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How does FX volatility impact your bottom line?

Euronet WORLDWIDE

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Who is HiFX?

Euronet Worldwide, Inc
Company Overview

HiFX is part of Euronet Worldwide (EWI), a global provider of electronic and transaction processing solutions.

- Founded in 1994.
- Current market cap is approximately $5 billion.
- Listed on U.S. NASDAQ (EEFT) since 1997.
- Global presence - Euronet serves clients in 165 countries.

The FX Market

The FX Market

What is the FX Market?

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Daily volume in the FX market amounts to

$5.3 trillion US Dollars

of this FX swaps account for

$2.2 trillion

$2 trillion US Dollars

are traded in the spot FX market

The Most Popular Centre by Volume

LONDON	41%
US	19%
SINGAPORE	5.7%
JAPAN	5.6%

78% of all volume in Europe traded through London

The Most Popular Currency Pair

EUR/USD	24.1%
USD/JPY	18.3%
GBP/USD	8.8%

The most traded currency

87% of all trades are in US Dollar

Followed by:

2 € EURO

3 ¥ YEN

4 £ STERLING

Source: Reuters

The Evolution of the FX Markets

The Evolution of FX Trading?

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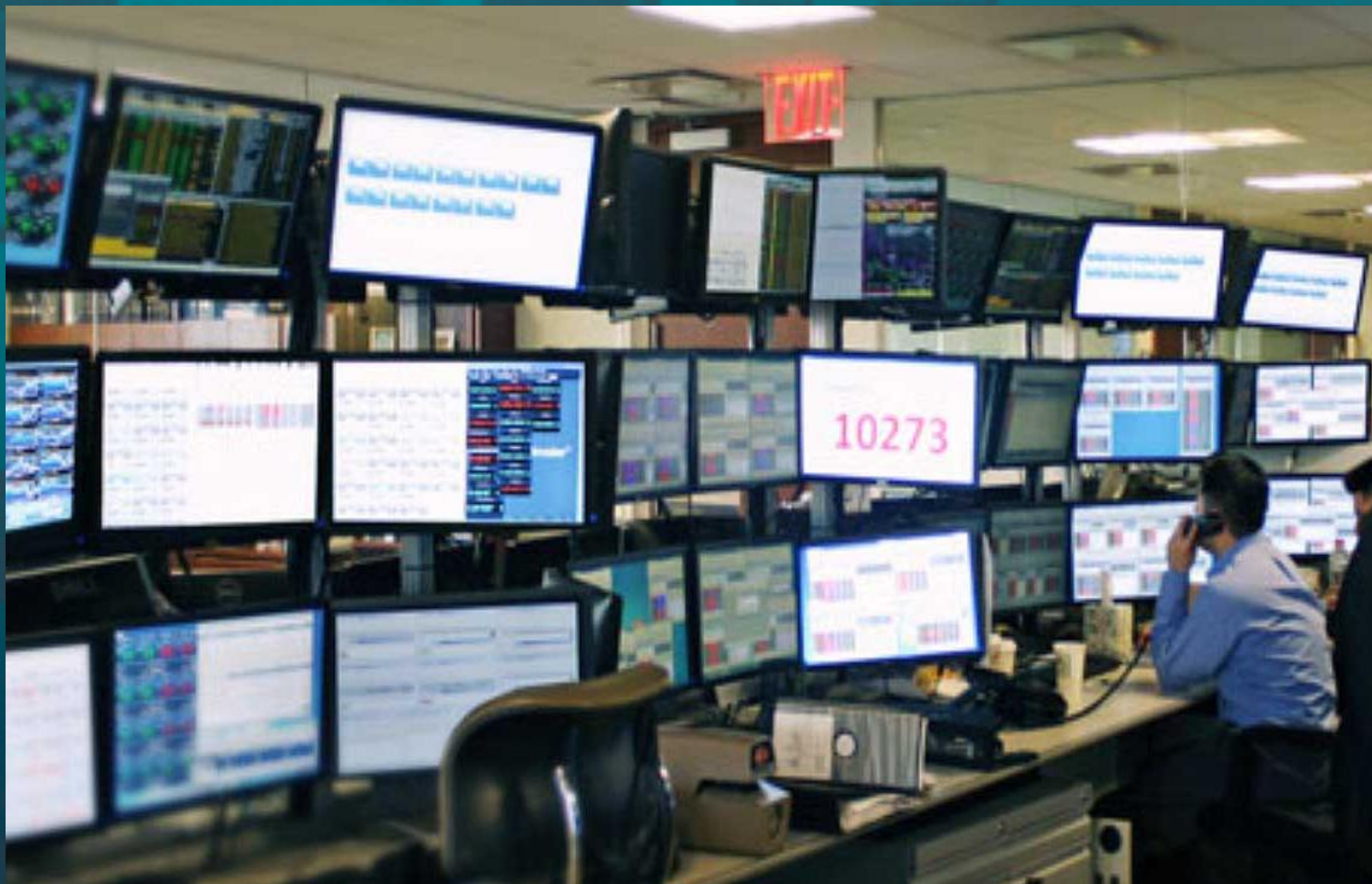
FX Trading in 1990's	FX Trading in 2010's
Less Volume $1.5 trillion	More Volume $5 trillion
Manual input (more staff)	Straight through processing (less staff)
Less price visibility and more latency	More price visibility and less latency
Less Compliance	More Compliance
Little reliance on systems	Complete reliance on systems
More voice broking	Vast majority electronic broking
Traders orchestrate call-outs	Less inter-bank call-outs

Source: Reuters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Quantify the risk elements
GBP/EUR movement over past 10 years

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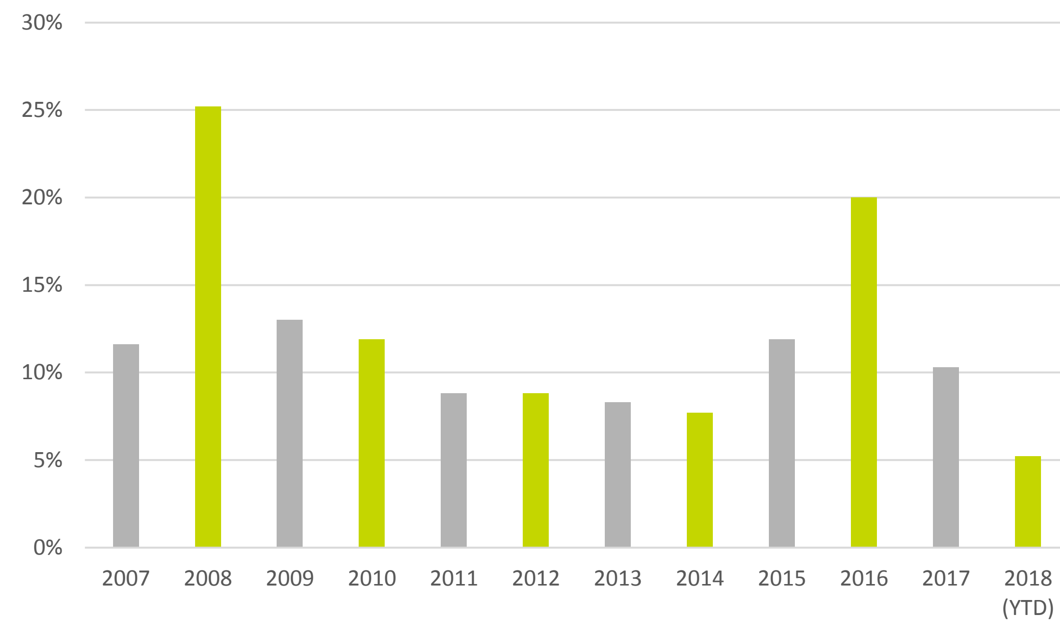
Year	High	Low	Percentage Range High-Low
2007	1.5299	1.3529	11.6%
2008	1.3629	1.0193	25.2%
2009	1.1903	1.0356	13.0%
2010	1.2394	1.0921	11.9%
2011	1.2068	1.1005	8.8%
2012	1.2881	1.1753	8.8%
2013	1.2367	1.134	8.3%
2014	1.2886	1.1899	7.7%
2015	1.4415	1.2694	11.9%
2016	1.3674	1.0940	20.1%
2017	1.2026	1.0784	10.3%
2018	1.1599	1.0994	5.2%

Annual percentage Range Movement (High – Low)



Lowest annual percentage range=	5.2%
Highest annual percentage range=	25.2%
Average annual percentage range =	10.08%

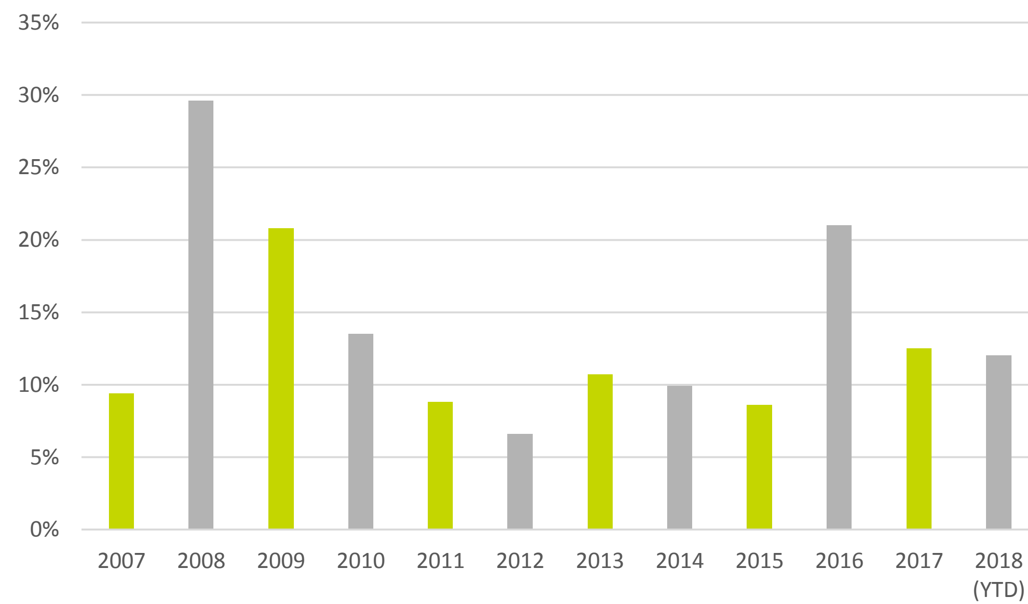
Impact on annual EUR FX exposure of £10mio with *lowest* percentage range=	€520,000
Impact on annual USD FX exposure of £10mio with *highest* percentage range=	€2,520,000
Impact on annual USD FX exposure of £10mio with *average* percentage range=	€1,008,000

Quantify the risk elements
GBP/USD movement over past 10 years

Year	High	Low	Percentage Range High-Low
2007	2.1161	1.9181	9.4%
2008	2.0397	1.4353	29.6%
2009	1.7042	1.3498	20.8%
2010	1.6457	1.423	13.5%
2011	1.6745	1.527	8.8%
2012	1.6309	1.5233	6.6%
2013	1.6579	1.4812	10.7%
2014	1.7191	1.5484	9.9%
2015	1.5928	1.4563	8.6%
2016	1.5018	1.1840	21.0%
2017	1.9179	1.3656	12.5%
2018	1.2660	1.4376	12%

Lowest annual percentage range=	6.6%
Highest annual percentage range=	29.6%
Average annual percentage range =	12.83%

Annual percentage Range Movement (High – Low)



Impact on annual USD FX exposure of £10mio with *lowest* percentage range=	$660,000
Impact on annual USD FX exposure of £10mio with *highest* percentage range=	$2,960,000
Impact on annual USD FX exposure of £10mio with *average* percentage range=	$1,283,000

Corporates with FX Risk

Types of FX Risk

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FX Risk can come in many forms in the corporate world:

Transactional Risk

This is a risk which arises when corporates do business overseas in foreign currency either by importing overseas goods and services or exporting them. The dealing in foreign currencies exposes them to currency volatility especially when the price has already been committed contractually.

Translational Risk

This risk arises when a corporate has an asset or liability in a foreign currency on its balance sheet. This leads to currency volatility impacting the value of the balance sheet in local currency.

Economic Risk

It is the movement in the exchange rate which can give corporates a competitive advantage when competing for business. For example, a customer in India is deciding between a German business and a UK business for a USD denominated contract. If the Euro starts to weaken against Sterling over the tender period, the Euro located business could reduce the USD cost of their product / service in order to make their quote more competitive and try and squeeze their UK competitor.

Corporates with FX Risk
Committed versus Forecasted Exposures

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Corporates who have a transactional exposure to the currency markets can differentiate between committed and forecasted (uncommitted) risk:

A Committed Exposure

Is when the price for the good / service in a foreign currency is known and contracted. Therefore any movement in the exchange rate has a direct impact on the profit / cost of the invoice unless hedged.

A Forecasted Exposure

Is when a business looks to the period beyond the committed period to see what their requirements may be. Confidence levels into forecasted periods can vary largely and it is normally the case that the further out a business forecasts, the lower the confidence level.

Corporates can hedge both committed and forecasted exposures; however we would suggest differentiating between the two in terms of levels of hedging. This approach can be formalised within a FX Policy which is signed off by the board.

Approaches to Hedging FX Risk

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The FX Market

Event Risk and Liquidity

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The FX markets have become more and more liquid over the years as global trade has increased. These event risks come in two forms:

Known events

Central Bank decisions, elections and referendums of which the outcome is unknown.

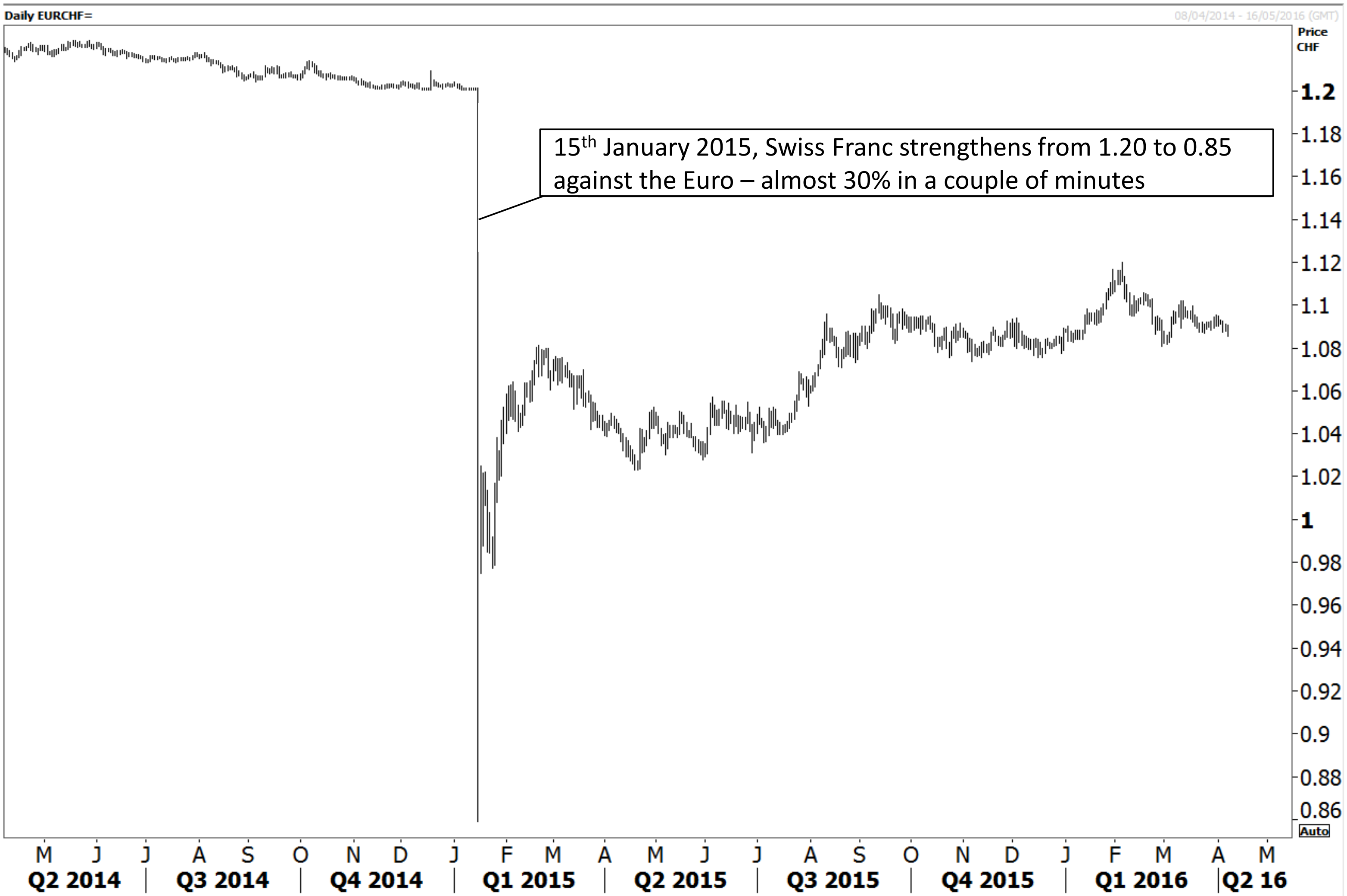
Unknown events

(Sometimes referred to a the known unknowns!) such as natural disasters, terrorist attacks, unannounced Central Bank decisions.

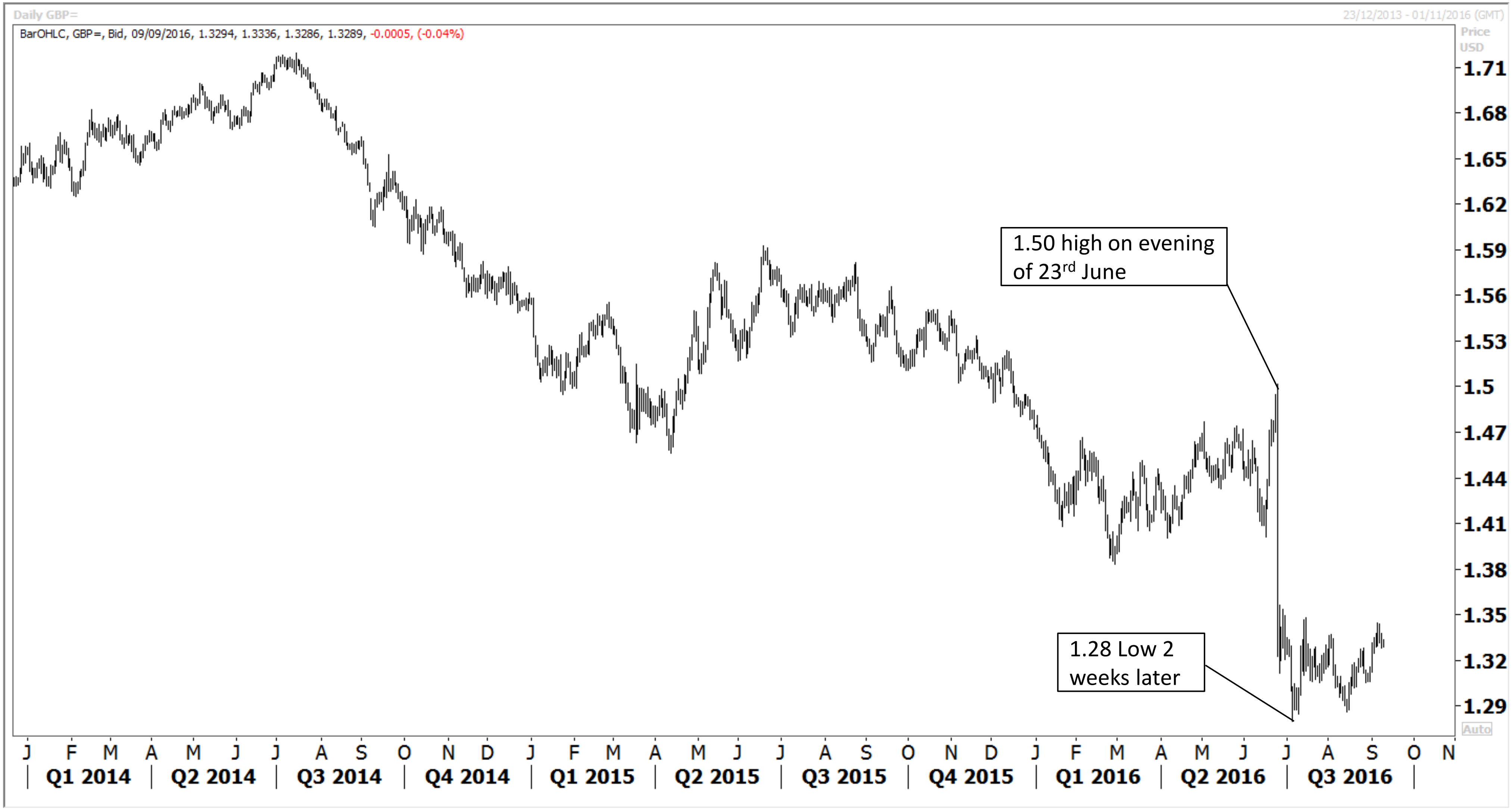
It is interesting to note here that one of **the biggest moves in the FX markets in 2015 was triggered by Switzerland:**

- This was an unknown event as the Swiss National Bank was preventing its currency from strengthening further than 1.20 against the Euro.
- In events like these, there is a sharp reduction in volume in that particular currency pair, which leads to a sharp increase in volatility and it becomes very difficult to deal within these illiquid markets.

Swiss National Bank event
Impact



Brexit Impact



The Background

- Corporates who know their risks into the future or can confidently forecast their risks should be hedging.
- An Italian shoe importer who ordered 3 mio Euros of shoes in June 2016 who didn’t hedge and normally buys the currency and pays 3 months after placing order, would require an extra 13% or £362k.
- Hedging allows the importer or exporter to control their Sterling cash flow.

05 / Market Timing & Execution
Case Study – Transactional Risk using an outright Forward

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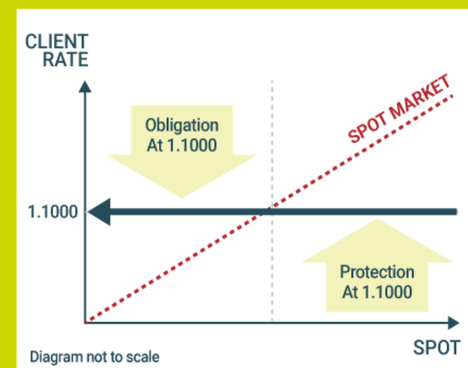
- Case Study: a UK business selling their product into Germany
- Approach is to hedge 12 months forward and with 100% hedging in Q1, 80% in Q2, 60% in Q3 and 40% in Q4.
- This protects them for a given period against a weakening in the Euro and gives them visibility of their cash flow in Sterling terms for both committed exposures (3 – 4 months) and their forecasted exposures (4 – 12 months)

Considerations

- You are fully protected against adverse movements in the GBP/EUR spot rate above 1.10 (the protection rate)
- You cannot benefit below that 1.10 rate if GBP/EUR moves lower
- Credit considerations

SNAPSHOT AT MATURITY



Indicate Trade Parameters

Notional	EUR 1 mio
Delivery Date	Quarterly
Fixed Forward Rate	1.1000
Premium	Zero

Transactional Risk
Case Study – An acquisition / sale of Business

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- When a business is looking to make an acquisition or a sale, it is exposed to contingency risk
- There can be a high confidence level that the deal is going to go through but what happens if the deal falls through during the DD process
- An outright forward has 100% obligation which could prove costly if deal falls through as then you would have to sell it back
- A vanilla option gives you the right but not the obligation to use the protection rate
- Once you pay the premium then a vanilla option can never have a negative valuation
- Contingent Options can be considered but you end up paying more if the deal goes through
- So here is a case study of a US reporting business buying a business in Germany for 40mio Euros. EUR/USD is dealing at 1.1800 and you buy a EUR call option at 1.20 for 6 weeks.
  Cost is 0.6% 240,000 Euros
- The scenarios are as follows:

Outcome	Protection Required	Protection not Required
Deal Completes	Use Hedge	Trade Spot
Deal Falls Over	Cash Settle	Walk Away

Transactional Risk
A Vanilla Option – A US business buying a Euro business

Provides both protection and the ability to benefit from improving rates without limitation

Description

- The business is looking to make an acquisition whereby they are pretty confident that the deal will be going through; however there is always the chance that it could fall through and therefore an obligated contract such as a forward is not desired

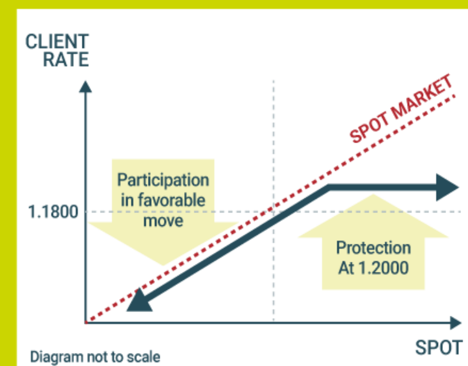
Possible outcomes at expiry

- EUR/USD is at or above 1.2000: You can exercise your right to purchase EUR and sell USD at the strike rate of 1.2000.
- EUR/USD is below 1.2000: You may allow the option to lapse and purchase EUR and sell USD at the improved spot rate.

Considerations

- The business is fully protected against adverse movements in the EUR/USD spot rate above 1.2000 (the protection rate).
- You can participate fully in a favourable spot rate on expiry without limitation.
- Premium cost of 0.6% of protected notional.
  *Note that premium may be reduced by choosing a higher protection level, shorten the time period or if the market is less volatile.
- The M2M value of a vanilla option can never be negative on the balance sheet.

SNAPSHOT AT MATURITY



Indicate Trade Parameters

Notional	EUR 40 mio
Delivery Date	6 weeks
Protection Rate	1.2000
Premium	0.6% (€240,000)

Conclusions

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- Businesses should always have some structure to hedging their FX risk. This gives stability and removes emotion.
- Sometime large events come along which are difficult to forecast, so don’t hedge around your preferred outcome as that may not happen.
- Proper preparation. Leaving things to the last minute may prove costly.
- Switzerland in 2015 demonstrates that you can never take anything for granted i.e. a Central Bank promise.
- Work to an FX Policy that gives you a comfortable percentage of hedging and flexibility at the same time.
- Businesses / your clients, should not leave themselves exposed to a step up in volatility.
- **Proper risk management means you sleep well at night!**

By working with HiFX, you benefit from

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- Speed:
  Quick and efficient account set up and turnaround of funds.
- Flexibility:
  We offer flexible contracts which suit the corporate world. Timing of receipt of payments is never perfect and we offer the ability to draw down early or to roll contracts on requirement.
- Credit terms:
  We understand that liquidity is key within the corporate world and offer enhanced credit terms in order to support clients looking to hedge their currency risk.
- Expertise:
  Our dealing and advisory teams have over ten years' experience supporting corporates with their FX strategies and policies in a number of sectors and situations. Our corporate relationships and dealing team have over twenty years experience in order to guide you on the right hedging decisions.
- Security:
  We are owned by Euronet Worldwide Inc., a $5 billion investment credit graded business.
- Education and Insight:
  Our proactive market insight allows our clients to plan for any event that may impact their FX exposures.
- Strategic:
  We support a large number of clients to execute and prepare informed hedging strategies, taking the emotion out of hedging and providing structure and clarity.

Risk Warning

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