

instruments. ABRR can fill this policy instrument gap because they can be implemented on a geographic basis by national central banks.

Property lending, which has been a major focus of concern, is particularly suited to this. If Euroland is suffering excessive house-price inflation, the ECB could raise reserve requirements on mortgage loans secured by property. However, national central banks should have the power to set reserve requirements above (but not below) the rate established by the ECB. Thus, if Spain or Ireland is suffering excessive house-price inflation, their national central banks could raise reserve requirements on mortgage loans secured by property in those countries. That would raise mortgage loan rates in Spain and Ireland without raising rates in other countries.

Nationally contingent ABRR will create some incentive to shop for credit across countries. That means ABRR will work best when linked to geographically specific assets that cannot evade the regulatory net. This includes mortgage lending that is secured by collateralized property, and shares for which legal title is registered where companies are incorporated. That said, jurisdictional shopping is costly and that cost enables ABRR to create cross-country interest rate differentials for wide categories of assets. That creates space for different interest rates in different countries, thereby giving countries space to respond to their particular conditions.

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#### Further reading

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# **A general financial transaction tax: enhancing stability and fiscal consolidation**

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Stephan Schulmeister, born 1947, since 1972 research fellow at the Austrian institute of economic research (WIFO), lecturer at the university of Vienna and the university of economics and business administration. Main fields of research: impact of financial speculation on stock prices, exchange rates and commodity prices, and indirectly on the real economy, long-term shifts in the investment behaviour of the business sector between real and financial accumulation.

The contribution offers a detailed examination of various models of financial transaction taxes, providing model calculations for different tax rates of generalised financial transaction taxes and pointing to their mitigating effects on asset price fluctuations and their revenue potential for fiscal consolidation needs after the crisis.

## Motives and concept of a general financial transaction tax

The idea of introducing a general financial transaction tax (FTT) has recently attracted rising attention. There are three reasons for this interest. First, the economic crisis was deepened by the instability of stock prices, exchange rates and commodity prices. This instability might be dampened by such a tax. Second, as a consequence of the crisis, the need for fiscal consolidation has increased tremendously. A FTT would provide governments with substantial revenues. Third, the dampening effects of a FTT on the real economy would be much smaller as compared to other tax measures like increasing VAT.

These considerations motivated the Austrian Institute of Economic Research (WIFO) to investigate the stabilization and revenue potential of a general and uniform FTT for three hypothetical tax rates (0.1%, 0.05% and 0.01%). Such a tax would be imposed on transactions of all kinds of financial assets, and would thus not be restricted to specific markets as proposed by Keynes for the stock market, Tobin for the foreign exchange market or securities taxes implemented in the past (e.g. stamp duties). The present paper summarises and updates the results of this study (Schulmeister *et al.* 2008)

## Trading practices and price dynamics in financial markets

- The volume of financial transactions in the global economy is 73.5 times higher than nominal world GDP; in 1990 this ratio amounted to “only” 15.3. This increase is exclusively due to the spectacular boom of derivatives trading, in particular on organized exchanges like Euronext (London) or Eurex (Frankfurt).
- Asset prices almost always fluctuate around “underlying” trends across different time scales, e.g. trends based on minutes-data or on daily data.
- Technical trading – the most popular strategy in modern financial markets – aims at exploiting the trending of asset prices. The improved availability of intraday data, the improved trading software and the improved market access through the internet have contributed to the increasing use of intraday data (Schulmeister 2009C).
- Individual traders use different models, trying to exploit asset price runs. This interacts with the aggregate behaviour of all models that lengthen the price runs (Schulmeister 2006; 2009B).
- These price runs accumulate to long-term trends: when an optimistic (“bullish”) market mood prevails, upward runs last for an extended period of time longer than downward runs, when the market is “bearish”, the opposite is the case (Schulmeister 2009A; 2009D).
- All important asset prices like exchange rates, stock prices or commodity prices fluctuate in a sequence of “bull markets” and “bear markets”, each lasting several years in most cases. Hence, asset prices fluctuate in “long swings” without any tendency to converge towards their fundamental equilibrium.

To conclude: asset markets are characterised by excessive liquidity and excessive price volatility leading to large and persistent “overshooting” of stock prices, exchange rates and commodity prices.

## Asset price fluctuations and the “great crisis”

The boom of stock prices between 2003 and 2007, as well as the boom of house prices between 1998 and 2005, stimulated the US economy. At the same time, however, the “twin booms” laid the ground for the subsequent “twin busts”. The related devaluation of financial as well as housing wealth has strongly depressed consumption and investment.

After the outbreak of the sub-prime mortgage crisis, the third “bull market”, i.e. the commodity price boom, accelerated, mainly driven by speculation of financial investors in commodity derivatives markets. This development further deteriorated economic prospects.

Between spring 2008 and spring 2009 the devaluation process of stock wealth, housing wealth and commodity wealth was globally “synchronized”. This process set free several contraction forces in the real economy, depressing in particular investment and trade.

## How a transaction tax will mitigate asset price fluctuations

A general FTT would render transactions the more costly the shorter their time horizon. Hence, it would specifically dampen technical trading, which is increasingly based on intraday price data. At the same time, technical trading strengthens price runs which in turn accumulate to long-term trends that involve growing departures from fundamental levels. As short-term trading becomes less attractive, price runs will become less pronounced. This effect will in turn reduce the attractiveness of technical trading based on (ultra-)high frequency data (often fully “automated systems”).

Since an FTT increases transaction costs more the lower they are (before tax), it will generally hamper derivatives trading to a greater extent than spot trading. Since spot transactions are more long-term-oriented and, hence, based to a larger extent on fundamentals than (speculative) derivatives transactions, one can presume that an FTT will hamper specifically short-term, non-fundamental transactions.

## The revenue potential of an FTT

The revenue estimates are based on the assumption that transaction volumes will be reduced by the introduction of an FTT. For each tax rate and type of instrument, a low, medium and high “transactions-reduction-scenario” (TRS) is specified. In the case of the medium TRS it is assumed that transactions would decline by roughly 75% at a tax rate of 0.1%, at 65% at a rate of 0.05% and by roughly 25% at a tax rate of 0.01%.

Table 1 presents the estimated revenues for Germany, United Kingdom, Europe and the world economy, assuming a medium TRS for both transactions on exchanges and all transactions

Table 1 Hypothetical transaction tax receipts 2007\* (in % of GDP)

	Germany			United Kingdom			Europe			World		
Tax rate in %	01	0.05	0.01	01	0.05	0.01	01	0.05	0.01	01	0.05	0.01
Spot transactions on exchanges	1.320	0.920	0.390	4.980	3.616	1.618	1.166	0.812	0.342	1.100	0.764	0.321
All transactions	1.609	1.137	0.491	9.338	6.885	3.144	2.257	1.630	0.724	1.688	1.205	0.527

\* Medium 'transactions-reduction-scenario' (TRS)

For the UK, extremely high revenues reflect the fact that the volume of financial transactions relative to GDP is by far the highest – in 2007, it was 446.1 times higher than GDP. In Europe, an overall FTT would yield 1.63% of GDP and 0.81% of GDP if only transactions on exchanges were covered.

### Feasibility of a general financial transaction tax

Subject to a general and uniform FTT would be:

- All spot and derivatives transactions on organized exchanges, e.g. trades of stocks and interest rate securities, as well as trades of futures and options related to stocks, interest-rate securities, currencies and commodities.
- Those “over-the-counter” (OTC) transactions which are directly related to asset prices, in particular to exchange rates and interest rates, e.g. spot currency transactions as well as trades of foreign exchange derivatives and (single currency) interest-rate derivatives.

This implies that not all transactions between customers (households and enterprises) and financial institutions would be subject to the FTT, but that only the transaction on the exchange would be taxed. A FTT should also not tax transactions which are simply the financial equivalent to “real-world-transactions” in goods or labour markets

Taxes on all transactions on exchanges are collected by the exchanges themselves (the buyer and the seller are charged 50% of the tax), based on the electronic settlement systems.

A general taxation of financial-asset transactions in all major economies would constitute the final stage of implementing a FTT. The first stage could be a tax levied only on spot and derivatives transactions on organized exchanges in some major EU economies. In fact, it would be sufficient if only the UK and Germany implemented such a tax (roughly 97% of all transactions on exchanges in the EU are carried out in these two countries).

In a second stage one could include all OTC transactions within the Euro area which involve no other currencies, i.e. primarily euro interest rate derivatives. The third stage would then also include OTC transactions (spot and derivatives), in particular in the foreign exchange market.

### Further reading

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