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Margareta E. Kulessa\*

## The Tobin Tax: A Tool for Allocative or Distributional Policies?

*The Tobin tax idea, developed during the 1970s as a tax on foreign-exchange transactions, has found its way back into the academic and policy debates, since the Copenhagen World Social Summit and the G7 Summit in early 1995 at the latest. At both events, proposals were put forward to impose a tax on international speculative flows. The purpose of the tax is firstly to prevent destabilising foreign-exchange operations while at the same time acting as a source of revenue. Can the Tobin tax actually live up to these expectations?*

It was 1972 when James Tobin first put the case for the worldwide taxation of all foreign-exchange transactions.<sup>1</sup> Tobin, who was later to be awarded the Nobel Prize for Economics, suggested "throw(ing) some sand in the wheels" of international financial markets.<sup>2</sup> A low tax on transactions might help to curb speculative capital movements, thus diminishing what Keynes had already identified as the counter-productive impact volatile flows of "hot money" could have on the real economy.<sup>3</sup> Tobin had his sights on cross-border speculative deals which could trigger off dysfunctional fluctuations in exchange rates, impair international trade in goods and services, and destabilise some economies. He believed that a global tax on foreign-exchange transactions would lead to a decline in short-term international capital movements, thus expanding the leeway available for individual countries' monetary and fiscal policies. The tax would have to be charged throughout the world, or at least in all of the countries with the world's leading currencies.

It was only as an aside consideration that Tobin mentioned the possibility of making the revenue raised by the tax available to the International Monetary Fund (IMF) or the World Bank. The scant attention he paid to the potential uses of the tax's revenue underlines the fact that Tobin's concern in the 1970s was chiefly with the redirective effect of an international tax on speculation, and less with developing any new mechanism for financing balance-of-payments deficits or development projects.<sup>4</sup> However, since the project in general did not prove popular at the time, the whole issue was relatively swiftly shelved.

Since the early 1990s, discussion of the Tobin tax has seen a revival. For one thing, it has become (or again become) an "acceptable" view within the discipline of economics that the liberalisation and globalisation of financial markets also have a downside to them. For another, policy-makers are now in search of concepts to stabilise the financial markets in order to prevent a repeat of the currency crises seen in recent years. With that in mind, France and Canada put the introduction of an international speculation tax on to the agenda of the G7 summit early last year, but the debate came to nothing due to the resistance of the other member countries' governments.<sup>5</sup>

Nevertheless, it would be premature to assume that the concept of a Tobin tax is politically dead. For example, several members of the European Parliament as well as of the Deutscher Bundestag are known to view the implementation of an international

<sup>1</sup> J. Tobin: The New Economics One Decade Older (the Eliot Janeway Lectures in Honor of Joseph Schumpeter), Princeton, N. J. 1974, pp. 88 ff.

<sup>2</sup> J. Tobin: A Proposal for International Monetary Reform, in: Eastern Economic Journal, Vol. 4 (1978), Nos. 3-4, pp. 153-159, esp. p. 154. For recent discussion of the topic, see: "Spekulations-Steuer gefordert", in: Die Welt, 17th March 1995, p. 15; I. Kaul: Abkehr von der Staatsknete, in: Die Zeit, 3rd March 1995.

<sup>3</sup> Cf. J. M. Keynes: The General Theory of Employment, Interest and Money, London & New York 1936; W. Kamppeter: Kapital- und Devisenmärkte als Herausforderung der Wirtschaftspolitik, Frankfurt am Main 1990, pp. 162 ff.

<sup>4</sup> Another factor supporting the view that Tobin only had the redirective effect in mind rather than funding international organisations is that he is said to have distanced himself from his original remarks on the potential use of the revenue in the meantime, favouring instead the idea that the revenue should remain in the countries in which it was raised. Cf. L. Menkhoff and J. Michaelis: Ist die Tobin-Steuer tatsächlich „tot“, in: Jahrbuch für Wirtschaftswissenschaften, Vol. 46 (1995), p. 46.

<sup>5</sup> Cf. "Keine Experimente am Devisenmarkt", in: Süddeutsche Zeitung, 21st March 1995, p. 21.

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speculation tax rather more positively than their national governments. A tax of this kind also has its political proponents in the USA, particularly since this debate on a global transaction tax can be regarded as an extension of the discussion on a domestic speculation tax (STET).<sup>6</sup>

Tobin himself has also been actively involved in breathing new life into the discussion. In the United Nations (UNDP) Human Development Report 1994, he stresses the suitability of the tax as a funding instrument for development policy.<sup>7</sup> In addition, he joins Eichengreen and Wyplosz by advocating that the European Union should unilaterally introduce a modified Tobin tax in the form of a temporary levy on loans in domestic currency to non-residents to guard against destabilising currency speculation in the run-up to monetary union.<sup>8</sup> However, this article will be chiefly concerned with the potential and the limits of the "original" Tobin tax which is a global transaction tax.<sup>9</sup>

All foreign-exchange transactions, whether spot or forward, would act as the base on which the global Tobin tax were levied. The proposal is to make the charge against the nominal value of each transaction, and the rates so far put forward have varied between 0.05% and 1%.<sup>10</sup> All economic actors participating in the foreign exchanges would be liable to pay the tax, though it would appear appropriate to allow exemptions for central banks, governments and international organisations such as the UN, World Bank etc. Tobin et al. recommend that the collection of the tax be entrusted to an authority already in existence if at all possible, which then ought to oblige

commercial banks to do the collecting. The revenue, it is suggested, would be administered and the national authorities would be supervised by the IMF or the Bank for International Settlements (BIS). Any breaches of international agreements on the tax would then be punished by either the IMF or BIS, in a manner which has not been specified in any detail.<sup>11</sup>

Various suggestions have been made as to how the tax proceeds should be distributed. Felix, for example, has suggested in a study commissioned by the UNDP that half of the revenue be allotted to the countries in which it is collected on a pro-rata basis, and that the remainder be divided up between the UN, World Bank and IMF.<sup>12</sup>

### The Desired Allocative Effects

The worldwide transaction tax on foreign exchange is intended to help cut back short-term capital movements, thus raising individual countries' scope to adjust interest rates and acting as a precaution against destabilising balance-of-payments crises. The tax is intended to dampen down exchange-rate fluctuations which cannot be explained in terms of shifts in economic fundamentals and are generated instead by changes of mood among the speculators and by so-called rumour. If it were possible to achieve a marked reduction in the frequency and magnitude of exchange-rate deviations, that would reduce uncertainty for those engaged in foreign trade and for direct investors. Consequently, world trade and direct investment both ought to increase, thus generating a worldwide gain in welfare.

A further argument put forward is that a Tobin tax would be liable to increase investment in real capital, particularly in developing countries, since it would reduce interest-rate volatility and thus make irreversible capital investment relatively more attractive.<sup>13</sup> Tobin believes that yet another reason why a reduction in speculative transactions would be desirable is that the sector engaging in such activities has now expanded to such a disproportionate extent

<sup>6</sup> Cf. L. H. Summers and V. P. Summers: When Financial Markets Work Too Well: A Case for a Securities Transaction Tax, in: D. R. Siegel (ed.): *Innovation and Technology in the Markets – A Reordering of the World's Capital Market Systems*, Chicago 1990, pp. 151-181; J. E. Stiglitz: Using Tax Policy to Curb Speculative Short-Term Trading, in: *Journal of Financial Services Research*, No. 3, 1989, pp. 101-115.

<sup>7</sup> J. Tobin: A Tax on International Currency Transactions, in: UNDP: *Human Development Report 1994*, p. 70.

<sup>8</sup> B. Eichengreen, J. Tobin and C. Wyplosz: Two Cases for Sand in the Wheels of International Finance, in: *The Economic Journal*, Vol. 105 (1995), No. 428, pp. 162-172.

<sup>9</sup> Other market-oriented proposals with a similar intent, i.e. of calming the foreign-exchange markets, such as an interest compensation tax or systems of dual exchange rates will not be discussed here; for more information on this topic, see: R. Dornbusch: Flexible Exchange Rates and Excess Capital Mobility, in: *Brookings Papers on Economic Activity*, 1986, No. 1, esp. pp. 224 f.; L. Menkhoff and J. Michaelis: Steuern zur Begrenzung unerwünschter Währungsspekulation, in: *Außenwirtschaft*, Vol. 50 (1995), No. 3, pp. 443-462; U. Schempp: Gestaltungsmerkmale einer erfolgsversprechenden Devisenmarktsplaltung, in: *Kredit und Kapital*, Vol. 24 (1991), No. 3, pp. 345-360; W. Kamppeter, op. cit., p. 178 ff.

<sup>10</sup> Tobin, for example, has suggested tax rates of 1% (1978) and 0.5% (1994); Dornbusch believes a rate of 0.25% would be reasonable, and Uwe Jens (of Germany's SPD party) has advocated 0.05%.

<sup>11</sup> Cf. B. Eichengreen, J. Tobin and C. Wyplosz, op. cit., pp. 165 f.

<sup>12</sup> Cf. D. Felix: The Tobin Tax Proposal: Background, Issues and Prospects, Washington University Dept. of Economics Working Paper No. 191, St. Louis 1994, p. 28.

<sup>13</sup> Cf. A. Tornell: Real vs. Financial Investment – Can Tobin Taxes Eliminate the Irreversibility Distortion?, in: *Journal of Development Economics*, Vol. 32 (1990), No. 2, p. 440.

that it is tying up factors of production in an economically inefficient manner.<sup>14</sup>

The BIS estimates the total worldwide turnover on the foreign exchanges at \$1.2 trillion per day.<sup>15</sup> That puts the annual traded volume at approximately \$ 300 trillion. Less than 4% of the currency exchange transactions around the world are directly explicable as a reflection of transactions in the real economy (trade in goods and services or direct investment).<sup>16</sup> There is no direct evidence available as to what proportion of the remaining transactions are attributable to speculative motives. The main reasons for the lack of information are technical and analytical difficulties in measuring and categorising international financial flows.<sup>17</sup> Yet regardless of the measurement or delineation problems involved, there is no dispute over the fact that short-term transactions now occupy a vast proportion of the foreign-exchange markets (one estimate is that approximately 68% of forex transactions cover an investment period of less than eight days).<sup>18</sup>

#### **Preventing Speculative Money Flows**

The key thinking behind the Tobin tax is that it raises the transaction costs of speculative international investment significantly enough to effectively prevent it. If short-term cross-border movements of money are assumed to equate directly with economically undesirable speculative transactions, whereas long-term capital movements and payments associated with the international trade in goods and services are regarded as a manifestation of the economically efficient allocation of factors and output, the Tobin tax does indeed fulfil this task.

A simple example illustrates why this would turn people away from exchange-rate speculation: at a Tobin tax-rate of 0.5%, the interest rate on a three-

month investment in a foreign country would need to be 4 percentage points higher than in the domestic economy for it to be worth the investor's while to place the money abroad. Only when the investor had crossed that threshold would the relative interest gain be high enough to exceed the 1% per annum charge (0.5% in each direction) imposed by the transaction tax on capital exports and imports. If the investor favoured 30-day money, the interest rate differential would actually need to be as high as 12 percentage points to make the foreign transaction worthwhile.

The upshot of this is that a Tobin tax would allow governments to pursue differing interest-rate policies in the short to medium term without having to fear that they would be undermined by short-term capital movements. Long-term exports and imports of capital motivated by fundamental productivity differentials between countries, which thus serve the purpose of ensuring that capital is employed worldwide in its most productive uses, would be affected relatively little by the Tobin tax when set against such short-term "round trips". So a key characteristic of the Tobin tax is that it imposes a relatively higher charge on short-term foreign-exchange transactions than on long-term ones, and it is referred to accordingly as a "progressive" tax.<sup>19</sup>

#### **Preventing Currency Speculation**

The above example can be extended to cover speculation on forthcoming exchange-rate movements, by adding the exchange profit or loss to any gains made on the interest-rate differential. If, for example, a foreign currency is expected to appreciate by 0.5% during a given period, the interest-rate differential between the two countries can be 0.5% (for 12-month money), 2% (3-month) or 6% (30-day money) without inducing any capital movement. If domestic and foreign interest rates are identical, the Tobin tax will succeed in preventing speculative transactions as long as the expected percentage change in a currency's value is less than twice the Tobin tax rate.

It has to be emphasised at this point that a relatively moderate Tobin tax would not be able to stem capital movements between countries if pronounced exchange-rate shifts were expected to occur. If an investor in the home country believed he/she could earn a 5% exchange gain, the transaction tax would have to be set at a rate of around 2.5% to prevent the transaction taking place if interest rates were identical. Or, to look at it from another angle: to avoid capital outflows (and hence an

<sup>14</sup> Cf. J. Tobin: On the Efficiency of the Financial System, in: *Lloyds Bank Review*, July 1984, pp. 1, 14.

<sup>15</sup> Cf. BIS: Central Bank Survey of Foreign Exchange Market Activity in April 1995: Preliminary Global Findings, press communiqué dated 24th October 1995, p. 1.

<sup>16</sup> Cf. W. Guth: The Liberalization Trap, in: *The International Economy*, May/June 1993, p. 57; cf. J. Hufschmid: Steuern gegen die Spekulation? Funktionsweise, Nutzen und Grenzen der Tobin-Tax, in: *Informationsbrief Weltwirtschaft & Entwicklung*, special issue (Sonderdienst) No. 8, 9th October 1995, p. 2.

<sup>17</sup> Cf. IMF: Report on the Measurement of International Capital Flows, Washington D.C. 1992.

<sup>18</sup> Cf. BIS: Central Bank Survey ..., op. cit., p. 3.

<sup>19</sup> Cf. A. Schrader: Devisenumsatzsteuer: Scheitern programmiert, in: *Deutsche Bank Research Bulletin*, 26th May 1995, p. 20; for a shorter, translated version cf. A. Schrader: A tax on foreign exchange transactions, in: *Deutsche Bank Research, Market Trends*, June 5, 1995, pp.1-7.

exchange-rate adjustment) in a situation where investors expected a 5% exchange gain on a 30-day investment abroad, domestic annual interest rates would need to be a clear 48 (!) percentage points above those in the foreign currency even in spite of a 0.5% Tobin tax being charged.

To sum up, a Tobin tax is said to have the effect of reducing short-term capital movements "unjustified" by economic fundamentals and to make "speculative bubbles" less likely to occur in the market determination of exchange rates.<sup>20</sup> If turnover declines on the foreign exchanges, that in turn increases the likelihood that central bank convertible currency reserves will be sufficient for market support operations to hold an exchange rate within pre-agreed bands.<sup>21</sup> That very capability would have a calming effect on exchange-rate expectations.

On the other hand, a Tobin tax does not protect any economy from disciplinary external influences. It has virtually no influence on the formation of long-term exchange-rate expectations, which means that it will continue to be worthwhile for individual economic actors to speculate against currencies which are fundamentally misaligned. Likewise, the increase in exchange transaction costs will play only a marginal role as far as long-term investment decisions are concerned. Sound economic and location-enhancing policies would continue to be rewarded by capital inflows, and unsound policies punished by capital outflows.<sup>22</sup>

Since the Tobin-tax proposal offers a means of regulating international financial markets without putting the price mechanism out of operation, and since it neither demands of politicians, nor believes it likely, that they know for themselves what the "right" exchange rate for their currency would be or the "appropriate" flow of capital, this classes as a market-oriented instrument.<sup>23</sup> Indeed, Dornbusch says of the transaction tax that "the scheme is in the best tradition of the Chicago School".<sup>24</sup>

### A Rich Revenue Source

As suggested earlier, the revenue-earning capacity of a Tobin tax has only recently begun to play a prominent part in the discussion. Part of the reason for this may lie in a certain weariness on the part of the largest donor nations to the UN, World Bank and IMF. At the same time, their funding needs have grown, whether because of the need to support the transition in former socialist economies, or to fund development and environmental protection projects such as those

demanding at major UN conferences in Rio (1992) and Copenhagen (1995).

Nevertheless, no specific estimates are available as to the level of revenue the tax would be likely to raise. Felix has done some "back of the envelope" estimates based on 1992 data.<sup>25</sup> If one sticks to his (very rough) calculation method and simply substitutes newer data, a tax rate of 0.5% might be expected to raise \$ 450 billion in revenue. When that figure is set against the total worldwide annual development aid figure at the present time, approximately \$60 billion, it becomes clear what a jackpot would rain down upon the international organisations if they were to receive, say, half of the total Tobin-tax take (\$ 225 billion per annum).

If the revenue (or at least part of it) were to be credited to international organisations, one would tend to expect some direct income redistribution from the North to the South. As regards the income effect, the bulk of the revenue would originate in the more prosperous, financially stronger industrialised countries; conversely, the expenditure effect would show the tax proceeds being used predominantly to fund projects in the "Third World" and the transition countries. However, that does not by any means go to say that all developing countries would be net gainers from the redistribution. For example, economic actors in several of the up-and-coming developing countries which are financially relatively strong would probably contribute more in tax payments than flowed back into their country in the form of development aid.

In contrast to the immediate international income-distribution effect, a more differentiated view needs to be taken of the indirect income effects both within and among nations. These effects are correspondingly difficult to predict or anticipate. Major financial centres, for example, would lose income along with

<sup>20</sup> Cf. L. Menkhoff and J. Michaelis: *Ist die Tobin-Steuer ...*, op. cit., p. 46.

<sup>21</sup> The world's average stock of convertible currency reserves is equivalent to slightly less than the daily turnover of foreign exchange on the international markets.

<sup>22</sup> Cf. B. Eichengreen, J. Tobin and C. Wyplosz, op. cit., pp. 164 f.

<sup>23</sup> Cf. L. Menkhoff and J. Michaelis: *Steuern ...*, op. cit., p. 456.

<sup>24</sup> R. Dornbusch: *European International Economic Policy Issues*, in: European Parliament, Directorate General for Research, Economic Interdependence – New Policy Challenges, Working Paper No. 7, Brussels 1993, p. 77.

<sup>25</sup> Cf. D. Felix, op. cit., pp. 28 f.; Felix works on the assumption that 40% of foreign-exchange transactions (legal or otherwise) will not be taxed, and that the remaining market volume will be halved due to the redirective effect.

financial intermediaries around the world as the volume of international financial-market activity declined. Economies with a high proportion of internationally traded goods and services might suffer some loss of income in the short term as a result of the immediate increase in transaction costs, despite the fact that the impact on foreign trade is relatively low. Yet on the other hand, the greater stability on international capital markets and on the foreign exchanges which the tax is hoped to create would in turn generate worldwide allocative gains and long-term increases in welfare, the distribution of which is virtually impossible to estimate in advance.

### Geographical Circumvention?

Even if all of the G7 countries, whose financial centres deal with more than half of the world's foreign-exchange turnover, were to introduce an all-embracing foreign-exchange transaction tax, capital would soon move elsewhere to the off-shore financial markets, particularly given the extremely low costs involved nowadays in dealing in money over great distances.<sup>26</sup> For their part, thriving offshore centres see little reason why they too should introduce a foreign-exchange transaction tax, since one of the main reasons for their prosperity is the very fact that the financial sector is so actively involved there. This factor is all the more vital in that the majority of off-shore centres are still small economies in which the financial sector plays a correspondingly major part.<sup>27</sup> Even if all of the off-shore centres of current importance were to do the unexpected and to implement a Tobin tax on an internationally standard basis, one cannot rule out the possibility that other countries would step in to become prominent new financial centres.

The danger of the redirective function of a Tobin tax being undermined by geographical switching and by the free-riding of some countries has to be regarded as relatively serious. But even so, various doubts have been expressed, some of them justified, as to just how inevitable the switching response would be. Shifts on a massive scale to new off-shore centres are said to be unlikely because such smaller or infant centres do not have any of the economies of scale found at major financial locations. Likewise, they claim that deviant behaviour by individual governments would be reduced by the fact that a failure to impose the Tobin tax would also deprive them of an additional source of revenue.<sup>28</sup>

However, this latter argument is again based on an assumption that a considerable portion of the revenue

raised would be kept in the countries in which it was collected; in other words, the proportion allotted to the international organisations must not be set too high. Moreover, the second of the two arguments relies upon the first, namely that there will be no substantial geographical flight of currency movements. But if such flight did indeed occur and new financial centres developed, that would destroy the incentive for countries to introduce the Tobin tax as a source of revenue. So that leaves the issue to be settled as to what extent deviant action by particular countries could effectively be prevented by the manner in which Tobin-tax revenue was distributed.<sup>29</sup>

### Threat of Tax Avoidance

Another fear which casts doubt on the successful implementation of a global transaction tax is that it could trigger off financial-product substitution processes which would undermine the impact of the tax.<sup>30</sup> Domestic parties wishing to make short-term investments in foreign markets would thus be induced by the tax to make use of innovative instruments.

Indeed, one cannot rule out the possibility that trade in financial derivatives could magnify exchange-rate fluctuations in the short-term, even though only small sums of money would actually cross national borders (in a "leverage effect").<sup>31</sup> It has to be assumed that the process of substituting for traditional exchange-rate business by derivatives-trading will be unavoidable owing to the imaginative powers of investors and financial intermediaries. However, undesirable substitution processes could be reduced if all foreign-exchange business of whatever kind were to be caught by the tax, possibly backed up by

<sup>26</sup> Cf. IMF: Determinant and Systemic Consequences of International Capital Flows, Occasional Paper No. 77, Washington, D.C. 1991, p. 37; A. Schrader, *op. cit.*, pp. 21 f.

<sup>27</sup> The relatively small economies which play an internationally significant part as off-shore centres include, for example, Bermuda, the Bahamas, Gibraltar, the Dutch Antilles, Bahrain, the Cayman Islands, Panama and Singapore.

<sup>28</sup> Cf. L. Menkhoff and J. Michaelis: *Steuern ...*, *op. cit.*, p. 454.

<sup>29</sup> Cf. U. Schempp: Integrativer Rückschritt mit Tücken – Überlegungen zu einem Vorschlag von James Tobin, in: *Jahrbücher für Nationalökonomie und Statistik*, Vol. 209 (1992), Nos. 34, p. 234.

<sup>30</sup> Cf. P. Garber and M. P. Taylor: Sand in the Wheels of Foreign Exchange Markets: A Sceptical Note, in: *The Economic Journal*, Vol. 105 (1995), No. 428, pp. 179 f.

<sup>31</sup> On the nature and extent of derivatives trading, cf. Deutsche Bundesbank: Monatsbericht November 1994, pp. 41 ff.; on their disputed and largely still unresearched impact on exchange rates and the foreign-exchange market, cf. *ibid.*, pp. 52 ff.; BIS: 65th Annual Report, Basle 1995 (pp. 202 ff. in German version); Group of Thirty: *Derivatives: Practices and Principles*, Washington, D.C. 1993, p. 63.

additional measures similar in effect to the Tobin tax, e.g. a mandatory requirement to lodge deposits before conducting derivatives trades.<sup>32</sup>

Another possible means of circumventing the Tobin tax which has been cited is that firms with their headquarters in two different countries could provide reciprocal loans in their respective home currencies to the other's subsidiary in their country. For example Hoechst, based in Frankfurt, might provide a DM-denominated loan to the German subsidiary of General Motors, while GM's Detroit headquarters did likewise with a dollar-denominated facility for Hoechst's US subsidiary. However, loans on this pattern are likely to be of limited use for carrying out short-term speculative operations, and would thus have little detrimental impact on the redirective effect of the Tobin tax.<sup>33</sup>

A final point made on this issue by the Tobin tax's opponents is that taxing transactions on official foreign exchanges would encourage the development of black markets in foreign currency. Not only would the tax be evaded, but the feedback effects from the parallel markets to the official foreign exchanges would still allow waves of speculation to influence the latter.<sup>34</sup> The counter-argument is that, in most industrialised countries and NICs, the state has adequate means of surveillance available to it which would place high costs in the way of a black market. Even if those costs were not actually high enough to prevent recourse to the black market altogether,<sup>35</sup> they too would nevertheless exert a dampening allocative effect just as Tobin intends.<sup>36</sup>

There is another reason apart from the possible circumvention of the Tobin tax (geographically or via other types of transaction) why some doubt the feasibility of the proposal. The fear is that lobby

groups within certain countries would make the scheme unenforceable. The difficulty lies in the fact that the welfare gains flowing from less volatile exchange rates and more economically efficient factor allocation are dispersed throughout the economy, and are neither directly perceptible nor transparent to the general public, whereas the financial institutions which stand to lose out as a result of the Tobin tax form a relatively small, homogeneous interest group which is well known to have a good deal of political muscle.<sup>37</sup>

#### Fundamental Doubts on the Allocative Effect

For the purposes of the following passage, let us assume that the problems of the practicability and enforceability of a worldwide foreign-exchange transaction tax so far discussed are all soluble. Making that assumption provides a clear view of the fundamental doubts as to the feasibility of a Tobin tax. As regards the stabilising effect on exchange rates, there are essentially three arguments put forward which claim that a Tobin tax could generate more volatile instead of more stable exchange rates:

□ *Jumping the Tobin speculation hurdle.* As explained above, expected exchange-rate realignments do not need to be especially large for capital to start moving even in spite of a foreign-exchange turnover tax. And then, once the hurdle of the Tobin tax has been surmounted, the "herd behaviour" could come through particularly strongly, thus adding to the unidirectional momentum on the foreign exchanges as new expectations developed, extrapolating from the initial shift.<sup>38</sup> The Tobin tax's advocates take the contrary view that the introduction of the tax would prevent exchange rates from "overshooting" for any sustained period, thus making it clear to market participants from the outset that any deviations from fundamental exchange rates could only possibly be short-lived.

□ *Narrowing of the market in foreign exchange.* As one of its declared aims, the Tobin tax generates a marked reduction in international financial flows, which would go hand-in-hand with a lower foreign-exchange turnover and quite probably with a reduced number of market participants. Opponents of the foreign-exchange turnover tax submit that the resulting narrow market would have a lower liquidity and hence would be more prone to volatility.<sup>39</sup> However, this argument is of dubious validity. Even if the redirective capabilities of the Tobin tax were so great as to produce a 68% decline in turnover (equivalent to the entire estimated proportion of investment

<sup>32</sup> Cf. UNCTAD: Trade and Development Report 1994, p. 111; L. Menkhoff and J. Michaelis: Ist die Tobin-Steuer ..., op. cit., p. 47; H. H. Kotz: Alternativen zum Nichtstun, in: Die Zeit, 19th May 1995, p. 27.

<sup>33</sup> Cf. UNCTAD, op. cit.

<sup>34</sup> Cf. U. Schempp, op. cit., pp. 235 ff.

<sup>35</sup> Cf. L. Menkhoff and J. Michaelis: Ist die Tobin-Steuer ..., op. cit., p. 47.

<sup>36</sup> Cf. J. Tobin: A Proposal ... op. cit., p. 159.

<sup>37</sup> Cf. J. Hufschmid, op. cit., p. 5; H. H. Kotz, op. cit., p. 27; L. Menkhoff and J. Michaelis: Ist die Tobin-Steuer ..., op. cit., p. 49.

<sup>38</sup> Cf. U. Schempp, op. cit., p. 233. Moreover, the Tobin tax could help to create a situation in which speculative bubbles grew more quickly and burst all the sooner. Cf. L. Menkhoff and J. Michaelis: Ist die Tobin-Steuer..., op. cit., p. 45.

<sup>39</sup> Cf. A. Schrader: Devisenumsatzsteuer..., op. cit., p. 23.

transactions with terms of less than eight days) the resulting daily volume of approx. \$ 380 billion, which in any case would still be concentrated among just a small number of market centres, would still be substantially higher than that of the mid-1980s. It is somewhat of an exaggeration to speak of "narrow markets" in this context.

Another part of the thesis that the market would become tighter and more prone to volatility is the idea that arbitrageurs would be forced out of it by the Tobin tax. Hence the stabilising influence on exchange rates exerted by arbitrage would be lost.<sup>40</sup> Pure exchange-rate arbitrage, it is pointed out, would only occur – assuming a transaction tax rate of 0.5% – if differentials of 1% or more developed between markets. It is ultimately a question of balance whether potentially persistent fluctuations of  $\pm 1\%$  can be justified by the prospect that fluctuations beyond that range will be dampened down.

□ *Leeway for international interest-rate differentials.* A global transaction tax deliberately sets out to expand the scope available for divergent trends from country to country in money supply and interest rates. However, in that respect the Tobin tax runs the risk of giving governments sufficient licence to pursue policies which in turn can actually be the cause of exchange-rate speculation and which could thus potentially have a substantial destabilising impact.<sup>41</sup> However, it is clear from the discussion of the concept's inner contradictions that the introduction of a global foreign-exchange transaction tax would neither give governments *carte blanche* to pursue inflationary economic policies nor obviate the need for continued policy coordination among different countries. Tobin pointed out these issues way back in 1978.<sup>42</sup>

It is quite possible that the markets would impose their own constraints on the expansion of national policy-makers' scope for adjusting interest rates much more quickly than the basic concept of the Tobin tax would suggest at first glance. For example, if the financial markets keep finding that a given central bank has a tendency to be expansionary in its monetary policy, there is a good chance that they will demand a risk premium on investments in that

country's currency to compensate for future interest-rate losses and/or for the Tobin tax charged. In such cases, the Tobin tax would only create the illusion of having weakened external economic constraints on domestic monetary policy.

The efficiency of markets also needs to be taken into account when considering the case made for a Tobin tax in terms of its effect in reducing the exchange risks facing those trading goods and services. In reality, the market already provides ample means of hedging exposure to such risks for parties who prefer to avoid them. One would need to compare whether exporters' and importers' hedging costs were a greater burden to them than having to pay the Tobin tax.

### Possible False Incentives

From the point of view of resource allocation, the Tobin-tax concept is accused of "throwing out the baby with the bath water" in as far as its endeavours to dampen down economically damaging foreign-exchange transactions would unduly impede other, economically desirable activities.

To begin with, it is rather too simple to equate all short-term financial flows with speculative flows. Short-term foreign-exchange transactions not only include exchange-rate arbitrage but also transactions to hedge exchange risk which are now so vital to the real economy, and measures to reallocate the savings invested in pension funds, other mutual funds or insurance policies. Efficient funds, in their turn, play a significant part in the capital formation so necessary to economic growth.<sup>43</sup>

On the other hand, the impact of the Tobin tax on savings ought not to be particularly severe, even if investors were to lose out on a few basis points. Moreover, there is reason to doubt whether the tendency of fund managers to restructure portfolios at short notice is always economically desirable. Rather, the activities not just of the highly speculative "hedge funds" but also of other, "conservative" funds can help to accelerate exchange-rate and balance-of-payments crises.<sup>44</sup> In this role, the funds' transactions fall precisely into the category of financial movements which Tobin and others would like to curb on the grounds that they are potentially more harmful than they are beneficial.

As for the fact that exchange-rate hedging activities would be made more expensive by the Tobin tax, its advocates point out that the need for hedging would be much less in the first place if the tax were to be

<sup>40</sup> Cf. *ibid.*

<sup>41</sup> Cf. U. Schempp, *op. cit.*, p. 232.

<sup>42</sup> Cf. J. Tobin: A Proposal ..., *op. cit.*, p. 159.

<sup>43</sup> Cf. A. Schrader: *Devisenumsatzsteuer...*, *op. cit.*, pp. 24 ff.

<sup>44</sup> Cf. BIS: 63rd Annual Report, Basle 1993, (p. 216 in the German version).



introduced.<sup>45</sup> Finally, it is virtually impossible to quantify the extent to which interbank trading, which accounts for approximately two-thirds of worldwide foreign-exchange transactions, is primarily speculatively motivated. Deutsche Bank Research believes that the bulk of interbank dealing has institutional origins, i.e. that it is not in any way speculative but is simply a matter of executing and hedging the banks' customer orders.<sup>46</sup> If one accepts this argument, there may well be a good case for exempting interbank trading from the transaction tax.<sup>47</sup> Indeed, that case is strengthened by the fact that a foreign-exchange transaction tax would increase the costs to the banking sector and make its products more expensive. That in turn would adversely affect the banks' clients in the real economy. Nevertheless, the substantial delineation and surveillance problems they would create make this or other exemptions an unattractive proposition.<sup>48</sup>

A prime point made against the Tobin tax by its critics is that it would be an impediment to international trade. They say it is "fundamentally a tax on foreign trade and hence ... irreconcilable with the idea of trade liberalisation".<sup>49</sup> Yet the tax's proponents believe it will actually promote trade rather than impede it. Their view is that the gains to exporters and importers from more stable exchange rates would outweigh the relatively low tax of half a percent on the value of the products traded.<sup>50</sup> Moreover, it can be argued that unhindered globalisation of the financial markets poses a considerably greater threat to trade liberalisation than a 0.5% transaction tax, since fluctuating exchange rates can generate adjustment problems in the real economy, and governments are frequently inclined to resort to protectionist measures to deal with these.<sup>51</sup>

The discussion as to whether the Tobin tax is a hindrance to desired activities by economic actors also goes so far as to question the concept's core premise, namely that speculation is really responsible

for pronounced exchange-rate fluctuations. Keynes, Tobin, Dornbusch and others assume that speculative capital movements act as the cause of excessive movements in market prices, but others argue that foreign-exchange speculation can also serve to stabilise exchange rates. An alternative question to ask is to what extent (short-term) investor behaviour is ultimately a reflection of justified expectations of changes in economic fundamentals, thus making erratic policy changes the ultimate cause of volatile exchange rates.<sup>52</sup> These are questions it is impossible to answer here, particularly since neither theoretical nor empirical research have yet provided any convincing, generalisable, unequivocal explanatory pattern for short-term exchange-rate movements.<sup>53</sup> This article will therefore adhere to the working hypothesis that huge-scale, extremely short-term foreign-exchange transactions generate higher costs than they do benefits.

### Erosion of the Tax Base

A growing number of the Tobin tax's advocates come from among the development-policy groups and organisations and, more recently, have been joined by others keenly involved in environmental policy issues.<sup>54</sup> As a result, increasing significance is now being attached in the policy debate to the suitability of a global transaction tax as a source of revenue which would allow international organisations to fund development and environmental cooperation.

Whoever has followed the tax economists' discussion on such matters as environmental charges will be familiar with the problems that arise if, when any kind of tax charge is introduced primarily to direct or redirect the flow of resources, decisions are simultaneously taken to firmly allot the revenue it raises.<sup>55</sup> If the levy fulfils its redirective purpose, its tax base will also wither away. Although this is the very effect which is desired from the allocative point of view, the consequence is a reduction in tax revenue. There is no problem in that if the expenditure involved in fulfilling the overall task has a linear correlation with the size of the tax base. In the case of the Tobin tax, though, it is hardly possible to establish any such

<sup>45</sup> Cf. J. Hufschmid, *op. cit.*, p. 4.

<sup>46</sup> Cf. A. Schrader: *Devisenumsatzsteuer...*, *op. cit.*, p. 25.

<sup>47</sup> Cf. UNCTAD, *op. cit.*, pp. 110 ff.

<sup>48</sup> Cf. L. Menkhoff and J. Michaelis: *Ist die Tobin-Steuer ...*, *op. cit.*, p. 47.

<sup>49</sup> A. Schrader: *Devisenumsatzsteuer...*, *op. cit.*, p. 23.

<sup>50</sup> Cf. J. Hufschmid, *op. cit.*, p. 4.

<sup>51</sup> Cf. D. Felix, *op. cit.*, pp. 8 f.

<sup>52</sup> Cf. A. Schrader: *Devisenumsatzsteuer...*, *op. cit.*, p. 26; L. Menkhoff and J. Michaelis: *Ist die Tobin-Steuer ...*, *op. cit.*, pp. 35 ff.

<sup>53</sup> Among the papers providing a good review of this problem area is R. Macdonald and M. P. Taylor: *Exchange Rate Economics*, in: IMF Staff Papers, Vol. 39 (1992), No. 1, pp. 157.

<sup>54</sup> For example, E. U. von Weizsäcker, principal of the Wuppertal Institute for Climate, Environment and Energy, put the case for a Tobin tax on the occasion of the UN's 50th anniversary in November 1995.

<sup>55</sup> Cf. C. Kühn: *Strategien zur Finanzierung der Altlastensanierung*, Frankfurt am Main 1994, pp. 188 ff.

correlation: the politically desirable expenditure level of international organisations will not move in harmony with the volume of worldwide foreign-exchange transactions.

The clash between the two functions of a tax is at its most telling if its allocative impact is so great as to deprive itself of its own tax base, either because the undesired activity has ceased altogether or because the tax has been evaded. There can be no question of this extreme case arising with the Tobin tax. Even if foreign-exchange turnover were to defy expectations and shrink to just one tenth of its present volume, the revenue raised by a 0.5% tax, according to Felix's rough estimate mentioned earlier, would still come to approximately \$ 90 billion. All in all, then, a Tobin tax introduced worldwide would certainly offer the prospect of high revenue. Yet even so, the international organisations' dependence on the goodwill of certain of their member governments would not be resolved. It would still ultimately be in the hands of individual countries not only to implement and collect the tax but also to determine the rate at which it is charged and how the revenue should be distributed (*pro rata*).<sup>56</sup>

#### Breach of Basic Principles of Taxation

In contrast to classic internalisation levies (or "Pigou taxes"), the Tobin tax raises a special tax-policy problem: if it serves its redirective purpose moderately well, the foreign-exchange transactions which continue to be made cannot by any means be regarded as economically harmful, so how does one justify the fact that costs of development cooperation are imposed upon the parties conducting the foreign-exchange transactions which are regarded as desirable? The theory of (equitable) taxation has two principles to offer as possible justifications, namely the principle of equivalence and that of ability to pay.<sup>57</sup>

It could be readily demonstrated that the idea of using the Tobin tax to finance multilateral development and environmental cooperation would run counter to the equivalence theory's conception of equity in many respects. However, since the equivalence approach is in any case largely inappropriate to the question of funding international organisations with relatively high levels of expenditure and a broad spectrum of tasks and activities,<sup>58</sup> the

main yardstick used has to be the principle of ability to pay.

However, this principle does not serve well as a justification for the Tobin tax either. If the economic actors charged with the tax are assumed also to be subject – as they normally would be – to income taxation which is already geared to the ability to pay, there is no valid reason for supposing that those conducting foreign-exchange transactions are any better able to pay a new tax than other parties are. If, on the other hand, it is true that "most international capital flows today involve tax sheltering or tax evasion rather than socially productive resource transfers",<sup>59</sup> a global tax on currency transactions could indeed serve as an improvised tool for imposing at least some tax charge on fugitive capital.

Yet that would still leave the problem, both from the point of view of fiscal equity and that of resource allocation, that the tax would also hit desirable activities. Hence it might seem appropriate to exempt certain forms of private-sector exchange transactions from the tax. The trouble is that the introduction of exemptions would not only, as mentioned earlier, run up against problems of delineation and surveillance (both technical and substantial), but would also be detrimental to the revenue-raising function by diminishing the tax base.

#### Conclusions

If the Tobin tax really could deliver what its proponents believe, it would be worth a try by the politicians in spite of its various undesired side-effects. In reality, though, it is doubtful whether it can properly fulfil its expected revenue-raising and redirective functions.

The proposal to use the Tobin tax to provide international organisations with a funding source of their own is an insufficient justification for the tax, and on top of that is extremely problematic in tax-systemic terms. The only economic justification for the Tobin tax when it comes down to it is its desired allocative effect. Because it is essential for the successful implementation of the tax that as many countries as possible should participate, a revenue-

<sup>56</sup> Cf. R. Peffekoven: *Eigene Einnahmen internationaler Organisationen*, in: A. S. Koch and H. G. Petersen (eds.): *Staat, Steuern und Finanzausgleich*, Berlin 1984, pp. 316 ff.

<sup>57</sup> Cf. K. Schmidt: *Grundprobleme der Besteuerung*, in: *Handwörterbuch der Finanzwissenschaften*, Vol. II, 3rd ed., Tübingen 1980, pp. 136 ff.; on the applicability of these principles to the financing of international organisations, cf. R. Peffekoven: *Probleme der internationalen Finanzordnung*, in: *Handwörterbuch der Finanzwissenschaften*, Vol. IV, 3rd ed., Tübingen 1983, pp. 250 ff.

<sup>58</sup> Cf. R. Peffekoven: *Probleme ...*, op. cit., p. 253.

<sup>59</sup> R. Dornbusch: *Flexible Exchange Rates and Excess Capital Mobility*, op. cit., p. 224.

distribution system would need to be chosen which, above all, would encourage countries to impose the tax. If that system then produced the "pennies from heaven" for development cooperation which so many hope for, that could only be a welcome side-effect.

The primary impact of a Tobin tax has to be seen as the reduction of short-term international financial flows. That is the ultimate basis of the tax's redirective purpose and hence also the key argument for its implementation. However, the danger is that speculators could skip over the Tobin-tax hurdle which would then largely relinquish its redirective function. Though this hurdle-skipping could be guarded against by imposing a higher tax rate of several percent, that would lead to major allocative distortions. Furthermore, it would create such pronounced segmentation in the international capital market that the degree of monetary and fiscal

sovereignty individual countries gained ought to be regarded as a risk rather than an opportunity.<sup>60</sup>

Although there is quite a good case overall for giving a moderate Tobin tax (or similarly structured instrument)<sup>61</sup> a try, the actual likelihood of its being implemented on a worldwide basis is extremely small. Even if it were possible to overcome the political implementation problems, the Tobin tax could only possibly fulfil a fraction of the hopes that have been placed in it. All things considered, this is not a cure for all ills but a last-resort solution which, even in the mid-1970s, Tobin recommended "regretfully" in order, as he put it, "to throw some sand in the wheels of our excessively efficient international money markets".<sup>62</sup>

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<sup>60</sup> Cf. A. Schrader: *Devisenumsatzsteuer...*, op. cit., p. 23.

<sup>61</sup> See footnote 9.

<sup>62</sup> J. Tobin: *A Proposal ...*, op. cit., p. 154.

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Matthias Sutter\*

## A Currency Board for European Monetary Union Outsiders

*It is becoming clear that strict interpretation of the Maastricht criteria and adherence to the 1.1.1999 as the starting date for EMU will lead to a two-speed monetary union with insiders and outsiders. In this case, the author proposes the introduction of a currency board for outsiders in order to ensure a minimum of convergence before these countries join EMU as well as to confront the danger that outsiders may become faced with longer term obstacles to membership.*

The implementation of the European Monetary Union (EMU) hangs in the balance. Given the fiscal problems which exist in several EU member states it is questionable whether there will be an EMU at all. Fiscal consolidation in France is of particular significance as an EMU without France appears politically unfeasible. Germany's insistence on a strict interpretation<sup>1</sup> of the convergence criteria laid down in the Maastricht Treaty on European Union (EUT) raises the question of when EMU will be possible.

On the one hand, watering down the convergence

criteria could lead to an unstable monetary union comprising economically heterogeneous EU states, a union which could bear the seeds of its own destruction at the very moment of its birth. However, dissolving the monetary union would involve enormous costs and would deal a severe blow to European integration. On the other hand, barring individual EU members from EMU or postponing the start of monetary union for an indefinite period harbours risks of political disintegration *per se* and

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<sup>1</sup> In the following this is taken to mean the application without exception of the limits of 3% of GDP to the budget deficit and of 60% of GDP to a country's national debt.