



# FX Market Survey

In this introductory section we describe the broad structure and composition of the foreign exchange (FX) markets. We also trace the evolution of exchange rate systems through the Gold Standard, Bretton Woods, the European Exchange Rate Mechanism and European Monetary Union.

## Objectives

By the end of this section you will be able to:

- ◆ Identify the major currencies traded in the FX markets and major market players
- ◆ List some key events which helped to shape the way the FX markets are today

**Completion Time: 40 minutes**

You don't need to know the history of a market to trade in it successfully, and you can safely skip this section if you are in a hurry to get on. But if you are new to this business you may find that a little background knowledge may be a good thing: it may help you gain a better perspective on why the industry is the way it is.

You can read this document on-line but you may find it easier to read it from hard copy by printing it out first.



## Keywords

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- Over the counter (OTC) markets
- The Gold Standard
- The Bretton-Woods Agreement
- The Smithsonian Agreement
- Eurodollars/Eurocurrencies
- SWIFT
- Currency ISO codes
- Market makers
- Interbank brokers
- The Exchange Rate Mechanism
- The European Monetary System
- European Currency Unit
- Herstadt risk
- The ACI



## Market Structure

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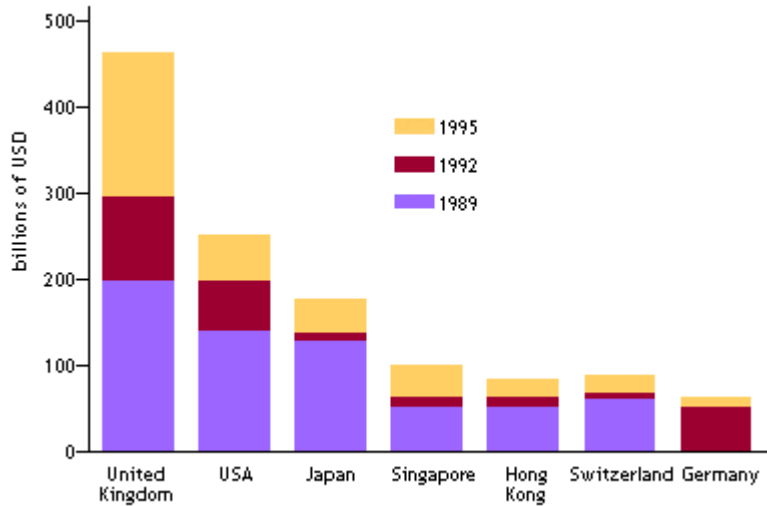
An FX transaction involves the purchase of one currency against the sale of another currency for settlement or delivery on a specified date. The rate of exchange is the price per unit of one of the currencies expressed in units of the other currency.

About USD 30 billion of goods and services are traded across international borders every day. To help fund this trade, banks around the world lend to their prime customers in almost any currency. In turn, the banks **make a market** amongst themselves in multicurrency funds - banks short of one currency borrow or buy it from banks which are long (have a surplus) in that currency. FX involves the sale of a bank **call deposit** in one currency and the purchase of another call deposit denominated in a second currency.

Comparable sums of investment funds cross borders every day in search of higher returns, safer returns or both. Whenever a debt instrument matures, the beneficiary has the option of reinvesting the money in another instrument bearing a different currency denomination, and this gives rise to a foreign exchange transaction.

However, the great bulk of FX operations nowadays is not directly related to either international trade or to investment. Approximately \$1.2 trillion worth of currency changes hands every day, according to recent central bank surveys. This suggests that perhaps most FX transactions might be of a purely speculative nature. In fact, many apparently speculative interbank deals reflect the market's way of digesting large corporate or institutional business. A dealer buying hundreds of millions of dollars from a customer will cover his risk by "laying off" some of the currency with other market makers.

The bulk of FX trading is booked in London, Tokyo and New York, as the figure below indicates.



### FX Turnover in Major Financial Centres

Source: Bank of England, March 1996

## An OTC Market

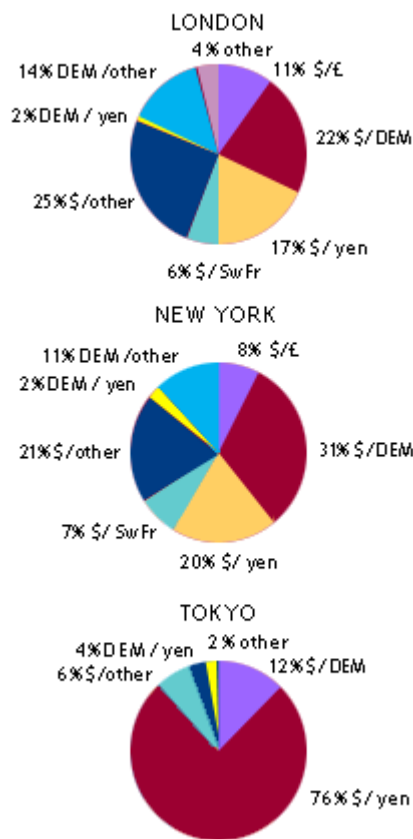
The FX and the associated money markets are primarily **over-the-counter** (OTC) markets, as opposed to **exchange-traded** markets. In other words, currency denominations, amounts, settlement dates and price are all negotiable between any two parties and there is no market regulator which oversees how trading is performed. Trading information is confidential to the parties concerned and there is no obligation to disclose it. There are no fixed contract sizes or dates, as in futures exchanges, although for indication purposes market makers quote rates for various **fixed dates** and for conventional market amounts.

FX dealers are linked round-the-clock via telephone, computer networks and, to a lesser extent nowadays, by telex. There is no physical marketplace, but there is always at least one money centre open for business at any time somewhere in the world. Through a network of correspondent relationships, banks transfer payments from importers to exporters, and exchange the currency of these payments. Modern communications allow the almost instantaneous transfer of funds almost anywhere in the world.



## Currency Composition

Since the end of World War II, most countries have settled their trade debts by purchasing or selling currencies against dollars. The figure below shows the currency composition in FX business in the major traded centres in 1995.



### Annual FX Turnover in Major Money Centres

By currency.

Source: Bank of England, November 1995

The USD remains the main international debt currency, but nowadays DEM, CHF and JPY have become increasingly significant in new debt issues. The role of GBP in international bonds markets has increased since the liberalisation of the early 1980s, while the role of the ECU has declined dramatically since 1991. (The ECU is a 'cocktail' unit of account composed of fixed amounts of various European currencies. This is discussed in more detail below.)

## FX Market Survey



Most FX dealers specialise in one or a small group of closely related currencies. In fact, there is not just one FX market, but groups of more or less interrelated currency pairs. Some of the main 'traffic' routes are:

- US dollar/Deutschemark/Swiss franc
- US dollar/Japanese yen
- Sterling/US dollar (known as "cable")
- Member currencies of the European Exchange Rate Mechanism
- The Scandinavian currencies
- The Middle Eastern currencies

In the 1950s a foreign exchange dealer in London or New York would have quoted a rate of exchange in the interbank market and have expected to deal in an amount of \$10,000. By the end of the 1960s the accepted market amount was at least \$1,000,000 - "one dollar" in dealers' jargon. Today one dollar is the minimum amount quoted in the interbank market, with deals of \$5 and \$10 millions being the norm. Deals of USD 200 million or more are not uncommon in today's market. Liquidity in the major currencies is extremely high, although the more "exotic" currencies can be thinly traded and treacherous for the inexperienced trader.



**Market liquidity refers to the ease with which a trade may be executed without causing a significant movement in the price.**



## Market Participants

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### Central Banks

Central banks play two key roles in the FX and money markets:

- They oversee the maintenance of an orderly and ethical market
- They control the money supply and interest rates

Central banks intervene to smooth out fluctuations in the markets by using their stock of official foreign currency reserves or by influencing interest rates through money market operations. Among the most active central banks are the Federal Reserve System (the "Fed"), Deutsche Bundesbank, Bank of Japan, Bank of England, Banque de France and Banque Nationale Suisse. Where there are exchange controls, central banks fix the official rates of exchange and act as the obligatory counterparty in any FX transaction.

### Commercial and Investment Banks

Commercial banks provide integrated FX, deposit and payments facilities for customers. They also make an active market amongst themselves in currencies and deposits (the so-called **interbank market**). Banks acting as FX market makers continuously alter their rates of exchange so as to balance the supply and demand for each currency within their own books, hopefully for a profit.

### Information Vendors

In London there are over 500 banks from all over the world involved in FX operations but less than 50 of these are active market makers. This is still a sufficiently large number to cause the market user a problem in deciding which of the major dealing banks is quoting the best rate of exchange. One solution is provided by the market information vendors, who may not be considered market participants as such but nonetheless play a vital role in the whole process. Terminals supplied by Reuters, Telerate and other vendors show the latest rates of exchange being quoted by the major banks and brokers.



06/66 14:54 GMT		WORLDWIDE FX SPOT DEN				256			
PAIR	BID-ASK	PAGE	GMT	SOURCE	CTR	GMT	HIGH	LOW	GMT
DEM/JPY	71.59-42	3438	14:53	U B S	LOG	06:57	71.51-71.19		09:44
GBP/DEM	2.3594-04	9609	14:53	DEUTSCHE	FPT	23:48	2.3705-2.3539		14:14
DEM/CHF	0.8212-16	4863	14:50	MARSHALL	N Y	05:38	0.8214-0.8210		09:46
XEU/DEM	1.8896-01	20321	14:41	I N I	LUX	10:03	1.8918-1.8898		14:08
DEM/FRF	3.3894-99	3341	14:54	SE BANKEN	STK	12:07	3.3922-3.3804		13:46
DEM/ITL	1011.90-12.30	3830	14:53	SE BANKEN	LON	12:08	1013.30-1009.95		01:04
DEM/NLG	1.119150-9250	4863	14:51	MARSHALL	N Y	06:17	1.119275-1.119175		11:07
DEM/BEF	20.5667-72	4805	14:52	MARSHALL	LON	11:51	20.5690-20.5645		06:43
DEM/ESP	84.58-60	20728	14:52	C I M D	MAD	06:58	84.82-84.57		13:43
DEM/PTE	103.26-29	4805	14:52	MARSHALL	LON	13:18	103.31-103.19		06:53
IFP/DEM	2.4177-97	6566	14:51	ULSTER	DUB	07:01	2.4235-2.4132		09:45
DEM/GRD	157.91-96	4805	14:52	MARSHALL	LON	13:57	157.95-157.81		05:55
DEM/DKK	3.8611-16	3305	14:41	DEM-DANSK	COB	06:57	3.8612-3.8582		10:34
DEM/SEK	4.4040-70	3305	14:45	DEM-DANSK	COB	07:55	4.4135-4.3850		00:58
DEM/NOK	4.2783 93	4953	14:33	MARSHALL	M-Y	11:54	4.2889-4.2725		23:49
DEM/FIN	3.0785-30	4063	14:33	MARSHALL	M-Y	07:00	3.0760-3.0680		06:00

**FX Rates on Telerate Page 256**

Source: Dow Jones Telerate.

For an explanation of the rates shown on this page see module *Spot FX*.

**Interbank Brokers**

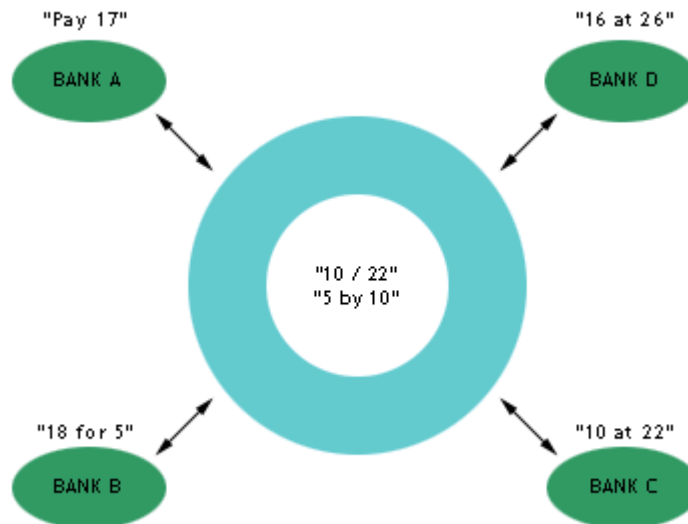
Interbank brokers relay prices received from banks via a telecommunications network to other banks and some large market users. These are 'live' rates at which the quoting banks must be prepared to deal, usually for an accepted market amount. The brokers themselves are not allowed to take FX positions by quoting their own rates.

A broker broadcasts to all its clients the highest rate currently paid by banks buying a currency (the bid rate) and the lowest rate asked by banks selling the currency (the offer rate).





The figure below illustrates the relationship between brokers and their banking clients.




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**The Broker-Client Relationship**

The banks feed their buying and/or selling prices to the broker using a dedicated communications line. The broker assembles the rates received and broadcasts the best buying price (highest bid) and the best selling price (lowest offer), together with the amounts available for trading, if relevant.

A subscriber wishing to trade at one of the prices broadcast simply calls the broker using a dedicated communications line. The broker will not disclose the names of the two parties until a positive commitment has been made by both sides. By accessing the market through a broker smaller banks can transact at prices which they might never be quoted if they went directly to the market maker.



**Brokers operate on a commission basis which is related to the amount, size and complexity of deal required.**

Typical FX brokerage in major currencies can range from \$10 to \$50 - up to 1/2 a "pip"- per \$1 million dealt (a pip on a USD/DEM rate is 100th of a pfennig). This is a small cost for the infrequent dealer, but not for banks turning over tens of billions of dollars every day. Large clients typically negotiate volume discounts on their brokerage and this makes their business more cost-effective.



Over 40% of all FX business nowadays is channelled through brokers. The market is dominated by a small number of London or New York-based houses operating locally through wholly- or partly-owned subsidiaries. The market is also serviced by two electronic brokerage companies (EBS, which is owned by a consortium of large commercial banks, and Instinet which is owned by Reuters). Under these systems, market makers input their bids and offers into special terminals at their offices and the whole function of matching bids with offers is handled by a central computer, making the whole process of dealing as simple as pushing on a few buttons. Up to 25% of all FX business is now believed to be channelled through electronic brokers, although most dealers will not rely exclusively on these systems because they still want to sense the mood of their human brokers or counterparties.

## Corporations and Institutions

These are the main end-users of the FX and money markets. Companies use these markets to manage their cash flows in the same or different currencies. Institutional investors, which manage a very large part of the domestic and international financial assets outstanding, use the markets to manage their day-to-day liquidity, and the FX markets to structure their portfolios across a range of currencies. Changes in the patterns of corporate and institutional cash flows have profound and often lasting effects on market trends and the banks which detect these changes early stand to make large profits on that information.

Traditionally banks take on currency risk, while corporate and institutional users of the FX markets are normally concerned with covering or "hedging" their foreign currency exposures. However, the distinction is blurred because some companies - and of course some investors as well - are aggressive players in their own right and actively take positions in currencies. Many of the large multinationals have set up their own in-house banks, complete with dealing rooms and risk control departments.

Government and quasi-government agencies may also be major players, particularly those of developing countries or centralised economies where the traditional import and export business is often channelled through government monopolies. These bodies can enter the FX markets in very large amounts.

## Margin Accounts

Buying foreign currency through the retail branches of banks has no effect whatsoever on the market. Private investors can speculate on the currency markets using the currency futures markets or through their banks by placing collateral into **margin accounts**.



The currency futures markets are tiny in comparison with the traditional OTC markets. However many interbank dealers monitor the futures markets closely and often react to movements there. Occasionally small speculators can provoke a stampede in some futures exchange which is picked up by the banks, and this can have a major effect on the underlying currency markets - a classic case of 'the tail wagging the dog' - but this is rare nowadays.

## A Zero-Sum Game?

If someone wins, must someone else necessarily lose in the FX market? Looking at the different players in the FX market, it is true statistically that commercial banks tend to win out over all the others. They tend to be net gainers because they know the markets better than anyone else - they are after all the principal market makers. They also win over central banks simply because profit is not the principal criterion of central bank intervention. The interbank market has its own 'league table' of banks.

- ◆ **Division 1:** commercial (**money-centre**) banks which handle large flows of corporate, institutional and personal business and are very active market makers.

First division banks can build up large positions which can move markets. They can, for example, execute deals of USD 100-500 million or equivalent in major currency pairs at a time.

But their main asset is not financial muscle - it is information. The more active a bank is in the markets the more business it wins and the more market intelligence it gathers - about who is in the market and in what size. The price to pay for this is a willingness to be a competitive buyer or seller under any market conditions - sometimes at a loss.

- ◆ **Division 2:** the smaller European banks, US regionals, Middle Eastern banks, Far Eastern banks.

Second division banks tend to be more customer-driven. They will make prices for their customers, but any significant positions will be quickly covered in the market. Sometimes they will line up a third party in the market before giving the customer a price, with a built-in profit margin.

This arrangement may sound like easy money for these banks, but the customer may not be a known name in the market. By intermediating between the customer and the major market makers, these banks provide a valuable service to their customers.



## A Brief History of the Market

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International trade, the exchange of currency and the borrowing and lending of money have always been closely linked. The trends and events described below went hand-in-hand with the development of a whole new family of international financing instruments - Eurobonds, Euronotes and Euro-commercial paper, as well as back-to-back loans which were the precursors to what today we call currency swaps. These instruments are discussed in more detail in module *Money Markets – Market Background*.

There are many instances of foreign exchange systems operating in the ancient world. The Romans, for example, tried to establish their monetary system throughout their Empire, not only to facilitate trade flows but also to establish a manageable system of taxation. Their coinage was often used alongside the currencies of individual countries within the Empire: an early attempt at a common European currency. The gold content in the coinage varied considerably and many were not made of gold at all. A system of exchange parities between the different currencies therefore had to be established.

### The City of London

In 1694 King William III urgently needed money to finance his war against France. It would have taken too long to raise the funds through taxation, so William Paterson, a Scottish merchant, suggested founding a bank which would then lend its share capital to His Majesty's Treasury. In the spring of that year Parliament passed an Act which provided for the incorporation of the Bank of England, and the world's first central bank came into being. The public was invited to invest in the company and within eleven days a total of £1,200,000 had been subscribed to Bank of England Stock.

Private and joint stock banks had already been in business all over the trading world for many centuries. What was unique about the Bank of England was its Royal Charter, which excluded the operation of any other bank within a sixty-mile radius of the City of London. The effect was that from then on governments had to negotiate with the Bank of England in matters of taxation and the minting of coin. The idea developed of a central bank with a powerful say in the management of the currency, as well as a role in setting domestic interest rates.

The relative freedom of the City of London from government interference, together with the expansion of the British Empire through trading companies and wealthy merchants, provided the perfect environment for "The City" to become the financial capital of the world. It was not until 1832 that the Bank of England lost its monopoly, giving way to a boom in banking and financial services. New London banks were set up to provide loans for shipping, commodity finance and insurance. Foreign banks also moved in to find the best prices for commodities and the keenest rates of interest.



The nineteenth century saw the rise of sterling as a world trading currency. The key factors were:

- ◆ Rapid industrialisation in Europe and America, dependent on imported raw materials such as iron ore and steel
- ◆ Advances in transport and communications, permitting expansion of world trade and the international flows of capital to finance this trade

## The Gold Standard

Before World War I and again briefly in the inter-war period most of the major trading countries adhered to an International Gold Standard. This required a country to define its monetary unit in terms of a specific quantity of gold. Central banks supported this by allowing free convertibility between gold and paper currency. Governments had to allow unrestricted export/import of gold.

These conditions kept exchange rates stable. International flows of gold kept official exchange rates ("mint parities") close to the gold price. Each country's money stock grew or contracted in line with its gold stock.

## Wars, Booms and Slumps

World War I dislocated the major economic powers in different ways. Some nations were left heavily indebted while others experienced an unprecedented economic boom, until the Wall Street Crash in 1929. During the ensuing period of economic depression the Gold Standard came under pressure and was eventually abandoned.

One by one the major European countries left the Gold Standard in an attempt to undercut their trading competitors with a weaker currency. Rampant inflation destroyed the value of currencies such as the German Reichsmark.

Soon after, with Europe engaged in another war, the US consolidated its position as the world's economic powerhouse. Government and financiers bank-rolled the Allied forces while its industry had the rest of the world as its customer and demanded payment in US dollars. The dollar displaced sterling to become the main currency for international trade settlements



## Bretton Woods

After World War II the Allied governments were determined to avoid a repetition of the currency chaos and economic depression of the 1920s and 1930s. The first step was the reconstruction of the world monetary system. The United Nations Monetary and Financial Conference held at Bretton Woods, New Hampshire, in July 1944 sought to do this by designing an adjustable peg system of exchange rates, and by establishing the International Monetary Fund (IMF) and the International Bank for Reconstruction and Development (the "World Bank").

The objective of the IMF was to create monetary stability and remove exchange restrictions that hampered international trade. New rules were established for maintaining and adjusting exchange parities. The value of each national currency was expressed in fixed amounts of gold; but it was the dollar's official convertibility into gold, at a fixed price of \$35 an ounce, which underpinned the whole system.

Exchange rates were kept within a narrow band ( $\pm 1\%$ ) around an officially declared parity. For example, from 1949 to 1967, the pound was pegged at a parity value of GBP 1 = US \$2.80.

## From Fixed to Floating Currencies

The Bretton Woods system helped to promote a much more rapid recovery in world trade than after World War I, but by the mid-1960s West Germany and Japan were again challenging the economic supremacy of the US. In 1971, under the strain of unrelenting capital outflows and widening trade deficits, the US was forced to abandon the official convertibility of dollars into gold (which until that point was officially still pegged at \$35 per ounce).

The upshot of this unilateral decision by the Nixon Administration was a period of intense negotiation to establish a new and more viable system of exchange rates. The US wanted to preserve the dollar's parity against gold, while allowing market forces temporarily free reign to find a new set of equilibrium exchange rates. In contrast most European countries and Japan, mindful of the fact that this would undoubtedly cause their currencies to rise against the dollar (making their exports less competitive) preferred a more managed and gradual devaluation of the dollar, both against their currencies and against gold.

On 17 December 1971 the Group-of-Ten (USA, Britain, Canada, France, West Germany, Italy, Holland, Belgium, Sweden and Japan) met at the Smithsonian Institute in Washington DC, where they agreed on a compromise. The dollar was devalued against gold, from \$35 to \$38 an ounce, while the other currencies were officially revalued by around 10% in relation to the dollar. There was also a provision for a wider band within which market rates would be allowed to fluctuate, by up to 2.25% around the new "central rates".



The Smithsonian Agreement proved to be only a temporary measure to alleviate the US balance of payments problems and in February 1973 the dollar was devalued again. Soon after, the rest of the Group-of-Ten allowed their own currencies to float freely, thus ending the Bretton Woods system of fixed parities.

The regime of floating exchange rates opened the way to a boom in foreign exchange trading as a profit-making activity in its own right, which has continued to this day. It also coincided with the start of the European Monetary System (outlined below) and the movement towards European monetary integration.

The dollar's devaluation and higher domestic interest rates stimulated a flow of dollars back to America. Up to a third of Eurodollar business was believed to have returned to the US during the following five years. Some of the funding vacuum was filled by surplus Deutschmarks, Swiss francs, Japanese yen, Dutch guilders, sterling and other currencies. Their role in international finance has increased steadily since then.

## Oil Crises and Debt Problems

The oil price rises imposed by the Organisation of Petroleum Exporting Countries (OPEC) in 1974 changed dramatically the pattern of international debt flows. Almost overnight the price of oil rose from just a few dollars per barrel to over \$25. Industries in North America, Europe and Japan suffered considerably higher costs as a result.

However, the oil producing countries (mainly those centred around the Gulf) were now dollar-rich. The most attractive home for those funds appeared to be the Eurocurrency market. Banks receiving the dollars lent them on to countries in Western and Eastern Europe, Latin America and Asia to pay for oil imports and to finance economic development. Many of the dollars lent thus returned to the oil exporters in the form of interest income. They were again placed with off-shore banks who re-lent them to oil importers, and so on. Dollars recycled from the Gulf in this way became known as "petrodollars".

The same petrodollar merry-go-round occurred in the wake of the second OPEC price hike, in 1979. It saved the borrowing countries from the very severe recession that would have ensued had they been forced to cut their oil consumption. But it left the Eurocurrency market with an overhang of non-performing debt which threatened the stability of the whole system.



## Currency Cocktails

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Over the past three decades the use of composite currencies such as the European Currency Unit (ECU) has become significant, both as an investment currency and in international trade. Many international companies operating in, or selling to, Europe nowadays invoice in ECU.

The ECU is made of a number of European currencies. The composition of the ECU is given in the figure below. Each currency is given a fixed "weighting" according to the strength of its country's economy and its currency's value against the USD on a given base date.

Currency weightings are only changed every so often, whenever there is a currency re-alignment within the EMS (see below) or a new currency joins the basket. The weighting divided by the current USD rate of exchange (for GBP and IRP the rate of exchange must be *multiplied* by the weighting) gives the current dollar value of the currency within the basket. Having established the total value of the ECU basket in USD terms, it is then possible to see the percentage contribution of each currency within it.

Currency	Weighting	Rate of Exchange	USD	Percent
German Mark	0.6242	1.3906	=0.4489	33.5426%
French Franc	1.332	4.8815	=0.2729	20.3915%
British Pound	0.08784	1.5801	=0.1388	10.3714%
Italian Lire	151.80	1626.75	=0.0933	6.9715%
Dutch Guilder	0.2198	1.5571	=0.1412	10.5507%
Belgian Franc	3.301	28.60	=0.1154	8.6229%
Danish Krone	0.1976	5.4475	=0.0363	2.7124%
Spanish Peseta	6.885	120.525	=0.0571	4.2666%
Portugal	1.393	146.500	=0.0095	0.7099%
Greek Drachma	1.44	225.850	=0.0064	0.4782%
Irish Punt	0.008552	1.6206	=0.0139	1.0386%
Lux. Franc	0.13	28.60	=0.0046	0.3437%
<b>TOTAL</b>			<b>=1.2303</b>	<b>100%</b>

The ECU came into being in the early 1970s with the creation of the European Exchange Mechanism (ERM). Currencies which are members of the ERM are allowed to fluctuate within narrow bands around pre-defined "central rates" against the ECU, so the ECU is pivotal within the system. The ERM therefore reinforces the stability of the member currencies against the ECU.





Originally the ECU was only used as a unit of account by European Community institutions and for inter-governmental swap and credit facilities. Gradually it began to be recognised as an ideal invoicing currency (and a natural hedge) by companies operating within the European markets. The advantage of invoicing in ECU, particularly for European-based firms, is a much lower level of currency exposure. For example, a 1% change in the USD/DEM rate causes only a 0.35% change in the ECU/USD rate: however a 1% movement in the USD/DEM rate has a greater influence on the ECU/USD rate than a 1% move in the USD/ITL rate. To an extent, fluctuations in constituent currencies will tend to offset each other.

For trading purposes, all the major banks now provide banking facilities in ECUs and offer full services in spot and forward FX between the ECU and the dollar (the most common traffic route) or between the ECU and any constituent currency. A restricted ECU funds clearing system is provided by a handful of banks. Since there are no ECU notes or coins, ECU balances must be converted into a specific currency when these are cashed.

There is also an active market in fixed interest, short-term deposits in ECU, where the interest rate applied is, again, a weighted average of Eurodeposit rates in the component currencies. This provides corporate treasurers in high interest European countries with a cheaper funding instrument, which carries a much lower exchange risk. In the capital markets, pan-European companies have found issuing ECU-denominated bonds to fund their subsidiaries preferable to issuing separate, single-currency instruments. Depending on progress achieved towards European Monetary Union the ECU (or "Euro", as it will be called) could become one of the top trading currencies by the next century.

## The European Monetary System

The first attempt at European exchange rate management was in 1972, and was known as "the snake in the tunnel", because of the way rates looked as they rose and fell either side of their central rates. At the time, exchange rates were limited to a 1.25% movement either side of a central value against each other.

Due to large movements in currency caused by, among other things, the oil crisis of 1973 and the major variations in inflation rates of indifferent member states, it proved impossible to hold each currency within the confines of these narrow bands, and in 1974 the system fell apart. When European economic stability returned in 1978, France and Germany made a second attempt at monetary cooperation and in 1979 a new system came into effect: the European Monetary System, as it is known today.

The two key areas which came out of this revision are:

- The Exchange Rate Mechanism (ERM)
- The European Co-operation Fund (EMCF)



## The ERM

The ERM is a device by which member currencies' exchange rates are fixed against each other, at a bilateral central rate, in order to remove problems of currency instability. When it was first formed, each currency was allowed to deviate within a 2.25% band either side of the central rate which was set against all other member currencies. The ECU is also an ERM currency, but its divergence limits against individual currencies are tighter.

If two currencies move outside the permitted limits against each other, or against the ECU, then each member state's central bank must intervene and meet all bids and offers made to them by the market at the relevant rate. If this, together with domestic policy measures such as the raising of interest rates, has no effect, then the central exchange rate can be realigned, provided all other participants agree.

In order for member states to be able to defend their currency, a credit facility of sorts exists. The European Monetary Co-operation Fund (EMCF), which has now been renamed the European Monetary Institute (EMI), takes 20% of each member state's reserves of gold and dollars and puts them into a central pool, giving in return an equivalent amount of ECU and foreign currencies. If exchange rates come under pressure and central banks need to intervene, they can borrow from the fund to defend their exchange rates on the markets.

Not all currencies were kept within this 2.25% band. Prior to 1990 the Italian Lire, Spanish Peseta, and Portuguese Escudo were allowed to operate within a 6% band, as did Britain when she joined the ERM in October 1990 at a central rate equivalent to DEM 2.95. In 1992 the British pound and Italian lire found themselves coming under increasing selling pressure. Both currencies hit the bottom of their respective ERM bands in September. The lire devalued on 13 September and a new central parity was fixed for it at a lower rate. Over the next three days, the pound was sold heavily, with the Bank of England and other European central banks buying back as much as they could. On 16 September UK interest rates were increased by 2% in an attempt to rally the pound. The government was determined not to let the pound be devalued.

Despite these attempts, the pound had fallen outside its permitted limit. The pressure on the Bank of England to buy back pounds became too great and the government was forced to act once again by increasing interest rates by another 2%, which took them to 15%. This was not enough and by the evening it was announced that sterling had been suspended from the ERM.

In 1993 there was heavy speculative pressure on ERM currencies, which overwhelmed the system. On 1 August it was agreed by member states once again to widen the intervention bands, this time to 15% either side of the central rates. At the time of writing only the DEM and the Dutch guilder (NLG) still operate within the 2.25% band.

Within the ERM, there are few formally linked currency pairs. The DEM and NLG have a written formal agreement, which makes them strongly correlated within the ERM.



There is evidence of informal links or "shadowing" within the ERM. For example, the Spanish peseta and the Portuguese escudo historically have had a close alliance. If the peseta comes under pressure from the mark, the escudo will also weaken to a greater or lesser degree. Other examples of shadowing are the DEM against the Austrian schilling, and the Belgian franc against the DEM. Although Britain is no longer confined within the ERM bands, its shadow the Irish Punt (due to Ireland's strong economic ties with Britain) has experienced many difficulties staying within the mechanism.

## Current Membership of the ERM

Since 6 March 1995, there have been nine currencies participating in the ERM:

- Austrian schilling (AUS)
- Belgium/Luxembourg franc (BEL)
- Danish krona (DKK)
- Dutch guilder (NLG)
- French franc (FRF)
- German mark (DEM)
- Irish punt (IRP)
- Portuguese escudo (PTE)
- Spanish peseta (ESP)

The Greek drachma, Italian lire and the British pound, though constituents of the ECU, are all trading outside the ERM at the time of writing.



## Market Regulation

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The Eurocurrency markets have never been greatly regulated. Governments have always feared that without controls a relatively minor accident could easily snowball into global financial chaos. This almost happened in July 1974, when Herstatt Bankhaus, a small family bank in West Germany, overtraded in the FX market forcing the Bundesbank to freeze its operations right in the middle of the day, when payments to and from Herstatt were still being processed.

Panic spread throughout the dealing rooms. Large depositors decided to deal only with the world's top ten or fifteen banks, whose balance sheets were comfortably large. The problem was that those banks being offered deposits had no place to invest them, and those - the vast majority - who were not offered the deposits, were desperate for funds. The crisis occurred at a time of high inflation and soaring interest rates. Loan maturities right across the board shortened dramatically and FX volume contracted.

Central banking authorities, especially in West Germany, have since taken steps to prevent a repetition of the Herstatt incident, but that bank's name has now been immortalised in the technical vocabulary to denote a specific type of risk.



**Herstatt Risk, also known as settlement risk or clean risk, is the risk of loss arising from the settlement of an FX operation, whereby one of the counterparties to the trade fails after the other one has issued payment instructions.**

In course *Risk* we shall examine how FX risks, including Herstatt risk, are managed in the dealing room. In Britain, major banks that participate in the Eurocurrency markets must work within guidelines set by the Supervisory Office of the Bank of England. They have to report on a daily basis their outstanding foreign currency positions and projected treasury cash flows. They must also satisfy the central bank that they have the internal systems necessary to process the volume of business and monitor the risks involved.

More recently, the Bank for International Settlements established clear guidelines for supervising the capital adequacy of international banks. The aim was to ensure that banks have sufficient capital resources to cover the risks on their operations, including FX. The supervisors' dilemma remains one of imposing adequate controls to eliminate market excesses without at the same time stifling competition and innovation, which are the hallmarks of the Eurocurrency markets.



## **The ACI**

The ACI is the Association Cambiste Internationale - the Forex Markets Association. It was founded in France in 1955 by an agreement between the Forex Associations in Paris and London. Other national Forex Associations were soon formed and there are now Forex Associations affiliated to the ACI in 54 countries with a membership totalling more than 25,000 people. The ACI has the largest membership of any of the international associations in the wholesale financial markets. The secretariat of the organisation is based in Paris.

The ACI Institute is the educational arm of the ACI. It was founded in London in 1994. It is currently developing a portfolio of examinations aimed at new entrants to the industry. The aim is to provide benchmarks for treasury dealers, and those providing support to dealers, about what they should learn during the first two or three years of their careers. The examinations are designed to be at about the same level of difficulty as that found in the first or second year of an undergraduate degree.



## Currency Symbols

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Currencies are identified by the **ISO**<sup>1</sup> codes by which they are recognised in the **SWIFT**<sup>2</sup> payments system. For example:

USD	=	US dollars
DEM	=	Deutschemarks
CHF	=	Swiss francs
FRF	=	French francs
GBP	=	British pounds sterling
JPY	=	Japanese yen
ITL	=	Italian lire
ECU	=	European Currency Units
AUD	=	Australian dollars
NZD	=	New Zealand dollars
Etc.		

### Notes:

1. **ISO** (The International Organisation for Standardisation) is a body based in Geneva responsible for, among other things, designating a common language of currency codes.
2. **SWIFT** (The Society for Worldwide Interbank Financial Telecommunication) is a multinational facility for the transfer of interbank funds based in Belgium and the Netherlands. Payment instructions are transmitted instantaneously by entering tightly formatted and password-controlled messages into the SWIFT computer network.

## Currency Pair Notation



Throughout this course we shall follow the ACI convention of denoting a currency pair in the following format:

Base currency / Counter-currency

Thus, dollar-Deutschemark would be expressed as USD/DEM, where the dollar is the base currency; sterling-dollar (**cable**) would be expressed as GBP/USD, where sterling is the base currency, and so on.



## Review Questions

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1. Gold was the traditional means of establishing a currency's value. When did gold cease to be tied to the US dollar?
  - A Gold ceased to be tied at US \$38 an ounce on 1 October 1973, when the major currencies began to float.
  - B Gold ceased to be officially tied at US \$35 an ounce on 1 August 1971
  - C Gold was never really tied to the dollar after the War because you could not in practice exchange cash for gold at the official price.
  - D Gold ceased to be tied at US \$38 a pound on 31 March 1972
  
2. Which of the following groups do not normally take positions in the FX markets?
  - A Brokers
  - B Central banks
  - C Governments
  - D Commercial banks
  
3. Which of the following currencies is not a member of the ERM (as at 1 May 1996)?
  - A Spanish peseta
  - B French franc
  - C Swedish krona
  - D Deutschemark