

BFX EURUSD Futures

Product Booklet



The Bahrain Financial Exchange (BFX) is a pioneering international financial exchange based in the Kingdom of Bahrain and internationally accessible to trade cash, derivatives, structured products and Shariah-compliant financial instruments. The BFX has set up the BFX Clearing and Depository Corporation (BCDC) to clear and settle the financial instruments traded by the members of the BFX. The BFX and the BCDC are licensed and regulated by the Central Bank of Bahrain (CBB).

The Exchange is a wholly owned initiative of Financial Technologies Group (FT Group), which currently owns one of the world's largest networks of 10 exchanges connecting fast-growing economies of Africa, Middle East, India and South East Asia.

Bait Al Bursa is an Islamic finance division of the BFX, exclusively offering electronic exchange traded Islamic financial instruments. Bait Al Bursa signifies the 'Home of Exchanges', and represents the BFX's vision of providing a single venue for all the exchange traded business in the Islamic finance sector.

The BFX Training Institute (BFX-TI) is an internationally accredited training institute operating under the BFX providing world class conventional and Islamic financial training and development courses.

BFX is Licensed and Regulated by the Central Bank of Bahrain

Global Currency Markets: an Overview

Introduction to the Global Currency Markets

The global Currency Market (commonly referred to as the Foreign Exchange markets or the FX markets) is the largest asset class in the world (in terms of value of transactions). History records the development of currency transactions to *circa 2000 BC*, when grain receipts were exchanged. *Coinage* led to the use of copper, gold and silver as the *currency of exchange*. Between the *6th and 13th century AD*, the first paper money was circulated in *China*. The *Dinar* also has its origin during this period.

Currency in its contemporary form, owes its utility to the need for a medium of exchange of an asset that has a store of value and can be transacted easily. Monetary (cash) liquidity in a nation's economy can have a direct impact on inflation. If the liquidity in an economy increases, this may potentially lead to inflation. Moreover, the value of one currency against another is a determinant factor for the purchasing power of a nation's economy. Thus, currency as an asset class is an important indicator of the overall trend in the global economy and has the ability to transform the global trade balance.

Value of Transactions in the Global Currency OTC Markets

The average daily turnover across all FX markets worldwide increased to USD 4.15 trillion in 2010, as compared to USD 3.40 trillion in 2007. The spot market transactions (USD 1.49 trillion), outright forwards (USD 0.475 trillion) and FX swaps (USD 1.765 trillion) constitute over 93% (USD 3.73 trillion) of the global FX markets' average daily turnover.

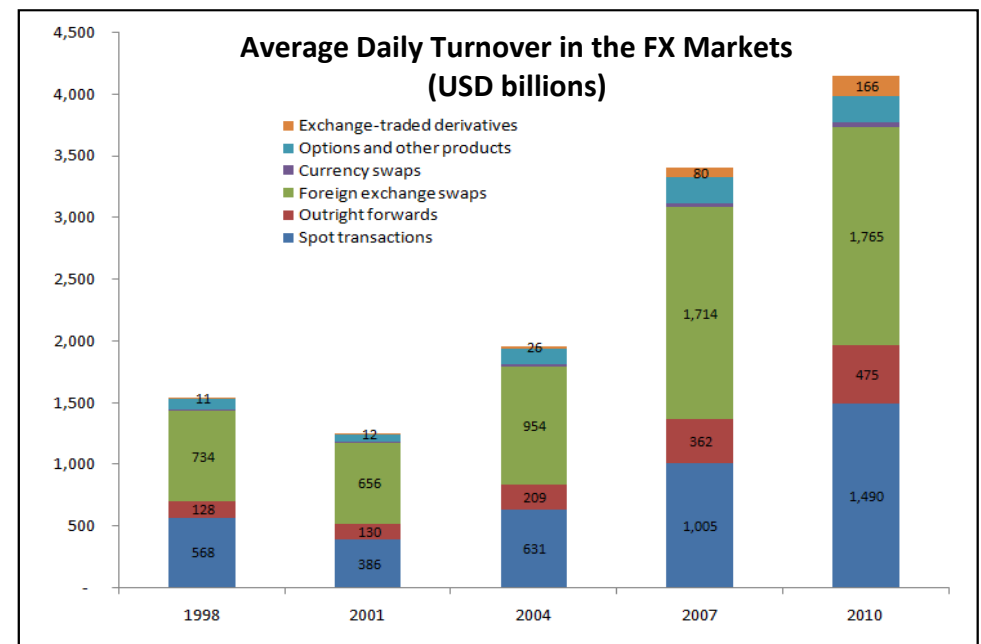
Growth of the Currency Exchange Markets

The growth rate of the Currency futures and options trading on leading global exchange markets has increased by 142% in the year 2010 (2.40 billion contracts) as compared to the same period during the previous year 2009 (0.99 billion contracts). The increasing volatility in the FX markets since 2008, due to the global economic recession, has resulted in greater risk for market participants, who are increasingly hedging their currency risk using futures contracts on the exchange trading platform. The BFX exchange trading platform offers several benefits for market participants, including lower transaction costs, mark-to-market settlement on a T+1 day basis, smaller lot size, international access and effective price discovery of the futures contracts in line with International reference markets.

Global Currency Market Structure

The FX markets comprise of the Over-the-Counter markets (OTC) and the Exchange Markets. The OTC market refers to the cash, spot, forward contracts, swaps and other financial instruments (derivatives such as options, currency swaps, etc.) that are transacted directly between two or more counterparties (outside the exchange environment).

Alternatively, currency futures contracts are traded on an exchange platform. The clearing and settlement systems of an exchange ensure that the outstanding profits and losses (referred to as the *mark-to-market* profits and losses or *MTM*) are settled usually on the very next business day. This system reduces the risk for the market participants and eliminates the possibility of default by counterparties. Due to the large number of market participants trading on the electronic exchange platforms, the volume of transactions (contracts traded) or liquidity is greater than that in OTC markets. This ensures that any open positions in the currency futures contracts can be instantaneously off-set. The enhanced liquidity on exchange markets due to the smaller contract lot size benefits market participants in collectively discovering the *fair price* of the currency to be bought or sold on a future date. The transaction cost on exchange trading platform is also lower for the micro, small and medium scale enterprises.

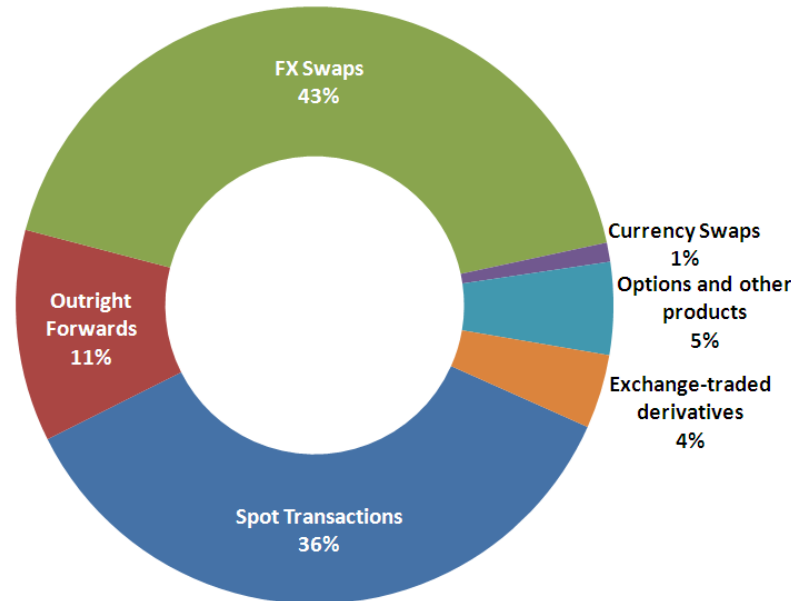


Benefits of Exchange Markets as compared to OTC Markets

Over-the-Counter (OTC) markets have certain limitations in providing adequate risk management capabilities of the micro, small and medium scale enterprises (MSME). These market participants have relatively smaller FX exposures as compared to larger organizations that can meet the larger lot-size (usually in lots of millions of US dollars) as demanded by the OTC market intermediaries. FX futures and options traded on the exchange markets facilitate smaller lot size (as low as EUR 25,000). The cost of off-setting forward contracts in the OTC market is higher as compared to the exchange markets. This is because of the wider bid-ask spreads for forward contracts in the OTC markets.

Market participants (usually in the MSME) who have opted for forward contracts in the OTC markets incur higher costs in off-setting their outstanding positions. This can be overcome and reduced by using the BFX futures contracts that facilitate anonymous trade matching facility across a global FX exchange platform leading to better price discovery. The cost of trading on exchanges is also lower as compared to transactions in the OTC markets. Another aspect related to the growth of exchange-traded futures markets for currency futures and options trading, is the advent of the electronic trading systems. The global nature of currency markets requires a price discovery mechanism that is aligned uniformly across different geographies. Electronic trading systems enable access to risk management capabilities for the market participants to off-set transactions at any time.

Volume (number) of Futures Contracts traded on Exchange Markets (in millions of contracts traded)



Share of the Global FX Markets (2010)

Types of FX Transactions

Cash: Immediate settlement (on the same business day). E.g. Tourists travelling from one country to another exchange currencies

Spot: Settlement on a T+2 days (after two business days) basis.

Tom: Next business day from reference date. For e.g. Tom-Cash is T+1 day settlement. Tom-Spot is T+3 day basis.

Forward Contract: Transactions between two counterparties for settlement on a future date in the OTC market.

FX Swap: Combination of a forward contract and spot transaction.

Futures contract: A contract to buy or sell an underlying currency on a future date and is traded on an exchange platform. The mark-to-market profit and loss is settled on a T+1 day basis. The contract may be cash-settled or provision for delivery may also be available.

Rollovers: Closing out (off-setting) of an existing open position in the near-month futures contract and simultaneously taking a new position in a futures contract with the next immediate maturity date is usually referred to as rollover of futures position.

Currency Swaps: Exchange of cash flows in two different currencies based on prevailing interest rate curve.

Options: The buyer of the option contract has the right but not the obligation to buy (call option) or sell (put option) the underlying asset.

Fundamentals of Global FX Markets

Currency Exchange Rate: Conceptual Overview

The currency exchange rate refers to the relative value of a currency against a unit of another currency in the FX market. For example, EURUSD refers to the quote of the US dollars (term or quote currency) for every unit of the Euro (which becomes the base currency). The *base currency* is the underlying currency for which the quote is provided in *terms* of another currency. The *term currency* is used to value one unit of the base currency. The usual terminology of the *spot* currency exchange rate refers to the delivery settlement of the base currency against the term currency on a T+2 (*today plus two means "after two business days"*) day period. It may be observed in most trading platforms that there is always a *bid* rate and a *ask* rate of the currency pair. The "*bid*" refers to the rate at which the market is willing to buy the base currency. The "*ask*" refers to the rate at which the market is willing to sell the base currency. The currency exchange rate is usually quoted up to the fourth decimal place, i.e. the one by ten-thousandth value (0.0001) often called a "*pip*". For example, if the EURUSD rate changes from 1.3298 to 1.3299, then there is a one *pip* movement in the currency exchange rate.

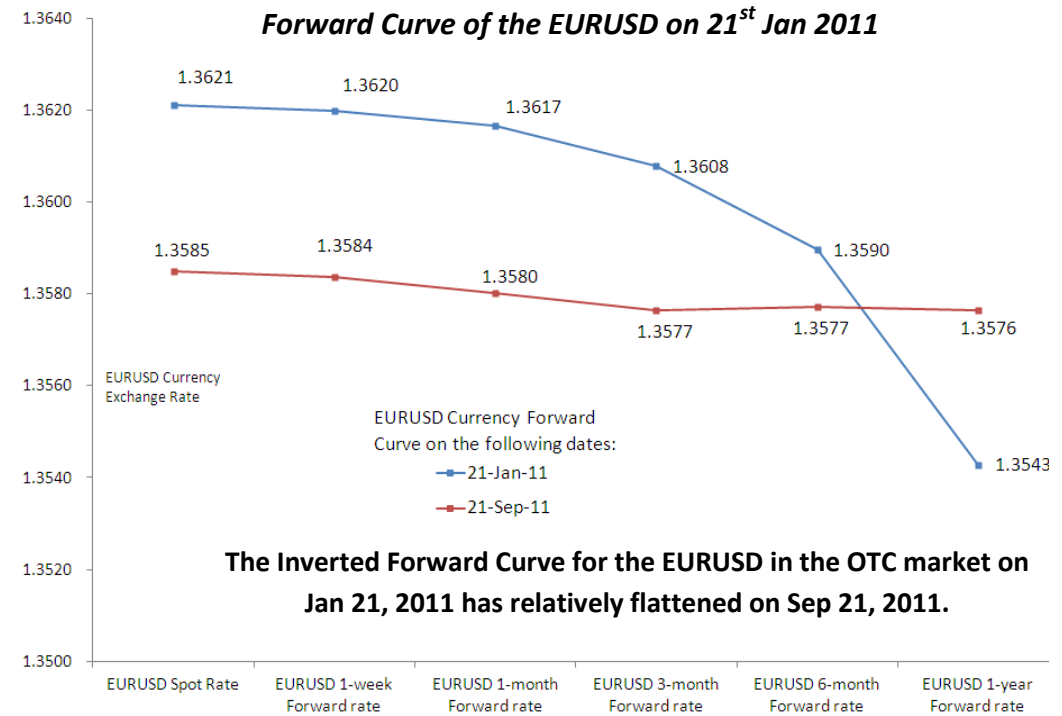
Forward Rate Curve

The currency exchange rate is a function of the difference (spread) between the interest rates of the term currency and the base currency for the specific period. The forward contracts traded in the OTC market values this interest rate differential for the period of the contract (for delivery of the base currency against the term currency on a future date). The increase or decrease in this interest rate differential is a major determinant of the forward rate premium (*normal or Contango market*) or discount (*inverted market or in Backwardation*).

The forward rate is usually quoted in terms of the forward points (that need to be added or subtracted to the spot rate depending on whether the forward rate is in a premium or discount respectively). For example, if:

- The spot EURUSD rate is 1.3539 / 42
- The 3-month forward points are -13.95 / -13.90 (*this is read as -0.001395/ -0.001390*)
- Then, the 3-month forward rate is: 1.3525 / 1.3528 (rounded to fourth decimal)

Note that the 3-month forward rate for the EURUSD is in a discount, indicating an inverted forward curve.



The BFX EURUSD Futures Contract

The Euro versus the US dollar futures contracts is the largest traded currency futures contract in the world. The Euro is the second most traded currency in the world after the US dollar and is the common currency of over 22 countries in the Euro zone (the latest being Estonia). The EURUSD is the barometer for the indication of the strength of the US dollar and has a wide impact on the value of global commodities. When the EURUSD rate decreases, it indicates that the Euro has depreciated and US dollar has appreciated, leading to a decline in commodity prices. When the EURUSD rate increases, then this is indicative of an appreciating Euro and depreciating US dollar, fuelling global commodity prices. This is due to the fact that most of the global commodities are valued in US dollar terms.

The Euro has been historically considered as a more stable currency (as compared to other major currencies such as the USD and JPY) and there have been efforts on the part of several trading nations to value imports and exports in Euro instead of the to the US dollar (especially during the advent of the global credit crisis in 2008).

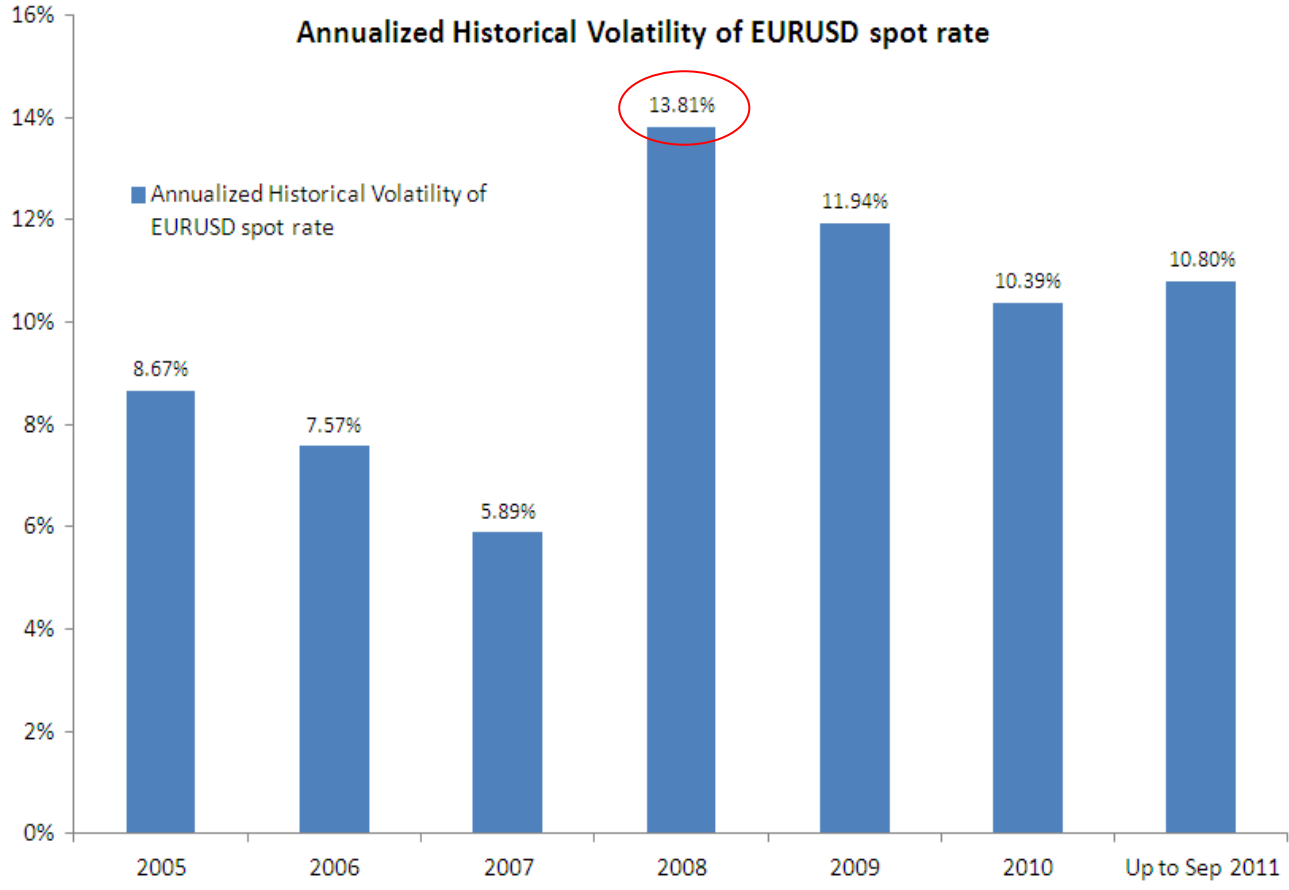
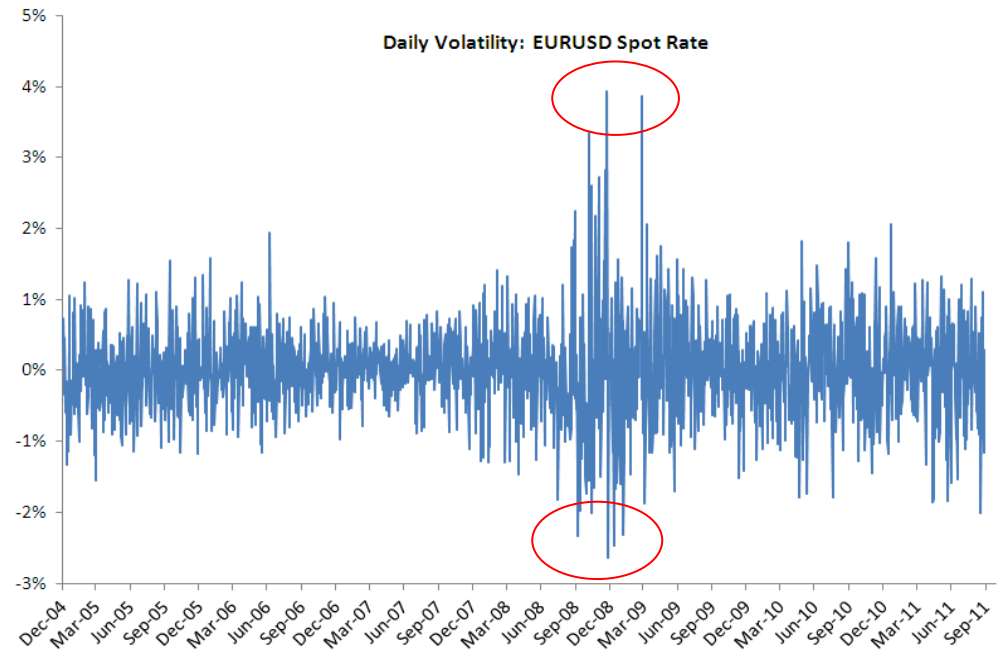
But the Eurozone region's credit crisis (with the increasing debt to GDP ratio of several European countries such as Greece, Ireland, Spain and Portugal) has impacted the confidence of global traders and investors.

The BFX EURUSD futures contract provides market participants, an avenue to mitigate price risk. The increasing volatility in currency markets has necessitated market participants (both institutional and retail) to hedge using currency futures.

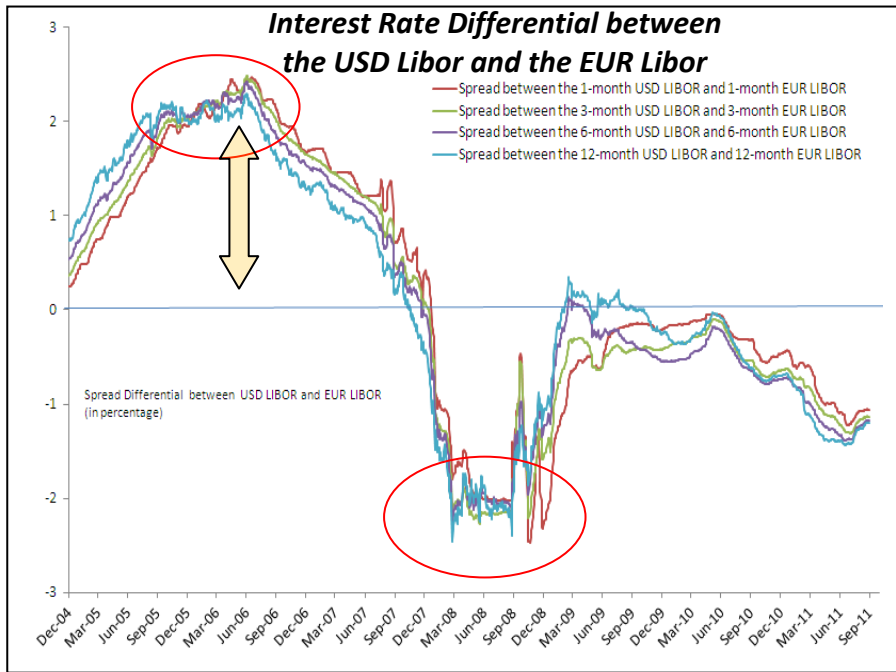


Volatility in the EURUSD Markets

Volatility in the global currency markets has increased in the last three years (2008-10) due to the global economic recession. The EURUSD spot rate increased to 1.5990 in Apr '08 before decreasing to 1.2452 by Nov '08. By Dec '09, the EURUSD rate rebounded to make a high of 1.5084 before the credit crisis in the Euro zone decreased the EURUSD rate to 1.1972. The intervention by the European Central Bank in stabilizing the Euro by establishing a credit line for the affected countries brought relief to the global currency markets. The EURUSD spot rate is at 1.35 levels as on Sep 21, 2011. Nevertheless, uncertainty in the Euro zone has added to the volatility of the EURUSD. In the year 2010, the annualized historical volatility has marginally decreased to 10.39%, but has once again increased to 10.80% in 2011. The uncertainty in the global economic recovery is expected to result in increased risk for market participants.

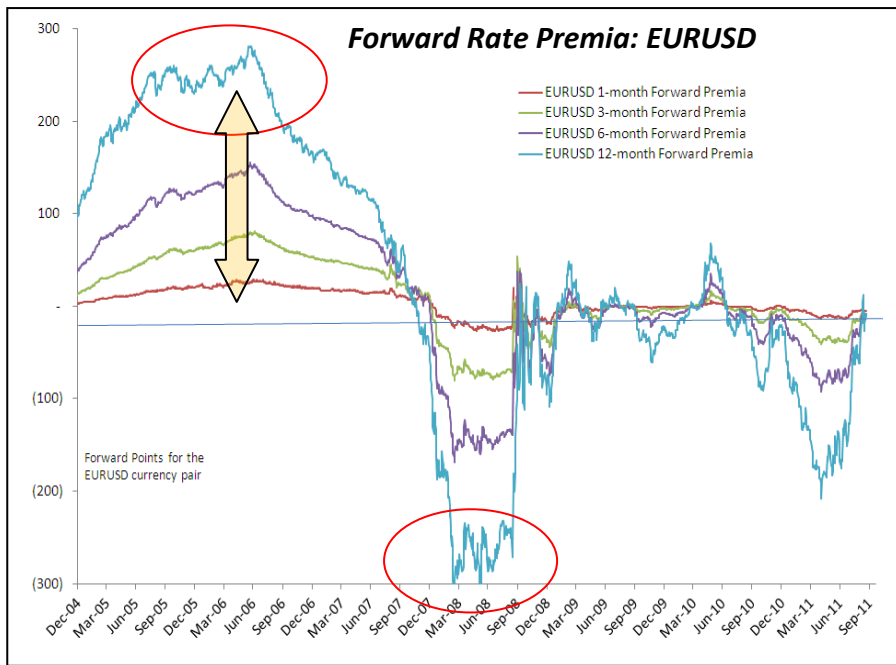


Interest Rate Differentials and its Impact on FX Forward Premia



The impact of interest rate differentials between the London Inter Bank Offer Rate (LIBOR) of the Euro and the US dollar is an important indicator of the forward rate premia in the FX markets. The Libor rate is announced by the British Banker's Association (BBA) every day at 11:00 AM (GMT), based on polling of the interbank borrowing rate from sixteen different banks for different periods ranging from overnight to one year across ten currencies. The FX forward rate premia for different periods is calculated by adding (or subtracting) of forward points from the prevailing spot rate to determine the rate at which the currencies can be exchanged on a future date. The FX Forward transactions are a part of the OTC market and are an important indicator of the expectations of the currency movement in the future period.

When the spread between the USD Libor and the EUR Libor increases, the forward rate premia becomes positive (signaling a normal market). The global economic recession in 2008 resulted in the decrease of interest rates in US, as a result of which the USD Libor rate decreased below the EUR Libor rate. It may be observed in the illustration (please refer graph on the left side) that the forward premia also became negative and resulted in a backwardation (inverted market).



Major Factors Impacting EURUSD Currency Rate

- **Capital Flows:** Capital flows across geographies invariably impact the global currency markets. These capital flows are in the form of Investments, remittances, corporate borrowings, sovereign debt, etc. These cash inflows and outflows impact the liquidity of currencies across different markets.
- **Economic Growth and Inflation:** The global economic growth slowed down in the last three years (2008-11) due to the credit crisis. The global economy is at a point of inflection, whereby, the economic recovery depends on increasing investments, employment levels and consumer spending. This is expected to initiate the manufacturing demand, thereby, leading to the global economic recovery. The Eurozone region registered a growth rate in its GDP of 1.60% in Q2 2011. This was down from 2.40% in Q1 2011. The European economy was in a recession registering a negative growth rate between Q4 2008 and Q4 2009. The current situation of a potential default by Greece and the high level of borrowings by Italy, Spain and Portugal have severely threatened the stability of the EUR. Another potential threat is that of deflation (decrease in commodity prices usually results in a spiraling deflation leading to lower production, postponement of investments and increasing unemployment).
- **Exports and Imports:** The increasing value of global exports and imports has increased the demand and supply of major currencies. This has also increased the currency transactions not only in the spot market but also in the derivatives (OTC and Exchange) markets for risk mitigation. The total imports from the Eurozone region in the calendar year 2010 was EUR 1.55 trillion (USD 2.17 trillion), as against exports of EUR 1.53 trillion (USD 2.14 trillion). In the period from Jan – Jul 2011, total imports was EUR 1.01 trillion against exports of EUR 0.99 trillion. The US has a trade deficit of approximately USD 40 to 50 billion per month. Increasing Trade deficits impact the volatility in the EURUSD markets.
- **Interest Rate Differential:** The US Fed has announced that the short term interest rate (US Fed rate is at 0.25% as on Sep 2011) would be maintained at low levels for an “extended” period of time (possibly up to the year 2013) in order to foster economic growth. Measures for Quantitative Easing (Liquidity infusion by buying back Government bonds) were adopted by the US Federal Reserve to spur investment and consumption demand. The ECB is also expected to decrease the short-term interest rates (1.50% as on Sep 2011), in line with the US Fed. The interest rate differential between the Eurozone interest rates and the US Interest rates impacts the forward rate premia / discount.

Currency Price Drivers

- Capital Flows
- Economic Growth, Inflation
- Interest Rates
- Monetary Policy, Regulation
- Exports and Imports
- Trade Surplus / Deficit

Currency Price Drivers

- Financial Crisis, Bank Closures
- Carry Trade
- Political Stability
- Balance of Payments, Sovereign Debt
- Currency Valuation System

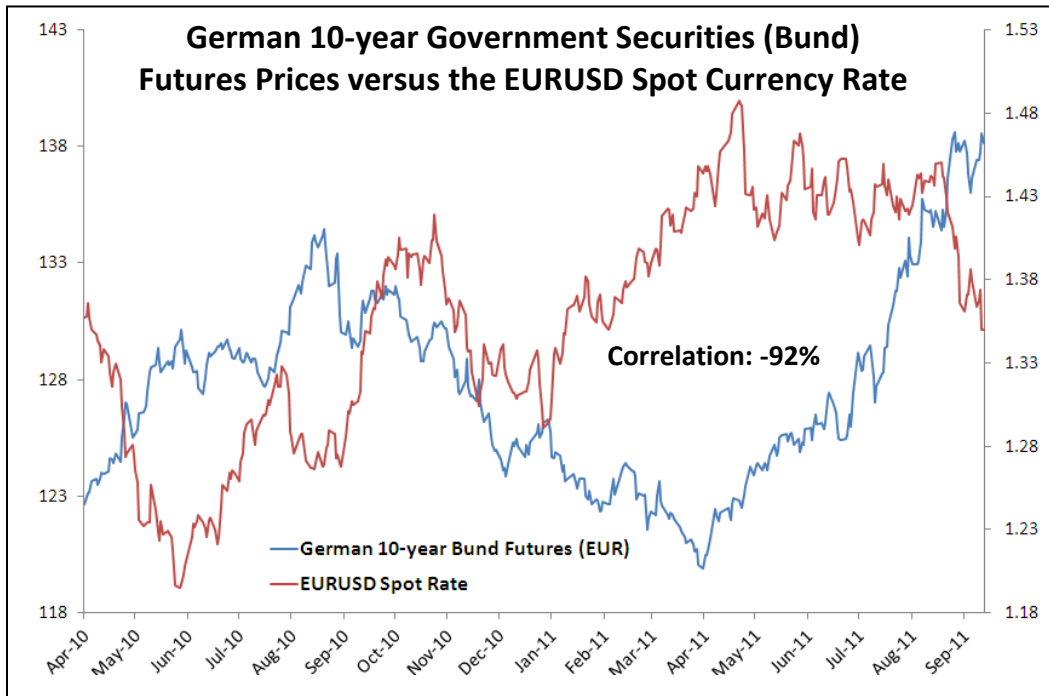
GDP AND "DEBT TO GDP" RATIO

Country	Debt to GDP Ratio (as %)		GDP in 2010 (USD billions)
	2008	2010	
Greece	97.40%	144.00%	304.87
Italy	105.80%	118.10%	2,051.41
France	68.10%	83.50%	2,560.00
Portugal	66.40%	83.20%	228.54
Germany	66.00%	78.80%	3,309.67
United Kingdom	51.80%	76.50%	2,246.08
Austria	62.60%	70.40%	376.16
Spain	40.70%	63.40%	1,407.41
Cyprus	49.10%	61.10%	25.04
USA	37.50%	58.90%	14,582.40
Poland	45.20%	53.60%	468.59
Norway	55.70%	47.70%	414.46
Denmark	33.50%	46.60%	310.41
Finland	33.70%	45.40%	238.80
Sweden	36.70%	40.80%	458.00
Switzerland	40.20%	38.20%	523.77
World (2009 & 2010)	56.00%	58.30%	63,048.77
Euro Zone	69.90%	85.10%	12,174.52

Source: Bloomberg

- **Balance of Payments and Sovereign Debt Crisis:** Increasing dependence on imports without assured FX cash inflows may result in a Balance of Payments crisis situation, thereby, impacting the volatility of the EURUSD currency rate.

Major Factors Impacting EURUSD Currency Rate

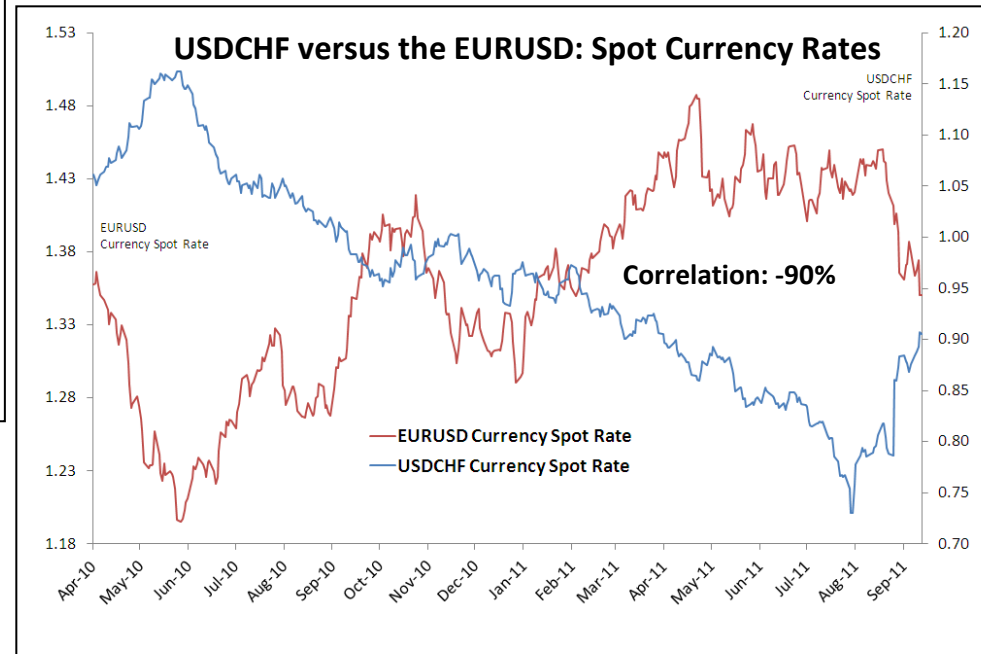


Monetary Policy and Currency Regulation: The monetary policy outlines the structure for controlling the cash liquidity (money supply) in an economy. Regulation of currency liquidity and monetary policy enables central banks to influence the currency's value. At times of extreme currency volatility, intervention in the FX markets by the European Central Bank or the US Fed ensures that the EURUSD rate do not breach a threshold barrier, thereby protecting the market participants from undue risk. More recently, the US Fed has announced a policy (known as "Operation Twist") to extend the duration of bonds (by converting short term treasuries with long term bonds). This is expected to impact the yield curve. The European Central Bank is also in the process of funding the deficits of Greece, Italy and other countries in the Eurozone area that are facing economic crisis due to excessive borrowing.

Political Stability: The political stability of the Eurozone has a bearing on its currency rate. There is a serious threat that some of the countries in the Eurozone region may secede. This has the potential to cause adverse volatility in the EURUSD currency rate.

Impact of the Government Securities Yield Rate and Prices on the EURUSD Spot Currency Rate

The prices of the German Government 10-year benchmark Bonds (Bund) have historically, a negative correlation of 92% with the EURUSD currency rate. Decrease in the yield rates (and consequent increase in Bund prices) of Eurozone countries, especially Germany, has the effect of depreciating the Euro against the US dollar.



Impact of other Major Currencies such as the Swiss Franc

The correlation between the Swiss Franc (USDCHF rate) and the EURUSD rate is negative (-90%), indicating the similarity in the trend followed by both the Swiss Franc and the Euro (note that in USDCHF, the US dollar is the base currency, whereas, in the EURUSD, the Euro is the base currency, implying the strong positive correlation between the Euro and the Swiss Franc).

Similarly, the volatility in the USDJPY and other major currencies such as the AUD and GBP may have an impact on the value of the EURUSD rate and the cross currency rates (for example, the recent Earthquake and Tsunami in Japan resulted in the EURJPY increasing from 110 to 123 before decreasing back to 103 levels).

Risk Management and Trading Strategies using BFX Currency Futures

The need for Currency Risk Management

Increasing volatility in global currency markets has increased the need for mitigating risk using financial instruments (derivatives). Market participants in the global currency markets include exporters, importers, traders, investors, arbitrageurs, investment banks as well as Governments (and their Central banks).

Analysis of Currency Risk for Importers

Importers are susceptible to appreciation of the foreign currency in which they have cash outflows. For example, let us assume that an importer based in France has contracted to import manufactured goods valued at USD 10,000,000 from the US and is deliverable in three months. The spot rate of the EURUSD is 1.3500. The equivalent of USD 10,000,000 at the current spot rate is EUR 7,407,407. This is payable in US dollars. The importer is expected to sell EUR and buy USD after three months. The uncertainty in the value of the EURUSD spot rate remaining the same for the subsequent three months is the risk faced by the importer. Let us analyze two scenarios on the *value date* (payment date):

Scenario 1: EURUSD spot rate increases to 1.4000

The increase in the EURUSD spot rate to 1.40 after three months implies that the Euro has appreciated and the US dollar has depreciated. Thus, fewer Euros are required to buy the same number of US dollars. In this example, the importer requires only EUR 7,142,857 to purchase USD 10,000,000 at the spot rate of EURUSD 1.4000, as compared to the original amount of EUR 7,407,407.

Conclusion: The importer gains when the Euro appreciates and the US dollar depreciates.

Scenario 2: EURUSD spot rate decreases to 1.3000

The decrease in the EURUSD spot rate to 1.30 after three months implies that the Euro has depreciated and the US dollar has appreciated. Thus, more Euros are required to buy the same number of US dollars. In this example, the importer requires EUR 7,692,308 to purchase USD 10,000,000 at the spot rate of EURUSD 1.3000, as compared to the original amount of EUR 7,407,407.

Conclusion: The importer loses when the Euro depreciates and the US dollar appreciates.

The importer can effectively mitigate risk due to Euro depreciation, by selling (taking a short position) EURUSD futures contract for the equivalent exposure. The potential loss in the cash market (depreciation of the Euro) would be off-set by a profit in the EURUSD futures contracts.

In the next section, we shall discuss the hedge strategy that may be adopted by importers and exporters for mitigating currency risk.

Currency Risk: Hypothetical Example

Scenario 1

Event on Value Date	IMPORTER	EXPORTER	EURUSD 1.40
Appreciation of the EUR	Gains	Loses	↑
Depreciation of the USD	Gains	Loses	

Scenario 2

Event on Value Date	IMPORTER	EXPORTER	EURUSD 1.30
Depreciation of the EUR	Loses	Gains	↓
Appreciation of the USD	Loses	Gains	

Note: Importer buys USD and sells EUR, whereas, the Exporter sells USD and buys EUR.

Analysis of Currency Risk for Exporters

Let us analyse a similar example where an exporter based in France is expected to receive USD 10 million (for an export consignment to the US) on a future date and would be converting the same into Euros. The exporter is exposed to the risk of appreciating EUR and depreciating USD. If the EURUSD increases from 1.35 to 1.40, then the exporter would be receiving fewer Euros for the same amount of US dollars.

Scenario 1: EURUSD spot rate increases to 1.4000

The increase in the EURUSD spot rate to 1.40 after three months implies that the Euro has appreciated and the US dollar has depreciated. Thus, fewer Euros are received for the same number of US dollars. In this example, the exporter receives only EUR 7,142,857 by selling USD 10,000,000 at the spot rate of EURUSD 1.4000, as compared to the original amount of EUR 7,407,407.

Conclusion: The exporter loses when the Euro appreciates and the US dollar depreciates.

Scenario 2: EURUSD spot rate decreases to 1.3000

The decrease in the EURUSD spot rate to 1.30 after three months implies that the Euro has depreciated and the US dollar has appreciated. Thus, more EUR is received for the same number of USD. In this example, the exporter receives EUR 7,692,308 by selling USD 10,000,000 at the spot rate of EURUSD 1.3000, as compared to the original amount of EUR 7,407,407.

Conclusion: The exporter gains when the Euro depreciates and the US dollar appreciates.

The exporter can effectively mitigate risk due to Euro appreciation, by buying (taking a long position) EURUSD futures contract for the equivalent exposure. The potential loss in the cash market (appreciation of the Euro) would be off-set by a profit in the EURUSD futures contracts.

Risk Management and Trading Strategies

How to mitigate risk using BFX Currency Futures contracts?

The extent of risk in the global currency markets may be hedged using the BFX currency futures contracts. Hedging involves taking opposite positions in two different markets to off-set the loss in one market (cash market) with a profit in the other (futures market). If an importer wants to mitigate risk of potential depreciation of the Euro (and appreciation of the US dollar), then he / she can short (sell) the EURUSD futures contracts for the equivalent amount of the underlying currency exposure. This would enable the importer to off-set the loss in the cash market transaction with profit in the futures markets. Let us analyze the following example:

Hedging by Importer

Consider the hedge strategy outlined in the Table alongside

It may be observed that the EURUSD spot rate has decreased from 1.35 (Dec 15, 2011) to 1.30 (Mar 1, 2012). The EURUSD Mar 2012 futures contract prices also decreased during the same period from 1.3490 to 1.2995. Thus, the loss in the cash market due to the depreciation of the Euro is off-set by a profit in the futures market. Alternatively, if the Euro appreciates, then the loss in the futures hedge position is off-set by a corresponding profit in the cash market. This effectively locks into the selling price of Euro against the US dollar at 1.35.

The *Basis risk*, which is the uncertainty in the difference between the spot and futures prices remaining the same, also needs to be tracked. In the above example, the basis has changed from 0.0010 to 0.0005. The hedge strategy may either be static (to lock-in to the prices for the duration of the hedge period) or dynamic (where the hedge position may be entered and exited based on market conditions) in nature. Considering the example in the previous section, where an importer needs to buy USD 10 million (against Euro payment), the depreciation of the EUR would result in a higher payout of EUR 7,692,308, thus resulting in a loss of EUR 284,900.

The contract size of the BFX EURUSD futures is EUR 25,000. Thus, the total number of contracts required to hedge against an exposure of USD 10 million at the prevailing price of 1.3490 is calculated as follows:

$$\text{USD } 10,000,000 / (\text{EUR } 25,000 \times 1.3490) \approx 297 \text{ contracts.}$$

Hedge Strategy by Importer: Hypothetical Example

Date	Cash Market	Futures Market
Dec 15, 2011	EURUSD Spot Price is 1.3500 Risk of depreciation of the Euro	EURUSD March 2012 Futures Contract Price is 1.3490 Sell EURUSD March 2012 Futures Contracts
Mar 1, 2012	EURUSD Spot Price is 1.3000 SELL Euro and BUY US Dollars	EURUSD March 2012 Futures Contract Price is 1.2995 Buy EURUSD March 2012 Futures Contracts
PROFIT / (LOSS)	Notional Loss of USD 0.0500 per EUR	Actual profit of USD 0.0495 per EUR

Hedge Strategy by Exporter: Hypothetical Example

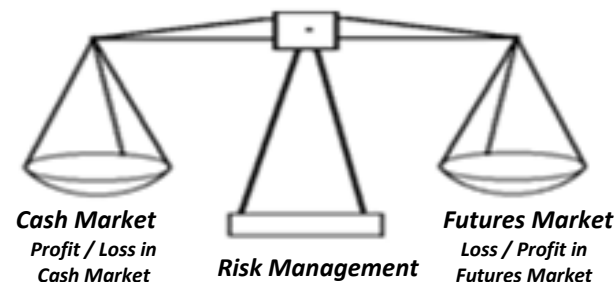
Date	Cash Market	Futures Market
Dec 15, 2011	EURUSD Spot Price is 1.35 Risk of depreciation of the Euro	EURUSD March 2012 Futures Contract Price is 1.3490 Buy EURUSD March 2012 Futures Contracts
Mar 1, 2012	EURUSD Spot Price is 1.40 Buy EUR Euro and Sell USD	EURUSD March 2012 Futures Contract Price is 1.3995 Sell EURUSD March 2012 Futures Contracts
PROFIT / (LOSS)	Notional Loss of USD 0.0500 per EUR	Actual profit of USD 0.0505 per EUR

Thus, the importer off-sets the risk in the cash market by shorting 297 contracts of the BFX EURUSD futures at 1.3490 and buying them back at 1.2995, thereby, yielding a profit of EUR 282,721 (USD 367,537). It may be noted that the loss has reduced from EUR 284,900 to EUR 2,179. Even this residual loss is due to the basis risk of 5 pips, as discussed.

Hedging by Exporter

As discussed in the previous section, the exporter makes a loss in the cash market if the EURUSD spot currency exchange rate increases from 1.35 (Dec 15, 2011) to 1.40 (Mar 1, 2012). By taking a long (buy) position in the BFX EURUSD futures contract, it is possible for the exporter to mitigate the risk of appreciating EUR and depreciating USD. The exporter needs to buy 297 contracts of the BFX EURUSD futures on Dec 15, 2011 at the prevailing futures price of 1.3490. When the EURUSD spot rate increases, the futures prices also increases. The exporter squares-off his position at 1.3995, thereby making a profit of EUR 267,830 (USD 374,962). This covers the loss of EUR 264,550 (USD 370,330) made in the cash market, due to a appreciating EUR and depreciating USD. This is calculated in US dollar terms as follows:
 $\text{EUR } 25,000 \times (1.3995 - 1.3490) \times 297 \text{ contracts} = \text{USD } 374,963 \text{ (EUR } 267,830 \text{ @ EURUSD } 1.40).$

Note: All MTM figures rounded off to the nearest integer.



Spread Trading Strategies using BFX EURUSD Futures Contract

Trading Strategies using BFX Currency Futures Contracts

The correlation between the currency spot rate, forward rates in the OTC markets and the international futures prices on the exchange platforms is as high as 99.94%. This indicates the potential for spread trading opportunities between these different FX markets. It is also possible to leverage on the spread differential between the EURUSD futures contract prices between different international exchanges. In the illustrations given below, the spread differential between different EURUSD markets may be observed.

Spreads refer to the difference between two futures contract prices. When opposite positions are taken in two futures contracts for the same underlying asset across different expiry months, it is commonly referred to as a calendar spread. BFX provides a 90% benefit on the margin requirement for calendar spread positions.

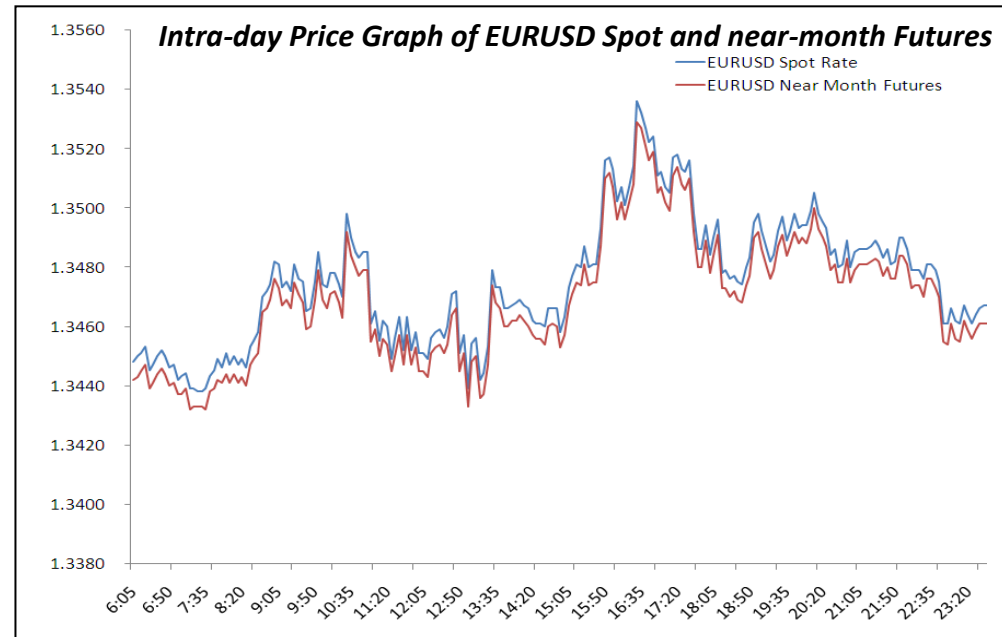
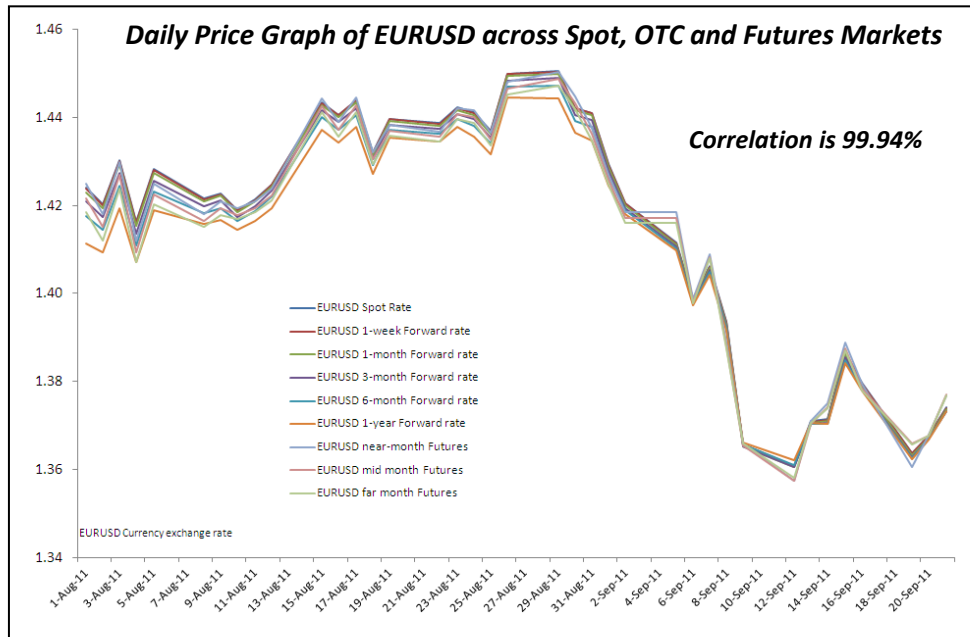
Hypothetical Example: Spread Trading Strategy

Date	BFX EURUSD Futures Contract		Spread	Positions
	Mar 2012	Jun 2012		
Jan 17, 2012	1.3585	1.3562	0.0023	Sell 100 lots of Mar 2012 futures contract Buy 100 lots of Jun 2012 futures contract
Jan 19, 2012	1.3470	1.3459	0.0011	Buy 100 lots of Mar 2012 futures contract Sell 100 lots of Jun 2012 futures contract
Profit / Loss	Profit of 0.0115	Loss of 0.0103	Profit of 0.0012	Profit in the Spread Position is calculated as: $0.0012 \times \text{EUR } 25,000 \times 100 = \text{USD } 3,000$

Let us analyse the above example. A trader takes positions on the BFX EURUSD futures contracts in anticipation that the difference between the Mar and Jun 2012 futures contracts would decrease. On Jan 17, the trader observes that the spread between the Mar and Jun 2012 contracts is 0.0023 and that the futures contracts are in Backwardation (inverted market, where the far month contract price is lower than the near month contract price). Thus, he sells the near month futures contract (Mar 2012) and buys the far month futures contract (Jun 2012). On Jan 19, the spread between the futures contract has decreased to 0.0011. The trader unwinds (squares-off) his positions by buying the Mar 2012 contract and selling the Jun 2012 contract. The trader makes a profit of 0.0115 in the Mar 2012 contract that is off-set by a loss of 0.0103 in the Jun 2012 contract. The net profit in the entire transaction is USD 30 per lot traded (EURUSD 0.0012 x EUR 25,000 per contract) or USD 3,000 for trading 100 lots. In the event that the trader expects the spread to increase, then opposite positions need to be taken (i.e. buy Mar 2012 contract and sell the Jun 2012 contract). If the futures contracts are in Contango (normal market) then the positions are reversed.

Benefits of Calendar Spread Positions

Spread positions have relatively lower risk than an outright (naked) long or short futures position. This is because the long position in one contract is off-set by the short position in the corresponding futures contract for the same underlying asset, i.e. EURUSD. The high correlation between two futures contract prices of the same underlying asset ensures a natural protection against extreme losses from high volatility swings, as in the case of a naked long or short position. Due to the inherent nature of the long and short positions off-setting the profits and losses with each other, BFX provides a 90% benefit on the margin requirement for calendar spread positions.



Contract Specification*

BFX EURUSD Futures Product Specification*

Symbol	BFXEUUS
Description	BFX EURUSD Futures Contract
Contract Months	March, June, September, December
Trading Period	Monday through Friday
Trading Session	08:30 - 21:30 Bahrain Time (AST or GMT + 3) adjusted for Daylight Saving Time
Contract (Lot) Size	EUR 25,000
Quotation	US dollars and cents per Euro
Tick size	USD 0.0001 per EUR (USD 2.50 per contract)
Settlement Methodology	Cash Settlement
Final Settlement Price	International reference prices based on equivalent EURUSD futures contracts on the Chicago Markets

* Please refer to the exchange circulars for the detailed product specification.

Bahrain Financial Exchange
12th Floor, East Tower
Bahrain Financial Harbour
PO Box 1936, King Faisal Highway
Manama, Kingdom of Bahrain
Tel: +973 16 511 511
Fax: +973 16 511 599
Email: info@bfx.bh

Disclaimer

The information and contents (the 'Contents') provided in this 'BFX Euro versus US dollar Futures Contract' (henceforth referred to as the 'futures contracts') and this product booklet are provided without warranties of any kind. Bahrain Financial Exchange (BFX) and/or its respective affiliates and / or officers and their employees do not warrant and hereby disclaim any warranty as to the accuracy, correctness, reliability, correctness, timeliness, non-infringement, title, merchantability or fitness for any particular purpose of the Contents. BFX and/or its respective affiliates and / or officers and their employees shall not be liable for any damage or loss of any kind, howsoever caused as a result of the (direct or indirect) use of the Contents, including but not limited to any damage or loss suffered as a result of reliance on the Contents. This futures contract is made available on the condition that errors or omissions shall not be made the basis for any claims, demands or cause of action against the BFX and/or its respective affiliates and / or officers and their employees. The Contents do not constitute professional advice or provision of any kind of services and should not be relied upon as such. BFX and/or its respective affiliates and / or officers and their employees do not make any recommendation and assume no responsibility towards any investments or trading in commodities, currencies, interest rate, equity or any financial products or instruments such as futures, options and swaps done based on any information given in the Contents and any such investment or trade is subject to investment and commercial risks for which BFX and/or its respective affiliates and / or officers and their employees shall not be responsible.

Trading on this Futures Contract involves risk. Any individual or entity should carefully consider whether trading is suitable in light of prevailing circumstances, knowledge and financial resources. The information contained in this document does not constitute a solicitation to buy or sell futures contracts. Only persons who understand the risks involved in trading of derivatives such as futures should undertake transactions in futures contracts. The amount of Initial margin is small relative to the value of the futures contract so that transactions are 'leveraged' or 'geared'. A relatively small market movement will have a proportionately larger impact on the funds deposited or to be deposited. If the market moves against open positions or margin levels are increased, the individual or entity having open positions in futures contracts may be called upon to pay additional funds on short notice to maintain the existing open positions. If funds are not deposited within the stipulated time period, the existing open positions may be liquidated at a loss. Futures contracts involve Mark-to-Market of profits or losses. This document does not guarantee profit by way of trading in futures contracts. Trading in Futures contracts would subject the individual or entity to the Business Rules and Regulations of the BFX. The individual or entity taking positions in futures contracts needs to be aware of the provisions of the Business Rules and Regulations of the BFX as well as periodic notices that are released by the BFX regarding trading in futures contracts. Without limiting any of the foregoing, in no event shall BFX or their respective affiliates and /or its officers and their employees have any liability for any lost profits or indirect, punitive, special or consequential damages or losses, even if notified of the possibility of such damages.

SPAN® is a registered trademark of the Chicago Mercantile Exchange, used herein under License. The Chicago Mercantile Exchange assumes no liability in connection with the use of SPAN by any person or entity.

BFX is Licensed and Regulated by the Central Bank of Bahrain