Systematic Review on the Tobin Tax

Protocol

Review Team:

Dr. Neil McCulloch (Leader Reviewer and coordinator)
Grazia Pacillo (Research Assistant)
Helen Rehin (Librarian)
Gonzalo Varela (Research Assistant)

Contact Information:

Dr. Neil McCulloch
Fellow
Institute of Development Studies
University of Sussex
Falmer
Brighton
BN1 6GH
UK

Introduction

1. DFID's White Paper states that policies based on evidence of what works, help to deliver value for money by creating more effective policies. Basing policy and practice decisions on the body of evidence helps to ensure that decisions are as well informed as possible.

2. However, policy professionals work in fast-paced environments so it is impossible for them to assess the body of evidence for each policy question in the time required. The way evidence is currently mediated means they have to rely on single studies, well-placed experts or traditional and unsystematic scoping studies. There is a clear gap in the provision of a systematic and unbiased assessment of development evidence.

3. DFID Research and Evidence Division is developing a program to create systematic reviews of the evidence base for international development. The goal of the program is to provide policy makers and practitioners with a robust assessment of the evidence base as they begin to develop policies and programmes.

4. The main aims of the systematic review for Tobin Tax are to produce findings that will:
   - Inform policy in relation to the Tobin tax effect on financial markets, its revenue potential, its feasibility problems and its economic impact.
   - Highlight gaps in the research on the Tobin tax that might be filled by a future research initiative.

5. The first critical stage of any systematic review is the creation of a review protocol, whose purpose is to describe all the criteria and methodologies that will be utilized in the searching, screening and reporting processes of the systematic review. A draft of the protocol will be submitted for comments to a number of people including librarians and experts in systematic review techniques in order to adjust and re-define its contents and format accordingly.

6. This document therefore provides a comprehensive description of the following issues:

- Background information explaining the need for a systematic review on the Tobin Tax;
- Objective of the review which includes research questions to be answered by the review;
- Methodology:
  - Search terms;
  - Search sources:
    - Electronic search;
    - Manual search.
  - Selection criteria: Inclusion/exclusion criteria
    - Geographical coverage;
    - Timing of studies;
    - Study design;
    - Quality appraisal.
  - Review Team;
  - Map of evidence;
  - Workshop;
  - Narrative review;
- Timeframe
- Plans for updating the review
- Acknowledgments
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Background

In 1972, in the Janeway Lectures at Princeton, James Tobin suggested that it might be a good idea to impose a currency transactions tax in order to enhance the efficacy of macroeconomic policy. He reiterated this view in his presidential address to the Eastern Economic Association in 1978 (Tobin 1978). The proposal did not get a good reception. As Tobin wrote "it did not make much of a ripple" (Tobin in Ul-Haq et al, 1996). However, over the subsequent 30 years, every time there has been some form of financial or currency crisis, there is renewed discussion about whether the implementation of a Tobin Tax might be an appropriate policy response. The Tobin Tax is an emotive issue. On the one hand such a tax is, as Tobin himself put it, "anathema to Central Bankers"; many economists share an instinctive dislike for taxing transactions and oppose the tax for this reason; bankers and other participants in financial markets often regard it as unworkable or naïve. On the other hand, campaigning groups, politicians and economists frequently raise the issue of the Tobin Tax (and other similar financial transaction taxes), in reaction to major financial crises, due to its purported ability to stabilize markets. As in the reaction to the current financial crisis, these groups often see the tax as a means of extracting a larger contribution from the financial sector to fund a wide range of national and international public goods.[1]

Despite the long-standing debate on the issue, the arguments aired by both proponents and opponents of the tax are often rather poorly grounded in evidence. This is surprising, because there is now a voluminous literature on the Tobin Tax. This includes: extensive theoretical work, examining whether Tobin and Tobin-like taxes would stabilize markets in principle (Westerhoff, 2003; Westerhoff and Dieci, 2006, Shi and Xu, 2009); simulations which explore how simple agents acting according to specified set of rules would react to the imposition of such a tax (Kaiser et al, 2007); empirical work on the relationship between transaction costs and volatility in financial markets (Aliber, 2003; Lanne and Vesala, 2010);as well as work examining the actual impact upon markets and revenue when similar such taxes have been imposed in various countries (Umlauf, 1993; Saporta and Kan,1997). In addition, there is a comprehensive literature on potential ways in which such a tax might be implemented and the pitfalls, difficulties and possibilities associated with these differing modalities (Spratt, 2005; Schmidt, 2008; Schulmeister, 2009). In short, there is a great deal that we already know about the pros and cons of Tobin and Tobin-like taxes.

Notwithstanding the significant amount of literature on the topic, little work has been done to synthesize, compare and review studies on Tobin like taxes after the publication of the seminal book "The Tobin Tax: coping with financial volatility" published in 1996. Therefore, a systematic review of the evidence is extremely timely.

Objective

The aim of this review is to lay out, in a disinterested fashion, the evidence currently available. Specifically we will attempt to review the evidence on four key questions:

- What is the impact of financial transaction taxes on volatility?
  We will review the results arising from the main theoretical models that have been developed, as well as the findings from computational simulations. We then describe the findings from the empirical literature associated with similar kinds of transaction costs and taxes.

- Is a Financial Transaction Tax feasible?
  A key concern running through the debate is whether it is actually feasible to implement such taxes in a way that would prevent significant avoidance. Three key questions arise

[1] The current Robin Hood Tax campaign (www.robinhoodtax.org) is the most recent embodiment of such a campaign focused on the revenue benefits of such a tax.

here. First, what instrument should be taxed (and would market actors simply be able to substitute non-taxed instruments for taxed ones to avoid the tax). Second, at what point in the payment system (i.e. trading, clearing or settlement) and on what resource (e.g. registration, brokerage) should be tax be imposed? Third, what should the scope of the tax be? i.e. should it cover domestic assets or also foreign assets; domestic market actors or also foreign actors; transactions taking place in the domestic market or also those taking place abroad? Related to this, is the issue of whether market actors can circumvent the tax by migrating their business, or at least their trades, to untaxed centres, and, whether it would therefore be necessary to get agreement among all, or a large number of key countries for the tax to be effective.

- How much money would a FTT collect?
  The answer to this question is clearly determined by the answers to the feasibility questions above. We outline the large range of estimates of the revenue that would be collected in the literature and attempt to explain how the figures produced depend on the coverage of instruments, actors and countries and the rates applied. We also examine the existing estimates of the elasticity of trade volume with respect to the tax and the effect that this has on the revenue figures obtained. Finally, we attempt a meta-analysis of the revenue collection potential using the median estimates from the literature.

- What would be the incidence of the Tobin Tax?
  Unfortunately, the analytical and empirical literature on the incidence of a Tobin Tax is rather sparse. Nonetheless, we examine the evidence about the incidence of other taxes and use this to assess the merits of the various positions taken and to come to a reasoned judgment about the likely incidence of the tax.

Methodology

The definition of a search strategy is the first step of the review process. It will guide us in the identification of the relevant studies for addressing the above research questions. It will include criteria to discriminate between studies and useful tools to select and retain the relevant ones.

<u>Search terms</u>

The search terms which we will use will depend on the four research questions outlined above. The set of search terms for each research question are shown in Annex 1. For each question several searching terms are identified so as to include studies that do not explicitly mention the Tobin Tax but implicitly refer to it using different terminology.

- The first section (search terms 1 to 5) will be used to identify those references which directly address the issue of financial transaction taxes. The search terms will also be combined with the following sections.
- The second section provides two sets of search terms will be used to identify the literature on the impact of Tobin-like taxes on volatility. First, literature will be accessed if it contains a first section term and also the words “volatility in …” followed by any of the search terms 6 to 11. Second we will retrieve material that has a first section term and “effect on …” followed by any of search terms 12-16.
- The third section contains terms (17-30) to be used in the study of feasibility and implementation issues associated with the Tobin-like taxes. The terms listed will be used only if combined with the first section terms.
- The fourth section provides terms (31-34) for retrieving literature on the revenue potential of financial transaction taxes. These terms are used with first section terms.
- Finally, the last section lists terms (35-39) to identify studies that address the incidence of such taxes. Again, these will be used in combination with first section terms.

A “search diary” will be maintained detailing the names of the sources, the keywords used and the search results. Titles of studies retrieved will be recorded in an Endnote database, along with the details of where the reference has been found. Inclusion/exclusion decisions will be also recorded in that database. Retrieved studies will be filed according to inclusion/exclusion decisions.

Search sources

Academic research, government studies, studies by international institutions and other grey literature sources are all targeted. Study identification will include both electronic and manual searching strategies.

Electronic search
Electronic searches will involve a number of electronic databases, identified across various relevant disciplines including social sciences and economics, as well as the Sussex main library catalogue. The list of electronic search engines that will be used is as follows:

1. EBSCO Business Source Premier
2. Econlit (EBSCO)
3. IDEAS/Repec repository (including Econpapers which is in it)
4. IBSS (EBSCO)
5. JSTOR
6. JOLIS
7. ISI Web of Knowledge
8. Zetoc (British Library)
9. BLDS and ELDIS (which is really a portal)
10. SSRN
11. ABI/Inform

Manual search
Manual search will include the search on institutional websites for the following institutions:

1. Bank of England
2. Federal Reserve in US
3. IADB
4. Institute of International Finance
5. Bank of International Settlements
6. Institute of Fiscal Studies
7. International Financial Service London
8. NBER
9. CEPR
10. North/South Centre
11. Central Bank of India
12. Central Bank of South Africa
13. World Bank/IMF will be covered through JOLIS
14. websites of NGOs working in this area including: Currency Transaction Tax campaign; the Robin Hood Tax campaign; Stamp out Poverty; and Oxfam.

Different search terms and combinations of terms will have to be used for each of the different databases, since the sophistication of the possible search strategies varies enormously from database to database. The ANNEX 1 is, therefore, used as a master search strategy to adapt to the different sources.

In addition to the searches above, we will conduct follow-up searches on citations found in studies retrieved from the initial round of searches. We will also seek information about references and sources from experts in the field. Journals that seem particularly relevant will be hand-searched.

Expert Contacts
The authors of the seminal book "The Tobin tax: coping with financial volatility" will be contacted and asked to provide information on ongoing research. In particular, they will be asked to suggest key studies written after 1996.

In addition, we will compile a contact database of all authors who have written on the Tobin Tax and will email them all with the draft review paper asking for comments and suggestions for other literature. This will ensure that we do not miss any literature which people currently engaged in the field are aware of. It will also highlight the fact that the review is taking place enabling the final review to have greater influence on the policy debate.

<u>Selection criteria: Inclusion/exclusion criteria</u>

Several selection criteria have been developed in order to provide the review the necessary coherence and manageability.

Scope
We are interested in financial transaction taxes which affect the inter-bank or wholesale market. We therefore do not consider non-financial transaction taxes (e.g. taxes on the exchange or trade in goods or services); nor do we explore non-transaction taxes on financial assets (e.g. capital gains tax). We also focus on the inter-bank/wholesale market and therefore do not consider transaction taxes that are oriented to the retail market e.g. bank debit taxes. Even with these restrictions, our definition is broad, covering taxes on the exchange of the entire range of financial securities, including bonds, shares, and foreign exchange as well as the spot, forward, and futures and options markets for these assets.

When referring to this full range of transaction taxes we use the term Financial Transaction Taxes (FTT). When referring only to transaction taxes on foreign exchange we will use the term Tobin Tax, since Tobin's original idea only related to the taxation of foreign exchange transactions. However, we broaden Tobin's original concept to include all forms of transaction tax on the foreign exchange market, including forward, futures and options, not merely those pertaining to the spot market.

Geographical and language coverage
The systematic review will include studies which capture the worldwide experience on financial transaction taxes. A special focus will be given to the UK financial markets. We only consider studies published in English.

Timing of studies
We will focus on studies conducted after 1996 for this systematic review. The reason why this date has been chosen is that the most important book on the topic was published in that year. "The Tobin tax: coping with financial volatility" (Ul Haq et al, 1996) is a seminal work which includes chapters by the most important authors of the field and reviewed most of the previous studies on the Tobin tax. We therefore feel that it will be more valuable and more relevant to policy to focus on more recent studies. However, for completeness, we will include references to seminar works prior to 1996. Also, if no recent work satisfies our inclusion/exclusion and quality criteria, or if no work has been done recently on some elements of this review, then older studies will be included.

Study design
Studies to be retrieved for the review include:

- Theoretical studies (including simulations);
- Empirical analysis;

- Policy proposals;
- Other Grey literature.

Because the broader theoretical literature in finance is vast, we will only consider those studies that directly relate to Tobin-like taxes and their effects on financial markets and behaviour.

Table 1 summarises our inclusion/exclusion criteria.

Quality appraisal

To ensure that our conclusions can be relied upon as both internally and externally valid, we will employ a range of quality criteria for inclusion/exclusion of studies. Only studies that fulfil the essential quality criteria will be included.

The quality criteria are listed in the Table 2.

<u>Review Team</u>

The review will be conducted by Dr. Neil McCulloch, assisted by a professional librarian and two RAs.

We intend to put together an Expert Review Panel. This will consist of 4 internationally reknowned experts in different aspect of the field (e.g. academics with backgrounds in theoretical finance and empirical analysis, NGO advisors, leading thinkers from the City of London). The Review Panel will provide inputs in three stages. First, they will be asked at the beginning of the review to spend a day compiling their own list of key references/papers on the topic. Whilst this will not be the main source of literature, the lists provided by these experts may point to sources not found or not accessible through the protocol. Second, the Review Panel will be asked to provide written comments on an early draft of the review. Finally, the Review Panel will be invited to contribute to a workshop in London on the Tobin Tax.

<u>Workshop</u>

We propose to organize a workshop in London in the presence of the main experts of the field, including representatives of the financial sector, senior staff from the Treasury and DFID, and NGOs. Members of the Expert Panel will be invited to present at this workshop. This may be done in conjunction with the Centre for the Study of Financial Innovation.

<u>Map of evidence</u>

One of the main aims of this review is to provide DFID with an overview of the research that has already been undertaken on the Tobin like taxes. Therefore, EPPI-Centre's method of using a map to provide knowledge about the studies that exist will be utilised. This will enable DFID to identify gaps in Tobin tax research that can be filled by a future research. The map will help answering the following questions:

- Are there any gaps in knowledge?
- Is further research needed for any particular sub-section of the review?
- Is there potential for exploiting existing data sources?

The map will report the following characteristics for each study:

- Identifier: author, title and year
- source: electronic database, website, handsearch, citation, contact, other (specified)
- status: published, in press, unpublished
- area covered: worldwide, UK, other (specified)

- study design: theoretical, empirical, simulation, policy report, other grey material (specified)

For empirical analysis and simulations the map will include the following indicator:
- dataset
- time period covered
- method and model used

In order to produce the final map as described above all the information about the studies retrieved will be entered into STATA to allow frequencies and cross-tabulations to be run on the studies. Therefore, it will be used to describe what work has been carried out so far and thereby identifying any gaps

Narrative review

The final stage of the review will be to summarize, compare and contrast the material retrieved during the selection procedure. We will assess the extent at which the results of the searching process are telling a consistent story that can be generalized and can provide support for policy and practice.

We intend to produce an IDS Working Paper of the systematic review as the final output. This paper will be submitted to a high-ranking journal.

Timeframe

The outputs of the review will be produced in stages as follows:
- Draft Protocol to DFID (31 May)
- Draft review of theoretical and empirical work on volatility, feasibility, incidence and revenue potential (15 July)
- Setting up the Expert Review Panel (31 July)
- Expert Review Panel sends comments on draft review (31 August)
- Final review paper (30 September)
- 1 page summary and 4 page policy brief (15 October)
- London workshop (31 October)

Plans for updating the review

Plans for updating the Review will be made immediately after the launch of the Review in October. We will also apply to present the Review at the Royal Economics Society conference in 2011 and aim to update the Review in the light of comments received there and from journal referees.

Acknowledgments

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Statement concerning conflict of interest

The researchers involved in this study have no vested interests in the findings of this review nor any incentives to represent findings in a biased manner.

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Tables

Table 1 Inclusion/Exclusion Criteria

N.		Inclusion Criteria	Exclusion Criteria
1	Topic	Studies on: • financial transaction taxes which affect the inter-bank or wholesale market, • covering taxes on the exchange of the entire range of financial securities, including bonds, shares, and foreign exchange as well as the spot, forward, and futures and options markets for these assets.	Studies on: • non-financial transaction taxes (e.g. taxes on the exchange or trade in goods or services) • non-transaction taxes on financial assets (e.g. capital gains tax) • transaction taxes that are oriented to the retail market e.g. bank debit taxes.
2	Timing	Studies investigating the topic after 1996.	Studies investigating the issue before 1996.
3	Study design	Type of studies: • theoretical formulations; • empirical analysis; • simulations; • policy proposals; • institutional and government reports; • unpublished studies.	Theoretical literature on finance in general. Where there are duplications of the same material in more than one study, just one of the studies will be chosen.
4	Quality appraisal	Studies will be included if they meet the *essential* quality criteria outlined in table 2.	Studies will be excluded if they do not meet all the *essential* quality criteria outlined in table 2.

Table 2 Quality Criteria

1	Question	Is (are) the research question(s) clear?	Desirable
2	Theoretical perspective	Is the theoretical or ideological perspective of the author explicit, and has this (inappropriately) influenced the study design, methods and research findings?	Desirable
3	Study design	Is the study design appropriate to answer the research question(s)?	Essential
4	Context	Is the context or setting adequately described?	Desirable
5	Coherence	Is the argumentation coherent with its research question(s)?	Essential
6	Method	Is the method used correctly applied? Is it appropriate to answer the research question(s)? Are there problems in applying the method to some research question(s)?	
7	Data collection (for empirical analysis)	Was there evidence that the data collection was rigorously conducted to ensure confidence in the findings?	Essential
8	Data analysis (for empirical and simulation analysis)	Was the data analysis rigorously conducted to ensure confidence in the findings?	Essential
9	Reflexivity (for empirical and simulation analysis)	Are the findings substantiated by the data and has consideration been given to any limitations of the methods that may have affected the results?	Desirable
10	Generalisability	Do any claims to generalisability follow logically, theoretically and statistically from the data? Is any claims to generalisability coherently generate in the theoretical formulation?	Essential

ANNEX 1
SEARCH TERMS

First section

1. Tobin tax
2. Currency transaction tax or taxes
3. Financial transaction tax or taxes
4. Securities transaction tax or taxes
5. Taxation of financial markets

Volatility

First section + "Volatility in …"

6. financial market(s)
7. foreign exchange market(s)
8. equity market(s)
9. derivatives market(s)
10. bond market(s)
11. over the counter markets(s)

First section + "effect on … "

12. volatility
13. trading volume
14. liquidity
15. market structure
16. traders' behavior

Feasibility

First section + "…"
Or "… of (first section term)"

17. feasibility
18. feasible
19. implementation
20. tax base
21. at trading site
22. at dealing site
23. at settlement site
24. scope
    a. + domestic assets and/or foreign assets;
    b. + domestic market actors and/or foreign actors
    c. + transactions in the domestic market and/or abroad
25. substitution
26. substitution effect
27. migration
28. migration effect
29. global
30. unilateral

Revenue

First section + "…"

31. revenue
32. how much will ".." raise?
33. transaction costs
34. avoidance

Incidence

"…" + First section

35. incidence of "…"
36. economic impact of "…"
37. who will pay?
38. tax burden
39. distortion(s)