

A General Financial Transactions Tax: Motives, Effects and Implementation

Summary of a presentation at the Brussels Tax Forum 2011 on March 29, 2011

Arguments in favour of a General Financial Transactions Tax

The main propositions underlying the concept of a general financial transactions tax (FTT) can be summarized as follows:

- Proposition 1: There is excessive trading activity (= liquidity) in modern asset markets due to the predominance of short-term speculation. According to the most recent estimates of the Bank of International Settlements (BIS), the overall volume of financial transactions (2010) is roughly 70 times higher than world GDP (figure 1).
- Proposition 2: The ever "faster" trading activities destabilize exchange rates, commodity prices, interest rates and stock prices over the short term as well as over the long term (figures 2, 3, and 4). This is so because short-term price runs, strengthened by the use of (automated) trading systems, accumulate to long-term trends, i. e., bull markets and bear markets (figures 5 and 6).
- Proposition 3: The overshooting of the most important prices (i. e., those which link the real and the financial sphere of the economy in space and time like exchange rates and interest rates) favours rent-seeking activities of financial investors/speculators and impedes entrepreneurial activities in the real economy. Hence, asset price overshooting dampens economic growth.
- Proposition 4: The detrimental effects of asset prices overshooting are particularly pronounced as regards the development of financial crises:
 - Example 1: The simultaneous boom of stock prices, commodity prices and house prices had built up the potential for their simultaneous collapse, causing the US mortgage crisis to develop into a global economic crisis in 2008/2009.
 - Example 2: In 2010, financial investors were able to make significant profits by driving up the premia of credit default swaps (CDS) and, hence, interest rates on government bonds of highly indebted countries (from Greece to Italy). Within a few months, interest rates rose by up to 7 percentage points (figures 7 and 8). The

unsustainably high interest rate level forced the EU to establish the 750 bn. € protection screen (EFSF) which (also) protects the investors against losses from holding these high-interest yielding bonds.

- Proposition 5: A small FTT of, e. g., 0.05% (shared by the buyer and the seller) would not affect transactions aimed at *holding* a financial asset (including hedging). E. g., if a private person (a company) buys stocks (commodity futures) with a market value of 10.000 € (10 mn. €), then the FTT amounts to only 2.5 € (2.500 €).
- Proposition 6: An FTT would specifically increase the costs of those speculative transactions which are unrelated to market fundamentals. This is so because the more short-term oriented a trading activity is and the higher is its leverage (in the case of derivatives), the more will the FTT raise transaction costs (e. g., high frequency trading would become unprofitable).
- Proposition 7: An FTT would levy substantial contributions on those actors whose activities had significantly contributed to the development of the financial crisis in 2008/2009 and of the euro crisis in 2010. At the same time, those financial actors who (still) focus on servicing the real economy ("boring banking") would not be burdened (in contrast to a general bank levy or a financial activities tax).
- Proposition 8: At a tax rate of 0.05%, an FTT would yield substantial revenues. For Europe, e. g., revenues would amount to 1.8% of GDP (2010 data). The revenue estimates imply a reduction of trading by roughly 70% due the introduction of an FTT. The revenues would be by far highest in the UK (table 1).
- Proposition 9: The implementation of an FTT is technically easy because one could make use of the fact that all transactions are captured by electronic payment, clearing and settlement systems of banks, organized exchanges and of the (future) Central Counterparty Platforms (CCPs). There are two options, a centralized or a decentralized FTT implementation.
- Proposition 10: With the centralized approach, the FTT is collected according to the "territorial principle", i. e., all transactions within a certain jurisdiction are subject to the tax. The tax is deducted at the point of settlement, i. e., at the exchanges or at CCPs in the case of OTC transactions. There are two preconditions for the realization of this approach. Firstly, clearance of OTC transactions via CCPs is mandatory and, secondly, all important countries within a trading time zone like the EU27 introduce the tax.

Due to the concentration of transactions on few financial centers, tax revenues should be divided into three parts. One part would go to the home country of an exchange, the second part would go to the countries of origin of the transactions, and the third part should go to supranational institutions/projects (EU and/or development aid). This type of FTT implementation would be optimal, however, in the EU it could only be realized if also the UK participates (otherwise too much trading would be relocated to London).

- Position 11: With the decentralized approach, the FTT is collected according to the "personal principle", i. e., the debtors are the residents of an FTT country who order a financial transaction. The tax is deducted by banks (and brokerage firms) receiving and processing the order. E. g., if only Germany would introduce an FTT, the transactions of German residents would be taxed, irrespective, whether their transactions are executed at home or abroad (transactions in Germany stemming from abroad would not be taxed).

As a consequence, German exchanges would not be discriminated, e. g., vis-à-vis exchanges in the UK. To restrict the transfer of funds from a bank account in an FTT country to a brokerage firm or hedge fund in a non-FTT country, one could introduce a FTT-substitute-levy (FTTSL) in FTT countries. The FTTSL would serve as a security deposit to restrict tax circumvention.

- Proposition 12: A general FTT has the potential to become the first supranational (European) tax and finally the first global tax. The gradual extension of the application of such a tax across countries would match – though with some lag – the process of globalization which has been by far most pronounced as regards financial markets and institutions.

Objections to Financial Transactions Taxes

The main objections to FTTs and their counter-arguments can be summarized as follows:

- Objection 1: An FTT would raise the costs of capital because it has the same effect as taxes on future dividends. As a consequence, the present (discounted) value of an asset will decline in reaction to the introduction of an FTT: To compensate for the future tax burden, investors will demand a higher return and therefore a lower asset price.

This reasoning does not take into account the basic characteristic of the FTT, namely, that it does not burden the asset as such but only the trading of that asset. The assumption that an FTT has the same effect as a tax on dividends is misleading because the latter would affect any stock, whereas the FTT would address only those stocks which are (frequently) traded.

A simple example might clarify this point: Let us assume that 50% of the stocks of a company are held by a pension fund, the other 50% are traded frequently. According to the capital-cost-reasoning, the value of the stocks traded every day should fall, whereas the value of the stocks held by the pension fund would not be affected. This does not seem to make sense (contradiction to the law of one price).

- Objection 2: The distortive effects of an FTT will be higher than those of other kinds of taxes, in particular of a VAT because the FTT is a turnover tax which burdens transactions between businesses several times.

This reasoning suggests that financial transactions between banks, hedge funds, other financial institutions (e.g., insurance companies) and non-financial corporations can be perceived as intermediate inputs and outputs. This analogy is misleading. Buying an asset does not represent an (intermediate) input and selling an asset does not represent an (intermediate) output. In the case of spot market transactions, buying and selling only means the change in ownership without any change in the product. In the case of derivatives, any transaction simply means a bet on the subsequent asset price movement (if the derivative is used for hedging purposes, there exists a “counter-bet”, i. e., an open position in the market of the underlying).

A more precise analogy to an FTT would be taxes on gambling where usually any bet/transaction is taxed (without considering these taxes as having “cascading” effects as sales taxes relative to VATs).

- Objection 3: An FTT hampers price arbitrage and the price discovery process, hence, an FTT would make financial markets less efficient. In addition to that, it is impossible to distinguish between harmful speculation and beneficial transactions.

With regard to opportunities to price arbitrage (certainly a beneficial activity), one should keep in mind that those opportunities are of little relevance in practice. On organized exchanges they cannot exist for the same asset (centralized price formation), and even in dealership markets (OTC), electronic trading platforms like EBS and Reuters in the case of foreign exchange trading automatically wipe out arbitrage opportunities.

Regarding the price discovery process, i. e., the beneficial transactions stemming from stabilizing speculation, the reasoning just assumes that asset markets are basically efficient. The bias in favor of market efficiency is remarkable for at least three reasons:

- Firstly, a clear correlation between the deregulation of financial markets and the rising financial instability over the past three decades.
 - Secondly, the phenomenon of “bulls” and “bears” in the stock markets, the currency markets and the commodity derivatives markets in particular have become progressively more pronounced over this period.
 - Thirdly, the use of (automated) trading systems which only process information contained in past prices has increased tremendously. This implies that either the traders do not act rationally (if the systems are unprofitable) or the markets are not even weakly efficient (if the systems are profitable).
- Objection 4: Most financial transactions are not driven by (destabilizing) speculation but stem from managing and distributing risk (“hot-potato-story”).

Before risk can be distributed, it has to be produced. Modern strategies of striving for profits like trend-following or contrarian models of technical analysis, or high-frequency-trading based on much more complex algorithms, strengthen the trending of asset prices over the short run as well as over the medium and long run. All these systems disregard

market fundamentals "by construction" and can therefore not be regarded as (potentially) stabilizing.

- Objection 5: Derivatives should not be taxed, in particular because this would increase hedging costs.

If a system of a "Standard Classification of Financial Transactions" (SCFT) is developed in connection with the FTT implementation so that any transaction is assigned a specific code, it would be easy to exempt from the FTT hedging of counter-positions in the real economy as well as all financial transactions which constitute an equivalent to "real-economy-transactions" (e. g., foreign exchange transactions stemming from international trade or direct investment). In a similar manner, the "Standard International Trade Classification" (SITC) had been developed decades ago to manage the system of tariffs. A similar system for financial transactions would also help to improve the supervision of financial market developments.

But even in the case that hedging transactions are taxed by an FTT, these costs are negligible because a hedger is *holding* an asset, not *trading*. As a consequence, the additional production costs due to introduction of an FTT is always the tax rate multiplied by the value of the underlying to be hedged (if hedging is done using futures as is usually the case). E. g., if an airline hedges its total kerosene costs (accounting for roughly 30% of overall costs) by buying oil futures and selling them prior to the contract maturity, then the additional costs due to an FTT of 0.05% is exactly 0,015% of overall costs ($.05 * 0.3$).

In the Staff Working Paper of the European Commission on "Financial Sector Taxation" (SEC2010) 1166/3) an example is given which suggests that an FTT will increase hedging costs to a much higher extent. It is assumed that an EU-based company has to pay a 11 million \$ bill in 3 months from now (the current exchange rate is 1.18 \$) and hedges the risk that the euro falls below 1.10 \$ by then (this is no strict hedge because there is no insurance against an euro depreciation down to 1.10 \$). The company buys a call option on the dollar with a strike price of 1.10 \$ per euro. Since the option is out of the money, the premium is relatively small (30.000 €). Of course, in relation to this premium an FTT of 0.01% on the notional value of 10 million € (= 11 million \$), i. e., 1000 €, would be substantial (3.3%). However, relative to the value of the underlying, the additional costs due to an FTT are just 0.01%.

- Objection 6: It remains unclear who finally has to carry the burden of an FTT (incidence of an FTT).

Even though one cannot specify exactly who will really pay the tax, the tax incidence issue is at least clearer in the case of an FTT than in the case of a bank levy or a financial activities tax. As the latter two tax certain balance sheet positions or (components of) the value added, banks could/would easily shift the tax burden on their clients. By contrast, the FTT would levy certain activities irrespectively of who carries them out. Banks which

do not engage in proprietary trading, would pay no FTT at all (if they carry out the order of a customer, the latter pays the tax). Hedge funds which use trading systems based on high frequency data would shift the tax burden on their clients. Amateur speculators (of which there are millions in advanced economies nowadays) would pay the tax, their (internet) brokers would not (because these also would shift the tax burden on their clients).

- Objection 7: The introduction of an FTT will lead to a considerable relocation of trading activities to tax-free jurisdictions, in particular to offshore markets.

This is already the case today. Many funds operate from offshore places since these jurisdictions serve as tax havens (i. e., for reasons of income tax circumvention). Many/most of them engage in short-term trading ("trend-followers") which is almost exclusively done on organized derivatives exchanges all around the world. To the extent that they (have to) trade on exchanges in FTT countries (Eurex in Frankfurt, Euronext in London), they will have to pay the FTT at the exchanges.

The high-frequency traders cannot move offshore for their computer servers need to be located as close as possible to the servers of the exchanges.

To the extent that offshore hedge funds trade in over-the-counter markets they would/could be forced to clear and settle their trades through Central Counterparty Platforms (CCPs) or Central Securities Depositories (CSDs). This is so because the G20 and the EU are determined to take legal steps to force all financial institutions to centrally clear their OTC transactions. In this case counterparties from countries outside of the EU would also be obliged to use the CCPs if they want to do business with financial institutions in EU countries.

To tone down migration of trading, one could introduce a FTT-substitute-levy (FFTSL) in FTT countries. The FFTSL would be charged for any transfer of funds from a bank account in an FTT country to a brokerage firm or hedge fund in a non-FTT country. The size of the FFTSL must be several times higher than the FTT. For an FTT of 0.05%, the FFTSL could be 2% or even higher. Being 2% it would be the equivalent of 40 "round-trip-transactions". The FFTSL can be considered some kind of "security deposit" in case the FTT is not paid due to the transactions carried out abroad.

- Objection 8: Financial activities taxes (FATs) would serve the purpose of making the financial sector contribute to the costs of the crisis and to government revenues in general much better than an FTT. In this regard, three types of FATs are distinguished:
 - A broad FAT (FAT1) which would tax the total sum of profits and wages (value added) as a substitute of a VAT (most financial services are exempt from the VAT).
 - A FAT which aims at taxing the rents of financial institutions (FAT2), i. e., those parts of profits and wages (including bonus payments) which exceed the "normal" level.

- A FAT which aims at taxing "excessive" returns stemming from unduly risky activities (FAT3). The tax base is the same as in the case of the rent-taxing FAT, however, the threshold of "excessive" income would be higher.
- The fundamental difference between the FATs and the FTT is the following: The FATs tax income components of financial institutions (i. e., their performance), irrespective of the kind of activities these incomes stem from, whereas the FTT taxes specific activities (i. e., short-term trading of financial assets, in particular derivatives), irrespective of who carries out these activities. The term "financial activities tax" is therefore a misleading and should be renamed "special tax on income components of financial institutions". At the same, the FTT is a truly "activities tax" since it charges transactions independent from the institution/person which/who carries them out.

It seems impossible to distinguish between "normal" income", "excessive income due to rent-seeking" and "excessive income due to risk-taking". This is an important short-coming in addition to the fact that the FATs focus on institutions and not on activities. These short-comings would lead to several distortions:

- In the case of FAT1, income of banks serving the real economy like (small) savings banks ("boring banking") would be taxed in the same way as the income of "finance alchemy banks" like Goldman Sachs or Deutsche Bank.
- If a bank serving the real economy is very successful/profitable, e. g., in providing venture capital to innovative firms, then it would pay FAT2 and/or FAT3 in the same way as the "finance alchemy banks".
- Moreover, these internationally operating "masters of trading" would easily be able to transfer their profits to countries without an FAT as compared to, e. g., venture capital banks.
- Hedge funds can easily avoid the FATs by moving to offshore places.
- All short-term speculative transactions carried out by non-financial corporations would remain untaxed (in particular multinationals are much engaged in financial "investments", SIEMENS is just one example).
- The same is true for trading activities of amateurs (their number has tremendously risen over the last 15 years).

Finally, the tax base of an FTT would be roughly 2500 times higher than that of FATs (in industrial countries, transactions volume is roughly 100 times GDP on average, the tax base for the broad FAT1 is estimated at 4% of GDP).

The rejection of a general financial transactions tax is embedded into that "Weltanschauung" which has been the mainstream in economics and politics over the past decades. If one assumes that the "freest" markets, i.e., the financial markets, cannot produce systematically wrong price signals - as would be the case if trending is conceived as the most characteristic property of asset price dynamics - then one has to reject even a very modest

taxation of financial transactions. The implementation of an FTT is therefore not primarily a technical problem but a question of moving from a rather theoretical and abstract paradigm out of touch with the reality to a more pragmatic and realistic worldview. Politicians might be better in the position to make such a move than the economists.

Table 1: Hypothetical transaction tax receipts in some European countries 2010

Tax rate: 0.005%

	Europe		Germany		France		Netherlands		Denmark		United Kingdom	
	In % of GDP	In Bill. \$	In % of GDP	In Bill. \$	In % of GDP	In Bill. \$	In % of GDP	In Bill. \$	In % of GDP	In Bill. \$	In % of GDP	In Bill. \$
Spot transactions												
on exchanges	0.09	15.6	0.04	1.2	0.02	0.6	0.05	0.4	1.10	3.4	0.18	4.1
Derivatives transactions												
on exchanges	0.71	122.3	0.63	20.9	0.00	0.0	0.00	0.0	0.00	0.0	3.28	74.0
OTC transactions	1.00	173.1	0.18	5.9	0.50	12.9	0.38	3.0	1.65	5.1	5.13	115.8
All transactions	1.80	310.9	0.84	27.9	0.52	13.5	0.43	3.4	2.76	8.6	8.59	193.9

Figure 1: Financial transactions in the world economy

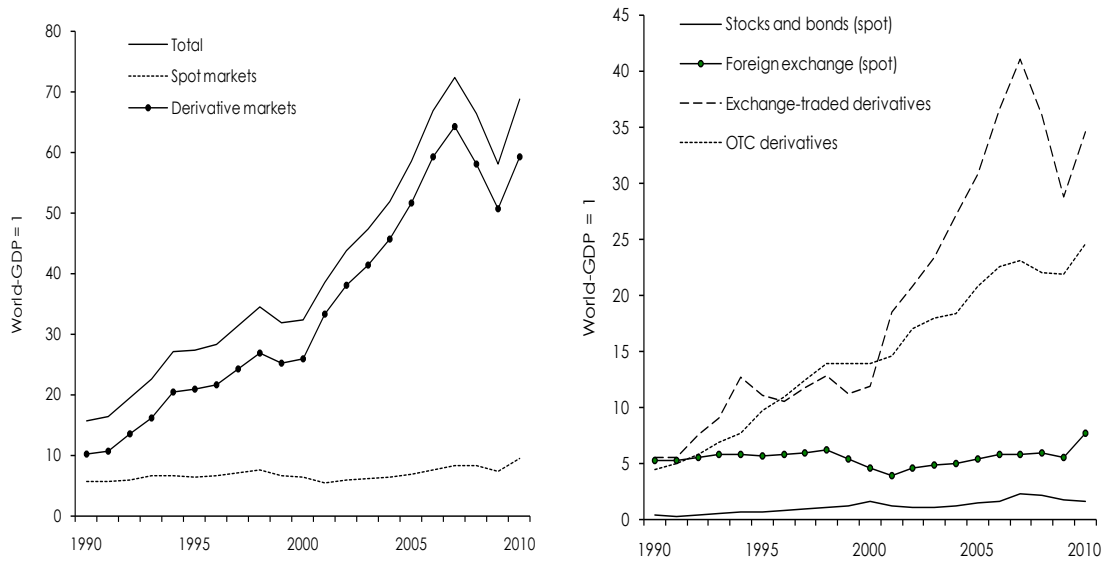


Figure 2: Technical trading of daily dollar/euro exchange rate



Figure 3: Technical trading of the intraday dollar/euro exchange rate
June, 6-13, 2003

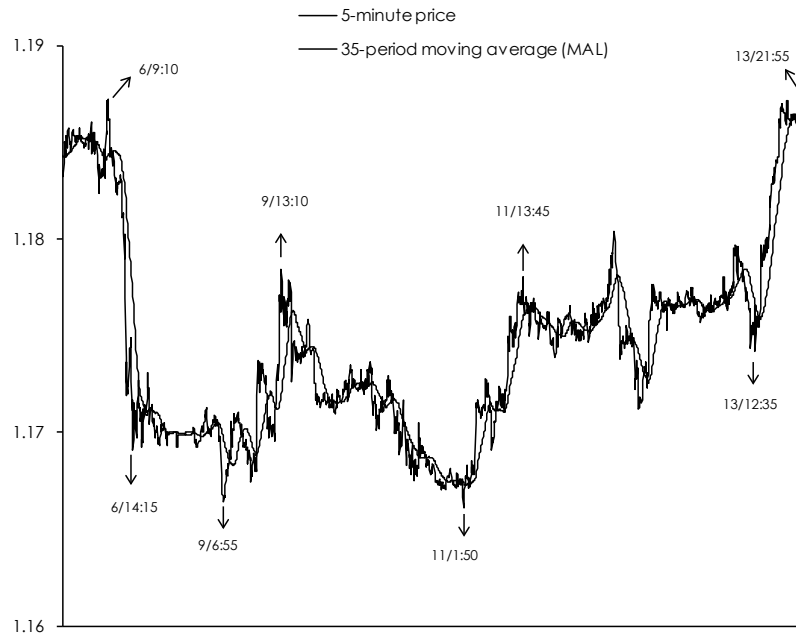


Figure 4: Technical trading of oil futures 2007- 2011

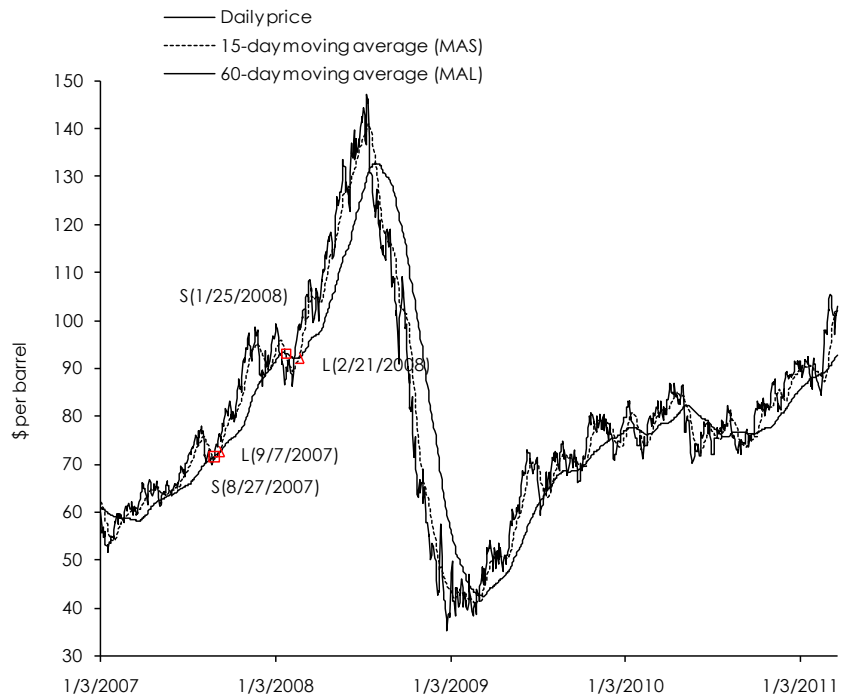


Figure 5: Stock prices in Germany, the UK and the USA

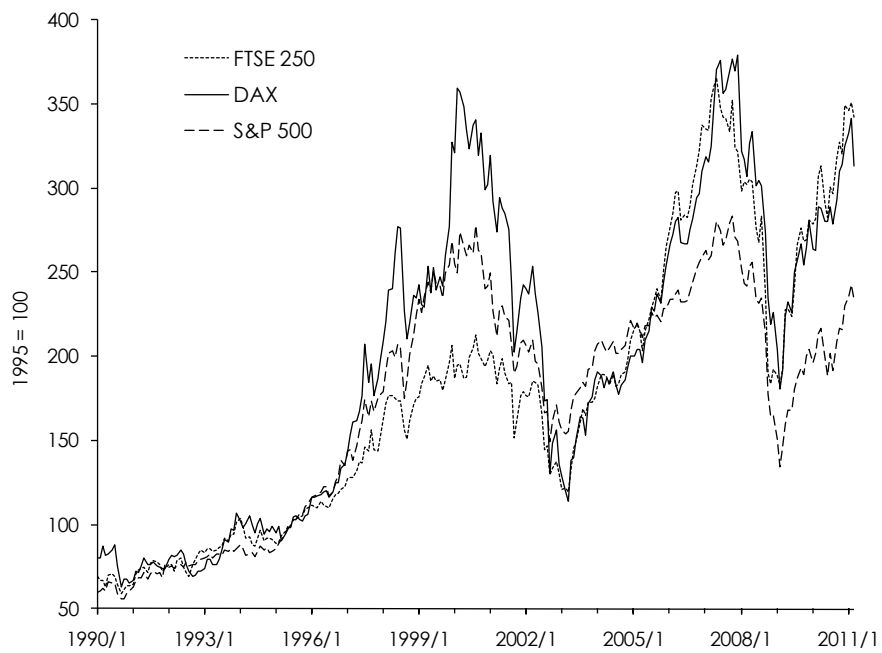
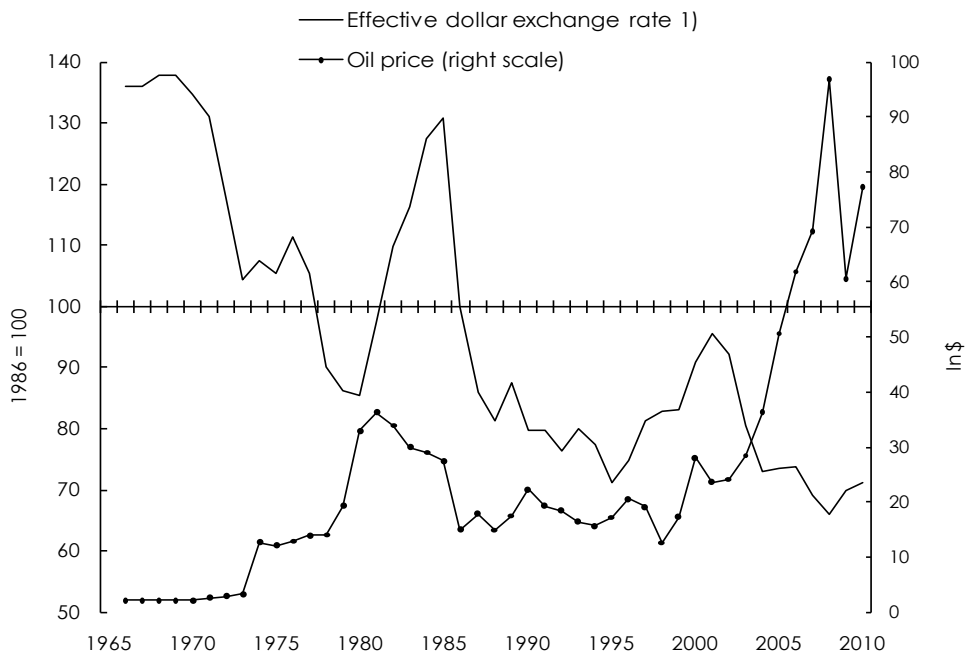


Figure 6: Dollar exchange rate and oil price fluctuations



1) Vis-a-vis DM, Franc, Pound, Yen.

Figure 7: CDS premium and interest rates on Greek government bonds

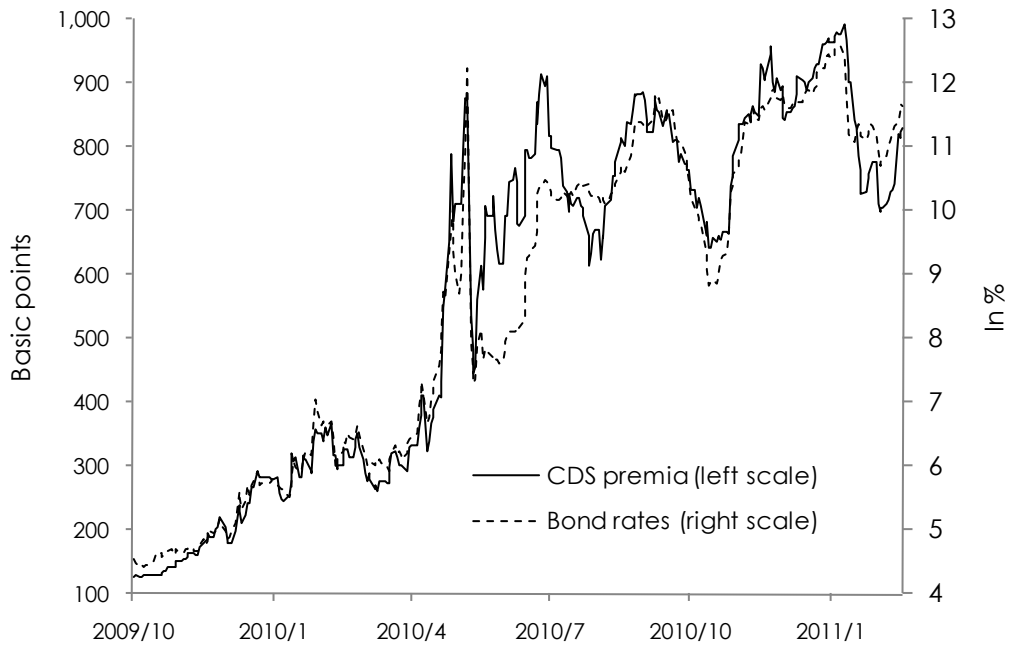


Figure 8: CDS premium and interest rates on Portuguese government bonds

