



WP/00/40

IMF Working Paper

Retarding Short-Term Capital Inflows Through Withholding Tax

Howell H. Zee

IMF Working Paper

Fiscal Affairs Department

Retarding Short-Term Capital Inflows Through Withholding Tax

Prepared by Howell H. Zee¹

March 2000

Abstract

The views expressed in this Working Paper are those of the author(s) and do not necessarily represent those of the IMF or IMF policy. Working Papers describe research in progress by the author(s) and are published to elicit comments and to further debate.

This paper proposes a price-based measure to mitigate the destabilizing impact of the volatility of global capital movements on the domestic economy of a country pursuing sound economic policies. The measure is a withholding tax on all private capital inflows, with a credit and refund provision that operates within the administrative framework of the existing domestic tax system to relieve noncapital inflows from the tax. This withholding tax, which is substantially more difficult to evade than the much-discussed alternative of imposing non-remunerated reserve requirements, can be implemented with little additional costs to the taxpayers and the tax authorities.

JEL Classification Numbers: F3, H2

Keywords: withholding tax, Tobin tax, financial transactions tax, capital movements

Author's E-Mail Address: hzee@imf.org

¹ The author wishes to thank Angelo Faria, Michael Keen, Emil Sunley, and Vito Tanzi for very helpful comments and discussions.

	Contents	Page
I.	Introduction.....	3
II.	The Proposal.....	5
III.	Discussion.....	7
IV.	Concluding Remarks	10
	References	12

I. INTRODUCTION

Oftentimes an old idea needs the jolt of a new reality to gain currency, but sometimes the jolt could also be so strong as to obscure the idea's inherent merits within its originally intended scope of application. The specific idea in question—which can be traced back to Keynes (1936)—is the introduction of a tax on financial transactions to discourage speculative activities which are not in line with economic fundamentals. The new reality is the ease and speed with which capital could move across national borders in an environment of globally integrated financial markets. Keynes was writing, of course, at a time when the term “globalization,” in its modern connotation, had hardly entered the lexicon, and his proposal was directed narrowly at the U.S. stock market, which he likened to a casino where speculative activities were allowed to be carried out with little transaction costs. A financial transaction tax would have increased such costs and, according to Keynes, directed investments away from the speculative and towards the enterprise (i.e., productive) objective.

The application of a financial transaction tax by Tobin (1978) on all transactions that involve the conversion of one currency to another (henceforth the Tobin tax) as a means to throw sand in the hyperactive wheels of international capital movements seems, at first glance, a fairly straightforward extension of Keynes' idea. Moreover, since the Tobin tax in such a context would be imposed on the *amount* of currency conversion and not on the ultimate *rate of return* associated with the transaction (whatever it may be) that necessitated the conversion, its effective burden would vary inversely in a marked fashion with the transaction's time horizon, i.e., the implied transaction cost inflicted by the tax, even if imposed at a very low nominal rate (say, 1 percent or lower), would be hefty on transactions with a short turn-around time, but would diminish rapidly as their time horizon lengthens. Hence, the Tobin tax appears to be a neat instrument to cool the heels of volatile cross-country speculative capital movements, which invariably have a short time horizon, without at the same time damaging longer-term international capital flows, which presumably are primarily influenced by economic fundamentals.

In fact, however, as a result of the switch of the focus on capital flows from the national to the international level, the practical feasibility of the Tobin tax has been bedeviled by a host of economic, administrative, and political complexities. The reason is that proponents of the Tobin tax continue to stress that its application (on purchases and sales of foreign exchange) must be universal and uniform to prevent leakage of any kind (see Eichengreen, Tobin, and Wyplosz, 1995). Detractors of the tax are quick to point out that, implemented in this manner, it would generate large economic distortions with respect to transactions unrelated to capital flows, require a high degree of international coordination in putting an effective enforcement mechanism in place, and raise very difficult issues about the disposal of the potentially large revenue from the tax.²

² For discussions of these issues, see the many articles collected in Haq, Kaul, and Grunberg (1996) and in Hammond (1995). Shome and Stotsky (1996) advance the usual arguments against the Tobin tax. A summary of the issues can be found in Nadal-De Simone (1997).

The above criticisms are largely valid if the goal of introducing a financial transaction tax is aimed at reducing global destabilizing speculative capital movements (such as the Tobin tax), but are very much beside the point (except the distortion issue, which is discussed below) if the goal is more modest (and more in line with the spirit of Keynes' original proposal): specifically, to merely moderate the impact of volatile world capital flows on a country's domestic economy. The key to this observation is that the main risks a country faces when it liberalizes its capital account are primarily associated with unpredictable and potentially large capital inflows and outflows—most notably sudden and significant reversals in capital inflows—that may have little to do with the soundness (or lack thereof) of its own economic policies. Since private sector speculators do not internalize the destabilizing impact on the country of such capital flows in their investment decisions, their actions generate a negative externality—as viewed from the perspective of the country in question—in the classic sense,³ and would thus call for an equally classic economic remedy, i.e., a Pigouvian tax on the externality-generating activity which, in this case, would be a tax on capital flows into or out of the country, or both.⁴ Indeed, this justification of imposing such a financial transaction tax seems unassailable on economic grounds, and has in fact been increasingly accepted by policy makers as a possible price-based measure for internalizing the externality.⁵

A financial transaction tax with this more limited objective (henceforth referred to as a cross-border capital tax (CBCT), to distinguish it from the Tobin tax) would render irrelevant the concerns about international coordination for, and enforcement of, the tax; equally irrelevant would be the issue of revenue disposal, as questions about the equitable ways of sharing or spending the revenue at the international level simply would not arise. The imposition of such a tax by any country would be strictly a matter of its national tax policy, on which it has (or should have) sovereign power.⁶

³ Kirshner (1998) provides a particularly apt analogy: unregulated capital flows are a form of economic pollution.

⁴ It is worth emphasizing that the negative externality in question here refers exclusively to the adverse effects generated by capital flows *not* associated with economic fundamentals. Capital flows associated with economic fundamentals could, of course, also have adverse effects, but the latter would not be the target for corrective policy actions. In reality, it is, of course, impossible to differentiate *ex ante* between the two types of capital flows. The merit of the Tobin tax, and of the tax being proposed here, lies precisely in the fact that such a differentiation is unnecessary.

⁵ See, for example, Council on Foreign Relations (1999) and Fischer (1998).

⁶ Dornbusch (1997) argues along these lines for taxing all cross-border payments.

While criticisms against implementing the Tobin tax on the basis of its alleged political and administrative complexities are inapplicable in the case of the CBCT, as noted above, those relating to its potential distortive effects, or administrative complexity at the national level, need to be addressed. The distortion argument comes in two variants. The first states that the tax would induce a distortion between taxed and untaxed transactions, and hence it is undesirable. This argument is fallacious, as the induced distortion is intentional—for countering the targeted externality. The second variant states that, since it would be administratively difficult, if not impossible, to identify capital flows that are externality-generating from other financial flows that are not, to prevent leakage or arbitrage the tax would have to be imposed on all cross-border financial flows,⁷ and would thus inflict a burden on transactions that are unrelated to the problem at hand. This argument is conceptually valid, and the distortion it refers to is real. What is unclear is the quantitative significance of this distortion *relative* to the cost of allowing destabilizing capital flows to remain unchecked.⁸

This paper proposes a specific mechanism by which a tax on cross border capital flows could be introduced with its spillover distortive effects on noncapital flows largely mitigated at minimal administrative costs. The nature of the proposal is laid out in the next section. Section III provides a discussion of the proposal, especially its comparative advantages over Chile's well-known special non-remunerated reserve requirements (NRRs) on certain short-term capital inflows, which operate on the same economic principles as the proposed tax but very differently from it administratively.⁹ Section IV concludes the paper.

II. THE PROPOSAL

The proposal takes as given that short-term cross-border capital flows, if left completely untempered, could lead to destabilizing consequences and that introducing a price-based corrective measure that increases the transaction costs of such flows—with the costs varying inversely with the time horizon of the capital flows—is a desirable policy.¹⁰ The heart of the

⁷ This is the position taken by Dornbusch (1997) and other proponents of the Tobin tax.

⁸ Dornbusch (1997) argues that the burden inflicted by a tax on noncapital cross-border financial flows (e.g., flows arising from trade transactions) is minor if the nominal tax rate is kept low. This assertion is, however, far from certain as it is stated without the support of empirical evidence.

⁹ These special NRRs were reduced to zero—but not technically abolished—in September 1998.

¹⁰ Correcting for the destabilizing spillover effects on the domestic economy of international capital volatility may not be the only possible objective of introducing such a measure. Chile's NRRs have been introduced, for example, to also minimize the impact of a tight

(continued...)

proposal consists of two parts: (1) the imposition of a tax—the CBCT—on *all* private financial *inflows* in the form of a *withholding tax* at the point and time such inflows enter a country;¹¹ and (2) taxes so withheld on financial inflows of a noncapital nature are *creditable* against the *domestic* tax liabilities of those who have paid the CBCT under the existing domestic tax system and within established administrative procedures. While excess credits are, in principle, refundable, they are not refunded to those who do not file tax returns. The credit and refund feature of the proposed tax ensures that the bulk of its burden would fall only on foreign borrowings by residents (inclusive of domestic permanent establishments of foreign enterprises) as intended—allowing their export receipts and foreign-source income to largely escape the tax.

The implementation details of the CBCT are as follows:

- all financial institutions which have the facility for receiving funds transferred from abroad are required to serve as the withholding agents, i.e., they are required to withhold *t* percent of the *amount* of all such funds received before depositing them into the accounts of their clients; taxes so withheld are required to be immediately deposited into the accounts of the tax authorities;
- the CBCT withheld on export receipts are refunded to exporters; such refunds are computed on the same information basis for determining refunds under the value-added tax (VAT), and are claimable on the same administrative basis for granting VAT refunds;
- the CBCT withheld on interest, dividends, royalties, repatriated profits, and other income flows taxable under the domestic income tax are creditable against the income tax liabilities of the recipients of these types of income; excess credits are refundable on the same administrative basis for granting regular income tax refunds;
- the CBCT withheld on other income inflows not subject to the domestic income tax¹² are refundable to the recipients of such inflows only if they are domestic taxpayers and file tax returns with proper documentary evidence that the inflows in question are of an income nature (under a standard definition of income);

monetary policy (for addressing domestic policy needs) on the external current account. See Le Fort and Budnevich (1997).

¹¹ The proposed withholding tax is imposed on inflows rather than on outflows because of the second part of the proposal. In any event, as argued by Eichengreen (1999), the case for taxing outflows is weaker than taxing inflows because the former merely treats the symptom rather than the cause of the problem.

¹² These inflows would include, for example, income received by nonprofit organizations, foreign-source income not taxable under a source-based domestic income tax system, and any other tax-exempt income.

- the CBCT withheld on all other private financial inflows are neither creditable nor refundable, with the sole exception of inflows arising from the sale of (real or financial) assets abroad, in which case CBCT credits or refunds are granted only if the recipients are domestic taxpayers and file tax returns with proper documentary evidence of prior ownership of the assets sold; and
- the choice of the rate of the CBCT would depend on the desired severity of the disincentive to be imposed on short- relative to long-term capital inflows;¹³ *it should not be based on revenue needs* as the tax is not intended as a revenue-generating instrument.

III. DISCUSSION

A distinctive feature of the proposed CBCT is that it can be implemented with minimal additional administrative costs to national tax authorities, due in large part to two elements in its design. First, it relies on a familiar administrative device found in almost all tax systems—the withholding mechanism—that is proven effective in reducing tax evasion with respect to certain forms of income (e.g., interest, wages, etc.) paid by entities (e.g., banks, employers, etc.) that are easily and clearly identifiable and, therefore, can be required by law to serve as withholding agents. Since financial institutions are particularly well equipped technically to take on any withholding responsibility, the ease with which the CBCT could be put into effect is virtually assured.¹⁴

The second design element of the CBCT that greatly facilitates its implementation is that eligible credits for, or refunds of, the CBCT withheld—a crucial aspect of the proposed tax since it is this provision that limits its effective applicable scope to financial inflows of a capital nature only—are administered by maximizing the use of established procedures of

¹³ To get an idea on how the CBCT rate, t , relates to an income tax rate, τ , let i be the (annualized) before-tax interest rate and h be the length of an investment's holding period, expressed in yearly units (i.e., $h = 1/365$ denotes 1 day, $h = 2$ denotes two years, etc.). Then the relationship between the income tax rate and the CBCT rate is given by $\tau = t / [(1 + i)^h - 1]$. Suppose the annual interest rate is 10 percent ($i = 0.1$). For an investment with a holding period of five years ($h = 5$), a CBCT rate of 1 percent ($t = 0.01$) is equivalent to a negligible income tax rate of 1.6 percent. If, however, the holding period shortens to 40 days ($h = 40/365$), then the same 1 percent CBCT would be equivalent to a prohibitive income tax rate of 95 percent (an even shorter holding period than this could yield an equivalent income tax rate exceeding 100 percent).

¹⁴ Tax authorities must ensure, of course, that financial institutions do in fact properly withhold the CBCT—and duly remit the amounts withheld as required—on all financial inflows from abroad. This could be achieved in the normal course of tax audits of these institutions.

existing taxes: the VAT in the case of the CBCT withheld on export receipts and the income tax in the case of the CBCT withheld on income inflows. In this way, no new administrative machinery needs to be introduced for the CBCT's implementation.

As designed, the CBCT does give rise to two administrative complications, both of which are likely to be minor, however, in practical terms. The determination of CBCT credits or refunds relating to export receipts would be somewhat problematic for a country without a VAT. Fortunately, the number of countries which currently do not have a VAT (or a VAT-like tax) *and* at the same time are vulnerable to the volatility of global capital flows are few and far in between. Even in these few countries, such credits or refunds could still be handled, albeit with perhaps more stringent documentary requirements and added procedural safeguards. Complications would also arise for recipients of funds from abroad who, except for the purpose of claiming CBCT refunds, are not otherwise required to file income tax returns, either by statute (e.g., non-profit organizations) or because such funds are tax exempt domestically (e.g., the domestic tax system is source-based) *and* the recipients have no taxable income from domestic sources. Both for these recipients of foreign funds and for the national tax authorities, the necessity of filing and processing tax returns for the sole purpose of handling CBCT refunds would represent an added burden entailed by the tax. Again, fortunately, the number of such cases in any country would in all probability be relatively small.¹⁵

As a trade-off against the above minor administrative complications, the CBCT confers the benefit—quite apart from its intended goal of discouraging short-term capital inflows—of addressing at least partially a tax evasion problem that is becoming increasingly severe in many countries: the effective taxation of foreign-source capital income (e.g., interest and dividends) received by residents in a country with a residence-based tax system. In a world of globally integrated financial markets, capital income from abroad is easy to earn but difficult to detect, should the taxpayers choose not to report it. Since such income would be subject to the CBCT withholding with no credits or refunds claimable unless the income is reported, the CBCT is effectively a final withholding tax, or equivalently a minimum income tax, on unreported capital income from abroad that would have otherwise completely escaped the tax net.¹⁶

While there is no hard and fast rule for determining the “optimal” CBCT rate for any country, the earlier numerical illustrations do suggest that even a rate as low as 1 percent

¹⁵ Note that, even in countries with source-based tax systems, the majority of recipients of (tax exempt) income from foreign sources would also have taxable income from domestic sources. They would, therefore, have to file tax returns even in the absence of the CBCT, and the marginal burden on them of imposing the CBCT would be insignificant.

¹⁶ For a fuller discussion of the role withholding taxes could play to combat tax evasion in a world of globally mobile capital, see Zee (1998).

would impose a prohibitive penalty on investments with a short turn-around time. Hence, it would seem that it is rarely appropriate to set the CBCT rate in excess of 1 percent by any significant margin. Depending on the volume of capital inflows, however, a CBCT at this low rate could still yield a significant amount of revenue. It would thus be important for countries to resist the temptation of treating the CBCT as a revenue source.¹⁷

Any discussion of the CBCT would not be complete without a comparative assessment between it and an alternative measure to discourage short-term capital inflows: special NRRs on such inflows as can found until recently in Chile.¹⁸ NRRs are, of course, implicit taxes in the form of forgone interest that could be earned on the reserves, and as such they should have, in principle, economic effects similar to the CBCT. In practice, however, there are substantive differences between the two measures, due to their completely different administrative frameworks.

The implementation of the NRRs utilizes what is known in taxation as the "positive" approach, i.e., the categories of capital inflows liable to the NRRs are positively specified. The effectiveness of this approach relies basically on either a low degree of fungibility of capital inflows between those subject to the NRRs and those that do not, or a high degree of self-compliance on the part of domestic borrowers, or both. Unfortunately, either is exceedingly doubtful. Indeed, a review of the Chilean experience reveals that the implementation history of its NRRs is characterized by frequent adjustments to their coverage to close loopholes in response to persistent evidence of borrowers shifting their borrowings to loan categories that lie outside the NRRs' applicable scope. So far, empirical studies on the effectiveness of the NRRs in altering the maturity structure of capital inflows have produced mixed evidence, and almost all of the studies are subject to problems of data (e.g., balance of payments statistics may be misclassified or misreported) and/or

¹⁷ One possibility to lessen this temptation would be to stipulate that part or all of the revenue from the CBCT would be shared among all financial institutions charged with the responsibility of implementing the tax on the basis of some predetermined formula. Such a sharing could be justified, for example, on grounds that it would be a form of compensation for the withholding service these institutions have been asked to render (it is a service because the withholding associated with the CBCT, unlike that on wages by employees or on interest by banks, is not imposed on any *income originating* from the agents carrying out the withholding).

¹⁸ While the Chilean practice has attracted the most attention, other countries at different times have introduced similar measures. For a discussion of these country experiences, see Ariyoshi, et.al. (2000) and Johnston, et.al. (1999). Colombia's experience with NRRs is extensively reviewed in Le Fort and Budnevich (1997).

econometrics (e.g., effects of the NRRs are not properly isolated from those arising from other policy measures).¹⁹

In contrast, the CBCT utilizes the “negative” approach for its implementation, i.e., all private financial inflows are liable to the CBCT withholding in the first instance, and only at a later stage inflows of a noncapital nature are provided relief from the tax through a credit/refund provision. Since the burden of producing documentary evidence required for claiming CBCT credits or refunds rests on the recipients of the inflows, the CBCT net is significantly tighter and, consequently, much more difficult to evade than the net cast by NRRs. It is important to note that this gain is bought at little additional costs to either the tax authorities or to individual taxpayers, since the information on which the determination of CBCT credits and refunds is based is largely the same as that required for enforcing the existing VAT and/or income tax.

The only capital inflows that would be able to escape the CBCT withholding would be those that do not go through the formal financial system (this loophole also applies to the NRRs). In most countries, such inflows are unlikely to be quantitatively significant, and in any case would not be of the type (e.g., direct bilateral credit arrangements between domestic and foreign traders) targeted by the CBCT in the first place. The relative evasion-proof of the CBCT suggests that its effectiveness in discouraging short-term relative to long-term capital inflows is, all other things constant, almost assured by the sheer force of the economic incentives it entails. Usual arguments against the effectiveness of administrative measures for limiting specific categories of capital inflows—because all capital flows are highly fungible and substitutable²⁰—are not applicable to the CBCT. The CBCT is a true price-based measure, while the NRRs are not.

IV. CONCLUDING REMARKS

The argument that volatile global capital movements could have a destabilizing impact on the domestic economy of a country is uncontroversial;²¹ that such an impact could be viewed essentially as a negative externality from the perspective of the affected country is less so, although rapidly gaining acceptance. If the externality argument holds any currency, then the unilateral introduction of a price-based measure by the country concerned for countering the externality should be compelling.

¹⁹ There is now a voluminous literature on Chile’s NRRs. For recent surveys of this literature, see Nadal-De Simone and Sorsa (1998) and Laurens and Cardoso (1998).

²⁰ For these arguments, see Claessens, Dooley, and Warner (1995).

²¹ Vito Tanzi reminds me that this is uncontroversial only to those who agree with the statement. It is also fair to state, however, that those who agree with it are in the majority.

The price-based measure proposed in this paper is a withholding tax, the CBCT, on all private financial inflows, with a credit and refund provision that operates within the administrative framework of the existing domestic tax system to relieve those inflows that are of a noncapital nature from the tax. As such, the CBCT can be implemented—financial institutions would serve as withholding agents—with little additional costs to the taxpayers and the tax authorities. It is also substantially more difficult to evade than NRRs imposed on targeted capital inflows.

The CBCT, by increasing the transaction costs of short-term relative to long-term capital inflows, would necessarily produce the desired effect of lengthening the time horizon of such inflows, and, therefore, lessen the destabilizing consequences of short-term speculative capital movements that are unrelated to a country's economic fundamentals. The CBCT is not designed to shield, and—like other forms of capital controls—would be totally ineffective in shielding, the country over time from global market forces in its pursuit of unsustainable policies. In other words, the CBCT is intended as a measure to correct a market failure, not one to propagate policy failures.

REFERENCES

- Ariyoshi, Akira, et al., 2000, *Country Experiences with the Use and Liberalization of Capital Controls* (Washington, DC: International Monetary Fund).
- Claessens, Stijn, Michael P. Dooley, and Andrew Warner, 1995, "Portfolio Capital Flows: Hot or Cold?" *The World Bank Economic Review*, Vol. 9, pp. 153-74.
- Council on Foreign Relations, 1999, *Safeguarding Prosperity in a Global Financial System: The Future International Financial Architecture* (Washington, DC: Institute for International Economics).
- Dornbusch, Rudi, 1997, "Cross-Border Payments Taxes and Alternative Capital-Account Regimes," in *International Monetary and Financial Issues for the 1990s*, Vol. VIII (New York: United Nations), pp. 27-35.
- Eichengreen, Barry, 1999, *Toward A New International Financial Architecture: A Practical Post-Asia Agenda* (Washington, DC: Institute for International Economics).
- Eichengreen, Barry, James Tobin, and Charles Wyplosz, 1995, "Two Cases for Sand in the Wheels of International Finance," *The Economic Journal*, Vol. 105, pp. 162-72.
- Fischer, Stanley, 1998, "Capital-Account Liberalization and the Role of the IMF," in *Should The IMF Pursue Capital-Account Convertibility? Essays in International Finance*, No. 207 (Princeton: International Finance Section, Princeton University), pp. 1-10.
- Haq, Mahbub ul, Inge Kaul, and Isabelle Grunberg (eds.), 1996, *The Tobin Tax: Coping with Financial Volatility* (New York: Oxford University Press).
- Hammond, Suzanne (ed.), 1995, *Securities Transaction Taxes* (Chicago: Catalyst Institute).
- Johnston, R. Barry, et al., 1999, *Exchange Rate Arrangements and Currency Convertibility: Development and Issues* (Washington, DC: International Monetary Fund).
- Keynes, John M., 1936, *The General Theory of Employment, Interest and Money* (London: Macmillan).
- Kirshner, Jonathan, 1998, "Culprit is Unregulated Capital," *Los Angeles Times*, September 13 (Sunday Opinion Section).
- Laurens, Bernard, and Jaime Cardoso, 1998, "Managing Capital Flows: Lessons from the Experience of Chile," *IMF Working Paper*, No. WP/98/168 (Washington, DC: International Monetary Fund).

- Le Fort, Guillermo, and Carlos Budnevich, 1997, "Capital-Account Regulations and Macroeconomic Policy: Two Latin American Experiences," in *International Monetary and Financial Issues for the 1990s*, Vol. VIII (New York: United Nations), pp. 37-58.
- Nadal-De Simone, Francisco, 1997, "The Tobin Tax: Coping with Financial Volatility—A Review Article," *The Singapore Economic Review*, Vol. 42, pp. 32-49.
- Nadal-De Simone, Francisco, and Piritta Sorsa, 1998, "Capital Account Restrictions in Chile in the 1990s," in *IMF Staff Country Report*, No. 99/15 (Washington, DC: International Monetary Fund), pp. 67-110.
- Shome, Parthasarathi, and Janet G. Stotsky, 1996, "Financial Transactions Taxes," *Tax Notes International*, Vol. 12, pp. 47-56.
- Tobin, James, 1978, "A Proposal for International Monetary Reform," *Eastern Economic Journal*, Vol. 4, pp. 153-9.
- Zee, Howell H., 1998, "Taxation of Financial Capital in a Globalized Environment: The Role of Withholding Taxes," *National Tax Journal*, Vol. 51, pp. 587-99.