

BUSINESS ACQUISITIONS

Evaluation & Financing

C.F. Agar

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CONTENTS

INTRODUCTION	1
PART 1: VALUATION, PRICE & CONSIDERATION	2
VALUATION.....	2
Intrinsic Value	2
Premium / Discount	2
Value before any premium or discount	3
PRICE.....	3
CONSIDERATION	4
Cash vs. Non-Cash.....	4
Exchange Ratios.....	4
Payment of Consideration	5
Cash paid on completion	5
Contingent deferred consideration ('Earn-out').....	5
Use of Earn-Out.....	5
Risks of Earn-Out	5
Valuation of Earn-Out	6
PART 2: SOURCES OF FINANCE	6
EQUITY FINANCE	6
DEBT FINANCE.....	7
Debt Capacity & Ratios	7
Introduction to Capital Structure	7
Debt Capacity.....	7
Debt Servicing.....	8
Borrowing limits.....	9
Loan Facilities	9
Facility Types	9
Facility Agreements.....	10
Issues for the borrower and lender	10
Financial Covenants.....	14
Security & Insolvency	14
Seniority & Leveraged Loans	15
PART 3: FINANCIAL RISKS	16
DOMESTIC ACQUISITION	16
Capital Structure Management	17
Interest Rate Risk Management	17
Risk-Free Rates	17
Fixed vs. Floating	17
Using derivatives to manage Interest Rate Risk.....	18

CROSS-BORDER ACQUISITION	18
General.....	18
Currency Risk Management.....	19
Hedging Consideration.....	19
Hedging Debt Servicing.....	20
Financial support.....	20

CONCLUSION	20
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Appendix 1: Exchange Ratios	22
Appendix 2: Merger Evaluation Example	28
Appendix 3: Financial Measures & Ratios	32
Appendix 4: Insolvency Procedures	33
Appendix 5: Currency Derivatives	37

INTRODUCTION

This article discusses how to assess the economic value created from a domestic or overseas acquisition, how the consideration can be structured and how financing and financial risks can be managed. The focus is on a UK entity acquiring control of a UK or overseas business via a share purchase (UK taxation and IFRS financial reporting matters are discussed in the companion article 'Business Acquisitions: Taxation (UK) & Reporting (IFRS)'; the acquisition of the business by purchasing the trade and assets of another company is not discussed). The acquirer and target are assumed, on the whole, to be unquoted, private companies. The article is structured as follows:

- Part 1: Valuation, Price & Consideration. The intrinsic value of the business for the acquirer will reflect the stand alone value on an as-is basis (see 'Business Valuation: DCF Methods' and 'Business Valuation: Cost of Capital' for a discussion on intrinsic valuation estimation) and incremental value from improvements to the business made by the controlling acquirer ('Control Value') and from benefits obtained from the integration of the business with the acquirer's existing operations ('Synergies'). Adjustments for control and non-marketability are discussed. These produce a DCF value to the acquirer, which, taking into account valuation implied from observable valuation multiples, can indicate the economic benefits of the transaction, depending on the agreed price. The nature of the consideration paid is discussed, mainly share consideration (exchange ratios) and contingent deferred consideration (earn-outs).
- Part 2: Sources of Finance. This section focuses on loan finance (rather than bonds or other borrowings), and discusses debt capacity, financial covenants and ratios, loan facility evaluation, security and insolvency procedures, and seniority and leveraged loans.
- Part 3: Financial Risks. A domestic or cross-border acquisition will require management of financial risks. This part is concerned with management of interest rate risk and currency risk, relating, mainly, to debt financing.

The following appendices are included:

- App. 1: Maximum and minimum fixed exchange ratios (with examples)
- App. 2: Merger evaluation example
- App. 3: Financial measures: retained earnings, profit, EBITDA and cash flow reconciliations
- App. 4: Charges and insolvency procedures (with a payout example)
- App. 5: Currency derivatives (forwards, options, swaps)

¹ This paper is derived from two papers that discussed Consideration and Financing, originally published on 21 July 2026 and 4 August 2026. UK Tax and IFRS reporting have now been moved to a single companion article.

VALUATION

Intrinsic Value

The Discounted Cash Flow ('DCF') valuation technique is the standard approach to estimating the Intrinsic Value of a business ('Enterprise Value' / 'EntV'), independent of how that business is financed. The EntV is the value that is shared between the providers of financial capital for the business, directly or indirectly, one class being ordinary shares, the subject of this article. The 'Equity Value' / 'EqV', as discussed in the 'Business Valuation: DCF Methods' article, will form the basis of the Intrinsic Value per Ordinary Share calculation, after all other claims are deducted from EntV (as part of the EntV-EqV 'Bridge', including convertible bonds, preference shares and employee options, discussed in the Security Valuation articles).

Premium / Discount

Since a majority shareholder would normally be able to control how the directors and shareholders voted, it would have the power to determine operating, investment and financing decisions. An investor achieving control of a company would be able to implement efficiency and value enhancing measures not currently envisaged by management, so that it would be prepared to pay a 'Control Premium' to increase the 'as-is' value to reflect control under its direction ('Control Value' / V_{Control}). The value of control can be compared to the value without control (minority holding) as follows:

$$V_{\text{Control}} = V_{\text{Minority}} \times (1 + P_C \%)$$

$$V_{\text{Minority}} = V_{\text{Control}} \times (1 - D_{LC} \%)$$

$$\text{where } D_{LC}^* = \text{Control Premium \% ('P_C') / (1 + Control Premium \%)}$$

* 'Discount for Lack Of Control' / 'DLOC' or 'Minority Discount'

A quoted share that can be traded quickly in a 'liquid' market would have more value than an otherwise identical holding in a non-marketable share, which would require a 'Discount for Lack Of Marketability' (DLOM or ' D_{LM} ')

$$V_{\text{Non-marketable}} = V_{\text{Marketable}} \times (1 - D_{LM} \%)$$

A minority quoted holding will be both marketable *and* liquid, a majority quoted holding may not: "a 100 percent control interest in a public company is marketable but not liquid" [p.513 Hitchner (2025)] since, given the large block of shares being offered, it may not be sold quickly for cash. A minority holding in a private company may not be marketable, whereas a majority holding would be, but neither would be liquid: "a controlling ownership interest in a privately held business is not liquid" [p.513 Hitchner (2025)]. Various studies have been undertaken to estimate the premium and discount [see ch.10 Hitchner (2025), ch.17-19 Pratt (2022), ch.15 Trugman (2017)].

Value before any premium or discount

Value therefore increases up various 'levels of value': minority, non-marketable → minority, marketable → control, non-marketable → control, marketable. The question is where a DCF equity value (the starting value) would sit in this hierarchy and what adjustments are required. If the cost of equity used in the discount rate incorporates market inputs (when estimating the equity beta and Equity Risk Premium) the resulting value, it is argued, will reflect a marketable holding. If the cash flows do not include any adjustments that a controlling shareholder might make, but are based on management forecasts, for example, the valuation would be for a minority holding.

For modelling purposes, it will be assumed that the starting DCF EqV represents a minority / marketable value (an 'as-is' traded value, similar to a quoted share price ²) [see p.518 Hitchner (2025), p.572 Trugman (2017)]. If cash flows are improved via adjustments for control, the Control Value would represent a majority / marketable value. A DLOM would then be applied, if appropriate, for a non-marketable / majority (control) value (some argue the DLOM should not be applied in full – see p.509 Hitchner (2025)). This would give the value of a private company with control (this assumes there is no change to the discount rate from the initial starting value, which will not be the case if private company risk adjustments are made to the CAPM cost of equity):

$$V_{\text{Control, Non-Marketable}} = V_{\text{Minority, Marketable}}^1 \times (1 - D_{\text{LM}} \%) \times (1 + P_c \%)^3$$

Note: For $V_{\text{Control, Non-Marketable}} > V_{\text{Minority, Marketable}}$
 $\therefore P_c / (1 + P_c) > D_{\text{LOM}}$ or $D_{\text{LOC}} > D_{\text{LOM}}$

Obtaining control may bring other incremental net benefits in the merged business from revenue growth, cost reductions and investment efficiencies ('Synergies'), net of any costs to achieve these. This would be the final value adjustment for an acquirer ($V_{\text{Synergies}}$):

$$V_{\text{Control with Synergies, Non-Marketable}} = V_{\text{Control, Non-Marketable}} + V_{\text{Synergies}}$$

The value with control and synergies sets the acquirer's maximum price. A vendor will expect to be paid for synergies any credible buyer could achieve, but not for synergies only this buyer can deliver.

PRICE

The owner of a business would estimate the EntV and EqV based on existing management's business plans and cash flow projections (normalised and sustainable). The estimated value would be from a seller/vendor's perspective, since it provides evidence of Intrinsic Value on an 'as-is' standalone basis (V_s), and represents for the vendor a benchmark when assessing its minimum price (P_{MIN_s}).

² Some argue a quoted price does not reflect a minority value [see p.528 Hitchner (2025)]. This article assumes that it does and that the DCF equity value per share (without control) is the private equivalent of a quoted price.

³ Control premium is normally used to indicate a quoted offer price in excess of the pre-bid rumour target quoted share price. It is used here simply to indicate the incremental control value.

The acquirer would also perform its own valuation, using target management forecasts if made available, making its own assumptions for projected cash flows beyond these (it would not normally know what the vendor had assumed). It would also make its own adjustments if it considered management's estimates over-optimistic or insufficiently normalised. This gives the acquirer's as-is valuation (V_P). It would then add in value for control and synergies.

Both vendor and acquirer would analyse comparable transaction and trading multiples. A transaction multiple for a majority acquisition reflects any premium paid for control, and may also reflect anticipated synergies and other factors. Consequently, an observed acquisition control premium may not be a pure measure of control value, and a further control premium should not be added automatically. A trading multiple for a quoted comparable would generally provide a marketable minority valuation guideline (as discussed above), so a DLOM adjustment should be applied when used for a private acquisition. Multiples provide support for the DCF valuations and the acquirer's offer price.

CONSIDERATION

Cash vs. Non-Cash

In a public takeover, the target shareholders would expect an acquirer to pay a control premium over the pre-bid rumour price (or average of prices), as discussed above. The premium cost would represent a payment for control value and synergies (a premium value), on the basis that the trading price represented a minority holding value.

In a share-for-share exchange, there is no outflow of cash that would otherwise, theoretically, reduce the value of the combined entity: the merged equity value would be: $V_A + V_T + NPV_{100\%Share}$ (incremental control and synergy value). The premium value would be shared between the shareholders of the acquirer and target (vendor), depending on how many shares are issued (the risk of the premium value not being achieved is shared). In a cash transaction, the merged value would, in theory, be lower to reflect the payment of cash: the merged equity value would be: $V_A + V_T + NPV_{100\%Share} - \text{cash consideration}$. For a quoted acquirer, the cash-shares mix will affect the reported earnings per share ('EPS' = net income / shares), either positively ('accretion') or negatively ('dilution') from the combined effect of net financing costs (relating to the cash component) and additional shares being issued.

Exchange Ratios – how many shares should the vendor receive?

In a share-for-share exchange, the Exchange Ratio ('ER') represents the number of shares in the acquirer the vendor will receive for each share held in the target. With a 'Fixed' ER, the number of shares issued on closing is certain, but the target shareholders bear the risk of receiving shares of less value if the acquirer price falls between the offer and completion dates (fixed shares, floating value). With a 'Floating' ER, the number of shares issued depends on the closing share price (variable shares, fixed value), and the acquirer now bears the risk of price movements. A 'collar' may be used so that the value for the vendors varies within an acquirer share price range and is fixed outside this range ('Fixed Exchange Ratio Collar'), or the value is fixed within this range and varies outside of it ('Fixed-Price Collar'). The minimum and maximum fixed ER will reflect which party receives all the NPV (shareholders

of the acquirer for the minimum, shareholders of the target for the maximum). See [Appendix 1](#) for further discussion on how a fixed ER is set (ignoring collars), illustrated with an example.

Payment of Consideration

Cash paid on completion

The agreed sale price may be conditional on assumptions about net assets and/or working capital that need to be verified in accounts, prepared in accordance with the Sale and Purchase Agreement, as at the completion date ('Completion Accounts') or before ('Locked Box Accounts' prepared at the 'Locked Box Date'); in the latter, the buyer will want to minimise any 'leakage' from that date to completion. There may be other consideration adjustments.

Contingent deferred consideration ('Earn-out')

Use of Earn-Out

An earn-out is an agreement where part of the consideration will not be paid on completion but be deferred and paid (in cash, shares, securities) over an agreed period (usually 2 – 3 years) contingent on the target achieving agreed milestones or financial metrics (single or multiple), such as Earnings Before Interest Tax Depreciation and Amortisation ('EBITDA'). Non-financial metrics may also be used, particularly in those sectors where future events affect value at the disposal date (such as clinical trials, regulatory approval, etc.).

The acquirer will assume in its DCF or multiples valuation that the target is able to achieve certain 'value drivers' (such as EBITDA growth) during the first few years when forecasting is more reliable. The risk of these drivers not being achieved may depend on the continued involvement of key personnel in the target business (particularly an owner-manager). An earn-out would pass this risk to the vendor, since no deferred consideration would be paid if, for example, EBITDA had not reached its threshold (if structured in this manner). If the vendor's assumptions are more optimistic than the acquirer's (leading to a 'valuation gap'), an earn-out would also allow the acquirer to wait and see if the vendor's assumptions are achieved over the deferral period.

Risks of Earn-Out

In an earn-out, the vendor agrees to transfer ownership of the target to the acquirer in exchange for some of the consideration being deferred and contingent on business performance over which it will no longer have control. It is therefore exposed to the relevant metric:

- not being achieved because of the actions of the acquirer (who will not want to pay any deferred consideration);
- being achieved in its opinion but not in that of the acquirer (dispute over definition - particularly where not defined elsewhere in statute or financial reporting standards - and/or calculation, although external auditors can provide an opinion in the latter case); and
- being achieved and agreed by all parties but not being paid due to the default of the acquirer.

The value of the earn-out will be determined by how these vendor risks are protected in the Sale and Purchase Agreement ('SPA') (metric definition and business management during the earn-out period) and third-party guarantee or support (for the acquirer default risk).

Valuation of Earn-Out

An earn-out value will need to be determined for tax and financial reporting reasons. Since the deferred payments are contingent on future events, the appropriate valuation technique will depend on how the metric triggers a 'pay-off' - particularly whether it is 'linear' (e.g. x% of EBITDA in year 1) or 'non-linear' (e.g. x% of EBITDA in year 1 in excess of an amount £Y with or without a cap) - and the nature of the underlying risk. The US Appraisal Foundation (2019) distinguishes two main approaches:

- Linear structures, or structures where the underlying risk is diversifiable: use the 'Scenario Based Method' ('SBM'). The SBM requires selection of a complete set of real-world scenarios for the metric (e.g. low, base and high cases), probabilities assigned to each (the sum of probabilities must equal 1.0) and payoffs to be determined. The probability weighted payoffs would be discounted at a risk-adjusted rate (risk free rate + premium_{SBM}).
- Non-linear structures where the underlying risk is not diversifiable (i.e. systematic): use the 'Option Pricing Method' ('OPM'). The OPM adjusts the underlying metric forecast for systematic risk, before calculating expected payoffs to produce risk-neutral payoffs that can be discounted at the risk-free rate. The OPM can value complex capital structures, using option pricing models (see the article 'Security Valuation: Using the Option Pricing Method for Complex Capital Structures' for further discussion).

An earn-out payment calculated as a percentage or multiple of EBITDA in excess of a threshold amount can be valued as a call option, since a payoff only arises if EBITDA (the equivalent of the share price in a financial call option model) increases above the threshold (the exercise price).

PART 2: SOURCES OF FINANCE

EQUITY FINANCE

Subject to the requirements of the purchaser's Articles of Association, agreements with existing capital providers and Companies Act 2006 provisions, shares may be issued and allotted to the vendor as part of non-cash consideration or to existing and/or new shareholders of the purchaser in a rights issue. An issue of equity securities for cash consideration will generally trigger statutory 'pre-emption' rights (unless an exemption applies), but this statutory right does not apply to allotments wholly or partly paid up otherwise than in cash, subject to additional requirements imposed by the Articles [s561, s565 CA 2006]. Private companies may exclude the s561 pre-emption requirements [s567 CA 2006].

The providers of equity will require a higher return than other capital providers due to equity having the lowest ranking on a payout (no legal obligation to pay dividends or redeem capital; equity will 'absorb' losses on a default and insolvency).

Debt Capacity & Ratios

Introduction to Capital Structure

The Intrinsic Value of the merged entity would traditionally be calculated using a DCF valuation and a Weighted Average Cost of Capital ('WACC') (see the articles 'Business Valuation: DCF Methods' and 'Business Valuation: Cost of Capital'). The market values of equity, debt and debt-like instruments comprising the company's capital structure would normally be optimally balanced to minimise the WACC, subject to acceptable financial risk. The tax deductibility of debt interest, the contractual cash flows and the priority of debt on a winding up, make debt cheaper than equity, lowering the WACC. Leverage increases financial risk and the required return for equity via the equity beta, so, in theory, at some point the risk of financial distress will increase the credit risk premium embedded in the cost of debt as well, meaning the capital structure is no longer optimal and the financing policy becomes value destructive due to the increasing WACC. A company would assess optimal debt according to its peer group (to align leverage with investors' expectations), but also based on its own debt capacity and servicing ability.

Debt Capacity – how much can the acquirer borrow?

The probability a borrower defaults and is unable to pay interest or principal is the 'Credit' or 'Default' risk that lenders will analyse before setting a loan price and terms. Default will be contractually defined in a loan agreement (see 'Loan Facilities' below). Rating agencies, that rate publicly issued debt, such as corporate bonds, may have a different definition of default. Financial covenants in loan agreements may include some of the ratios used by rating agencies when they carry out detailed analysis to give their opinion of credit risk or 'Credit Rating'.

The borrower's debt capacity is a measure of how much debt a borrower can prudently have (the balance outstanding, as opposed to the ability to 'service' or pay interest and scheduled principal over a period). Leverage ratios help in the assessment of financial flexibility (the 'headroom' available within the overall debt capacity constraint) that allows the borrower to raise external finance without affecting credit quality⁴. These would include the following (where EBITDA is 'Earnings Before Interest Taxation Depreciation & Amortisation' - see [Appendix 3](#)):

$$\begin{aligned} \text{EBITDA leverage (x)} &= \frac{\text{Debt}}{\text{EBITDA}} \\ \text{Leverage (\%)} &= \frac{\text{Debt}}{\text{Debt} + \text{Equity} + \text{Non-Equity}} \end{aligned}$$

⁴ Prof. Aswath Damodaran has proposed a method for estimating the cost of debt based on a 'Synthetic' rating, which could be used by private or unrated quoted companies to estimate the credit risk premium that might be required for their own debt – https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/ratings.html.

Debt Servicing

Assessing the ability to pay debt principal and interest (and other financing obligations, such as lease payments), both by lenders and rating agencies, involves analysis of financial measures and ratios under different scenarios ('Stress Testing'). This could involve the following approach:

1. Determine which relationships or ratios best indicate the ability of the borrower to service debt today (such as 'Coverage' ratios). Rating agencies place more emphasis on cash flow measures than book value measures, but balance sheet ratios may be used if debt repayment is more likely to come from asset sales.
2. Choose an appropriate measure to use in the numerator and denominator (interest paid, principal balance, interest and principal paid vs. profit, cash flow or balance sheet reference measure):
 - An operating measure (before financing and tax) obtained from IFRS/IAS financial statements (prepared under Generally Accepted Accounting Principles, 'GAAP') could be (1) 'Operating Profit' (from continuing operations) in the P&L or (2) 'Cash from Operating Activities before Income Taxes' in the cash flow statement [see illustrative examples in IFRS 18 and IAS 7 and [Appendix 3](#) for a detailed reconciliation, assuming no Non-Controlling Interests].
 - Adjustments will have to be made to 'normalise' the figures (e.g. removal of non-recurring or exceptional items, like impairments, restructurings, gains/losses on disposals) and, if required, to reclassify into debt-equivalents and non-debt items (e.g. pension costs, hybrid instruments). Rating agencies will apply many analytical adjustments to determine the stability of earnings and sustainability of operating cash flows, and will assess the ability of the entity to service debt without recourse to further funding, including adjustments for leases, 'hybrid' financial instruments that have equity and debt features, defined-benefit pensions, debt factoring, securitisations and capitalised interest.

- Coverage ratios would include the following:

$$\text{EBITDA Interest Coverage (x)} = \frac{\text{EBITDA}}{\text{Interest Paid}}$$

$$\text{Adj. OCF Coverage (x)} = \frac{\text{Operating Cash Flows} - \text{Capex}}{\text{Debt}}$$

- Liquidity ratios indicate debt serviceability over the next 12 months and would include:

$$\text{EBITDA Debt Coverage (x)} = \frac{\text{EBITDA}}{\text{Interest Paid} + \text{Debt Repayable in the next 12 months}}$$

A cash flow measure used in some debt facilities (particularly for project finance) is the 'Cash Flow Available for Debt Service' ('CFADS'), typically defined as CFADS = adjusted EBITDA – increase in working capital – maintenance capex – cash taxes paid – movements on reserve accounts (e.g. 'Debt Service Reserve Account'). The following ratio would be typical:

$$\text{Debt Service Coverage Ratio ('DSCR') (x)} = \frac{\text{CFADS}}{\text{Interest Paid + Debt Repayable in the next 12 months}}$$

- Rating agencies will make adjustments to EBITDA to arrive at their own measures, such as 'Funds Flow from Operations', 'Cash Flow from Operations' and 'Retained Cash Flow', and will have many more ratios than the basic ones shown above.
- 3. Determine the main factors affecting the size of the reference measures, such as revenue, growth, margins and other 'value drivers' as part of a wide appraisal of the growth and quality of profits, including analysis of ROIC and traditional DuPont ratios.
- 4. Stress test the ratios using simulation or scenario analysis, combined with models that attempt to highlight liquidity or insolvency risks.

Borrowing limits

When pricing a loan, a lender will assess the probability of default and likely loss on default, net of any 'recoveries' via enforcing its security or claiming in a liquidation ('Loss Given Default'). Debt capacity and servicing need to be considered together when assessing maximum debt levels. Maximum debt could be set on a target EBITDA leverage multiple applied to sustainable EBITDA (using a lender's likely definition of EBITDA) or implied from a target DSCR (maximum debt service = CFADS / target DSCR), with the debt being calculated from the PV of the debt service cash flows over the loan term. For asset-backed lending a 'Loan-To-Value' (LTV) ratio (loan amount / asset value or enterprise value) could be used, where maximum debt = LTV x asset value.

Loan Facilities

Facility Types

A loan facility can have a single lender ('Bilateral Agreement') or a number of lenders acting severally (and not jointly liable) in a 'Syndicate'. In the latter, the borrower would mandate a bank to act as 'Arranger' to help form the syndicate, one member of which would act as 'Facility Agent' to deal with negotiation of the single facility document, payments and administrative matters (this avoids each bank lending in a bilateral arrangement, where facilities would have to be negotiated separately). Syndicated loans are usually Senior loans with floating rate interest.

A 'Term' loan may allow 'draw down' of the loan over a 'Commitment' period starting when the agreement is signed (a commitment fee would be paid on the amount of the loan not utilised), rather than full drawdown upfront. Repayment of principal is scheduled in the agreement and may be in full on maturity ('Bullet') or paid by instalments ('Amortised') over the term (structured in any way: in equal instalments of principal and interest, reducing 'step down' or increasing 'step up', etc). Once the loan is repaid, it cannot be re-drawn, unlike a 'Revolving Credit Facility' ('Revolver'), where principal can be

drawn down and repaid throughout the term if conditions are met and the amount outstanding is within the maximum facility amount.

Other facilities include (other than an 'Overdraft'): 'Uncommitted' (the lender can refuse a draw down request), 'Demand' (the lender can demand immediate repayment any time), and 'Swingline' (used for very short-term liquidity needs, mainly supporting a 'Commercial Paper' programme in case of market disruptions) facilities.

Facility Agreements

Introduction

An indication of lending interest ('Letter of Intent') and lending terms ('Term Sheet' or 'Heads of Agreement'), normally expressed in non-legally binding forms, will provide the platform on which the Facility Agreement ('FA') is built, based on commercially agreed matters. The FA will most likely adopt terms set out in the Loan Market Association's ('LMA') recommended form of FA, which focus on the following:

- Principal: amount, currency (single or multicurrency), drawdowns, repayment dates (at maturity or 'amortised' over the term in equal or structured payments).
- Interest & fees: fixed rate (fixed swap rate + margin) or floating rate (variable SONIA [Sterling Overnight Index Average rate] + margin), frequency of payment, cash paid vs. capitalised, default interest, upfront and ongoing fees.
- Security: seniority of lender, security, enforcement of rights.
- Protection: representations, undertakings, covenants, restrictions, borrower information.
- Default: events of default, negotiation, acceleration, insolvency.

Issues for the borrower and lender

▣ Principal

• Drawdown:

B = Borrower, L = Lender

①	What must be done after signing before the loan can be accessed?	B	Conditions Precedent
②	Can it draw down the funds quickly when needed - all at once or in instalments?	B	Drawdown
③	What evidence is required to permit draw-down where conditions are imposed (e.g. completion in project finance)?	B	Drawdown Conditions
④	Will the lender keep the facility available before draw-down?	B	Commitment
⑤	Are there restrictions on how the loan monies may be used?	B	Loan Purpose
⑥	For what purpose is the loan required?	L	Loan Purpose

• Repayment:

①	What will be the source of funds used to repay the loan?	B	Source of Repayment
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②	Will principal repayments match the pattern and currency of the cash flows used to repay the loan?	B	Amortisation Profile
③	Will principal repayments be required whenever sufficient cash flow is available, and how is this determined relative to other facilities?	B	Cash Sweep / Waterfall
④	Can it repay early without incurring a penalty or fee?	B	Voluntary Prepayment
⑤	Can it draw down again once repayments have commenced?	B	Revolving Credit Facility
⑥	Could it be forced to repay early (e.g. on demand, change of control, or an event of default)?	B	Mandatory Prepayment
⑦	When is the final principal repayment due?	B	Maturity / Term

■ Interest & Fees

• Interest:

①	How is interest calculated and what are the procedures for payment?	B	Interest Calculation
②	Will interest be a fixed rate on the principal, or fluctuate with a reference rate, and what margin is added?	B	Fixed Rate vs. Floating Rate
③	Will cash flows used to service the debt match the pattern and currency of interest costs?	B	Debt Service
④	How can interest rate and currency risk be reduced?	B	Hedging
⑤	Can interest be deferred and capitalised into the loan?	B	PIK (Payment in Kind)
⑥	How likely is the risk-free reference rate to change, and will the margin change?	B	Interest Rate Risk

• Fees:

①	What fees are payable over the commitment period and upfront?	B	Commitment / Arrangement / Facility Fees
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■ Security

• Ranking & Priority:

①	Will the lender rank for cash flows before, after or alongside other creditors?	L	Seniority (Senior / Junior / Pari Passu)
②	On insolvency, will the lender have rights to asset-realisation proceeds ahead of others, or claim alongside unsecured creditors?	L	Security vs Pari Passu
③	What is the nature of its interest in the assets — priority over specific assets or over all assets?	L	Fixed Charge vs. Floating Charge

• Nature of Security:

①	If the loan is secured on assets, which assets are subject to the charge and what are the borrower's obligations regarding them?	B	Charged Assets
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②	How does the lender preserve ranking and prevent security being granted to others over the same assets without consent?	L	Negative Pledge
③	Will any permitted encumbrances be granted that fall outside the pledge?	L	Permitted Encumbrances
④	How will the value of assets available for security be maintained?	L	Asset Cover / Maintenance

- Enforcement & Recovery:

①	Will enforcement on default enable the lender to recover an acceptable proportion of the loan, from asset realisations or claiming as a general creditor in a winding-up?	L	Recovery
②	If insolvency is to be avoided, how could the business and liabilities be reconfigured or restructured and made binding on all creditors?	L	Restructuring

□ Protection

- Representations & Undertakings:

①	What statements of fact (representations) must the borrower make, and on what dates (repeating or one-off)?	B	Representations & Warranties
②	What affirmative and negative undertakings must the borrower give during the term, and are there any carve-outs?	B	Covenants & Undertakings

- Financial Covenants:

①	Will the borrower be able to service the debt over the term under various business-performance scenarios?	B	Debt Service Capacity
②	What metrics will the lender use to monitor lending risk, how are they defined and measured, and how do they compare with its other facilities?	B	Financial Covenants
③	How will the business, net assets and cash flows be monitored to confirm performance remains as expected?	L	Maintenance Financial Covenants
④	Which metrics will be used to test debt-capacity stress?	L	Debt Capacity Testing

- Restrictions:

①	What restrictions apply beyond financial-covenant thresholds (e.g. asset disposals)?	B	Negative Covenants
②	How will other group members be restricted?	B	Group Restrictions
③	Will lender consent be required for operating or financing actions?	B	Consent Rights
④	What restrictions apply to incurring new indebtedness, and how is "indebtedness" defined (leases, factoring, derivatives)?	B	Limitation on Indebtedness

5	How can transactions detrimental to debt holders be prevented — restricting security, new borrowing, asset sales, capital investment and distributions?	L	Negative Covenants / Restricted Payments
6	How can the risk arising from a transfer of ownership of the borrower be managed?	L	Change of Control

- Information & Monitoring:

1	What information must be provided to the lender on a regular basis?	B	Information Covenants
2	What power will the lender have to compel the borrower to take action to reduce risk?	L	Remedies

■ Default

- Event of Default ('EOD') Triggers:

1	How will the lender minimise loss if principal or interest is not paid?	B	Security
2	Which events triggering an EOD are outside the borrower's control?	B	Event Risk / Material Adverse Change
3	Will non-payment risk deviate from expected levels, and will liquid assets be adequate to service the debt at all times?	L	Credit or Default Risk

- Management & Cure:

1	What is required on a default that might lead to an actual EOD (e.g. a covenant threshold not achieved)?	B	Potential EOD / Technical Default
2	What grace or cure period is allowed to rectify technical breaches?	B	Grace / Cure Period

- Acceleration & Consequences:

1	What sequence of events leads to an EOD and a demand for immediate repayment?	B	Acceleration
2	What penalty interest applies on demand for immediate repayment?	B	Default Interest
3	What other events lead to an EOD (e.g. non-payment after a grace period, default on other loans)?	B	Cross Default (incoming)
4	What effect will an EOD have on the borrower's or a group member's other debt contracts?	B	Cross Default (outgoing)
5	If an EOD occurs, what rights will the lender have to commence insolvency proceedings?	B	Insolvency Proceedings

■ General & Boilerplate

1	Can the lender transfer "ownership" of the loan to a third party?	B	Assignment & Transfer
2	Will the legal principles that govern enforcement of the terms be as expected?	B	Governing Law & Jurisdiction

Financial Covenants

The borrower's financial risk (the ability to make interest and principal payments as and when due) can partly be assessed by monitoring financial ratios relating to a given measurement period or date. 'Coverage' ratios indicate the ability to pay interest or principal from operating profit or operating cash flows, and setting minimum or maximum thresholds which the borrower undertakes not to breach gives some assurance to the lender that the borrower has the resources to service its debt. Indebtedness ratios that measure leverage (debt / (debt + equity)) or gearing (debt / equity) are another measure of financial strain. Liquidity ratios can highlight short term strain.

Standard financial covenants could include:

min. EBITDA / interest (x)	max. Net Debt / EBITDA (x)
min. CFADS / debt service (x)	max. Net Debt / Equity (%)
min. Free Cash Flows (£)	max. Capital Expenditures (£)
Min. Net Assets (£)	

The undertakings, in the form of financial covenants, would be tested regularly at agreed dates ('Maintenance' financial covenants) if a loan facility requires them (some have the usual full set, others might be limited to leverage covenants). Some covenants are tested before the incurrence of some event (e.g. paying a dividend) ('Incurrence' financial covenants). The covenants are intended to give the lender some control in the event financial risk is increasing, and to take action well before the risk of formal insolvency (for example, by restructuring debt). The 'tighter' the covenants, the more financial discipline will be imposed on the borrower, but at the risk of affecting operating performance.

Security & Insolvency

A secured creditor is defined for Insolvency purposes as 'a creditor of the company who holds in respect of his debt a security over property of the company', where "security" means... any mortgage, charge, lien or other security' (under English law) [s248 Insolvency Act 1986]. Security granted by the borrower to the lender in the form of a charge is the most common form in a loan facility governed by English Law. A lender benefits from being secured by having priority over unsecured creditors in a winding up, who have to share in funds available for distribution by the liquidator pro-rata to their claims (pari passu). A Fixed Charge, over specific assets (existing or future, under the principles of equity), 'attaches' on creation to specific property (or when a future asset comes into existence), preventing the borrower from disposing of it without the lender's consent (a sale without consent means the asset remains subject to the charge in the hands of any purchaser). A Floating Charge 'hovers' over a changing pool of identifiable assets (which can be all assets), which the borrower can freely deal with. When the conditions in the charging document have been met (e.g. an event of default), the charge 'crystallises' and attaches or 'fastens' to the assets subject to the charge. The nature of a charge created as a floating charge does not change because of crystallisation ("floating charge" means a charge which, as created, was a floating charge... [s251 IA 1986]), but effectively it becomes a fixed charge.

See [Appendix 4](#) for a discussion on Insolvency scenarios and payouts.

Seniority & Leveraged Loans

A leveraged loan facility might be suitable when the borrower is a mid-cap or larger, has a credit rating below Investment Grade (BB+ and below for Fitch Ratings and S&P Global Ratings, Ba1 and below for Moody's), possibly due to leverage concerns, and wants to borrow a significant amount. A leveraged loan facility would usually comprise a package of Syndicated Term Loan facilities in a single Facility (senior, secured, floating rate with wide 'Credit Spread' or 'Margin' over the risk-free reference rate, such as SONIA for a UK facility), combined with a 'Super Senior' Revolver (for working capital purposes), but might also include Junior Secured Loans, Subordinated High Yield Bonds and Equity. Lenders would include banks, institutional investors (such as 'Securitised' debt funds or 'Collateralised Loan Obligations') and private credit.

The loan facility and 'Intercreditor Agreement' ('ICA') will detail which lenders are 'Contractually Subordinated' ('Junior') to 'Senior' lenders with respect to payment priority (the contractual order in which lenders are entitled to receive cash flows) and security. Junior lenders act as a 'Mezzanine' layer between senior lenders and providers of equity funding ('Sponsors'), if any. 'Structural Subordination' is achieved by the provision of loans via a 'Corporate Stack' (sub-subsidiaries, subsidiaries, parent, ultimate parent), with external borrowing at different levels being passed down the group chain: if a third party ('X') lends to a parent ('A') who uses the proceeds to subscribe for equity in its subsidiary ('B'), X will be structurally subordinated to the claims of creditors in B over B's assets. A receives a distribution from B only after B's creditors have been paid off in a winding up.

The 'Statutory Waterfall' described in [Appendix 4](#) still applies, however the ICA determines which party is paid first within the statutory category: fixed charge realisations → insolvency costs → preferential creditors → prescribed part → floating charge holders → unsecured creditors. If senior and junior lenders were unsecured, a liquidator would pay *pari passu* and the lenders would allocate between themselves according to the ICA (which would not be binding on the liquidator). If both are secured, the ICA would regulate priority between them, subject to property-law and insolvency rules.

A 'Leveraged Buyout' in a private equity acquisition would typically use features that are designed to allocate risk and distribute financial returns in a pre-determined manner ('Waterfall'), as reflected in the:

- structure ('Special Purpose Vehicles' set up with different objectives: 'Bidco' / Acquirer, 'Midco', 'Topco', Equity Sponsor);
- funding source (ordinary and preference shares, shareholder loans, leveraged finance);
- funding allocation ('Push Down' debt to a level where tax interest relief can be maximised) and financing rights (junior, senior, secured);
- management of risk (guarantees, subordination, security)

DOMESTIC ACQUISITION

General

The choice of consideration or acquisition 'currency' (cash, shares and securities) will have an impact on the buyer and its shareholders, in terms of cost and financial risks associated with (1) the source of funding for the cash component (own cash, debt, equity) and (2) the financial instruments issued to the vendor.

Cash consideration paid from existing cash balances will lower interest income, increase net debt and reduce financial flexibility. If cash is funded from new borrowings, financial risk for the acquirer will increase due to: (1) market risk, via interest rate risk and currency risk (cash flows exposed to changes in market rates and prices – currency risk is discussed below under Cross-Border Acquisitions), (2) liquidity risk, if meeting debt obligations from existing financial resources (or refinancing facilities) becomes increasingly difficult, and (3) insolvency risk, if formal recovery proceedings commence due to a debt facility default.

Securities issued to the vendor will create obligations and risks for the acquirer, similar to those where it borrows externally for the cash component, except that the terms will differ as external lenders will have different covenant and pricing requirements. Both create financial risk for the acquirer's shareholders, which might increase their required return and affect the acquirer's cost of capital, although the acquirer should have factored this into its valuation.

An evaluation of the impact of the acquisition on Earnings Per Share ('EPS') should not take precedence over an appraisal of the acquisition's intrinsic value benefits (based on cash flow present values), however the acquirer and its shareholders may consider how it changes. The EPS for the first forecast year after the acquisition will change (ignoring forecasting differences) due to: (1) the combined post-tax profits of the target and synergies divided by the acquirer's pre-acquisition shares in issue (the number it uses in its EPS), (2) the post-tax acquisition financing cost (ignoring any other incremental costs) divided by the acquirer shares, and (3) the dilution impact from the issuing of shares to the vendor. Hence merged EPS = (acquirer 'old' EPS + net profit change / acquirer 'old' shares) / (1 + ^{shares issued} / acquirer old shares). For further discussion on 'Exchange Ratios' see the example in [Appendix 1](#).

Shares issued to the vendor will dilute the holdings of the acquirer's shareholders. Shares issued to new shareholders on an equity raising, to raise cash for the cash component, will also dilute their holdings, unless they participate in the 'Rights Issue'. Equity raising has financial risk since funding will depend on the acquirer's variable share price.

The acquisition itself will have consequences for the target company's own financing facilities due to 'Change of Control' clauses that may trigger an immediate requirement to refinance (which the buyer may intend doing anyway if better terms can be obtained using its own credit rating).

Capital Structure Management

Decisions about the form and financing of acquisition consideration should take into account the acquirer's general financing policy and capital structure objectives, as well as the vendor's preference. If the acquisition increases debt up to debt capacity levels, financial flexibility will be reduced; a share issue will reduce existing shareholders' percentage ownership (although the value of their diluted shareholding may increase). Even if financed in an optimal manner, post-acquisition financial management will need to focus on maintaining the optimal capital structure, which may require adjustments via debt refinancings, share repurchases or dividends.

Interest Rate Risk Management

Risk-Free Rates

The loan interest rate, whether fixed or floating, will comprise a benchmark/reference rate (a Risk-Free Rate / 'RFR' or Central Bank Base Rate) and a premium or margin that reflects relevant risks the lender has quantified (e.g. borrower default risk), taking into account security and seniority arrangements. The risk premium might be constant or vary over the loan life if certain conditions are not met ('Margin Ratchet'). The Sterling Overnight Index Average rate ('SONIA') would be the RFR used in most large UK loans, following the replacement of 1,3,6 month LIBOR ('London Inter-bank Offered Rate') in late 2021. SONIA is a daily overnight benchmark which can be compounded in arrears for the interest period ending on the interest payment date (unlike LIBOR, which was set at the start of the interest period, based on the expected rate, allowing the interest payment for the next period to be known in advance).

The RFR used when valuing instruments or assets would tend to be a rate that reflects the maturity or holding period (a 10-year government bond yield would usually be used for the cost of equity calculation, for example). Changes in the RFR will affect many prices and rates:

- the fair or intrinsic value of non-financial assets (via a higher cost of capital)
- the fair value of financial assets and liabilities (e.g. bond prices affected by yields, lease liabilities)
- the share price (via a higher cost of equity)
- options prices estimated using option pricing models
- option embedded instruments (e.g. risk of bond being called as rates fall)
- fixed rates paid on a 'Swap' (discussed below)
- pension scheme liabilities and
- deferred acquisition consideration

Fixed vs. Floating

A borrower will be concerned that interest rates may increase, affecting interest costs and financial covenants. A fixed rate caps the borrower's interest cost, protecting them if the RFR rises, but they lose out if the RFR falls (unless it can refinance the facility at a lower rate). Floating rate debt will have a higher / lower interest cost as the RFR rises / falls, respectively; a floating rate borrower does not have the fixed rate cap, but benefits if rates fall. A general financing policy may specify a desired mix of fixed vs. floating rates for all facilities in aggregate. An investor with fixed rate assets will lose value on their

investments if the RFR rises, due to the higher discount rate; the value of a floating rate asset may remain the same if cash flow and discount rate changes offset each other.

Using derivatives to manage Interest Rate Risk

In an 'Interest Rate Swap' ('IRS') agreement, interest payments can be 'swapped' between fixed or floating rates, with two parties agreeing to pay each other an amount at the end of the interest period, based on a fixed or floating rate (fixing and payment conventions will depend on the benchmark), applied to a notional principal (in £, for our purposes).

In a simple 'Plain Vanilla' swap, the floating rate 'leg' would be priced from the market RFR Forward Rate 'Yield Curve' (effectively implied rates for future interest periods) and the fixed rate would be the rate that equates the present value of both swap cash flows (a swap will have a zero fair value at the start date). Floating and fixed rate cash flows will be discounted at the same 'Zero Coupon' or 'Spot' rates (different for each period), that can be generated ('Bootstrapped') from, for example, 'Overnight Indexed Swaps' (the 'OIS' curve). The fixed rate is the implied rate that equates the PV of the two cash flow streams at the inception of the swap (which can be calculated in an Excel spreadsheet using the goal seek or solver functions). The derived floating and fixed rates will be default-free.

A borrower can effectively convert a loan from a fixed to floating rate or vice versa by paying its desired rate and receiving a rate that exactly matches the benchmark/reference rate on the underlying loan (the net payment is the desired rate plus the loan margin). In a 'Fixed-to-Floating' swap, the borrower pays a floating rate in exchange for receiving a fixed rate that offsets the loan's fixed rate benchmark; in a 'Floating-to-Fixed' swap, the borrower is the fixed-rate payer, converting a floating rate loan to a fixed rate (a 'Floating-to-Floating' or 'Basis' swap exchanges floating rate cash flows that are based on different bases, such as maturity or benchmark rate).

CROSS-BORDER ACQUISITION

General

A cross-border acquisition of a majority shareholding raises a number of questions, in addition to those for a domestic acquisition, including the following (UK tax and IFRS reporting matters are discussed in the companion article 'Business Acquisitions: Taxation (UK) & Accounting (IFRS)'; regulatory issues are not discussed):

- Valuation & pricing:
 - How will the DCF valuation incorporate political, exchange rate and inflation risks?
 - What is the risk that unexpected future spot exchange rates differ significantly from what was assumed in the cross-border valuation?
 - How will expectations of the foreign vendors differ from those of a UK vendor, in terms of valuation, pricing and the terms of sale?
 - Which foreign company comparables can be used for multiples valuation, and what adjustments will be required for accounting differences?

- What currency is the purchase price denominated in?
- Financing:
 - Which group company will borrow if consideration is debt financed (UK or abroad)?
 - Will an intermediate holding company be required to manage ongoing treasury finance operations, particularly if further acquisitions are being considered?
 - What restrictions affect the upstreaming of cash to the parent?
 - How will the target be funded post-acquisition if external funding sources are required?
 - How will the loan agreement differ from a UK agreement and how do local laws differ in respect of security and insolvency arrangements?
 - What will be the source of funds used to service foreign currency debt (usually dividends, intra-group loan interest and royalties from the target)?
 - How will consolidation of the target foreign operations affect the parent's group accounts and financial covenants on its existing loan facilities?
- Financial risk
 - What is the currency risk between the date of legal commitment (Sale and Purchase Agreement) and date consideration is paid, on closing and at future dates if deferred consideration is paid (e.g. an earn-out involving contingent payments)?
 - What hedging techniques can be used to protect against currency risk on the loan?
 - Should currency risk be hedged at all (i.e. will it add value)?

Currency Risk Management

Hedging Consideration

The acquirer is exposed to exchange rate movements between the date of legal commitment (when the sale and purchase agreement is signed) and the date it buys the foreign currency to pay the cash consideration (completion date). The market rate for immediate delivery ('spot rate') may change between those dates (spot transactions are agreed on a trade date and normally settled, when currencies are exchanged, two business days later).

At the date of the sale and purchase agreement ('SPA'), the acquirer can enter into a 'forward' contract to exchange currency at completion at a rate fixed now, whatever the spot rate is at completion (forward rates depend on current spot rate and interest rate differentials – they are not forecasts). The acquirer is protected if sterling is weaker at completion than the forward rate, but foregoes any gain if sterling is stronger. However, it remains obliged to exchange the currencies on the forward's settlement date even if the sale transaction does not complete, creating significant risk where completion is conditional or its timing is uncertain. As an alternative, the acquirer can pay a premium to buy a call option on the foreign currency, giving it the right, but not the obligation, to buy the currency at an agreed exercise price at completion. If the sale transaction does not complete, the cost is limited to the premium. If sterling is stronger than the exercise price at completion, the acquirer can let the option lapse and buy currency at the more favourable spot rate, any gain reduced by the premium paid. Examples of currency forwards and options are given in [Appendix 5](#).

Hedging Debt Servicing

If, at the SPA date, the acquirer commits to a foreign currency loan for the full consideration in the same currency, it will not need to buy currency at completion. If the foreign currency loan is serviced from sterling, the foreign currency loan cash flows are exposed from drawdown to final repayment (the sterling cost of the acquisition remains exposed from the SPA date). Loan cash flow exposure can be managed with a cross-currency swap that effectively allows the acquirer to convert the loan into a sterling loan (receive foreign currency interest and principal, pay sterling interest and principal at an agreed exchange rate – fixed or floating rates, to manage interest rate risk). The sterling cost depends on the date the swap is entered into: a 'forward starting' swap agreed at the SPA date to start at completion fixes the sterling cost at the SPA date (but has the same non-completion risk as a forward); a swap entered into at completion (loan draw down date) fixes the sterling cost at the completion date.

If debt servicing is funded from same currency cash flows – such as target remittances in the form of dividends, intra-group loan interest and/or royalties – a 'natural' hedge would arise. A natural hedge would be cheaper than a swap, but the swap provides more certainty where remittances are uncertain or restricted.

Financial support

As in any acquisition, the target / subsidiary may require external financing via parental equity and/or shareholder loans or third-party bank lending (most likely with parental guarantees). Any change of control clauses in the target's pre-acquisition loan agreements may require refinancing with new debt (the acquirer may have already decided to refinance the target debt if it believed a lower rate was obtainable, subject to loan prepayment fees). Cross border intra-group financing transactions, including fees payable for third party bank loan guarantees, will need to be on arm's length terms to comply with Transfer Pricing tax rules.

CONCLUSION

An acquisition involves a sequence of interdependent workstreams: strategic assessment, valuation, due diligence, financing, tax structuring, legal documentation, financial reporting impact, regulatory clearance and post-completion integration. A cross-border transaction provides additional complexity. The consideration agreed by purchaser and vendor - the value transferred in exchange for obtaining control of a business - is the product of commercial negotiation, determined by the parties' expectations regarding the future performance of the business, financial and business risks, the availability of financing, prevailing market conditions and their respective bargaining positions.

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Suggested reading

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FitchRatings (2020) "Guide to Fitch's Credit Metrics: Financial Terms and Adjustments"
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A.I. Disclosure

The author wrote the article and built the Excel models. A.I. (Claude Opus 5 and Codex GPT-6 Astra) assisted with the following: (1) general: checking formulae, example arithmetic, cross references, citations and consistencies; (2) specific: verification of insolvency actions (App.4); currency hedging mechanics and obtaining rates and checking bootstrapping for the currency swaps example (App.5).

Appendix 1: Exchange Ratios

In a share-for-share exchange, the Exchange Ratio ('ER') represents the number of shares in the acquirer (S_A) the vendor will receive (V_{SA}) for each share it holds (V_{ST}) in the target shares (S_T).

In a private purchase:

$$V_{MS} = V_A + V_T + V_{C+S}$$

Where:

V_{MS}	Equity value of merged entity in a 100% share exchange
V_A	DCF equity value of the acquirer
V_T	DCF equity value of the target
V_{C+S}	Additional value due to control and synergies

A shares / cash consideration mix will reduce the merged value as cash is being paid to the target shareholders:

$$V_{MS/C} = V_{MS} - \text{Cash Consideration}$$

The **maximum** ER ensures all the benefits of the acquisition accrue to the target shareholders. The target shareholders will need a holding in the merged entity that gives them a value equal to their pre-acquisition value plus the value of control and synergies, so that:

$$\frac{V_{SA}}{S_A + V_{SA}} \times (V_{MS} - \text{Cash Consideration}) + \text{Cash Consideration} = V_T + V_{C+S}$$

Where:

S_A	Number of acquirer shares before the purchase
V_{SA}	Number of vendor shares issued in the acquirer = $ER_{MAX} \times V_{ST}$
V_{ST}	Number of vendor shares held in the target

After a bit of manipulation, we have:

$$ER_{MAX} = \frac{Y}{1 - Y} \left(\frac{S_A}{V_{ST}} \right)$$

Where:

$$Y = \frac{V_T + V_{C+S} - \text{Cash Consideration}}{V_{MS} - \text{Cash Consideration}}$$

The maximum ER formula can also be derived from the point of view of the acquirer, where the wealth of the acquirer's shareholders is unchanged. In terms of per share:

<i>Before Acquisition</i>		<i>After Acquisition</i>
$\frac{\text{Acquirer Value}}{\text{Acquirer Shares}}$	=	$\frac{\text{Merged Value}}{\text{Acquirer Shares} + \text{Shares Issued to Vendor}}$

$$\frac{V_A}{S_A} = \frac{V_{MS} - \text{Cash Consideration}}{S_A + V_{ST} \times ER_{MAX}}$$

$$ER_{MAX} = \frac{V_{MS} - \text{Cash Consideration} - V_A}{V_A \text{ per acquirer share} \times S_T}$$

$$= \frac{(V_T + V_{C+S} - \text{Cash Consideration}) \text{ per target share}}{\text{Acquirer Price}}$$

The **minimum** ER ensures all the benefits of the acquisition accrue to the acquirer shareholders, so that the target shareholders have exactly the same value as before the purchase. This is the same as for the maximum ER formula except the term V_{C+S} is ignored.

$$\frac{V_{SA}}{S_A + V_{SA}} \times (V_{MS} - \text{Cash Consideration}) + \text{Cash Consideration} = V_T$$

So that:

$$ER_{MIN} = \frac{Z}{1 - Z} \left(\frac{S_A}{S_T} \right)$$

Where:

$$Z = \frac{V_T - \text{Cash Consideration}}{V_{MS} - \text{Cash Consideration}}$$

This can be written as follows for 100% shares [see p.700-701 Holthausen & Zmijewski]:

$$ER_{MIN(100\% \text{ shares})} = \frac{V_T \text{ per target share} \times S_A}{V_M - V_T}$$

$$= \frac{V_T \text{ per target share}}{(V_A + V_{C+S}) \text{ per acquirer share}}$$

When adjusting for cash consideration this becomes:

$$ER_{MIN(\text{cash/shares})} = \frac{(V_T - \text{Cash Consideration}) \text{ per target share}}{(V_A + V_{C+S}) \text{ per acquirer share}}$$

To share the benefits, the ER would be set as follows:

$$ER_{OFFER} = \frac{\text{Offer Price} - (\text{Cash Consideration} / S_T)}{\text{Acquirer Price}}$$

This can be illustrated in a simple example:

Example 1: 100% shares

Acquirer (value £250m) values Target at £90m (including £10m synergies value), giving a merged value of £340m. It offers £38.00 for 100% of Target's 2m shares (consideration £76m, NPV £14m). Target and Acquirer's standalone DCF equity values per share (minority / marketable, so equivalent to a quoted share price) are £32.00 and £20.00, respectively. An ER of 1.90 is offered, set as offer price / Acquirer price (£38.00 / £20.00). Target shareholders receive 3.8m shares in Acquirer (1.9 x 2m Target shares), giving a 23.3% holding (3.8m / [12.5m + 3.8m]). The merged price per share is £20.86 (£340m / 16.3m). The value to the vendor is in two parts: the purchase price (£76m) less their pre-acquisition holding value (£64m) = £12m + share of Acquirer NPV (23.3% x £14m = £3.264m, giving total value change of £15.264m).

All figures in '000s unless otherwise stated

ASSUMPTIONS					
		Target		Acquirer	Merged
		Total	Per Share		
Shares outstanding	No.	2,000		12,500	
DCF Equity Value per share (minority, marketable)	£			20.00	
Equity Value (minority, marketable)	£	64,000	32.00		
Control premium (marketable)	25.00%	16,000			
Control Value		80,000			
Synergies	£	10,000			
Value to Acquirer	£	90,000		250,000	340,000
Without synergies	£		8.00		
Synergies	£		5.00		
Value to Acquirer per share	£		45.00		
Transaction costs	0.00%				
Acquisition cost	£	76,000	38.00		
Cash	0.00%	-	-		-
Shares	100.00%	76,000	38.00		
Acquirer NPV / Value	£	14,000	7.00		340,000
Value 'stack':					
Equity Value (minority, marketable)		64,000	Minimum price for Vendor		
Control premium - paid for	12,000	12,000	Vendor NPV		
Purchase price		76,000			
Control premium- not paid for	4,000	4,000	Acquirer NPV (£14.0m)		
Synergies - not paid for	10,000	10,000			
Acquirer - Target Value	26,000	90,000			
Acquirer Value		250,000			
Combined value		340,000			

100.0% SHARES : 0.0% CASH						
		Shareholding		Value		
		Shares	Holding	Pre-Acq	Post-Acq	Cash
		No.	%	£	£	£
Acquirer		12,500	76.7 %	250,000	260,736	
Target shareholders		3,800	23.3 %	64,000	79,264	-
Merged - post acquisition	£ 20.86 price	16,300	100.0 %		340,000	
	Per Target Share		Vendor Value			Value Change
Pre-acquisition	32.00	£	64,000	Share of Acquirer NPV - Acquirer		10,736
Vendor NPV	6.00	£	12,000	Share of Acquirer NPV - Vendor		3,264
Acquisition cost	38.00	£	76,000	Acquirer NPV		14,000
Share of Acquirer NPV	1.63	£	3,264	Target NPV - Cash		12,000
Cash component		£	-			
Value of shares		£	79,264			
Value of cash		£	-	Value of cash		-
Value for Target shareholders	£ 39.63 /share	£	79,264	Total change		26,000
FINAL		x 1.900	x 2,000 shares = 3,800 shares			

Min ER for Target shareholders: NPV → Acquirer Shareholders

100.0% SHARES : 0.0% CASH

			Shareholding		Value			
			Shares No.	Holding %	Pre-Acq £	Post-Acq £	Cash	Change £
Acquirer			12,500	81.2 %	250,000	276,000		26,000
Target shareholders			2,899	18.8 %	64,000	64,000	-	-
Merged - post acquisition			£ 22.08 price	15,399	100.0 %	340,000		26,000
			Per Target Share	Vendor Value				Value Change
Pre-acquisition			£ 32.00	64,000	Share of Acquirer NPV - Acquirer			26,000
Vendor NPV			£ 6.00	12,000	Share of Acquirer NPV - Vendor			(12,000)
Acquisition cost			£ 38.00	76,000	Acquirer NPV			14,000
Share of Acquirer NPV			(6.00) £	(12,000)	Target NPV - Cash			12,000
Cash component			£	-				
Value of shares			£	64,000				
Value of cash			£	-	Value of cash			-
Value for Target shareholders			£ 32.00 /share	£ 64,000	Total change			26,000

MIN

x 1.449 x 2,000 shares = 2,899 shares

MINIMUM EXCHANGE RATIO

$$\frac{V_T - \text{Cash Consideration}}{V_M - \text{Cash Consideration}} = \frac{64,000 - 0}{340,000 - 0} = \frac{64,000}{340,000} = 0.1882 = Z$$

$$\frac{\text{Acquirer Shares}}{\text{Target Shares}} \times \frac{Z}{1 - Z} = \frac{x 1.449}{1 - 0.1882} = \text{Min Formula 1}$$

$$\frac{(V_T - \text{Cash Consideration}) / \text{Target shares}}{(V_A + V_{C+S}) / \text{Acquirer shares}} = \frac{(64,000 - 0) / 2,000}{(250,000 + 26,000) / 12,500} = \frac{32.00}{22.08} = \text{x 1.449} \text{ Min Formula 2}$$

Max ER for Acquirer shareholders: NPV → Target Shareholders

100.0% SHARES : 0.0% CASH

			Shareholding		Value			
			Shares No.	Holding %	Pre-Acq £	Post-Acq £	Cash	Change £
Acquirer			12,500	73.5 %	250,000	250,000		-
Target shareholders			4,500	26.5 %	64,000	90,000	-	26,000
Merged - post acquisition			£ 20.00 price	17,000	100.0 %		340,000	26,000
			Per Target Share	Vendor Value				Value Change
Pre-acquisition			32.00	£ 64,000	Share of Acquirer NPV - Acquirer			-
Vendor NPV			6.00	£ 12,000	Share of Acquirer NPV - Vendor			14,000
Acquisition cost			38.00	£ 76,000	Acquirer NPV			14,000
Share of Acquirer NPV			7.00	£ 14,000	Target NPV - Cash			12,000
Cash component				£ -				
Value of shares				£ 90,000				
Value of cash				£ -	Value of cash			-
Value for Target shareholders			£ 45.00 /share	£ 90,000	Total change			26,000

MAX

x 2.250 x 2,000 shares = 4,500 shares

MAXIMUM EXCHANGE RATIO

$$\frac{V_T + V_{C+S} - \text{Cash Consideration}}{V_M - \text{Cash Consideration}} = \frac{64,000 + 26,000 - 0}{340,000 - 0} = \frac{90,000}{340,000} = 0.2647 = Y$$

$$\frac{\text{Acquirer Shares}}{\text{Target Shares}} \times \frac{Y}{1 - Y} = \frac{x 2.250}{1 - 0.2647} = \text{Max Formula 1}$$

$$\frac{(V_T + V_{C+S} - \text{Cash Consideration}) / \text{Target shares}}{\text{Acquirer Price}} = \frac{45.00}{20.00} = \text{x 2.250} \text{ Max Formula 2}$$

Example 2: 75% shares:25% Cash

If cash is offered, the ER formulae need to be adjusted to reflect only the share component. The value of the merged entity is reduced by the cash element; Target shareholders' value change will be both in respect of shares and cash. In this example, target shareholders are better off accepting 100% shares (£79.264m against £79.599m).

All figures in '000s unless otherwise stated

ASSUMPTIONS						
		Target		Acquirer	Merged	
		No.	Per Share			
Shares outstanding		2,000		12,500		
DCF Equity Value per share (minority, marketable)		£		20.00		
Equity Value (minority, marketable)		£	32.00			
Control premium (marketable)	25.00%	£				
Control Value		£				
Synergies		£				
Value to Acquirer		£		250,000	340,000	
Without synergies		£	8.00			
Synergies		£	5.00			
Value to Acquirer per share		£	45.00			
Transaction costs	0.00%	£				
Acquisition cost		£				
Cash	25.00%	£				(19,000)
Shares	75.00%	£				
Acquirer NPV / Value		£	7.00			321,000

75.0% SHARES : 25.0% CASH

		Shareholding		Value		
		Shares	Holding	Pre-Acq	Post-Acq	Cash
		No.	%	£	£	£
Acquirer		12,500	81.4 %	250,000	261,401	11,401
Target shareholders		2,850	18.6 %	64,000	59,599	14,599
Merged - post acquisition	£ 20.91 price	15,350	100.0 %		321,000	26,000
	Per Target Share	Vendor Value		Value Change		
Pre-acquisition	32.00	£	64,000	Share of Acquirer NPV - Acquirer		
Vendor NPV	6.00	£	12,000	Share of Acquirer NPV - Vendor		
Acquisition cost	38.00	£	76,000	Acquirer NPV		
Share of Acquirer NPV	1.30	£	2,599	Target NPV - Cash		
Cash component		£	(19,000)			
Value of shares		£	59,599			
Value of cash		£	19,000	Value of cash		
Value for Target shareholders	£ 39.30 /share	£	78,599	Total change		

FINAL

x 1.425 x 2,000 shares = 2,850 shares

The value for Target shareholders (£78.599m) is less than for the 100% share case (£79.264m). If the NPV was zero, this difference would not arise because the reduction in value from the cash payment (£19m / (£340m - £14m NPV) = 5.83%) would be matched by the reduction in shares due to the exchange ratio falling as a result of the cash component being stripped out (target shares 2m x offer price in cash £9.50 / acquirer price £20 = 0.95m / 16.3m all share offer = 5.83%). In this scenario, the merged share price would be the same as Acquirer's pre-acquisition price (£20.00 = £307m merged value / 15.35m merged shares = [£340m - £14m NPV - £19m cash] / [shares for all share 16.3m – 0.95m share reduction]).

The min and max ERs are calculated as before, but deducting the cash component:

75.0% SHARES : 25.0% CASH

			Shareholding		Value			
			Shares No.	Holding %	Pre-Acq £	Post-Acq £	Cash	Change £
Acquirer			12,500	86.0 %	250,000	276,000		26,000
Target shareholders			2,038	14.0 %	64,000	45,000	19,000	-
Merged - post acquisition			£ 22.08 price	14,538	100.0 %	321,000		26,000
			Per Target Share	Vendor Value				Value Change
Pre-acquisition			32.00	£ 64,000	Share of Acquirer NPV - Acquirer			26,000
Vendor NPV			6.00	£ 12,000	Share of Acquirer NPV - Vendor			(12,000)
Acquisition cost			38.00	£ 76,000	Acquirer NPV			14,000
Share of Acquirer NPV			(6.00)	£ (12,000)	Target NPV - Cash			(7,000)
Cash component				£ (19,000)				
Value of shares				£ 45,000				
Value of cash				£ 19,000	Value of cash			19,000
Value for Target shareholders			£ 32.00 /share	£ 64,000	Total change			26,000

MIN

x 1.019 x 2,000 shares = 2,038 shares

MINIMUM EXCHANGE RATIO

$$\frac{V_T - \text{Cash Consideration}}{V_M - \text{Cash Consideration}} = \frac{64,000 - 19,000}{340,000 - 19,000} = \frac{45,000}{321,000} = 0.1402 = Z$$

$$\frac{\text{Acquirer Shares}}{\text{Target Shares}} \times \frac{Z}{1 - Z} = \mathbf{x 1.019} \quad \text{Min Formula 1} \quad \text{Formula 1}$$

$$\frac{(V_T - \text{Cash Consideration}) / \text{Target shares}}{(V_A + V_{C+S}) / \text{Acquirer shares}} = \frac{(64,000 - 19,000) / 2,000}{(250,000 + 26,000) / 12,500} = \frac{22.50}{22.08} = \mathbf{x 1.019} \quad \text{Min Formula 2}$$

75.0% SHARES : 25.0% CASH

			Shareholding		Value			
			Shares No.	Holding %	Pre-Acq £	Post-Acq £	Cash	Change £
Acquirer			12,500	77.9 %	250,000	250,000		-
Target shareholders			3,550	22.1 %	64,000	71,000	19,000	26,000
Merged - post acquisition			£	20.00 price	16,050	100.0 %	321,000	26,000
			Per Target Share		Vendor Value			Value Change
Pre-acquisition			32.00	£	64,000	Share of Acquirer NPV - Acquirer		-
Vendor NPV			6.00	£	12,000	Share of Acquirer NPV - Vendor		14,000
Acquisition cost			38.00	£	76,000	Acquirer NPV		14,000
Share of Acquirer NPV			7.00	£	14,000	Target NPV - Cash		(7,000)
Cash component				£	(19,000)			
Value of shares				£	71,000			
Value of cash				£	19,000	Value of cash		19,000
Value for Target shareholders			£	45.00 /share	£	90,000	Total change	26,000

MAX

x 1.775 x 2,000 shares = 3,550 shares

MAXIMUM EXCHANGE RATIO

$$\frac{V_T + V_{C+S} - \text{Cash Consideration}}{V_M - \text{Cash Consideration}} = \frac{64,000 + 26,000 - 19,000}{340,000 - 19,000} = \frac{71,000}{321,000} = 0.2212 = Y$$

$$\frac{\text{Acquirer Shares}}{\text{Target Shares}} \times \frac{Y}{1 - Y} = \mathbf{x 1.775} \quad \text{Max Formula 1}$$

$$\frac{(V_T + V_{C+S} - \text{Cash Consideration}) / \text{Target shares}}{\text{Acquirer Price}} = \frac{35.50}{20.00} = \mathbf{x 1.775} \quad \text{Max Formula 2}$$

Appendix 2: Merger Evaluation Example

Transaction Information

		Acquirer	Target
Accounting year end		30 June	30 June
Next a/c y/e		30 Jun 2027	30 Jun 2027
Closing Date			30 Jun 2026
Shares	No.	5,592,443,754	308,766,200
Price (excl. bid)	£	35.91	107.00
Price (current)	£	33.64	129.00
Market Capitalisation	£m	188,139.3	39,830.8
Net Debt	£m	3,308.0	3,350.2
Enterprise Value	£m	191,447.3	43,181.0
Offer price	£		130.00
Shares to buy (100.0%)(no.)	No.		308,766,200
Pre-bid rumour equity value	£, £m	107.00	33,038.0
Premium (21.5%)	£, £m	23.00	7,101.6
Purchase cost (308.766m x £130.00)	£, £m	130.00	40,139.6
Fees	£, £m	0.00	-
Acquisition Cost	£, £m	130.00	40,139.6
Cash consideration %	%		50.00%
Ex. Ratio (130.00 / 33.64 x 50% shares)	x		1.932126
Shares issued (1.932126 x 308,766,200)	No.		596,575,291
Shares consideration	£m		20,069.8
Cash consideration	£m		20,069.8

Transaction Benefits

£m, £		Intrinsic Value	
		Target	Synergies
DCF Enterprise Value		34,616.5	
less: net debt - borrowings less cash		(3,350.2)	
less: debt equivalents		(569.3)	
DCF Equity Value - Minority Quoted		30,697.1	
Control Value	40.0%	12,278.8	
DCF Equity Value - Majority Quoted	80.0%	42,975.9	5,265.6
Relative Equity Value (multiple)	20.0%	49,000.0	3,000.0
Intrinsic Value (weighted)		44,180.7	4,812.5
Gains			
		Market Value	Intrinsic Value
Target Equity Value	129.00	39,830.8	44,180.7
Value of Synergies	16.23	4,812.5	4,812.5
Target Value	150.52	44,643.3	48,993.2
less: consideration + costs	130.00	(40,139.6)	(40,139.6)
Gains		4,503.7	8,853.6
Acquirer Equity Value	33.66	188,139.3	
Merged value less share consideration		192,643.0	
Add back: non-cash consideration		20,069.8	
Merged Value		212,712.8	

This Appendix shows highlights of the evaluation of a hypothetical acquisition (both parties quoted), focusing on the position on closing, the source and application of funds and EPS impact in the first year.

Acquirer is to offer £130.00 per share to purchase 100.0% of Target for total consideration of £40.14bn, payable 50.0% cash (£20.07bn debt financed) and 50.0% shares. The offer was made when Target was trading at £107.00, but the price has since increased to £129.00 (£39.83bn) (it is assumed this increase does not reflect merger benefits). Assuming Acquirer's price increases to reflect the estimated synergies (£4.81bn), the pro forma merged value of the entity will be £212.71bn equal to: (Acquirer £188.13bn + Synergies £4.81bn) + (Target £39.83bn - £20.07bn cash consideration). Acquirer's share price should increase from £33.64 to £34.37.

596.57m shares will be issued to Target's shareholders (based on a fixed Exchange Ratio of 1.932126) for the £20.07bn paper consideration, providing a 9.6% shareholding and £40.57bn wealth (£20.07bn cash + £20.5bn shares). Target shareholders will be £0.74bn better off than their £39.83bn unaffected pre-acquisition value (£129.00 benchmark price) as they will be sharing in the synergy value. Their share of synergies can be shown as follows: (Value of Acquirer + Synergies) x target holding = 192.952 x 9.64% = 18.6 less (Value of Target – Cash Consideration) x acquirer shareholders holding = (39.831 – 20.07) x 90.36% = 17.86, equal to £0.74bn.

Target shareholders take 9.64% of everything the Acquirer brings (its standalone value plus the synergies), and give up 90.36% of what they contribute, net of the cash received. With an estimated standalone DCF equity value of £30.697bn, Acquirer has identified significant improvements it can make, adding £12.279bn to obtain a DCF control value of £42.976bn. A multiples valuation suggests £49bn control value, and applying 80% : 20.0% weighting the final control value is £44.18bn with extra value of £4.8bn coming from synergies. The total gain based on Intrinsic Value is therefore £8.85bn (£48.99bn value - £40.14bn cost).

Exchange Ratios (ER) and Gains Sharing						
	Pre-Acq		Post-Acquisition			
Chosen ER¹ <i>ER = 1.93213</i>	Value £m	Shares No.	Shares Value £m	Cash £m	Value £m	Value gain £m
Acquirer	188,139.3	5,592,443,754	192,208.9		192,208.9	4,069.6
Target	39,830.8	596,575,291	20,503.9	20,069.8	40,573.7	742.9
	227,970.1	6,189,019,045	212,712.8	20,069.8	232,782.6	4,812.5
Minimum ER² <i>ER = 1.85495</i>						
Acquirer	188,139.3	5,592,443,754	192,951.8		192,951.8	4,812.5
Target	39,830.8	572,746,660	19,761.0	20,069.8	39,830.8	-
		6,165,190,414	212,712.8	20,069.8	232,782.6	4,812.5
Maximum ER³ <i>ER = 2.36570</i>						
Acquirer	188,139.3	5,592,443,754	188,139.3		188,139.3	-
Target	39,830.8	730,448,899	24,573.5	20,069.8	44,643.3	4,812.5
		6,322,892,653	212,712.8	20,069.8	232,782.6	4,812.5

Notes

¹ Exchange Ratio Merged share price: Gains are shared pro-rata

$$\begin{aligned}
 \text{Used} &= \frac{\text{Purchase price}}{\text{Acquirer price}} \times \% \text{ Shares component} \\
 &= \frac{130.00}{33.64} \times 50.0\%
 \end{aligned}$$

² Minimum Exchange Ratio Merged share price: Value for Target shareholders = purchase price (all gains accrue to Acquirer)

$$\begin{aligned}
 \text{Min ER} &= \frac{\text{Acquirer shares}}{\text{Target shares to acquire}} \times \frac{\text{Target Value} - \text{Cash Consideration ('T - C')}}{\text{Acquirer Value} + \text{Synergies Value}} \\
 1.85495 &= \frac{5,592,443,754.0}{308,766,200.0} \times \frac{19,761.0}{192,951.8}
 \end{aligned}$$

³ Maximum Exchange Ratio Merged share price: Value for Acquirer = pre-acquisition value (all gains accrue to Target shareholders)

$$\begin{aligned}
 \text{Max ER} &= \frac{\text{Acquirer shares}}{\text{Target shares to acquire}} \times \frac{\text{T - C} + \text{Synergies Value}}{\text{Acquirer Value}} \\
 2.36570 &= \frac{5,592,443,754.0}{308,766,200.0} \times \frac{24,573.5}{188,139.3}
 \end{aligned}$$

SHAREHOLDINGS

	PRE-ACQUISITION			POST-ACQUISITION			
	Holding		Value	Holding		Value	Cash
	%	No.	£m	%	#	£m	£m
Shareholder A1	26.8%	1,500,000,000	50,462.5	24.2%	1,500,000,000	51,554.1	
Shareholder A2	13.9%	775,000,000	26,072.3	12.5%	775,000,000	26,636.3	
Shareholder A3	11.6%	650,000,000	21,867.1	10.5%	650,000,000	22,340.1	
Shareholder A4	47.6%	2,664,640,700	89,643.0	43.1%	2,664,640,700	91,582.1	
Shareholder A5	0.1%	2,803,054	94.3	0.0%	2,803,054	96.3	
Acquirer	100.0%	5,592,443,754	188,139.3	90.4%	5,592,443,754	192,208.9	
Shareholder T1	17.8%	55,000,000	7,095.0	1.7%	106,266,946	3,652.3	3,575.0
Shareholder T2	24.3%	75,000,000	9,675.0	2.3%	144,909,471	4,980.5	4,875.0
Shareholder T3	8.6%	26,500,000	3,418.5	0.8%	51,201,347	1,759.8	1,722.5
Shareholder T4	45.4%	140,096,176	18,072.4	4.4%	270,683,504	9,303.2	9,106.3
Shareholder T5	3.9%	12,170,024	1,569.9	0.4%	23,514,023	808.2	791.1
Target	100.0%	308,766,200	39,830.8	9.6%	596,575,291	20,503.9	20,069.8
Merged				100.0%	6,189,019,045	212,712.8	
Acquirer share price (£)			33.64				34.37

SOURCE OF FUNDS

	Max	% of Cash	Rate	Term	Currency	Raised	Net
		Component					Raised
Existing Acquirer Cash	12,456.0	0.0%	-	--		-	-
Existing Target Cash	366.7	0.0%	-	--		-	-
Equity - rights issue	None	-		--		-	-
Revolving Facilities	None	12.8%	5.400%	4.0 yrs	£	2,569.8	2,569.8
Senior Term Loan A	None	62.3%	5.400%	1.0 yrs	£	12,500.0	12,500.0
Senior Term Loan B	None	24.9%	5.300%	3.0 yrs	£	5,000.0	5,000.0
CASH		100.0%	5.375%			20,069.8	20,069.8
Shares to be acquired	308,766,200		@ 130.00				
Exchange Ratio		1.932126					
Shares component		50.0%					
SHARES	596,575,291		@ 33.64				20,069.8
Acquisition of shares							40,139.6
Transaction fees and expenses							-
Cost of Acquisition							40,139.6
Assumed Debt and Other							3,753.8
Transaction Value							43,893.4

USE OF FUNDS

	% of Cash	Non-current	Current	Target	
	Component	Debt	Debt	Debt	
Purchase of target shares	91.4%				40,139.6
Transaction Fees & Expenses	0.0%				-
Target debt: Refinance?					
Commercial Paper	No	-	395.8	395.8	
Senior Term Loan A	No	8.0	-	8.0	
Senior Notes A	No	2,750.0	600.0	3,350.0	
Debt Assumed and Refinanced	8.6%	2,758.0	995.8	3,753.8	3,753.8
Cash for Working Capital Requirements	0.0%				
Transaction Value	100.0%				43,893.4

Acquirer's forecast EPS on a standalone basis is £2.4842 (see below), compared to the merged EPS of £2.3785 (the transaction is therefore dilutive). The increase in net profit from the merger (£0.827bn) divided by the number of Acquirer shares (5.592bn), increases Acquirer's EPS by 0.1480 to £2.6322, but this is reduced by dilution due to the 10.668% increase in shares issued for the 50% share component = $\text{£}2.6322 / (1 + 596,575,291 / 5,592,443,754) = 2.3785$:

Year 1

Operating Profits	23,133.7		
Acquirer	498.2	Acquirer Net Profit (£m)	13,893.0
Target	14.7	Old Shares (no.)	5,592,443,754
Finance income	512.9	Pre-acquisition EPS £	2.4842
Acquirer	(838.7)		
Target	(189.9)	Merged Net Profit (£m)	14,720.4
Acquisition financing	(1,115.2)	New Shares (no.)	6,189,019,045
Finance costs	(2,143.8)	Post-acquisition EPS £	2.3785
Acquirer	(6,418.4)		
Target	(656.6)	Increase in profits	827.4
Acquisition financing	352.4	Increase in shares	596,575,291
Synergies	(59.9)		
Income tax expense	(6,782.4)		
Acquirer	13,893.0		
Target	1,457.3		
Acquisition finance	(762.8)		
Synergies	132.9		
Net Profit	14,720.4		

The pre-tax acquisition financing cost (£1,115.2m) equals £20,069.8m opening debt x 5.375% blended interest rate + £36.4m of loan fees:

	Cost	Debt	%
Revolving Facilities	138.8	2,569.8	5.400%
Senior Term Loan A	675.0	12,500.0	5.400%
Senior Term Loan B	265.0	5,000.0	5.300%
Gross interest	1,078.8	20,069.8	5.375%
Fees on Revolver	36.4		0.181%
Acquisition finance	1,115.2	20,069.8	5.556%

The transaction dilutes EPS in the first forecast year (£2.3785 post-acquisition, £2.4842 pre-acquisition), however £8.854bn of intrinsic value is created, making the transaction worthwhile.

Appendix 3: Financial Measures & Ratios

Balance Sheet – Profit – Cash Flow Reconciliation (ignoring Non-Controlling Interests)

Increase in Retained Earnings		
Operating Assets	x	
Non-Operating Assets	x	
Financial Liabilities	(x)	
Other Liabilities	(x)	
Net Assets = Equity (Balance Sheet)	x	
Adjustments to leave Retained Earnings (Share Capital, Share Premium, Reserves)	(x)	
Retained earnings at end of period (Statement of Changes in Equity)	x	
Less: Retained earnings at start of period	(x)	
Increase in retained earnings		x
Adjustments to reconcile to net profit:		
Other Comprehensive Income (component not recognised in Reserves)	(x)	
Transfers from reserves to retained earnings	(x)	
Equity-settled share-based payment transactions (if not recognised in another reserve)	(x)	
Dividends recognised as distributions in the period	x	
Increase in retained earnings adjusted to profit		x
Profit For The Period		x
Adjustments to reconcile to operating profit:		
Profit from discontinued operation, net of tax (to sale date)	(x)	
Income tax expense	x	
Share of profits of associates and joint ventures	(x)	
Net finance costs	x	
Operating Profit		x
Adjustments to add back or remove non-cash flow items:		
Depreciation of property, plant and equipment and right-of-use assets	x	
Amortisation of intangible assets	x	
EBITDA (non-GAAP)		x
Further adjustments to add back or remove non-cash flow items:		
Impairment of goodwill	x	
Share-based payment expense (equity settled)	x	
Net foreign exchange differences	(x)/x	
Fair value adjustment of a contingent consideration	x	
Net loss on derivative instruments at fair value through profit or loss	x	
Movements in provisions and pensions	x	
Gain on disposal of property, plant and equipment	(x)	
Increase in fair value of investment property	(x)	
Gain on sale of discontinued operations	(x)	x
(Increase) / Decrease in working capital		(x)/x
Cash from Operating Activities before Income Taxes		x
Income taxes paid		(x)
Net Cash from Operating Activities		x
Cash flows from Investing Activities (acquisitions, capex, interest & dividends received)		x
Cash flows from financing activities		x
NET CASH FLOWS		x
Cash at start of period		x
Cash at end of period		x

Insolvency Commencement under Scenarios

If an Event of Default is declared with respect to a loan facility and the lender accelerates the loan and demands immediate repayment, the consequences depend on the nature of the security:

- Unsecured (no other charges) If the borrower takes no action, an unsecured creditor may initiate a *compulsory winding-up*:

Compulsory Liquidation 'A company may be wound up by the court...by petition presented by any creditor...if.....the company is unable to pay its debts....A company is deemed unable to pay its debts:

- if a creditor...to whom the company is indebted in a sum exceeding £750 then due has served on the company...a written demand ...requiring the company to pay the sum so due [within] 3 weeks....or
- if it is proved to the satisfaction of the court that the company is unable to pay its debts as they fall due..... [or] that the value of the company's assets is less than the amount of its liabilities, taking into account its contingent and prospective liabilities.

When a winding-up order has been made or a provisional liquidator has been appointed, no action or proceeding shall be proceeded with or commenced against the company or its property, except by leave of the court...'

[s122, s123, s124, s129, s130 IA 1986]

Liquidation will lead to the eventual dissolution of the company and is therefore terminal.

Administration Liquidation can be avoided if an unsecured creditor applies to the court for an *Administration* order:

'An application to the court for an administration order in respect of a company...may be made only by the company, the directors of the company, one or more creditors of the company....The court may make an administration order in relation to a company only if satisfied (a) that the company is or is likely to become unable to pay its debts, and (b) that the administration order is reasonably likely to achieve the purpose of administration [by] (a) rescuing the company as a going concern, or (b) achieving a better result for the company's creditors as a whole than would be likely if the company were wound up (without first being in administration), or (c) realising property in order to make a distribution to one or more secured or preferential creditors.' [para.3,11,12 Sch.B1 IA 1986]

A moratorium on insolvency proceedings applies once the company is in Administration.

'No resolution may be passed ...[or] order may be made for the winding up of the company.... No step may be taken to enforce security over the company's property except with the consent of the administrator, or with the permission of the court.' [para. 42, 43 Sch.B1 IA 1986]

- Fixed charge only
Receivership

A formal insolvency process is not required because the **receiver** will have power to take possession and control of the charged property and dispose of it for the benefit of the charge holder under the debenture instrument or Law of Property Act 1925. Any surplus will be paid back to the company or be made available to any fixed charge on the same property that was created after the charge in question. Any shortfall will require the lender to take action as an unsecured creditor, since it cannot appoint an Administrator *out of court* (only a floating charge holder can).
- Fixed and Floating charge (same loan)
Receivership
Administration

A charge created on or after 15 September 2003 means the charge holder cannot appoint an **Administrative Receiver** (subject to certain exceptions):

'The holder of a qualifying floating charge which relates to the whole or substantially the whole of the company's property may not appoint an administrative receiver of the company' [s72A Insolvency Act 1986]

The charge holder would enforce its rights over fixed charge property (appointment of receiver) and would appoint an out-of-court Administrator if the floating charge was qualifying:

'The holder of a qualifying floating charge in respect of a company's property may appoint an administrator of the company ...[except if] a provisional liquidator of the company has been appointed under [compulsory liquidation]... [para. 14, 17 Sch.B1 IA 1986].
- Unsecured (1st loan)

Floating Charge (2nd loan)

If the lender of the first loan applies for an Administration order as an unsecured creditor, a floating charge holder on another loan can intervene and appoint its own Administrator under para.14, provided the first order has not actually been made.

The unsecured creditor is required to notify the floating charge holder (no minimum notice period), but it must be served before the hearing for the Administration order application.

The charge holder would then appoint an Administrator under para.14 (if qualifying) without the moratorium under para.44, before the order is made on the first application.

‘As soon as is reasonably practicable after the making of an administration application, the applicant shall notify. . . any person who is or may be entitled to appoint an administrator of the company under paragraph 14’ [para. 12(2) Sch.B1 IA 1986]

‘Notification for the purposes of paragraph 12(2) of Schedule B1 must be by service of the application [for the Administration order]. . . The service of an application or petition must be verified by a certificate of service . . . [which] must be filed with the court as soon as reasonably practicable after service and in any event not later than the business day before the hearing of the application.’ [Rule 3.8(2), Para.6 Sch.4, Rule 3.8(4) Insolvency (England and Wales) Rules 2016]

‘Where an administration application in respect of a company has been made and . . . but the administration order has not yet taken effect . . . This . . . does not prevent or require the permission of the court for . . . the appointment of an administrator under paragraph 14 . . .’ [para.44 Sch.B1 IA 1986]

‘A person may not be appointed as administrator of a company which is in administration’ [para.7 Sch.B1 IA 1986]

- Fixed Charge (1st loan) Generally, a fixed charge takes priority over a floating charge over the same asset under common law (in the absence of a negative pledge of which the fixed charge holder had notice). The fixed charge holder could appoint a receiver as discussed above, however if the floating charge holder has already appointed an Administrator, it would need the consent of the Administrator or the permission of the court before doing so. [para.43(2) Sch.B1 IA 1986].
- Floating Charge (2nd loan)

Insolvency Realisations & Distributions

Administrator powers to distribute

The administrator can realise assets subject to a fixed or floating charge and distribute to the charge holder (and pay preferential creditors from the proceeds from the floating charge assets):

‘The administrator of a company may dispose of or take action relating to property which is subject to a **floating charge** as if it were not subject to the charge.’ [para.70 Sch.B1 IA 1986]

‘The court may by order enable the administrator of a company to dispose of property which is subject to a security (**other than a floating charge**) as if it were not subject to the security . . . subject

to the condition that there be applied towards discharging the sums secured by the security... the net proceeds of disposal of the property.’ [para.71 Sch.B1 IA 1986]

“‘Property” includes money, goods, things in action, land and every description of property wherever situated and also obligations and every description of interest, whether present or future or vested or contingent, arising out of, or incidental to, property.’ [s436 IA 1986]

An administrator can distribute the prescribed part to unsecured creditors without court permission. Other unsecured distributions generally require court permission or the commencement of a ‘Creditors’ Voluntary Liquidation’, when the liquidator would make the distributions (assuming Administration does not follow a Part A1 Moratorium).

‘A payment may not be made by way of distribution under this paragraph to a creditor of the company who is neither secured nor preferential unless (a) the distribution is made by virtue of section 176A(2)(a) [the prescribed part, discussed below], or (b) the court gives permission.’ [para.65(3) Sch.B1 IA 1986].

Payout Order

Distribution of proceeds from the sale of assets follows a set order. Using the example below (in £’000s), amounts due to fixed charge holders (£90k) are paid first from the net proceeds (after costs) of their charged assets (£100k), usually by a receiver appointed by the charge holder. Any surplus (£10k) is added to proceeds from the realisation of unsecured ‘free’ assets (£250k), before ‘Preferential Creditors’ (£50k) are paid off. The funds available for the floating charge holder from the sale of its charged asset (£150k) would be reduced by the prescribed amount (see formula below – capped at £800k if the floating charge was created on or after 6 April 2020) set aside for unsecured creditors (£33k) before the balance is paid to floating charge holders (£117k). Cash available for distribution to unsecured creditors (£243k) is used to pay unsecured creditors up to the prescribed amount (£33k), with funds remaining (£210k) being paid to the unsecured creditors and floating charge holders *pari passu* (£166k and £44k, respectively). Unsecured creditors and floating charge holders in the example will lose £21k and £14k respectively [s176A Insolvency Act 1986].

	Fixed		Floating		Free	
	Cash	Debt	Cash	Debt	Cash	Debt
Proceeds from sale of assets	100	90	150	175	250	220
Debt						
less: paid to fixed charge holders	(90)	(90)				
Surplus	10					
Transferred to general estate	(10)				10	
less: liquidation costs			-			
less: paid to preferential creditors					(50)	
less: ‘Prescribed Part’ (50% x £10k + 20% x (£150k - £10k))			(33)		33	
less: paid to floating (in excess of prescribed part)			(117)	(117)		
			-	58	243	220
Less: repayment of unsecured creditors – prescribed part					(33)	(33)
Less: repayment of unsecured creditors + floating charge deficit			(44)	(210)	(166)	
			14	-	21	

The floating charge holder and unsecured creditors bear the shortfall (£14m and £21m, respectively, or 8.0% and 9.55% losses).

$$44 = 210 \times 58 / (58 + 220)$$

Forward Exchange Rates

A Forward Exchange Rate is the rate that prevents any arbitrage profit from (1) at time 0: borrowing in currency A at an agreed currency A interest rate → exchanging at t_0 spot rates into currency B → depositing currency B at an agreed currency B interest rate → (2) at time 1: exchanging the deposit and accrued interest at t_1 forward rates into currency A → repaying the currency A loan and accrued interest. The agreed forward rate for future exchange is the rate at t_0 to ensure no profit is made. In this example:

- On 8 July 2026, £8,503,363 is borrowed at 3.767% p.a. for 92 days and used to purchase €9,941,035, which is immediately placed on deposit at 2.321% p.a. for 92 days. Spot rate: 1.16907 (0.85538 inverse).
- On 8 October, the deposit matures for €10,000,000 and is exchanged for £8,584,108, which is used to settle the debt. Forward rate: 1.16494 (0.85841 inverse).

Purchase price (base currency)	EUR €	10,000,000
Forward period		92 days
Year		365 days
Dealing date	Monday	06 July 2026
Spot date	Wednesday	08 July 2026
Forward date	Thursday	08 October 2026
	<i>EUR €</i>	<i>UK £</i>
Spot rates at 08 July 2026	1.16907 = 1 GBP	0.85538 = 1 EUR
92 day rate at 08 July 2026	2.321% 360 days	3.767% 365 days
	2.353% 365 days	
Forward rates at 08 October 2026	1.16494 = 1 GBP	0.85841 = 1 EUR
	Spot date	Forward date
	EUR €	EUR €
Buy EUR € 9.941m spot at EUR € / UK £ 0.85538	9,941,035	
Deposit the euro	(9,941,035)	
Deposit + 92 days interest at 2.321% (ACT/360)		10,000,000
Exchange EUR € for sterling		(10,000,000)
	-	-
	UK £	UK £
Borrow UK £ 8.503m at EUR € / UK £ 0.85538	8,503,363	
Pay UK £ for EUR €	(8,503,363)	
Receive UK £ from EUR €		8,584,108
Borrowings + 92 days interest at 3.767% (ACT/365)		(8,584,108)
	-	-

		Forward rate (UK £ 8.584m / EUR € 10.000m)	0.85841 = 1 EUR
Forward rate	=	Spot x	Rate differential
	=	0.85538 = 1 EUR x	$\frac{1 + 3.767\% \times 92/365}{1 + 2.353\% \times 92/365}$
	=	0.85841 = 1 EUR	

where	Forward / Spot rates Difference		Interest rates (at PV) Difference
	$\frac{0.85841 - 0.85538}{0.85538}$	=	$\frac{3.767\% - 2.353\%}{1 + 2.353\% \times 92/365}$
	0.354320%	=	0.354320%

The 8 July forward rate for exchange on 8 October ensures no profit is achieved. A forward exchange contract would allow the acquirer to lock into the forward rate and be certain of the exchange rate when making payment funded from sterling.

Currency Options

A buyer of a Currency Option has the right to buy (Call option) or sell (Put option) a stated amount of foreign currency on a specified date (Exercise Date) at an agreed exchange rate (Exercise Price) in return for paying an upfront premium (see 'Security Valuation – Option Pricing' for a discussion of stock option pricing for call options). On closing, an acquirer could pay sterling at the stated exchange rate in return for receiving the foreign currency that would be paid as the purchase price. Whilst the forward contract locks in an exchange rate, the option allows the holder to benefit if exchange rates move in a favourable direction by not exercising the option (but at a cost).

Currency call options can be priced using the Black-Scholes Model (adapted by Garman and Kohlhagen (1983)) or the Binomial Model (many steps would be required, so the BM is not shown). For example:

- using the rates from the above forward example with valuation date 8 July 2026 (spot rate 0.85538) and forward date 8 October 2026 (forward rate 0.85841)
- adjusting the discrete rates to continuous rates (£ continuous rate = $\ln(1 + 3.7673\% \times 92 / 365) \times 365 / 92 = 3.7495\%$, € continuous rate = $\ln(1 + 2.3210\% \times 92 / 360) \times 365 / 92 = 2.3463\%$ as Euribor is ACT/360 basis)
- assuming volatility (annualised standard deviation) of 2.8675% (based on 66 daily ECB rates over 1/4/26 – 6/7/26, the trade date for the 8/7/26 spot valuation date)

Spot rate (GBP per EUR)	S	0.85538
Exercise price (GBP per EUR)	X	0.85841
Volatility (%)(standard deviation)	s	2.8675%
Time to Expiry (years)	T	0.252055
Risk free rate - domestic (continuously compounded)	r	3.7495%
Risk free rate - foreign (continuously compounded)	rF	2.3463%
$d1 = (LN(0.85538 / 0.85841) + ([3.750\% - 2.346\%] + 0.5 \times 2.867\%^2) \times 0.2521) / (2.867\% \times SQRT(0.2521))$		0.007198
$d2 = (LN(0.85538 / 0.85841) + ([3.750\% - 2.346\%] - 0.5 \times 2.867\%^2) \times 0.2521) / (2.867\% \times SQRT(0.2521))$ = 0.007198 - 2.867% x SQRT(0.2521 years)		-0.007198
N(d1) = NORMSDIST(0.0072)		0.502872
N(d2) = NORMSDIST(-0.0072)		0.497128
PV of spot at the foreign rate (= 0.85538 x EXP(-2.346% x 0.2521 years))		0.8503363
PV of spot x N(d1)		0.4276100
PV of ex price (= 0.86 x N(d2) x EXP(-3.75% x 0.25 years))		0.4227263
Call Price		0.0048837

Assuming a purchase price of €10m, the forward contract would lock in a price of £8,584,108 (€10m x 0.85841). The call option premium would cost £48,837 on 8 July, giving an effective cost at 8 October of £49,300 (compounded at 3.7495% continuous risk free rate over 92 days) which, combined with the £8,584,108 exercise cost, gives a total cost of £8,633,408. The breakeven exchange rate is therefore 0.85348 (£49,300 + €10m x 0.85348 = £8,584,108). If the actual rate on 8 October is below this, the option benefits compared to the forward.

Currency Swaps

In a Cross-Currency Swap, the acquirer could effectively convert a foreign currency loan, used to pay the purchase price, to a sterling loan by agreeing with a counterparty to pay interest on a sterling principal amount in return for receiving interest on a foreign currency principal amount (matched to the bank loan). The interest basis can be the same or different (floating ↔ floating, fixed ↔ fixed, floating ↔ fixed). It can commence immediately or in the future ('Forward Start Swap'), as in the example that follows.

To hedge exchange rate exposure from the assumed completion and loan draw down date (8 October), the acquirer enters into a cross-currency forward start swap on 6 July (the trade date for the 8 July spot valuation date used in the forward and option examples), agreeing to pay ten semi-annual interest payments, starting on 8 April 2027, in sterling at a fixed rate of 3.7673% in return for receiving euros at a floating rate starting at 2.775%. The swap rate that equates the PV of the swap cash flow streams at inception is 3.767%, assuming an exchange rate on 8 October of 0.85841 (the forward rate calculated above). The floating euro receipts would match the floating euro payments on the borrowings used to finance the €10m acquisition cost, ignoring any margin that would be added for credit risk. In this example, because the euro loan proceeds are used to pay the acquisition price, no initial exchange of principal will take place.

FORWARD START CROSS-CURRENCY SWAP

EURO												360 basis
Time	Swap time	Date	Year	Days	Par yield	Zero Discount Factors	Cumulative ZDF	Zero rate	Forward rate	Interest	Principal	Present Value
0		08 Jul 26										
1	0	08 Oct 26	0.256	92.00	2.321%	0.994104	0.508097					
2	1	08 Apr 27	0.750	180.00	2.620%	0.980499	1.488597	2.643%	2.775%	138,747		136,041
3	2	08 Oct 27	1.250	180.00	2.693%	0.966936	2.455533	2.708%	2.805%	140,269		135,631
4	3	08 Apr 28	1.750	180.00	2.693%	0.954089	3.409622	2.704%	2.693%	134,650		128,468
5	4	08 Oct 28	2.250	180.00	2.693%	0.941413	4.351036	2.701%	2.693%	134,650		126,761
6	5	08 Apr 29	2.750	180.00	2.693%	0.928906	5.279941	2.700%	2.693%	134,650		125,077
7	6	08 Oct 29	3.250	180.00	2.693%	0.916564	6.196505	2.699%	2.693%	134,650		123,415
8	7	08 Apr 30	3.750	180.00	2.693%	0.904386	7.100892	2.698%	2.693%	134,650		121,776
9	8	08 Oct 30	4.250	180.00	2.693%	0.892371	7.993263	2.697%	2.693%	134,650		120,158
10	9	08 Apr 31	4.750	180.00	2.693%	0.880515	8.873777	2.697%	2.693%	134,650		118,561
11	10	08 Oct 31	5.250	180.00	2.693%	0.868816	9.742593	2.697%	2.693%	134,650	10,000,000	8,805,146
Total PV												9,941,035
												@ 0.85538
Notional Principal in Euro: 10,000,000												Total PV 8,503,363

GBP												365 basis
Time	Swap time	Date	Year	Days	Par yield	Zero Discount Factors	Cumulative ZDF	Zero rate	Swap Rate	Interest	Principal	Present Value
0		08 Jul 26										
1	0	08 Oct 26	0.252	92.00	3.767%	0.990594	0.499368					–
2	1	08 Apr 27	0.750	182.50	3.767%	0.972279	1.471647	3.784%	3.767%	(161,695)		(157,212)
3	2	08 Oct 27	1.250	182.50	3.767%	0.954304	2.425591	3.777%	3.767%	(161,695)		(154,306)
4	3	08 Apr 28	1.750	182.50	3.767%	0.936660	3.362611	3.774%	3.767%	(161,695)		(151,453)
5	4	08 Oct 28	2.250	182.50	3.767%	0.919343	4.281954	3.773%	3.767%	(161,695)		(148,653)
6	5	08 Apr 29	2.750	182.50	3.767%	0.902346	5.184300	3.772%	3.767%	(161,695)		(145,904)
7	6	08 Oct 29	3.250	182.50	3.767%	0.885663	6.069963	3.771%	3.767%	(161,695)		(143,207)
8	7	08 Apr 30	3.750	182.50	3.767%	0.869289	6.939252	3.771%	3.767%	(161,695)		(140,559)
9	8	08 Oct 30	4.250	182.50	3.767%	0.853217	7.792469	3.770%	3.767%	(161,695)		(137,961)
10	9	08 Apr 31	4.750	182.50	3.767%	0.837443	8.629912	3.770%	3.767%	(161,695)		(135,410)
11	10	08 Oct 31	5.250	182.50	3.767%	0.821960	9.451871	3.770%	3.767%	(161,695)	(8,584,108)	(7,188,698)
									3.7673%			
Notional Principal in £						8,584,108	@ 0.85841	Total PV				8,503,363

A note on construction:

- The author could not obtain free forward curve data, so money market (spot) Euribor rates were used for the Euro par rates as at 6 July: 2.321% 3mth, 2.547% 6mth, 2.693% 12mth – the 9mth rate for 8 April 2027 is linearly interpolated between 2.547% and 2.693%. Rates are assumed flat thereafter. The sterling rate is constant. These are illustrative rates.
- Zero coupon discount factors are obtained from par yields using the 'bootstrapping' technique: Workings for Euro swap period 3:

Time Period	Year	Par yield (nominal)	Rate % per period	Zero Disc. Factor	Cumulative ZDF	Zero Rate	Forward Rate
3		$(1 - 1.347\% \times 2.455533) / (1 + 1.347\%) =$			0.954089		
			$0.954089 + 2.455533 =$	3.409622			
			$((1 / 0.954089) ^ (0.5 / 1.75) - 1) \times 2 =$	2.704%			
				$(0.966936 / 0.954089 - 1) \times 2 =$	2.693%		