September 26th 2017

Brexit Workshops Day

Currency Breakout Session

Bord Bia
Irish Food Board

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Treasury & Corporate Finance

Introduction

1. FX hedging techniques
2. Types of FX exposures - how to match with techniques
3. Areas of FX impact
4. FX ranges – impact of volatility on finances
5. Developing a Policy
6. Developing a strategy
7. Impact on borrowing arrangements

1. FX hedging techniques

- FX spot
- FX forward contracts
- FX vanilla options
- FX collars (or ranges or cyclinders)
- Participating forwards.

FX Forwards

- Forward points are NOT a charge by a bank – they are the difference in interest rates of the two currencies
- Banks make money by adding a spread to the market rate at which they purchase/sell the currency in question
- So the key variables are:
  - Are they quoting a market rate?
  - How many pips (1pip=0.01%) are they adding to the market rate?

Options are useful but…..

- You buy them, not sell them (think of it as insurance)
- Jargon: **<u>Put</u>** is the right to sell, **<u>Call</u>** is the right to buy. For UK exporters with GBP to sell = GBP put/EUR call option is required
- At the money = buy insurance at current FX rates
- Out of the money = buy insurance at worse than current FX rates (Catastrophe insurance?)
- Premium paid upfront by purchaser so cashflow implication
- But worse case scenario is known on Day 1 i.e. option cost AND FX rate doesn’t move so option is not exercised (low probability)
- But can have a value even if the underlying exposure fails to emerge or actual exposure is lowered than hedged.

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Collars

- They allow the rate to “float” within a defined range
- So there is both upside and downside potential in the rate achieved
- Tend to be structured as zero cost
- Will have a cost if structured to permit more upside potential than downside risk (and this is possible)
- So could be cheaper than out of the money option for catastrophe insurance from a cost perspective…but also more limited upside
- More appropriate where exporters more concerned about downside risk than upside potential?

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Participating Forwards

- Mixture of forward and an option
- Guaranteed worst case rate; some % upside if rate moves in your favour
- But there is a cost (for the option element) – guaranteed rate will be worse than the forward rate available in the market
- No free lunch!

Summary Attributes

	Spot	Forward	FX Option	FX Collar	Participating forward
Give certainty	No	Yes	Yes	Yes but..	Yes
Unlimited upside?	Yes	No	Yes	No	No
Limited Upside?	N/A	No	N/A	Yes	Yes
Cost?	No	No	Yes	Yes*	Yes#

* Cost of purchasing option offset by "income" of selling option to give up upside

Cost of purchasing option embedded in the hedged rate

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Comparison of outcomes – selling GBP, protect against weak GBP

(*excl. option cost)

Actual rate	Rate achieved Forward cover at 0.88	Options at 0.88*	Zero cost collar at 0.86 to 0.90	Spot
0.84	0.88	0.84	0.86	0.84
0.85	0.88	0.85	0.86	0.85
0.86	0.88	0.86	0.86	0.86
0.87	0.88	0.87	0.87	0.87
0.88	0.88	0.88	0.88	0.88
0.89	0.88	0.88	0.89	0.89
0.90	0.88	0.88	0.90	0.90
0.91	0.88	0.88	0.90	0.91
0.92	0.88	0.88	0.90	0.92

2. Types of exposures
(and how to match with hedging techniques)

- Types of exposures – brief recap

- Hedging and selection of appropriate instruments.

Types of Exposures

- Risk of potential volatility in expected outcomes due to changes in FX rates
- Transaction Risk- changes in value of local currency paid or received under foreign currency denominated transactions
- Translation Risk- Changes in Balance Sheet values as a result of the translation of items denominated in foreign currency into local currency for financial reporting purposes
- Economic Risk – changes in the value of a firm due to underlying changes in cost base or competitive position changes driven by changes in foreign exchange rates
- Pre-transactional – where a firm has to commit to a price before actually entering into transaction or firm contract, where part of price is comprise of foreign currency e.g. tenders

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Matching exposures and derivatives

Exposure	Spot	Forward	FX Option	FX Collar
Pre-transaction	No	Yes	Yes	No
Transaction	Yes	Yes	Yes	Yes
Translation	No	Yes	Yes	No#
Economic	No	Yes*	Yes*	Yes*

* Could work for 1-2 years in theory but unlikely in practice

Could argue that it can but I would argue that the operation of a range for hedging what is Balance Sheet risk is inappropriate.

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3. Areas of FX impact

- Sales/purchases
- Margins
- Accounting implications
- Financial Covenants
- Pensions?

Marginal profit effect of unhedged sales

	GBP	Average Rate	EUR	Y-on-Y € profit effect	Cumulative € profit change	Y-on-Y profit margin effect
2017	1,000,000	0.8704	1,148,897	(71,806)	(28,543)	-6.25%
2016	1,000,000	0.8192	1,220,703	(156,050)	43,263	-12.78%
2015	1,000,000	0.7263	1,376,753	136,520	199,313	9.92%
2014	1,000,000	0.8063	1,240,233	62,793	62,793	5.06%
2013	1,000,000	0.8493	1,177,440			

Gross Margin and FX

Sales increase required to offset adverse FX moves

	FX Move					
Margin	1%	2%	3%	4%	5%	6%
20%	5.0%	10.0%	15.0%	20.0%	25.0%	30.0%
21%	4.8%	9.5%	14.3%	19.0%	23.8%	28.6%
22%	4.5%	9.1%	13.6%	18.2%	22.7%	27.3%
23%	4.3%	8.7%	13.0%	17.4%	21.7%	26.1%
24%	4.2%	8.3%	12.5%	16.7%	20.8%	25.0%
25%	4.0%	8.0%	12.0%	16.0%	20.0%	24.0%
26%	3.8%	7.7%	11.5%	15.4%	19.2%	23.1%
27%	3.7%	7.4%	11.1%	14.8%	18.5%	22.2%
28%	3.6%	7.1%	10.7%	14.3%	17.9%	21.4%
29%	3.4%	6.9%	10.3%	13.8%	17.2%	20.7%
30%	3.3%	6.7%	10.0%	13.3%	16.7%	20.0%
31%	3.2%	6.5%	9.7%	12.9%	16.1%	19.4%
32%	3.1%	6.3%	9.4%	12.5%	15.6%	18.8%
33%	3.0%	6.1%	9.1%	12.1%	15.2%	18.2%
34%	2.9%	5.9%	8.8%	11.8%	14.7%	17.6%
35%	2.9%	5.7%	8.6%	11.4%	14.3%	17.1%

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Accounting implications : sales and profits

Variable	GBP	EUR@0.85	EUR@0.93
Sales	1,000,000	1,176,470	1,075,269
Costs		(1,000,000)	(1,000,000)
PBT		176,470	75,269
Sales/Profit variance			(101,201)
% profit reduction			57%

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Financial Covenants

- In my opinion, this could be the catalyst for bank pressure
- Differences in the EUR/GBP mix of Debt and Ebitda/Interest will have an effect
- Differences in average and closing rates also impact on these
- You need to assess this impact.

Covenant	Variables	FX impact?	How
Net Debt: Ebitda	Debt Cash Ebitda	Yes Yes Yes	Closing rate Closing rate Average rate
Interest Cover	Ebitda Interest	Yes Yes	Average rate Average rate
Capex	Capex	Yes	Average rate

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4. FX ranges: impact on finances

- Need to flex key variables for moves (mainly adverse) in FX rates
- So focus on:
  - Sales
  - Ebitda
  - Interest
  - Debt/Cash
- The range to apply should be correlated with the period being covered – use past date to correlate ranges with time periods
- Must be fed into full P&L/Cashflow models to place them in context
- What is breakeven level?
- What is marginal profit level?
- How long can business sustain either/both?

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EUR/GBP high, lows and averages: 2000 to date

EUR/GBP	High	Low	High to Low %	Average	Average Index 2000=100
2017	0.9306	0.8313	11.95%	0.8704	143
2016	0.9365	0.7308	28.15%	0.8192	134
2015	0.7874	0.6930	13.62%	0.7263	119
2014	0.8400	0.7755	8.32%	0.8063	132
2013	0.8814	0.8083	9.04%	0.8493	139
2012	0.8505	0.7753	9.70%	0.8115	133
2011	0.9083	0.8283	9.66%	0.8681	142
2010	0.9148	0.8065	13.43%	0.8579	141
2009	0.9519	0.8397	13.36%	0.8915	146
2008	0.9803	0.7388	32.69%	0.7972	131
2007	0.7388	0.6534	13.07%	0.6845	112
2006	0.7021	0.6662	5.39%	0.6819	112
2005	0.7043	0.6607	6.60%	0.6839	112
2004	0.7107	0.6541	8.65%	0.6786	111
2003	0.7255	0.6467	12.18%	0.6920	114
2002	0.6534	0.6066	7.72%	0.6288	103
2001	0.6443	0.5939	8.49%	0.6220	102
2000	0.6416	0.5673	13.10%	0.6094	100

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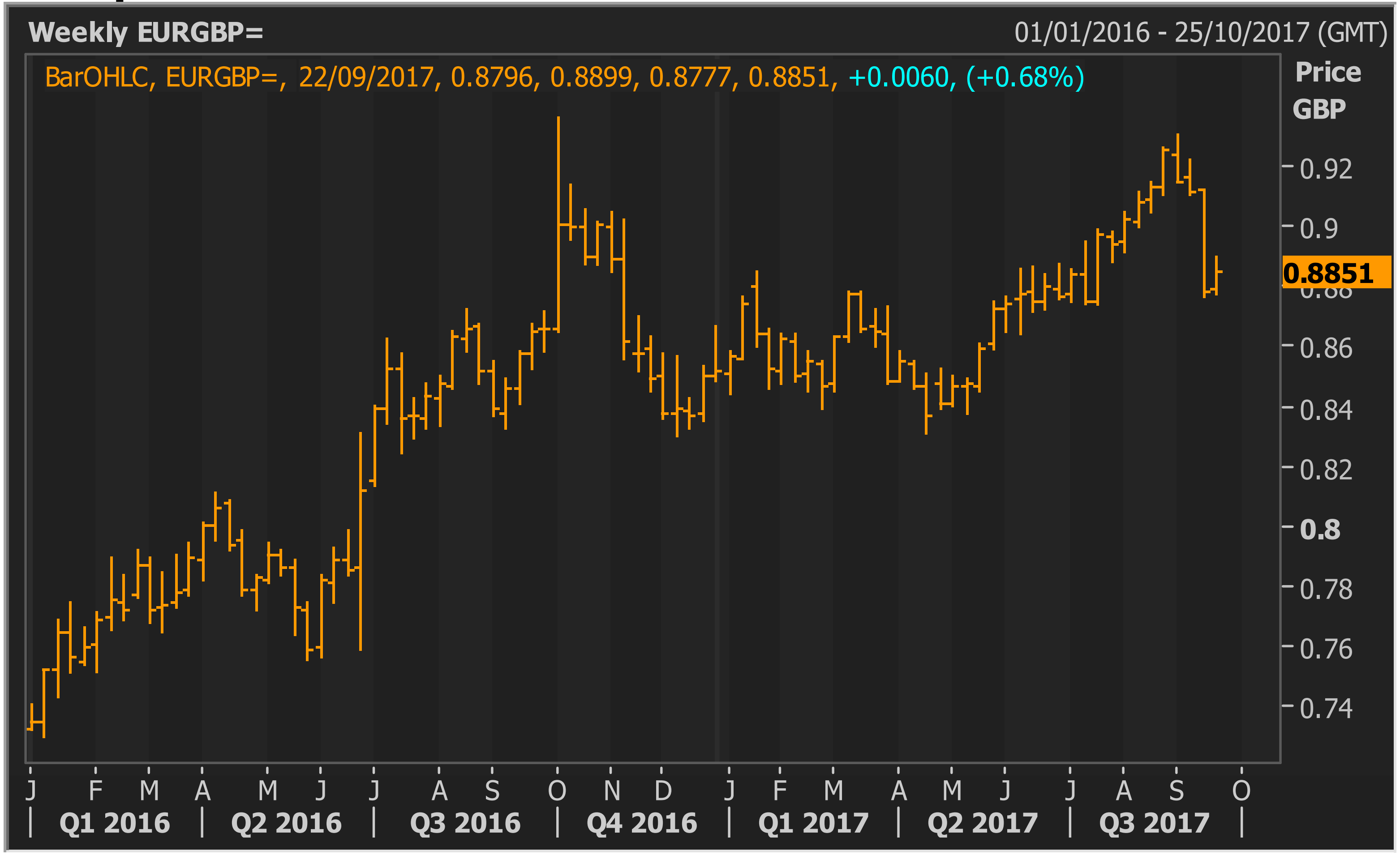
Weekly ranges: settling down again post Brexit



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FX sensitivity analysis

- Distinct lack of reporting in this space
- Make it a process and decide on
  - Sources of data (sales from sales function?)
  - Format of data submission
  - Frequency of data submission
  - Responsibility for data collation and report generation
  - Trigger events/amounts to update infrequently e.g. UK sales decrease (or delay) of €50k?
  - Report circulation list
  - Report action points.

5. Developing a Policy

- Many find it difficult to differentiate between Policy and Parameters/procedures
- So we will cover both and participants can decide where to draw line
- Policy is primarily a Board-driven and approved documents
- Sets out the "big picture" regarding currency (or wider Treasury) management and the company's attitude to risk management
- Parameters and Procedures focus more on implementation of policy and the management and controls around the risk identification and mitigation.

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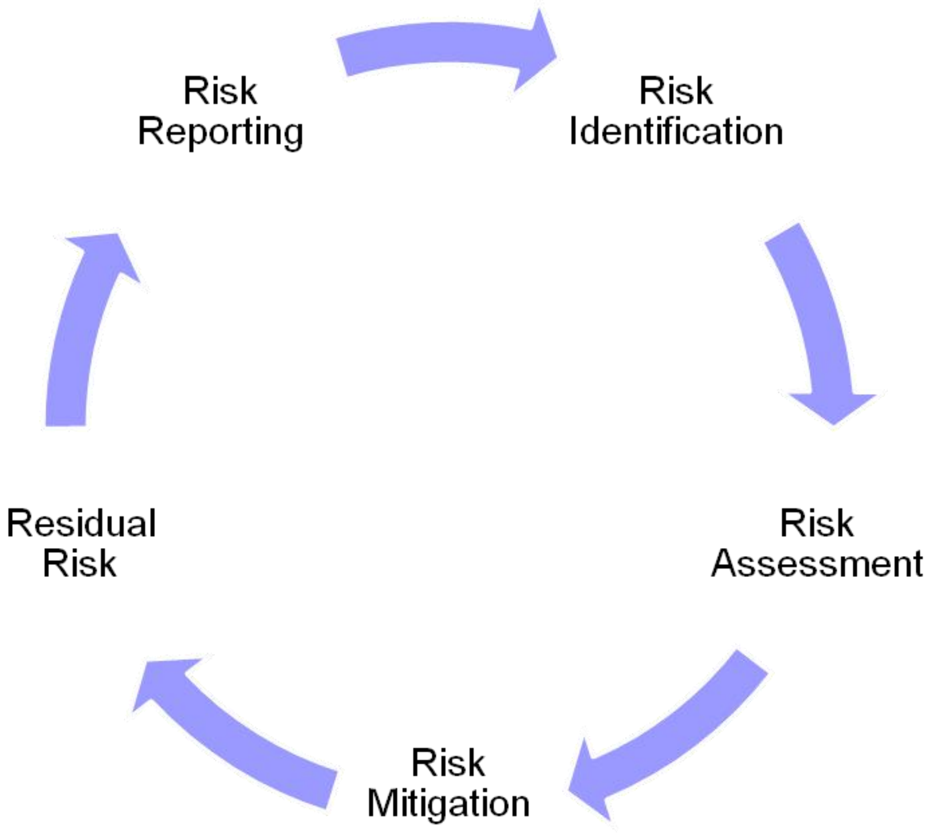
Risk Management Process



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Policy Factors for consideration

- Define exposures e.g. hedging UK sales
- Exposure context:
  - Price-taker or maker? Contractual FX ranges linked to price?
  - Guaranteed volumes or best estimates?
  - Certainty of timing of sales and payment
  - How often do prices change?
  - Related notice periods/lead times?
  - Location (currency) of competitors?
  - Awareness/sensitivity of customers to FX changes

Policy Factors for consideration

- Overriding objective: margin protection? Market share protection (or gain)? Diversification away from Irish market?
- How are pricing decisions “built up”? Interaction of sales and finance? Link between FX rates in these decisions and subsequent hedging decisions?
- Who takes FX gains/losses? (Sales or finance?)
- What is B/E rate? How long would/could you sustain such sales
- What is marginal revenue rate? How long could you sustain such sales?

Policy Factors for consideration

- Long-term strategic exposures – insure or not?
- Impact on financial covenants (borrowing facilities)
- Macro sectoral impact
- Increased GBP costs? Opportunities for natural hedging
- Strategic importance of market post Brexit? Or take 5 year view of it from all perspectives (including Return on Investment)
- Reporting of forecasting and actual performance and FX volumes/rates. (see FX sensitivity analysis slide)
- Who deals? What instruments? Dealing limits? Segregation of duties? Dealing lines available? Approved counterparties?
- What is hedging decision-making process? Authority to hedge derives from where/who?
- Shareholder view of all of this?

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6. Developing a Strategy

- Identify the types of exposures to hedge (transaction or translation?)
- How much is the exposure
- How much to hedge? How certain are the figures?
- When to hedge? What is calalyst –required % at start of month? FX trigger rates? Absolute levels of target profit?
- Who can hedge?
- Benchmark? What is a “result”? Where are FX gains/losses reported? Who owns them?
- Non-derivative means of hedging FX risk e.g. contractual terms and conditions, financial covenant definitions, etc.

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Developing a Strategy

- Use of non-derivatives e.g. fund UK expansion with GBP debt? GBP interest paid out of GBP profits
- Shareholder view?
- Tax treatment of interest/derivatives
- Accounting treatment of interest/derivatives
- NB – is being invoiced in EUR a hedge? Or a downward-only ratchet?
- Attitude of your lenders to FX risk management?
- Frequency of strategy updates and evaluation?
- Cross-functional review/input?

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7. Impact on Banking

- Protection of margins, profitability and cashflows – debt repayment capacity!
- Protection of financial covenants
- “Messaging” – does it signify corporate attitude to wider risk management (or lack of it?)
- Could lead to higher borrowing margins (in addition to financial covenant compliance risks)
- Banks tend to be more prescriptive re interest rate hedging
- Some debt facility agreements restrict the purchase and sale of FX to the lender only.

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Questions

- johnfinn@treasurysolutions.ie
- www.treasurysolutions.ie

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