenue, rather than at curbing speculation.

Not imposing a tax on some derivatives transactions, such as futures and options, may also be sensible, in that from a legal point it may be particularly difficult to tax certain types of derivatives.²¹

A final issue as regards coverage of the tax base relates to whether certain groups of traders should be exempted from the tax, for example because they perform an important role in the markets (e.g. market makers, who set prices and stabilise markets, or financial intermediaries more generally, because they provide liquidity to the banking industry). However, exempting such institutions would stimulate evasion, by channelling tax-free transactions by and through intermediaries. As a consequence, it would be advisable to tax all foreign exchange transactions, including those by intermediaries. Given the small level of the tax being proposed (Kenen *op.cit.* suggests as little as 5 basic points), the negative effects on these intermediaries would be very marginal.

As regards implementation of the tax, one important issue to be considered would be how to organise auditing to avoid tax evasion. A first level of auditing relates to that which would need to be done by national governments, particularly crucial in the large financial centres. Secondly, a significant level of co-ordination (probably larger than currently exists) will be required amongst national tax authorities, to limit tax avoidance. Thirdly, there may need to be a certain level of auditing to ensure that national governments effectively transfer the established proportion to the international organisation's account for the country. As regards the latter, this may be particularly necessary in the initial stages, given that there are no precedents for an international tax of a global nature, and therefore no tradition of national governments of giving up their tax proceeds to an international organisation.

Particularly in the third level, but also in the second level of auditing, the international organisation chosen, which would most likely be the IMF, and the

²¹ I thank Prof David Williams for this point.

special intergovernmental commission designed, would need to play an important role in supporting - and in some cases - carrying out the auditing.

III. Conclusions

Our analysis would seem to show that David Felix is right in arguing that the Tobin tax is "an idea whose time has come". It would be useful as part of a battery of instruments, to reduce volatility of capital flows and their negative effects. It would be particularly valuable, as a global tax to fund the UN and other global institutions, in an increasingly globalised world, as well as provide additional revenue to governments.

Though many practical problems arise in trying to levy for the first time a truly global tax, on such fairly complex operations as foreign exchange transactions, the practical problems seem to have fairly straight-forward solutions. The main challenges are therefore to reach international agreement amongst a sufficiently large number of governments (including all the large financial centres) to levy a tax, and to agree on its' main features. Another important challenge is to develop international co-operation, to implement those agreements. To achieve the latter, an existing international institution, preferably the IMF, should take the lead; its' work in this field should be complemented by a newly created small autonomous intergovernmental global tax commission; this commission could be affiliated to the IMF, but be an independent entity.

Unilateral Financial Transaction Taxes Around the World

(Part 1)

Country	Description
Argentina (March 1993)	Transfers of shares are subject to stamp duties (<i>impuestos de sellos</i>), provided the transfer is made through a written agreement. The normal rate is 1 percent.
Australia (July 1994)	Certain states and territories impose a financial institutions duty on banks and other non-bank financial institutions. Generally the rate of financial institutions duty is 0.06 percent of the value of the transaction, with a maximum duty of A\$ 1,500 on any single transaction. An additional stamp tax was removed in 1991.
Austria (June 1992)	There are three capital transfer taxes, the capital duty (<i>Gesellschaftsteuer</i>), the securities tax (<i>Wertpapiersteuer</i>), and the stock exchange turnover tax (<i>Börsenumsatzsteuer</i>). The capital duty is imposed on, inter alia, contributions to capital. The securities tax is imposed on the first issue of interest-bearing bonds. The turnover tax applies to transfers in Austria or if it takes place abroad and at least one party involved is a resident of Austria. The base is the sales price, and the rate varies between 0.04 percent (government bonds) and 0.15 percent (dividend-bearing securities).
Belgium (April 1992)	A stock exchange tax is levied on transfers of title to shares, bonds, and other securities, whether traded on the stock exchange or not. The rate is 3.5 Bfrs. per thousand Bfrs. worth of securities. However, reduced rates of 0.85 per thousand, 1.4 per thousand, and 1.7 per thousand apply in special cases.
Brazil (December 1993)	A tax on financial operations (<i>Imposto sobre Operações de Crédito, Câmbio e Seguro e sobre Operações relativos a Títulos e Valores Mobiliários</i>) is levied as specified by law. The tax is payable by borrowers, insured persons and purchasers of securities or foreign currency. The tax rate may be as low as 0.0041 percent for loans and financial transactions, 1.5 percent on longer-term financial operations (maturity exceeding 365 days), and as high as 130 percent on foreign exchange transactions. However, Decree 329 of 1 November 1991 reduces the latter rate to zero for specified transactions. A temporary tax on financial transfers was levied until 31 December 1994 at a rate of 0.25 percent on each cheque drawn or deposited and on investments in the financial markets. No tax is levied on share transfers. Registration and stamp duties are not significant.
Canada (November 1993)	There are no financial transaction taxes .
Chile (March 1994)	There are no financial transaction taxes , but there are stamp duties (<i>Impuestos de Timbres y Estampillas</i>) on certain financial transactions whose scope is, however, limited. The tax is basically levied on loans.
China (March 1994)	In Shenzhen, securities transactions have recently become subject to the stamp tax at the rate of 0.6 percent of the market price of transferred stock.
Colombia (June 1994)	A stamp duty is applied on certain financial transactions, but the issuance and transfer of shares and bonds are exempt from stamp duties or other transfer taxes.

Unilateral Financial Transaction Taxes Around the World
(Part 2)

Country	Description
Denmark (October 1993)	A transfer duty on the transfer of Danish or foreign shares (<i>aktieafgift</i>) is levied at a rate of 1 percent of the market value of the transferred share. The duty is payable if the seller is resident in Denmark. Exemptions apply to stockbrokers, banks and other financial institutions, the issuance of shares, the exchange of shares, mergers etc. There is no tax on the issuance of shares, but the issuance of debentures and loan agreements is subject to a stamp duty at a rate of 0.3 percent (registered) or 1 percent (bearer instrument).
Finland (August 1994)	The transfer of shares and other securities is subject to a stamp duty of 1.6 percent of the sales price, but only if the transfer is not made through the stock exchange. No stamp duty is payable on transfers between non-residents.
France (June 1994)	A registration tax is levied at a rate of 4.8 percent on the higher of the sale prices or fair market value of sales of shares (<i>parts</i>), founder shares (<i>parts de fondateur</i>), profit-shares (<i>parts bénéficiaires</i>) or profit participations in companies whose capital is not divided into shares. If a deed is drafted, it attracts a transfer tax of 1 percent with a ceiling of 20,000 Ffrs. A stock exchange tax (<i>impôt sur les opérations de Bourse</i>) applies to the sales of securities on the Stock Exchange or over the counter, and any sale in which a broker or professional intermediary intervenes in the sale, except banks and financial establishments which make firm purchases of securities on issue and re-sell to their clients. The rates of the stock exchange tax are regressive (0.3 percent up to 1,000,000 Ffrs, and 0.15 percent excess over 1,000,000 Ffrs.). A tax reduction of 150 Ffrs. per transaction applies, and there is a ceiling of 4,000 Ffrs. per transaction. Since January 1994, the stock exchange tax (which is due on both the sale <i>and</i> the purchase) is no longer due on the part of the transaction carried out by non-residents.
Germany (October 1994)	There were three capital transfer taxes, the capital duty (<i>Gesellschaftsteuer</i>), the securities tax (<i>Wertpapiersteuer</i>), and the stock exchange turnover tax (<i>Börsenumsatzsteuer</i>). These taxes were abolished as of 1 January 1991.
Hong Kong (September 1994)	Stamp duty is levied under the Stamp Duties Ordinance and applies to documents evidencing financial transactions. A fixed duty is payable on certain documents and an ad valorem duty on others. Fixed duties range from HK\$ 3 to HK\$ 20, and ad valorem duties from 25 cents per HK\$ 100 to HK\$ 3 per HK\$ 100. There is no stamp duty on foreign exchange transactions.
India (September 1992)	Where a company increases its nominal share capital, a notice must be filed with the Registrar of Companies which is subject to a registration duty . The Central Government imposes stamp duties on financial documents.
Indonesia (December 1993)	Stamp duty is imposed on financial documents with a value exceeding 1,000,000 Rp. The rates vary from 500 Rp. to 1,000 Rp.
Italy (April 1991)	The transfer of shares, bonds and other securities may be subject to registration tax at the fixed amount of 100,000 lire. Stamp duties (<i>imposta di bollo</i>) are levied on certain documents as specified in the Stamp Duty Law.

Unilateral Financial Transaction Taxes Around the World

(Part 3)

Country	Description
Japan (April 1992)	There is a securities transaction tax on the transferor of securities in Japan. Transfer by gift, bequest or through merger is exempt from tax. In the cases of sale, the tax base is the actual sales price; in other cases, it is the market price at time of transfer. The tax rates vary according to financial instrument, and they are lower for securities companies. The normal rates are 3, 16, and 30 per ten thousand for government bonds, convertible debentures; and shares.
Luxemburg (October 1994)	There are no financial transaction taxes.
Malaysia (April 1993)	Transfer taxes are imposed on a wide range of documents at varying rates, including bills of exchange and securities.
Mexico (March 1994)	The transfer of shares is not taxed.
Netherlands (December 1993)	There are no financial transaction taxes. However, capital duty becomes payable on the issue of shares. No tax is due on the issue of bonds, debentures and loan agreements (except a once-only fee).
New Zealand (November 1994)	Stamp duties are payable on the issuance and transfer of bonds, debentures, and shares. A cheque duty at NZ\$ 0.05 is payable on bills of exchange.
Norway (June 1994)	There are no financial transaction taxes.
Portugal (June 1993)	The incorporation of companies attracts a stamp tax (<i>imposto do selo</i>) and a registration fee. Stamp tax is also collected, at varying rates, on virtually all domestic business transactions including the transfer value of shares and other securities.
Singapore (October 1994)	There is a registration fee on the registration of companies and on the lodging notice of an increase in share capital. Furthermore, stamp duties are imposed on a wide variety of legal documents including the conveyance, assignment or transfer of stock (at 0.2 percent of the value of the consideration) and other property. Stamp duties are limited to a maximum of S\$ 500 on debentures. A great number of financial instruments is exempt from stamp duty, including offshore arrangements, Asian dollar bond certificates, stock options, contract notes, and electronic share transfers on the Singapore Stock Exchange.
South Korea (March 1992)	There is a securities transaction tax on the value of securities at the time of transfer. The rate is 0.5 percent, but may be reduced (even to zero) by Presidential Decree for purposes of encouraging the development of the capital market.
Spain (June 1992)	There is a transfer tax, but the transfer of shares, bond and other securities, whether quoted or not, is normally exempt from transfer tax unless certain conditions apply (e.g., the transfer leads to control over a company in which case a 6 percent transfer tax applies).

**Unilateral Financial Transaction Taxes Around the World
(Part 4)**

Country	Description
Sweden (August 1993)	No special tax is levied on the transfer of shares, bonds and other securities. There is a stamp duty on the issuance of shares. The turnover tax, which was levied by the State at rates between 0.15 percent and 1 percent, was abolished on 1 December 1991.
Switzerland (April 1994)	There is a stamp duty levied on the transfer for valuable consideration of securities by a dealer in securities. The rate applies to the purchase price, and it is 0.15 percent for Swiss securities, and 0.3 percent for foreign securities. Securities include bonds, annuity bonds, mortgage bonds, treasury and bank notes, shares, profit-sharing certificates of investment funds, and commercial papers. Certain types of transactions are exempt from the duty.
Taiwan (January 1994)	Securities transaction tax is levied on the buying and selling of bonds (excluding those issued by government), shares, debentures and any other securities. The taxpayer is the seller of the securities. The rates are 0.3 percent of the transaction price for a transaction in shares issued by a company, and 0.1 percent on other transactions.
Thailand (April 1993)	Stamp duty is charged on a number of documents and transactions as specified in the Stamp Duty schedule of the Revenue Code. The transfer of shares, debentures, bonds, or certificate of indebtedness issued by a company is taxed at 10 stang for every 100 baht or fraction thereof of the paid-up value of the shares, or of the nominal value of the instrument, whichever is greater. Transactions effected through the Bangkok International Banking Facilities (BIBF) are exempt from stamp duties.
United States (March 1993)	There are no financial transaction taxes, except for state taxes in some cases and an SEC fee, but the latter are quite small.
United Kingdom (December 1993)	Generally, a stamp duty at a rate of 0.5 percent ad valorem is levied on the transfer on sale of stock, shares, loan capital, and marketable securities ("chargeable securities").

Source: Staff compilation on the basis of *Taxes and Investment in Asia and the Pacific*, Vol. 1, International Bureau of Fiscal Documentation, Amsterdam (for Asia and the Pacific), *The Taxation of Companies in Europe*, Guides to European Taxation: Vol. II, International Bureau of Fiscal Documentation, Amsterdam (for Europe), *Taxation in Latin America*, Vol II, International Bureau of Fiscal Documentation, Amsterdam (for Latin America), and *Doing Business in the United States*, and *Doing Business in Canada*, Price Waterhouse, New York (for the United States and Canada).