



Exchange-Rate Dynamics

Chapter 6



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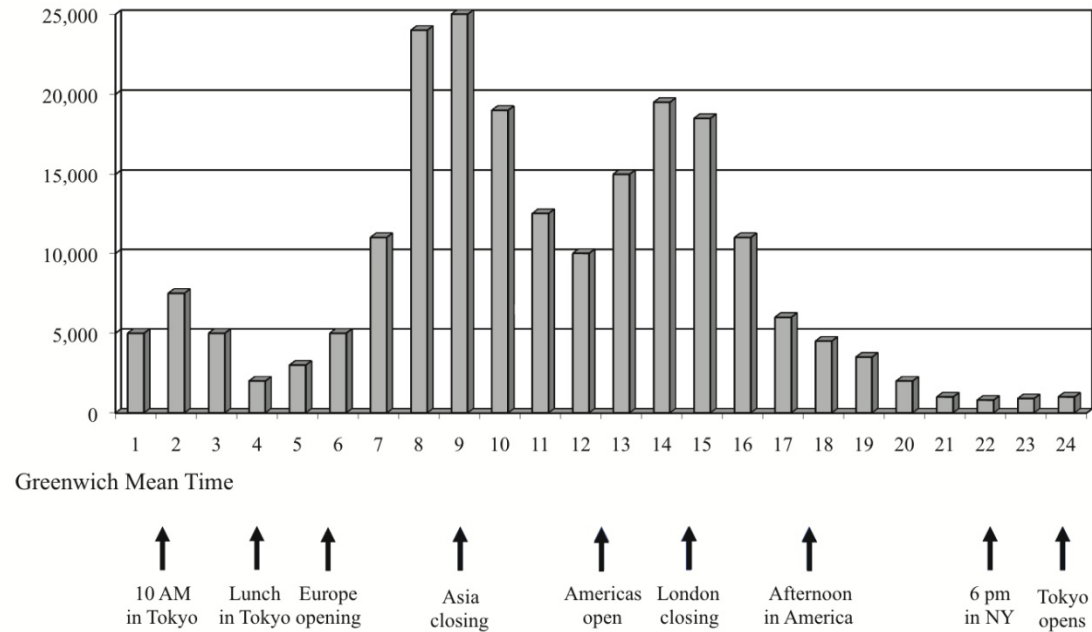
Currency Trading Models

Outline:

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The Structure of the FX Market

The FX market is a highly active and decentralize market that operates almost 24/7



The Structure of the FX Market

Global trading in foreign exchange dwarfs the turnover in other financial markets. Banks are not required to report their foreign exchange transactions, but information on market activity is available through the surveys conducted by the Bank for International Settlements (BIS).

Table 1: Turnover in the Foreign Exchange Market							
	1989	1992	1995	1998	2001	2004	2007
Spot Transactions	317	394	494	568	387	621	1,005
Forward Transactions	27	58	97	128	131	208	362
Swap Transactions	190	324	546	734	656	944	1,714
Total Turnover	590	820	1190	1490	1200	1880	3,210
Total Turnover (April 2007 Rates)	na	880	1150	1650	1420	1950	3,210

Notes: Daily averages in April of the survey year, in billions of US dollars. Statistics are adjusted for local and cross-border double-counting. Total Turnover includes an estimate of the gaps in reporting. Source: BIS (2007).

The Structure of the FX Market

Table 2: Currency Distribution of Foreign Exchange Turnover

	1995	1998	2001	2004	2007
I: Percent shares by currency					
Dollar (USD)	83.3	87.3	90.3	88.7	86.3
Euro (EUR)			37.6	37.2	37.0
Japanese Yen (JPY)	24.1	20.2	22.7	20.3	16.5
Deutschemark (DM)	36.1	30.1			
Pound sterling (GBP)	9.4	11.0	13.2	16.9	15.0
Swiss franc (CHI)	7.3	7.1	6.1	6.1	6.8
II: Percent shares by currency pair					
USD/EUR			30	28	27
USD/DM	22	20			
USD/JPY	21	18	20	17	13
USD/GBP	7	8	11	14	12
USD/CHI	5	5	5	4	5

Notes: Daily averages in April of the survey year. Because two currencies are involved in each transaction, the sum of the shares in panel I totals 200. Data are adjusted for both local and cross-boarder double-counting. Source: BIS (2007).

The Structure of the FX Market

D2000-1 conversation. March 16, 1998.

```
From \CODE" \FULL NAME HERE" *0728GMT 160398 */7576
Our Terminal: \CODE"      Our user: \FULL NAME HERE"
  DEM 1
# 45.47
  BA> I BUY
# TO CONFIRM AT 1,8147 I SELL 1 MIO USD
# VAL 180398
# MY DEM TO \FULL NAME HERE"
# THANKS AND BYE
  TO CONFIRM AT 1,8147 I BUY 1 MIO USD
  VAL 180398
  MY USD TO \FULL NAME HERE"
  THANKS FOR DEAL FRDS. CHEERS
#
# END REMOTE #

^ ## TKT EDIT OF CNV 7576 BY \CODE" 0728GMT 180398
^ STATUS CONFIRMED
^ ##ENDED AT 07:27 GMT#
```

The first word means that the call came “from” another dealer. There is information regarding the institution code and the name of the counterpart, the time (Greenwich Mean) of the printing of the ticket, the date, and the number assigned to the communication.

DEM 1 means that this is a request for a spot DEM/USD quote for up to USD 1 million, because it is implicitly understood that it is DEM against USD. On line 4 we find the quoted bid and ask prices. Only the last two digits of the four decimals are quoted. In this case, the bid quote is 1.8145 and the ask quote is 1.8147. When confirming the transaction, the communication record provides the first three digits. In this case, the calling dealer buys USD1 million at the price 1.8147

The Structure of the FX Market

EBS Electronic Trading System

The screenshot displays the EBS Electronic Trading System interface. The top bar shows the user's name 'BALA MOC', the date 'Mar/ 17.10', and four credit limit entries for different banks: 'ABN AMRO', 'INDOSUEZ', 'Citibank', and 'BANK OF AMERICA'.

The main area is divided into several sections:

- Rates:** A table showing various currency exchange rates:

EUR/USD 1.0914-16	GBP/USD 1.6150-53
EUR/GBP 0.6734-35	EUR/CHF 1.5928-30
USD/CHF 1.4549-50	USD/HKD 7.7462-63
USD/JPY 121.17-19	EUR/JPY 132.33-34
- Trader Deals:** A list of transactions with columns for time, direction, quantity, price, and trader name:

17:03	BUY	10	132.88	LCTC	EUR/JPY
17:03	BUY	10	132.89	SB SG	EUR/JPY
17:03	SELL	10	121.34	TKWD	USD/JPY
17:03	SELL	10	1.4555	JNRB	USD/CHF
17:03	BUY	2	1.4552	JMBP	USD/CHF
17:03	SELL	10	1.6125	SLMC	GBP/USD
17:04	BUY	10	0.6821	WN8B	EUR/GBP
17:04	SELL	10	0.6720	SB SG	EUR/GBP
17:04	SELL	10	132.87	TKWD	EUR/JPY
17:07	BUY	10	1.0918	JMBP	EUR/USD
- EBS Deals:** A list of deals with columns for time, price, status, and currency pair:

16:56	1.0924	Given	EUR/USD
17:03	132.89	Paid	EUR/JPY
17:03	121.17	Given	USD/JPY
17:03	1.4552	Given	USD/CHF
17:03	1.4555	Paid	USD/CHF
17:03	1.6125	Given	GBP/USD
17:04	0.6821	Paid	EUR/GBP
17:04	0.6720	Given	EUR/GBP
17:04	132.89	Given	EUR/JPY
17:07	1.0918	Given	EUR/USD
- Order Entry:** A section for entering orders, currently showing:

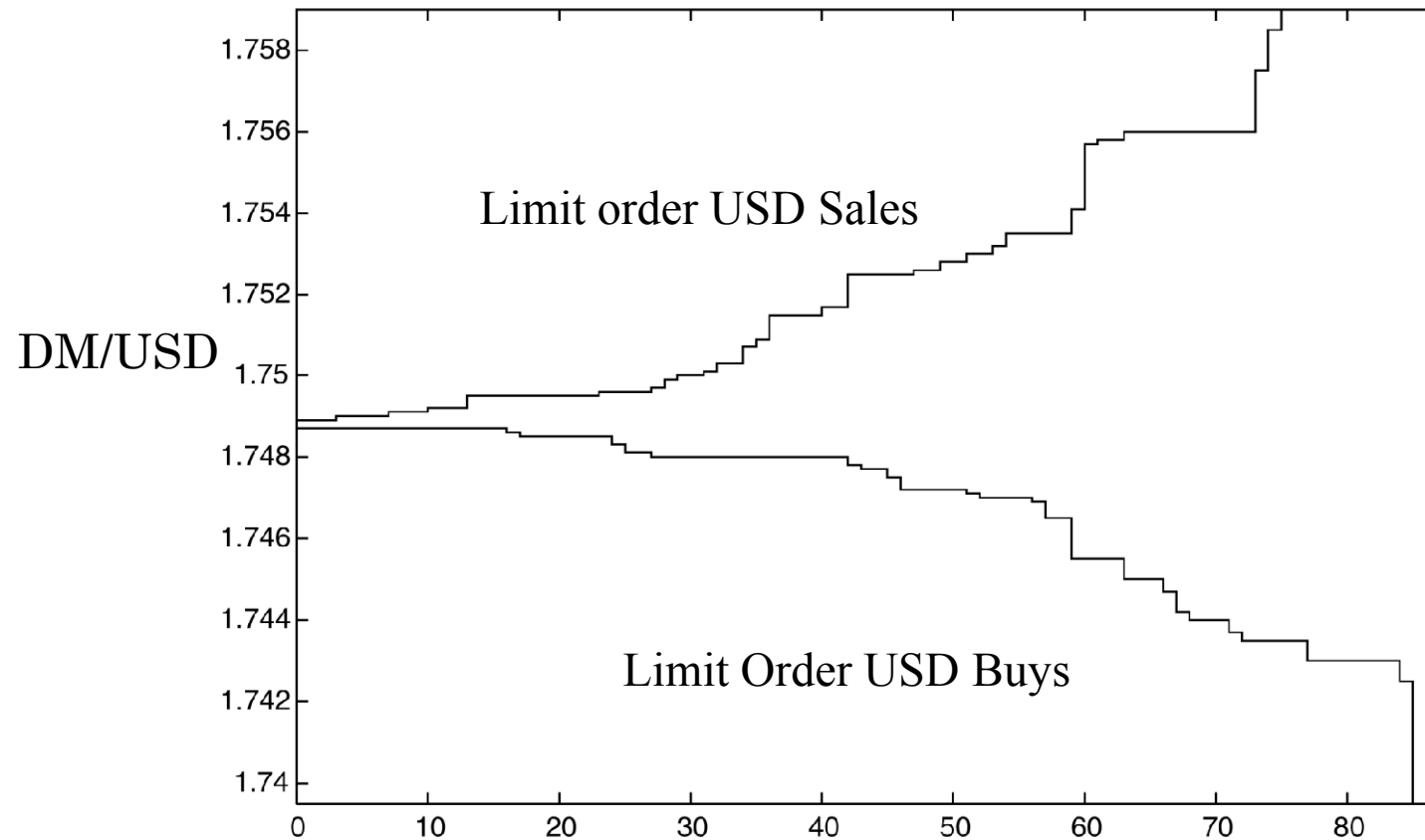
EUR/USD	1.09	18	BID
03377	Buy	10	@ 1.0918 JMBP
DONE			
clear		10	of 10 97-11

On the left side, there are several panels for different currency pairs, each showing bid and offer prices and quantities:

- eur/usd:** Bid 14, Offer 16, Price 1.09
- eur/gbp:** Bid 34, Offer 35, Price 0.67
- usd/chf:** Bid 49, Offer 50, Price 1.45
- usd/jpy:** Bid 17, Offer 19, Price 121.17
- gbp/usd:** Bid 50, Offer 53, Price 1.61
- eur/jpy:** Bid 33, Offer 34, Price 132.33

The Structure of the FX Market

EBS Electronic Trading System: Structure of the Limit Order Book



The Structure of the FX Market

Market Participants

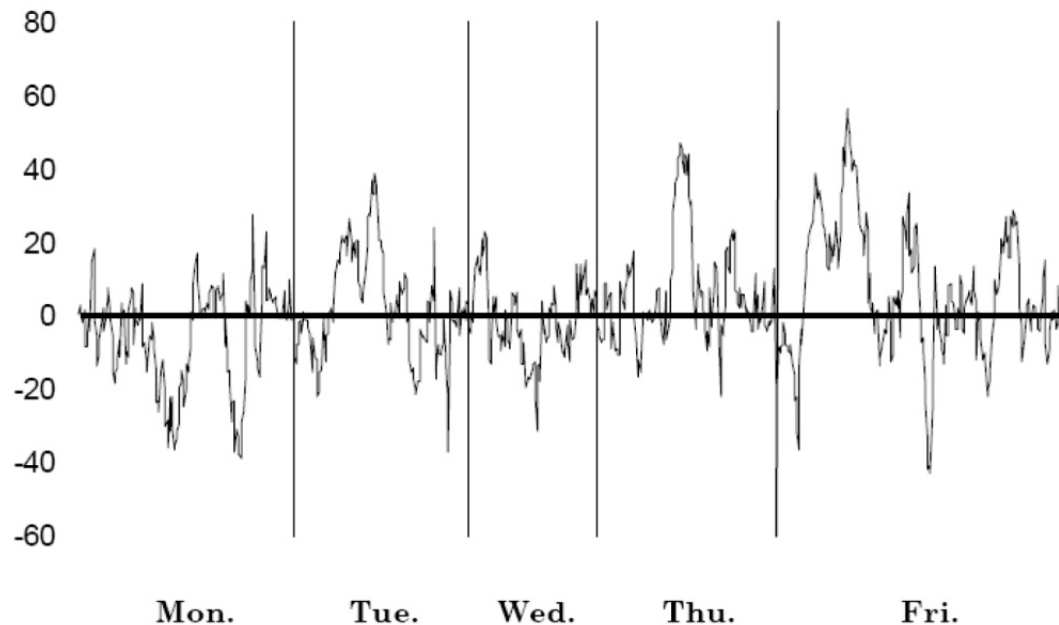


Figure 3: Net position (in \$millions) over one trading week in 1992 of a large bank dealer in USD/DM. Source: Lyons (1995).

Note:

- The dealer had no net overnight position on any of the five trading days.
- There are several occasions when the dealer had net positions of over \$40 million.
- Large net positions are quickly unwound.