

WIFO

TEL. (+43 1) 798 26 01-0

FAX (+43 1) 798 93 86

ÖSTERREICHISCHES INSTITUT FÜR WIRTSCHAFTSFORSCHUNG
AUSTRIAN INSTITUTE OF ECONOMIC RESEARCH

WIEN 3, ARSENAL, OBJEKT 20 • A-1103 WIEN, POSTFACH 91
P.O. BOX 91, A-1103 VIENNA – AUSTRIA • <http://www.wifo.ac.at>

Stabilizing and Revenue Potential of a Financial Transactions Tax and its Implementation

Stephan Schulmeister

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in
Den Haag on September 14, 2010**

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- **Dynamic epicenter of the current crisis:**
 - **Devaluation process of stock, housing and commodity wealth**
 - **Coincidence of three "bear markets" (as 1929-1933)**
 - **"Built up" during the preceding "bull markets" >**
 - **Long swings in asset prices >**
 - **Outcome of "trading as usual"**
 - **Overshooting rather the rule than the exception**

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- **“Fundamentalist hypothesis” and “bull-bear-hypothesis”**
 - **Pattern of asset price dynamics**
 - **Technical trading and trending of asset prices**
 - **Overshooting of asset prices**
 - **Development of the current crisis**
 - **Trading dynamics and a general transaction tax**

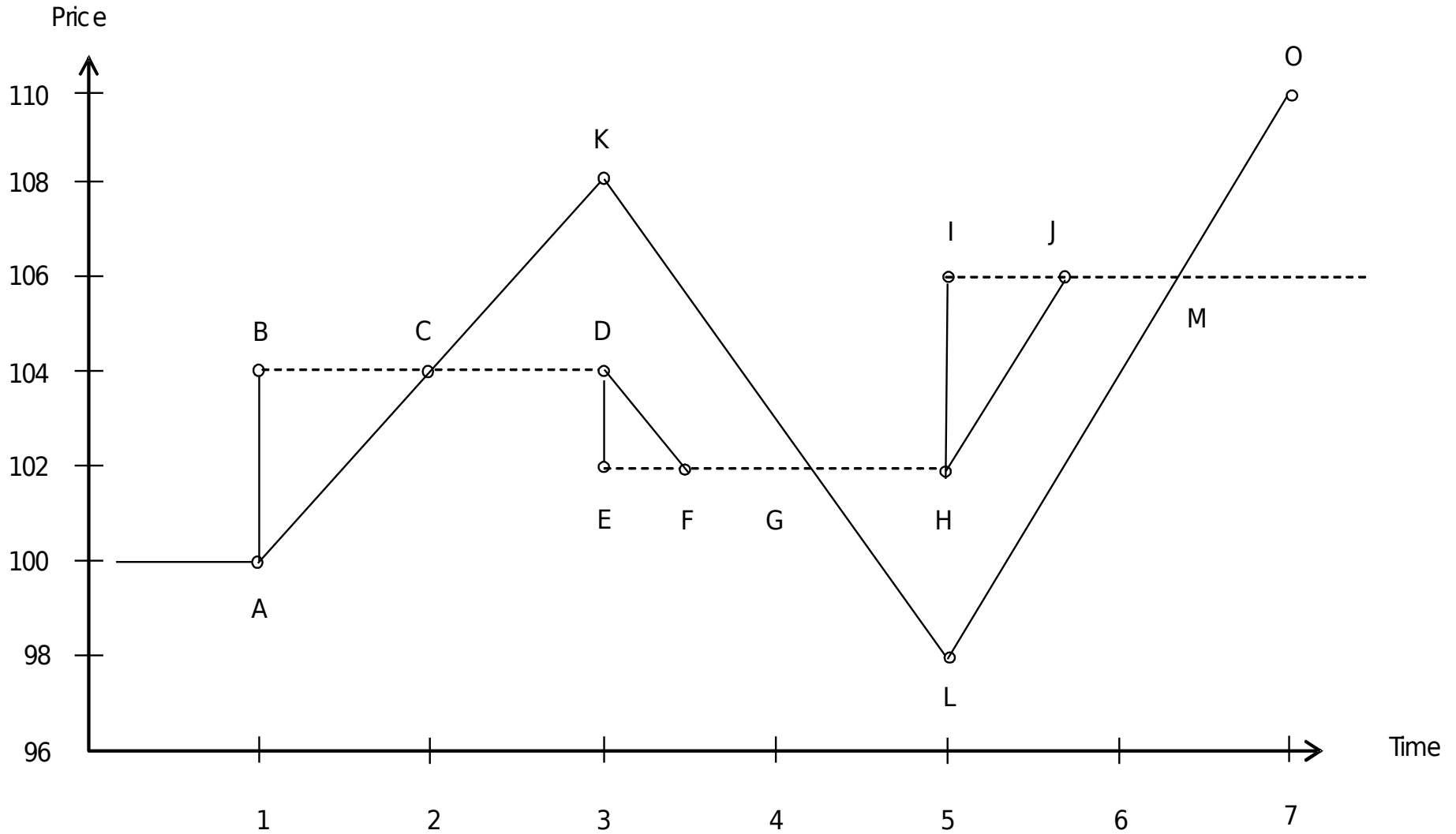
- **Theoretical benchmark model ("world 0"):**
- **Frictionless market**
- **Perfect knowledge**
- **No transaction costs**
- **Fundamentalist model ("world I"):**
- **Transaction costs**
- **Actors are fully rational**
- **Do not know the expectations of other actors >**
- **Gradual price discovery process**

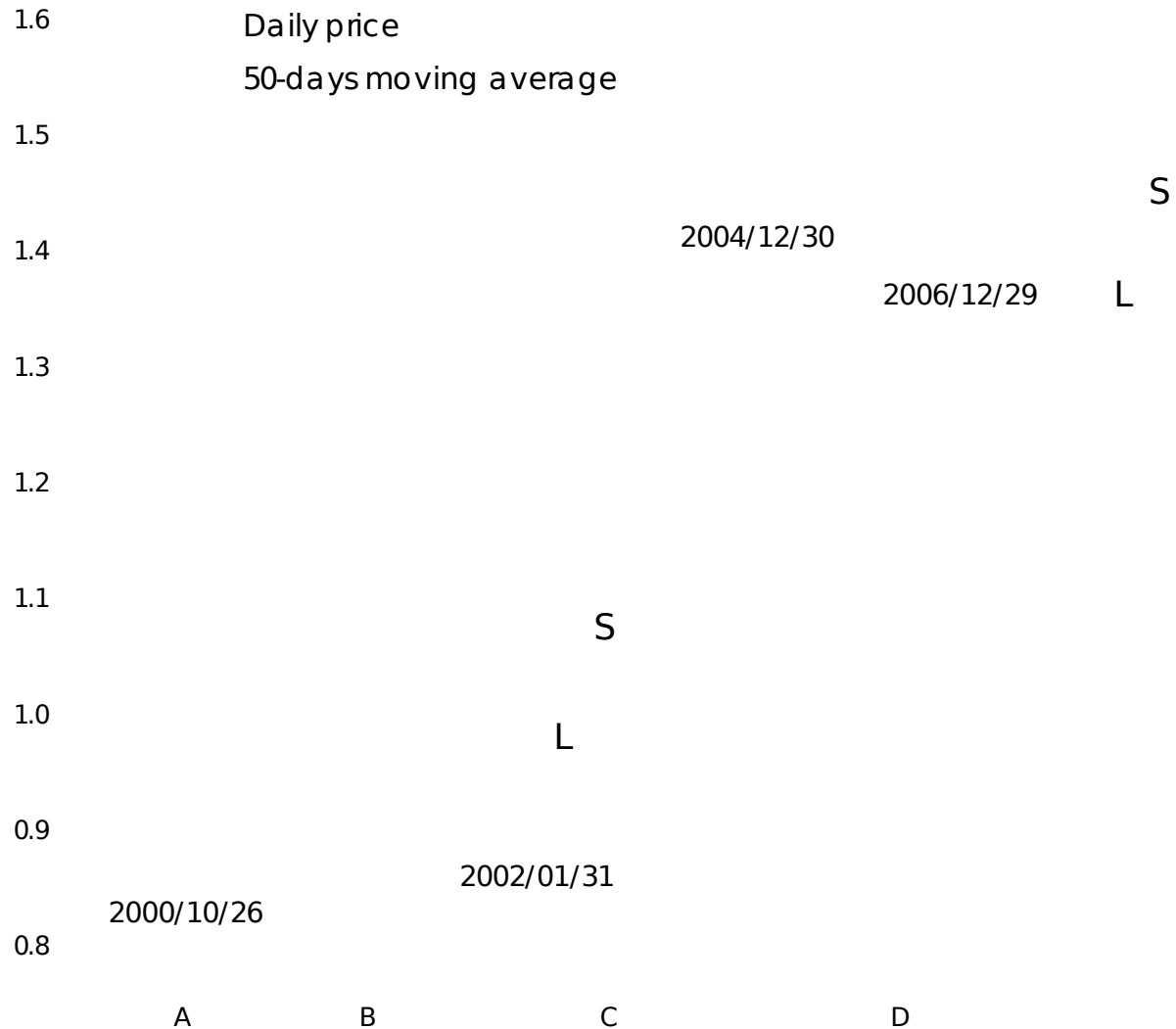
- **High transaction volumes stem from market makers**
- **They provide liquidity for convergence to fundamentals**
- **Speculation necessary and stabilizing**
- **No endogenous overshooting**
- **Deviations from fundamentals are due to shocks**
- **Asset prices follow a random walk**
- **Speculation based on past prices not profitable**

- **Imperfect knowledge >**
- **Different models and information sets**
- **Rational, emotional and social factors govern behaviour**
- **Expectations often formed only qualitatively (directional)**
- **Price movements lengthened by technical trading**

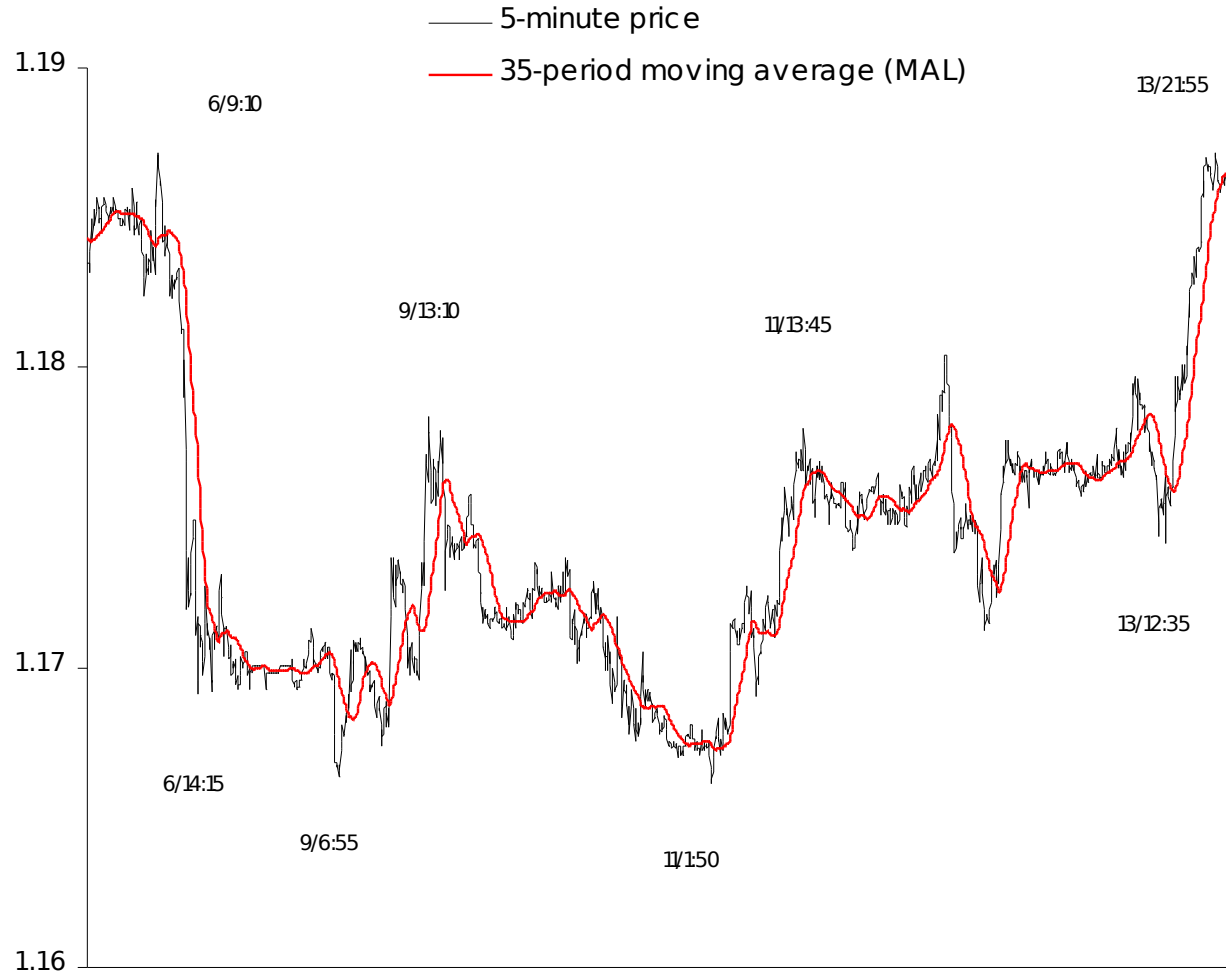
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- **Dominance of "bullish" or "bearish" bias in expectations**
 - **Price runs in line with "market mood" last longer than counter-movements >**
 - **"Bull markets" and "bear markets" >**
 - **Asset prices move in irregular cycles around fundamentals**
 - **No tendency to converge**
 - **Fundamentals serve as "center of gravity"**

Three paths of asset prices

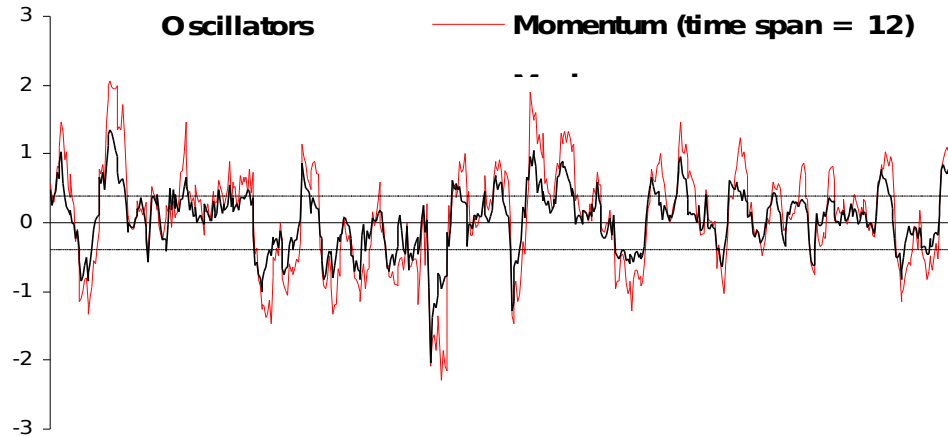
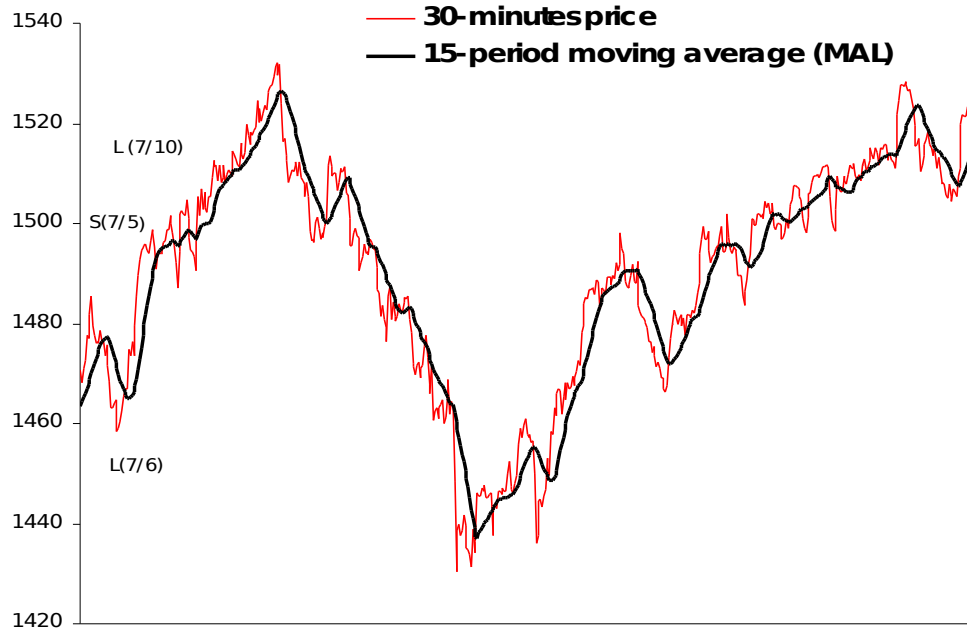




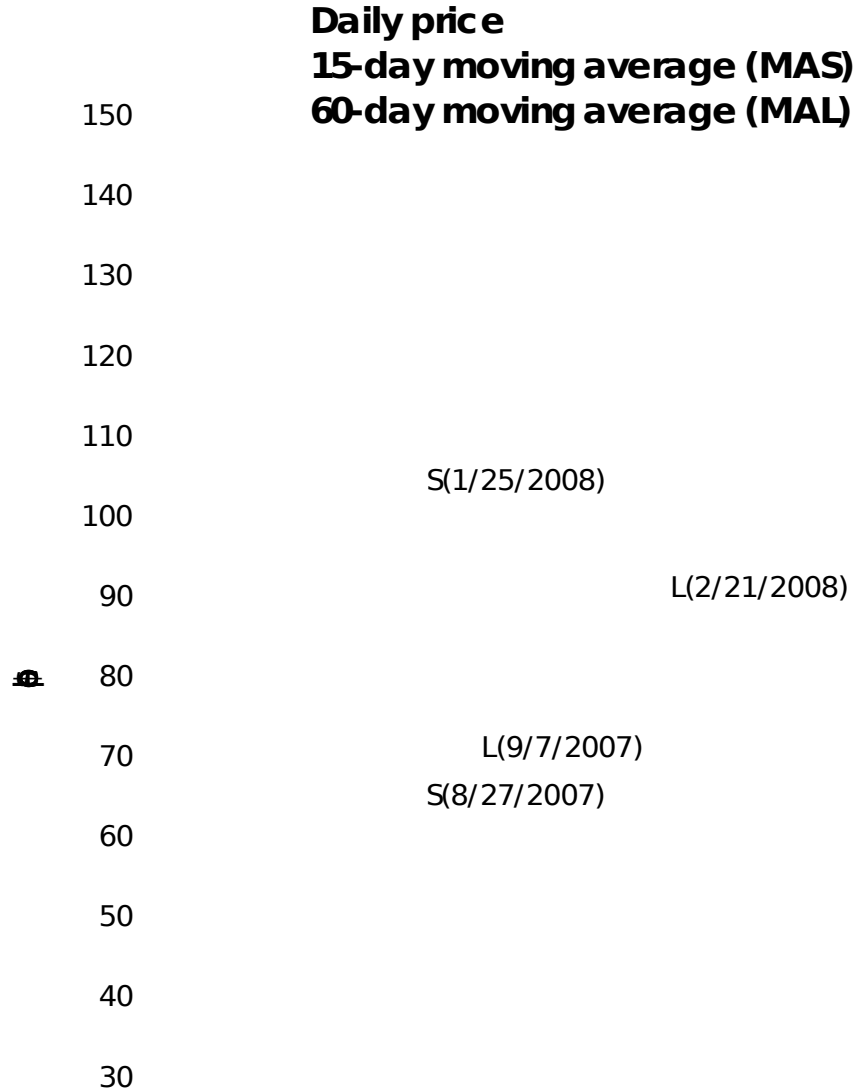
5-minutes dollar/euro rate June, 6-13, 2003



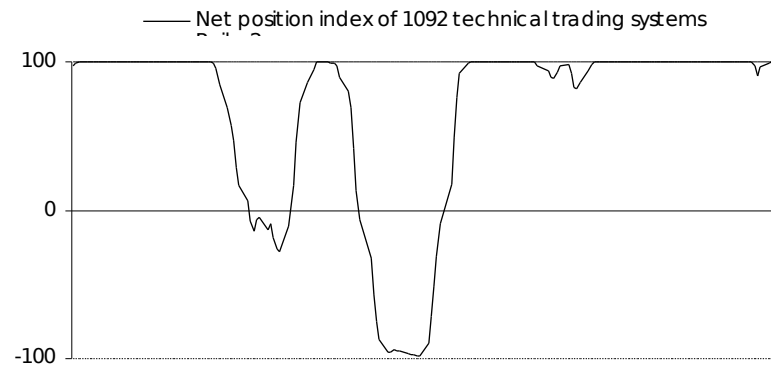
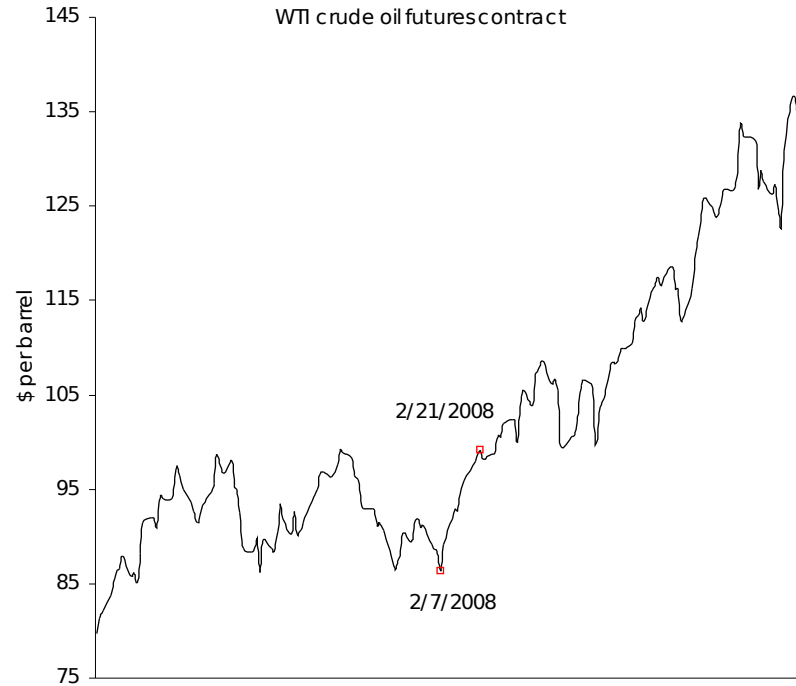
Technical trading signals for S&P 500 futures contract



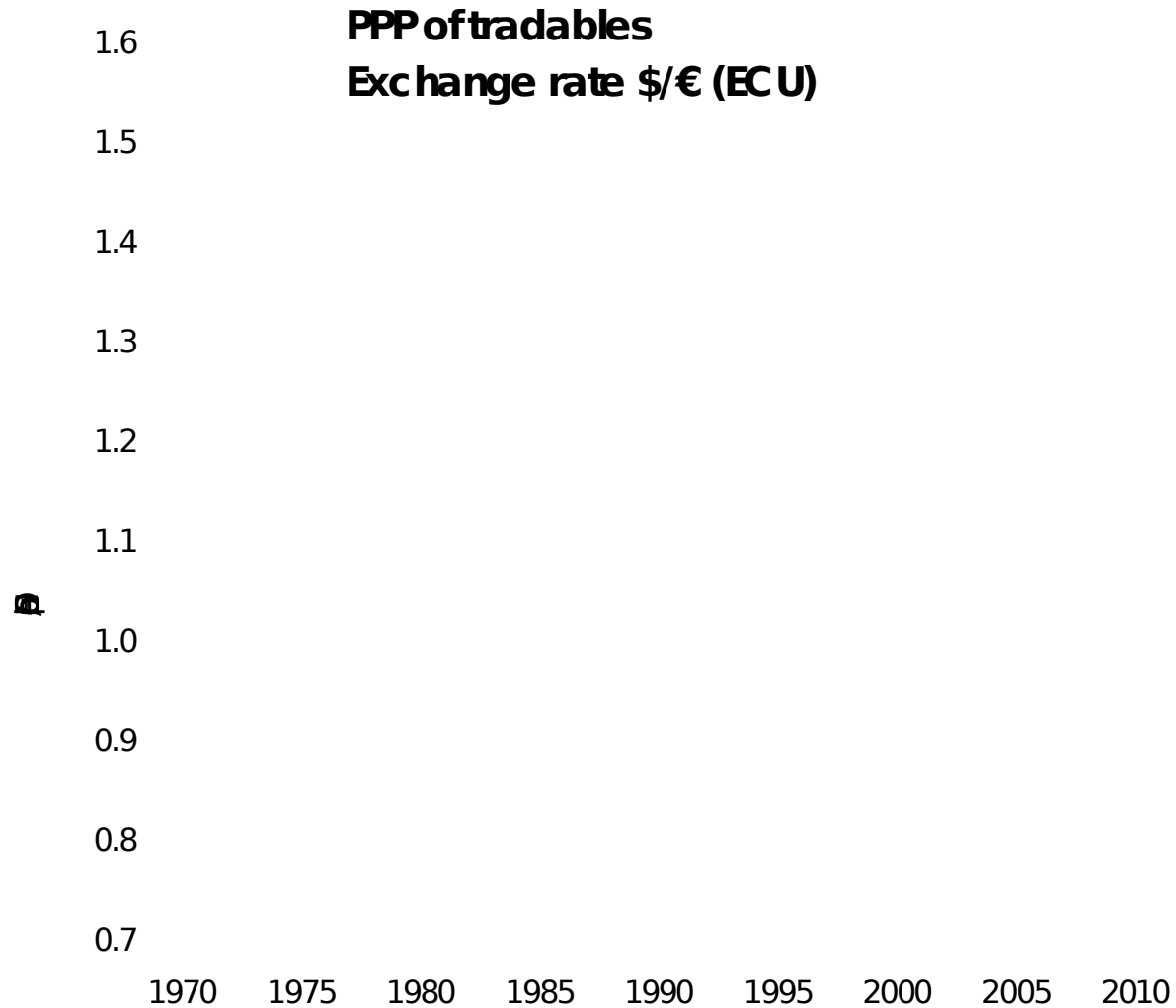
Technical oil futures trading 2007- 2009



Trading signals and oil price dynamics



Dollar/euro exchange rate and purchasing power parity



Dollar exchange rate and oil price fluctuations

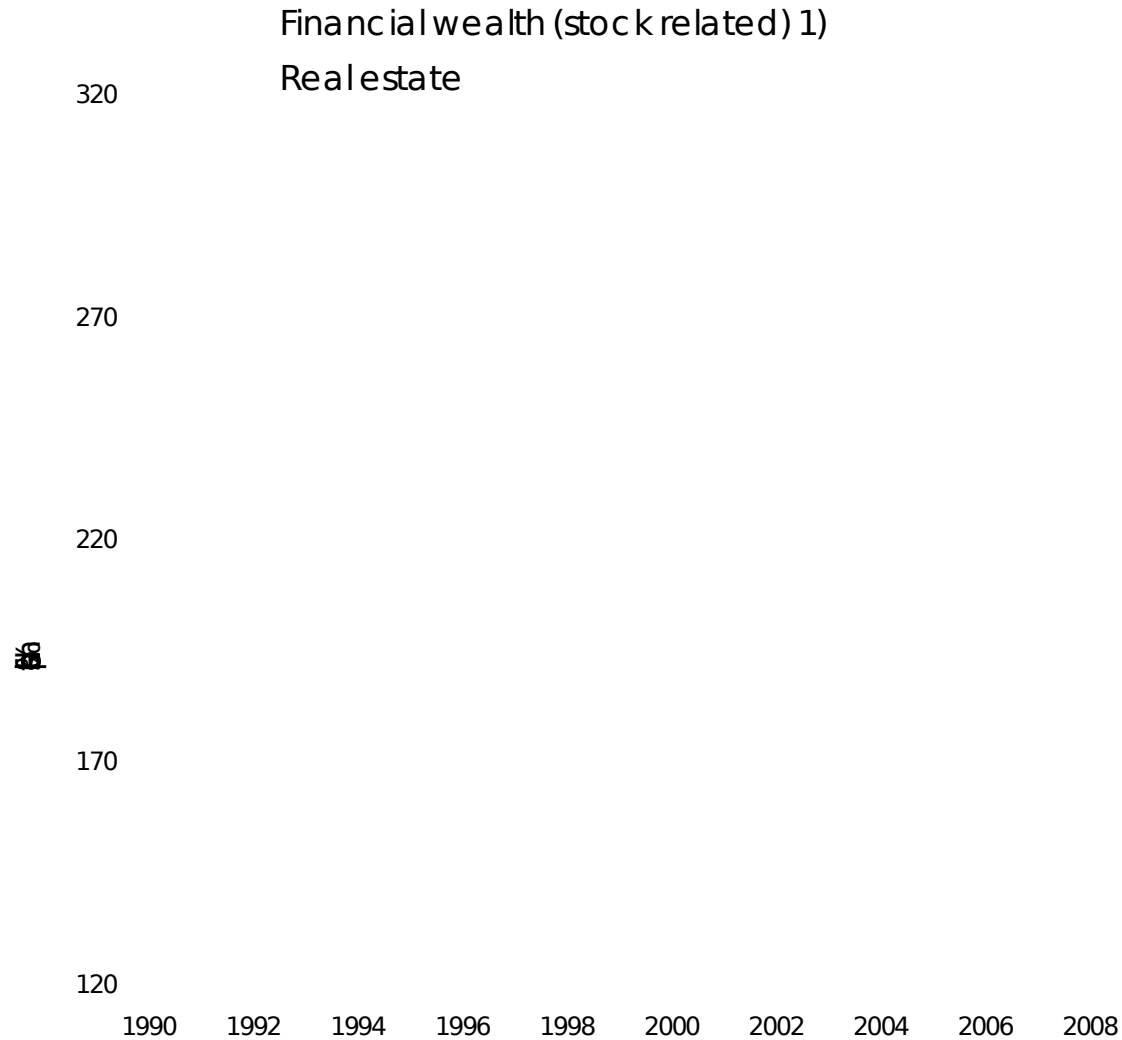


1) Vis-a-vis DM, Franc, Pound, Yen.

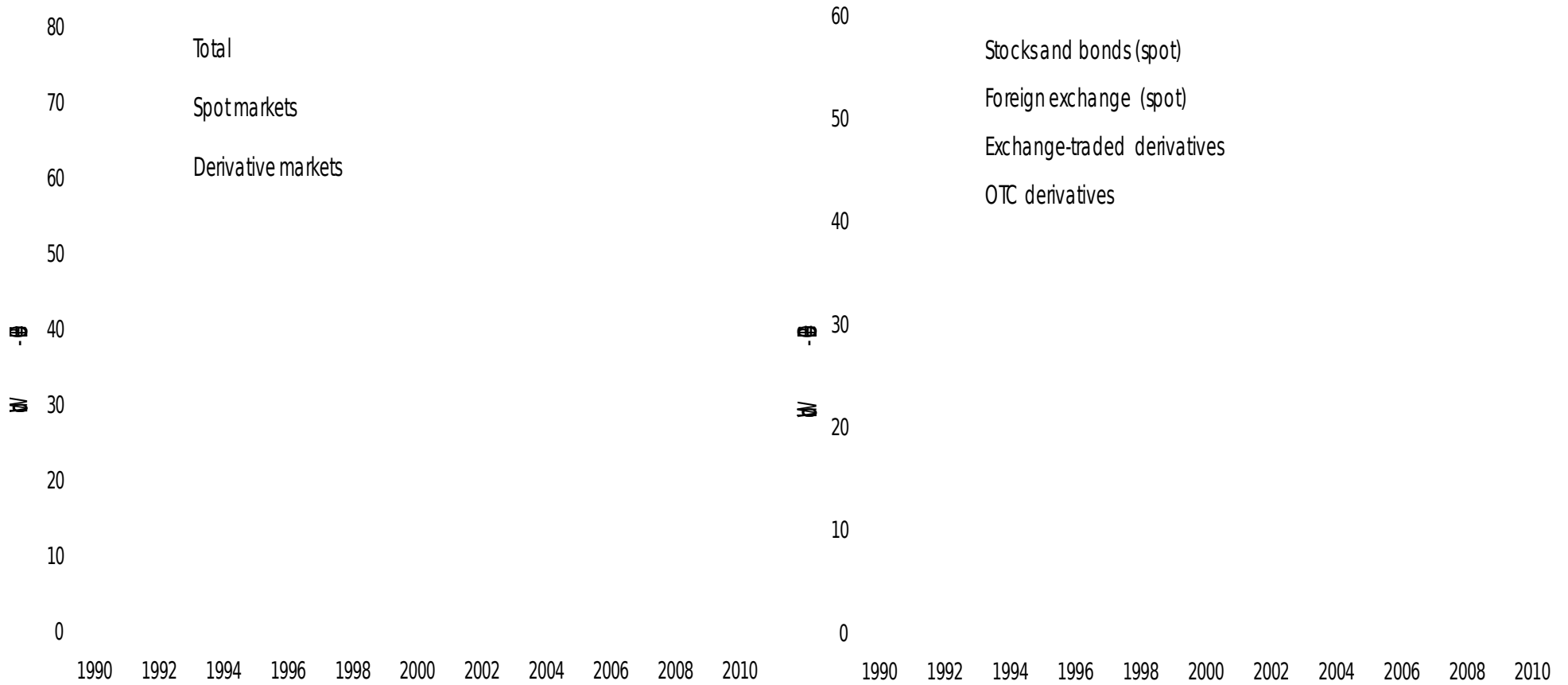
Stock price fluctuations in Germany, the United Kingdom and the US



Wealth of private household in the US



Financial transactions in the world economy



9:31:00,00 A.M. INVESTOR SUBMITS ORDER	9:31:00,01 -9:31:00,03 A.M. FASTTRADERS GET TO PREVIEW ORDERS	9:31:00,30 A.M. MUTUAL FUND ORDER EXECUTED	SHARE PRICE \$21.02			
	9:31:00,01 -9:31:00,03 A.M. TRADERS BUY		\$21.01			
			\$21.00			
ELAPSED TIME						
	0.0	0.1	0.2	0.3	0.4	0.5
	SECONDS				SECONDS	

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- **Growing discrepancy between real and financial transactions.**
 - **Speculation in derivatives markets grows fastest.**
 - **Asset prices fluctuate in a sequence of „bulls“ and „bears“.**
 - **Due to the accumulation of short-term price runs.**
 - **A FTT would affect specifically very short-term transactions with high leverage >**
 - **Dampens long-term asset price fluctuations.**

- **Generalizes the Keynes-Tobin-concept:**
- **All financial assets treated equally**
- **Three tax rates: 0,1%, 0,05%, 0,01% of (notional) value >**
- **Higher leverage > higher tax burden on cash requirement (margins)**
- **Implementation through electronic settlement systems like TARGET (centralized approach) or through banks/brokers (decentralized approach)**
- **Revenue estimates: Three scenarios about the reduction of trading due to the FTT (differentiated by types of instruments**

- **Tax base:**
 - **All transactions of „financial assets“**
 - **Spot und derivatives**
 - **On exchanges and „over-the-counter“ (OTC)**
- **Three tax rates: 0,1%, 0,05%, 0,01% of asset value**
- **Three scenarios about the reduction of trading due to the FTT (differentiated by types of instruments)**

Hypothetical FTT receipts I in % of GDP

		Germany			United Kingdom		
		0.1	0.05	0.01	0.1	0.05	0.01
		Tax rate					
		Reduction in transaction volume					
Transactions on exchanges							
Total	Low	1.840	1.179	0.442	7.232	4.737	1.841
	Medium	1.320	0.920	0.390	4.980	3.616	1.618
	High	0.799	0.574	0.338	2.723	1.950	1.393
All transactions							
	Low	2.274	1.468	0.557	13.770	9.096	3.585
	Medium	1.609	1.137	0.491	9.338	6.885	3.144
	High	0.943	0.682	0.425	4.902	3.585	2.700

Hypothetical FTT receipts II in % of GDP

		Europe			World		
		0.1	0.05	0.01	0.1	0.05	0.01
Tax rate	Reduction in transaction volume						
Spot transactions on exchanges							
Total	Low	1.623	1.038	0.387	1.528	0.976	0.363
	Medium	1.166	0.812	0.342	1.100	0.764	0.321
	High	0.707	0.484	0.296	0.671	0.462	0.278
All transactions							
	Low	3.260	2.129	0.823	2.411	1.565	0.598
	Medium	2.257	1.630	0.724	1.688	1.205	0.527
	High	1.253	0.893	0.624	0.965	0.682	0.455

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- **FTT is collected at settlement/“territorial principle”**
 - **Debtor is the settling institution**
 - **Exchange transactions: Electronic platforms**
 - **OTC-transactions:**
 - **Central Counterparty Platforms (CCPs) or**
 - **Central Securities Depositories (CSDs)**
 - **Prerequisites:**
 - **All important countries in a trading time zone participate, e. g., EU27**
 - **Mandatory clearance of OTC transactions through CCPs/CSDs**
 - **“Standard Classification of Financial Transactions” (SCFT)**

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- **Distribution of revenues from exchange transactions:**
 - Home country of exchange
 - Country of origin of transactions
 - Supranational institutions/projects (EU and/or ODA)
 - **Distribution of revenues from OTC transactions:**
 - Country of origin of transactions
 - Supranational institutions/projects (EU and/or ODA)
 - **Centralized FTT implementation ideal but hard to realize**

- **FTT is deducted by banks (and brokerage firms)**
- **“Personal principle”: Debtor is the resident of an FTT country**
- **Customer or proprietary trading**
- **Example: Germany introduces an FTT**
- **Tax base: Transactions of German residents**
- **At home (~15% of Eurex transactions)**
- **Abroad, e. g., at London market place**

- **No discrimination of German exchanges >**
- **85% of transactions would not be taxed**
- **Against tax evasion:**
 - **FTT substitution levy (FTTSL) on transfers abroad**
 - **E.g., equivalent of 40 “round trips” i.e., 2%**
- **OTC transactions: A bank is always involved >**
- **Tax deduction at/by banks**
- **Decentralized approach: Pragmatic, accounts for**
- **Political and institutional differences**

Transactions on exchanges

Customers in country A
(with FTT)

Customers in country B
(no FTT)

Bank/
Fund
in A

Broker
in A

Bank/
Fund
in B

Broker
in B

Exchange in
country A
(with FTT)

Exchange in
country B
(no FTT)

Order exempt from FTT

Order subject to FTT

Payment subject to the FTT substitute levy (FTSL)

Country A
(with FTI)

Country B
(no FTI)

Banks

Banks

Other
financial
institutions

CCPs

(in an
"non FTI-country")

Other
financial
institutions

Non-
financial
institutions

Non-
financial
institutions

Transaction exempt from FTI

Transaction exempt from FTI

FTT revenues from derivatives exchanges

Implementation in EU27

	Germany	United Kingdom	Other EU countries	Other euro countries	EU institutions
Share in transactions in % (EU 27 = 100)	20	50	30	-	-
Share in revenues in % (EU 27 = 100)	15	37	23		25
Centralized tax deduction					
No sharing in bn. €	21	69			
With sharing in bn. € ¹⁾	15.4	42.2	15.5	-	16.9

1) After Germany (UK) got 25% of revenues.

FTT revenues from derivatives exchanges

Implementation in Euro area

	Germany	Other euro countries	EU institutions
Share in transactions in % (Euro 15 = 100)	40	60	
Share in revenues in % (Euro 15 = 100)	30	45	25
Centralized approach			
No sharing in bn. €	14.7	-	-
With sharing in bn. €	7.0	5.0	2.8
Decentralized approach			
Euro countries	4.2	6.3	
Germany	4.2		