



**A guide to the incremental
borrowing rate**

Assessing the impact of
IFRS 16 "Leases"

September 2017

Given a significant number of organisations are unlikely to have the necessary historical data to determine the interest rate implicit in the lease (“IRIL”) for transition, we expect that the use of the incremental borrowing rate (“IBR”) will be relatively widespread at the date of adoption.

Additionally, any company choosing to use the modified retrospective approaches is required to use the IBR.

Companies may be more readily able to determine the IRIL for some leases entered into after transition, however we think that it is likely that companies will enter into other leases which require the continued use of the IBR.

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Executive summary

Overview

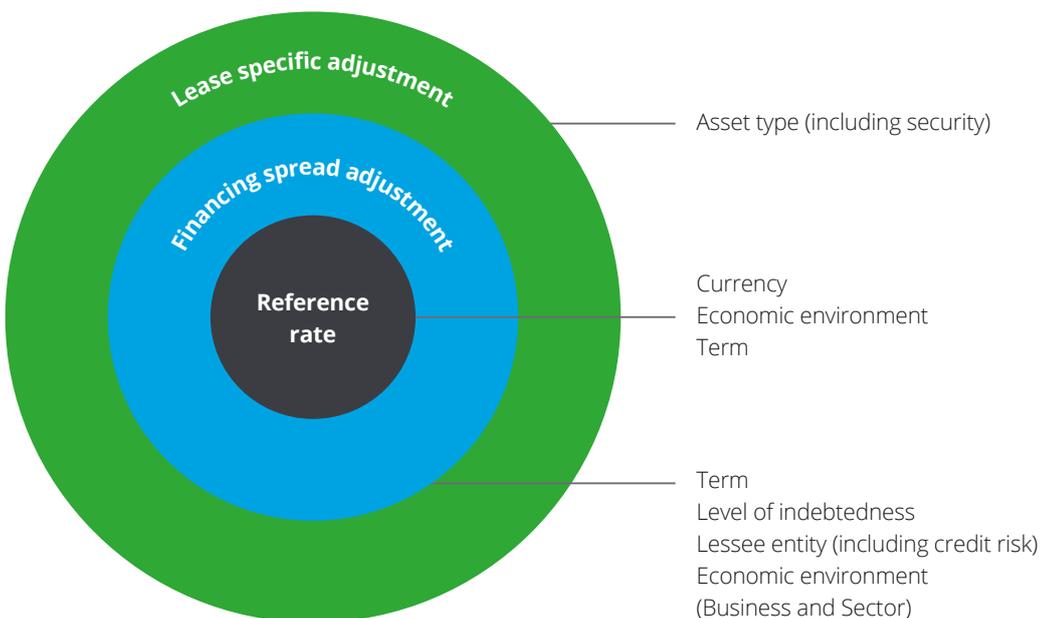
The issuance of IFRS 16 Leases has resulted in a significant number of companies expecting to see material changes in the presentation of their financial statements as a result of bringing operating leases onto the balance sheet and changing the way in which expenses are recorded in the income statement. The discount rate assumption is one of the most important judgements that management will need to make and the one which may have the largest quantitative impact on the lease asset and liability valuations.

In this short paper we set out our initial thinking about how companies could choose to meet this requirement, both in terms of the theory but also in terms of the data and approaches available to financial statement preparers to enable them to select appropriate discount rates at transition and on an ongoing basis.

Key messages

1. Many companies are grappling with the challenges of readily determining, for each lease, the interest rate implicit in the lease (“IRILL”) and so are looking to determine an incremental borrowing rate (“IBR”). In addition, those considering one of the modified transition approaches will be required to use the IBR at the date of initial application.
2. There are a number of factors to consider in determining an incremental borrowing rate, many of which need data points in order to be able to reliably quantify any necessary adjustments to arrive at the final discount rates.
3. Common data points used to start determining an incremental borrowing rate are relevant interest rate yield curves as well as government and corporate bond rates. However, repayment profiles for these can differ from the payment profile of an individual lease. Care needs to be taken to avoid defaulting to the full duration of the lease term when selecting appropriate data points.
4. Another source of data which can help benchmark the incremental borrowing rate is property yields. However it is difficult to quantitatively adjust these rates to arrive at an incremental borrowing rate.
5. Companies are already starting to document their methodologies for determining incremental borrowing rates and in doing so are identifying some of the more subtle complexities and judgements required.

One approach to determining an incremental borrowing rate is to take into account the following three key components, which enable consideration of a number of important lease characteristics required by IFRS 16.



Impact on IFRS 16 project plans

While determining an incremental borrowing rate may be less onerous than determining an interest rate implicit in a lease, our view is that companies should not underestimate the time it will take to define their approach in this area and determine appropriate discount rates. This should be an area which companies address early in their IFRS 16 implementation project given the need to engage with their external auditors. In particular:

- Determining incremental borrowing rates which satisfy the requirements of IFRS 16 will require companies to perform a thorough consideration of their debt financing arrangements and the types of leases they typically enter into.
- We believe that companies need to define a robust repeatable process which determines discount rates to an appropriate level of precision, which will depend on the materiality of the undiscounted lease cash flows in the context of the overall financial statements.
- While defining an appropriate accounting policy and methodology may not be challenging in itself, gathering the required data to quantify some of the key items could take time. Fully considering all factors relevant to determining an incremental borrowing rate, including the asset type and lease term, is key to ensuring that any necessary data points are identified and obtained well in advance of transition. This may require additional data to be obtained from third parties.
- We believe that companies with material lease liabilities should not default to a starting position for setting their IBRs based on materiality and sensitivity analyses but rather should seek specialist input if necessary to obtain the most appropriate data points.

Reference rate (page 8)



- This will generally be relevant government bonds or currency LIBOR (swap) rates reflecting a risk free rate.
- Consider repayment profile when aligning the term of the lease with the term for the source of the reference rate.
- Adjust reference rate for unusual items such as hyperinflationary economies, currency unions (eg Eurozone) and countries which use a currency that is not their own (eg Ecuador using the US Dollar).

Financing spread adjustment (page 12)



- Ensure credit spread data points are relevant at the lease inception date or date of initial application.
- Use credit spreads from debt with the appropriate term, otherwise estimate.
- Be aware that funding policies, such as centrally funded groups, may not be relevant considerations for determining the IBR of a subsidiary lessee.

Lease specific adjustment (page 17)



- Make an adjustment if there is benefit to the lender in the form of a secured asset.
- Lessees unlikely to have secured borrowing rates to use as data points so consider asking banks or lenders, or undertake market analysis.
- Use market yields for certain assets, such as property, as an additional data point and to sense check the overall IBRs calculated.

A guide to the incremental borrowing rate



The requirements

Background

IFRS 16 was issued in January 2016 and it is required to be adopted for periods beginning on or after 1 January 2019, with early adoption permitted under certain circumstances. It applies to nearly all leases, with the principal difference to lease accounting under IAS 17 being the requirement to bring almost all leases onto the balance sheet, consistent with how finance leases have been treated under IAS 17.

In practice this requires companies to record a right of use asset and a lease liability, with the liability being established as the present value of future cash flows a company will pay over the life of the lease. A key input into the present value calculation is the discount rate, which may have a material impact on the valuation of the lease liability recorded. Consequently, determining appropriate discount rate assumptions will be a key step in adopting IFRS 16 and in continuing to apply it going forward.

In this short paper we set out our initial thinking about how companies could choose to meet this requirement, both in terms of the theory but also in terms of the approaches and data available to financial statement preparers to enable them to select appropriate discount rates at transition and on an ongoing basis.

We fully expect methodologies to evolve as companies start to apply IFRS 16 in practice.



Determining a discount rate

IFRS 16 sets out the discount rate requirement as follows:

“At the commencement date, a lessee shall measure the lease liability at the present value of the lease payments that are not paid at that date. The lease payments shall be discounted using the interest rate implicit in the lease, if that rate can be readily determined. If that rate cannot be readily determined, the lessee shall use the lessee’s incremental borrowing rate.”

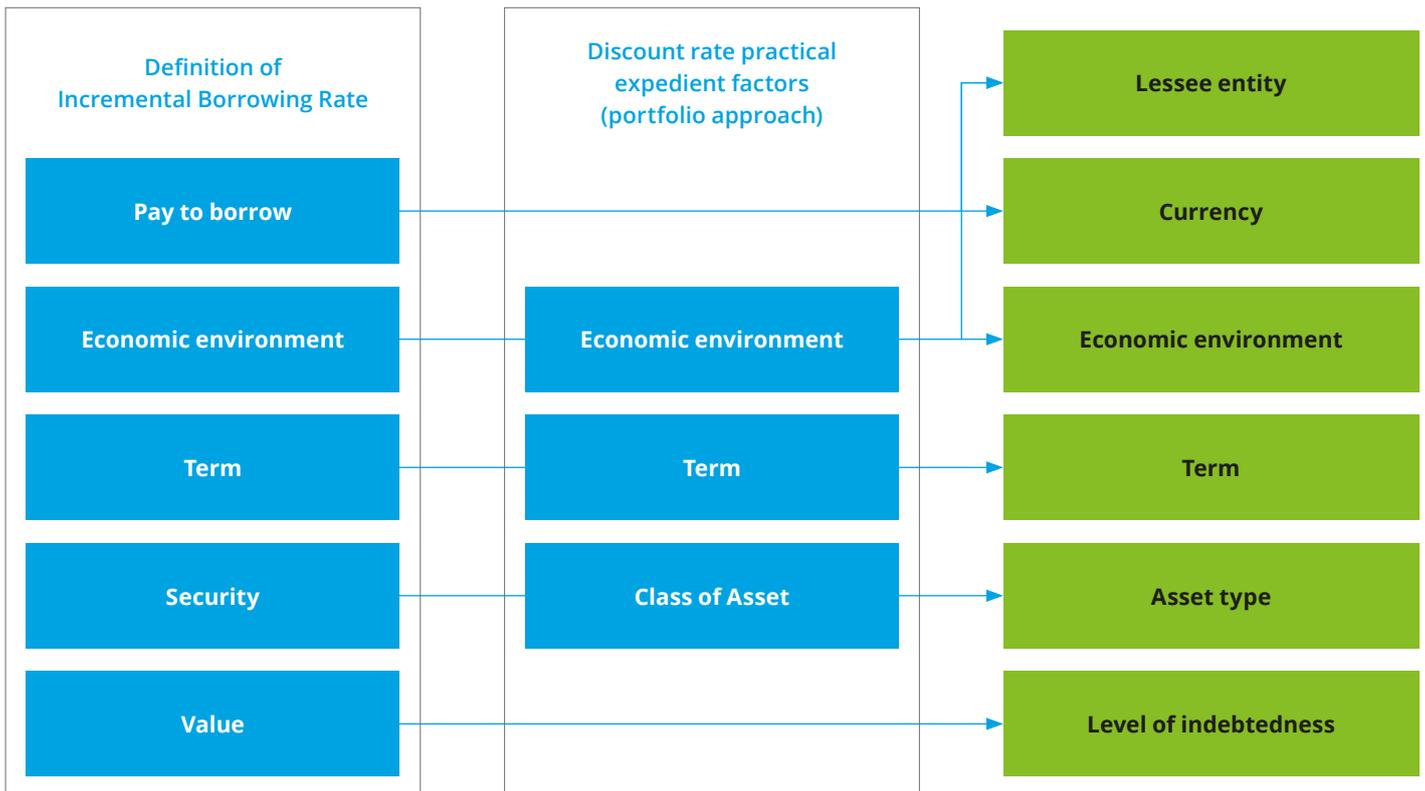
Given a significant number of organisations are unlikely to have the necessary historical data to determine the interest rate implicit in the lease (“IRILL”) for transition, we expect that the use of the incremental borrowing rate (“IBR”) will be relatively common at the date of adoption. Additionally, any company choosing to use one of the modified retrospective approaches is required to use the IBR. For leases signed after transition, companies may be more readily able to determine IRILL, however we think that it is likely that companies will enter into leases which require the continued use of the IBR.

Lessee’s incremental borrowing rate
 “The rate of interest that a lessee would have to **pay to borrow** over a similar **term**, and with a similar **security**, the funds necessary to obtain an asset of a similar **value** to the right-of-use asset in a similar **economic environment**.”

Additional detail on determining the incremental borrowing rate can be found in the guidance outlining the transition related practical expedient for using a single discount rate for a portfolio of leases:

“a lessee may apply a single discount rate to a portfolio of leases with reasonably similar characteristics (such as leases with a similar remaining lease term for a similar class of underlying asset in a similar economic environment).”

Combining these two aspects together gives what we believe are six factors requiring consideration in determining an IBR, either for an individual lease or a portfolio of leases.



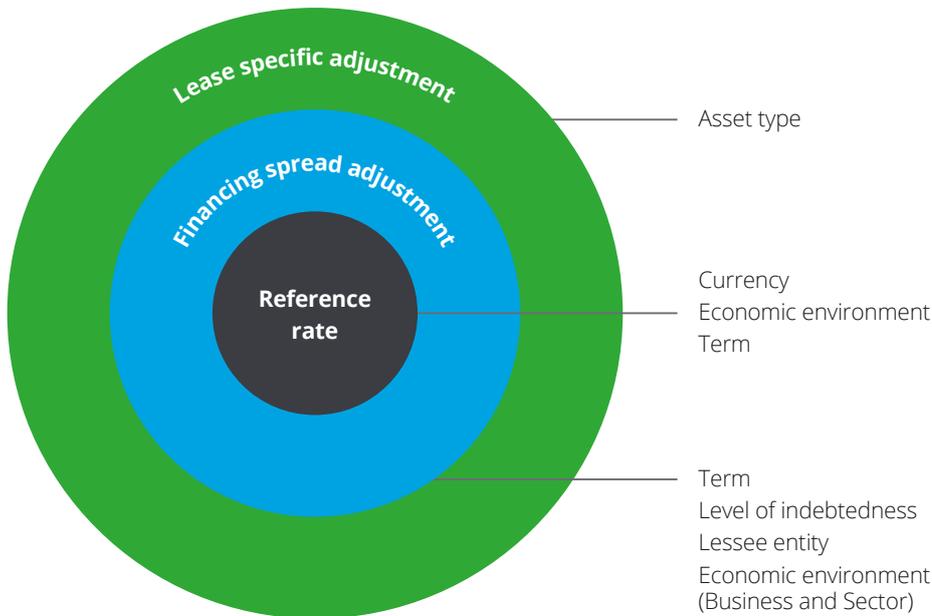
A three-step approach to the composition of discount rates

The composition of the IFRS 16 IBR

The six key factors outlined on the previous page bring together certain elements of a lease’s characteristics in a way which we believe should be considered in setting the discount rate for an individual lease or a portfolio of leases.

While a discount rate is a single value, it is typically derived from a number of different data sources and can factor in various adjustments so that the overall discount rate is appropriate for its intended use. Comparison of the IBR with other rates used in IFRS, such as the capitalisation rate in IAS 23 “Borrowing Costs” or the discount rate in IAS 36 “Impairment of Assets”, shows that the IBR is not a direct match for these. Companies’ existing processes and data for determining these rates will therefore not necessarily be appropriate for determining an IFRS 16 IBR and so, in our view, there is a need to start with a fresh approach.

We believe the IBR, and specifically the six factors outlined on the previous page, can be determined by considering three key components, as set out in the diagram below.



On the following pages we will go through each of these three key components in turn, outlining how companies could consider approaching them and what data they will have available to assist them in determining an IBR.

Step 1: Determining the reference rate



Determining an appropriate reference rate through the use of risk free rates (eg government bond yields or interest yield curves such as LIBOR) is a relatively well understood and comprehensively documented process in the UK but companies adopting IFRS 16 have to ensure they consider the three factors outlined below.

Factors to consider	Issues and challenges	Possible solutions
Currency	<ul style="list-style-type: none"> It is not uncommon for a lease to have cash flows denominated in a different currency to the functional currency of a lessee. Different jurisdictions have different risk free rates and so borrowing rates can vary significantly between countries. 	<ul style="list-style-type: none"> Borrowings are typically matched with the currency of the cash outflows expected in order to remove foreign exchange risk. The IBR should be the rate at which the lessee could obtain funding for the asset in the foreign currency, see following page. For example, lease cash flows denominated in USD or GBP (or any other currency) should be matched with the appropriate risk free rates, such as those determined from US Treasury Bills or UK Gilts.
Economic environment	<ul style="list-style-type: none"> For countries operating in unusual or distressed circumstances, the risk free rates at a particular point in time may not, on their own, be the appropriate starting point for determining a rate that a lessee would be able to borrow at. 	<p>Examples where specific adjustments* in this regard may be warranted include:</p> <ul style="list-style-type: none"> countries where the currency used is not their own (principally US Dollars or Euros are used); countries in a currency union (most notably the Eurozone); and countries with hyperinflationary economies. <p>Examples of how such situations could be considered are given on the following page.</p>
Term	<ul style="list-style-type: none"> As risk free rates exist for various different durations, the chosen rate should be matched with the lease term, as defined by IFRS 16. While a risk free rate determined from government bonds or interest rate yield curves assumes repayment of the capital at maturity, for an operating lease the repayments are typically spread over the lease period. 	<ul style="list-style-type: none"> The relevant duration of government bonds to consider is not the total lease term (including any extension options) but a weighted average lease term. This is illustrated further on page 10 by an example.

*Care should be taken that any adjustments for these factors are not double counted in the financing spread adjustment, in particular when considering the lessee entity.



Example 1: Foreign currency leases

Consider a company with a Euro functional currency, which has a treasury policy to obtain financing in Euros. The company leases a ship; the lease payments are specified in US Dollars and the interest rate implicit in the lease is not readily determinable.

The company has to determine the incremental borrowing rate, defined as *'The rate of interest that a lessee would have to pay to borrow over a similar term, and with a similar security, the funds necessary to obtain an asset of a similar value to the right-of-use asset **in a similar economic environment.**'*

Illustrative example 13 in IFRS 16 makes reference to determination of an incremental borrowing rate: *'The interest rate implicit in the lease is not readily determinable. Lessee's incremental borrowing rate is 5 per cent per annum, which reflects the fixed rate at which Lessee could borrow an amount similar to the value of the right-of-use asset, **in the same currency**, for a 10-year term, and with similar collateral.'*

This clarifies that the currency in which the lease is determined forms part of the **economic environment** for which the borrowing rate is assessed. For the company in question it is the US dollar incremental borrowing rate that has to be determined.

Example 2: Currency union – practical considerations

Consider a currency union comprising 10 countries with average economic growth of 1.5% per annum over the past 50 years. Country A has had average economic growth consistently above this average at around 2.5% per annum and Country B has had average economic growth consistently below this average at around 0.25% per annum. All other countries have been broadly in-line with the average. The currency union has publicly traded bonds, issued on behalf of all 10 countries.

In determining a reference rate for leases entered into in any of these 10 countries, it would be normal to start by considering the risk free rates of the traded bonds. However the differing economic environments between Country A and Country B would, in our view, warrant some level of adjustment to the risk free rate in order to reflect the situation a lessee in each of these two countries would find themselves in when negotiating with a lessor.

Country Y and Country Z, neither of which are in the currency union, have average economic growth rates similar to Country A and Country B respectively as well as other similar economic factors. Benchmarking the risk free rates of Y and Z could therefore provide an indication of what quantum of adjustment could be made to the risk-free rates of the currency union in order to arrive at appropriate rates for A and B.

Example 3: Currency used is that of another country

Consider Country A which uses and is responsible for Currency A, with monetary policy being set based on the economic growth factors of Country A only.

Country B has given up using its own currency and now officially uses Currency A as its own national currency. Country B has no input into the economic policies or factors used by Country A in setting its monetary policy.

If a company based in Country B were to enter into a lease, with payments being in Currency A, they would initially start to determine a reference rate by obtaining data for the risk-free rates for Country A. While those risk-free rates will align with the currency in which the lease payments are denominated, the rates are unlikely to be reflective of the economic environment of Country B, the location in which the lease was entered into.

The company would therefore need to consider how to adjust the risk-free rate data points available in order to arrive at a reference rate which reflects both the currency and economic environment of Country B. This could include consideration of any publicly traded government bonds issued by Country B and the related data points, or perhaps looking at the credit rating ascribed to the country by lenders to determine a quasi-credit adjustment as if Country B were a corporate entity.



Example 4: Determining a weighted average lease term

We have estimated the weighted average lease term based on the following market standard approach:

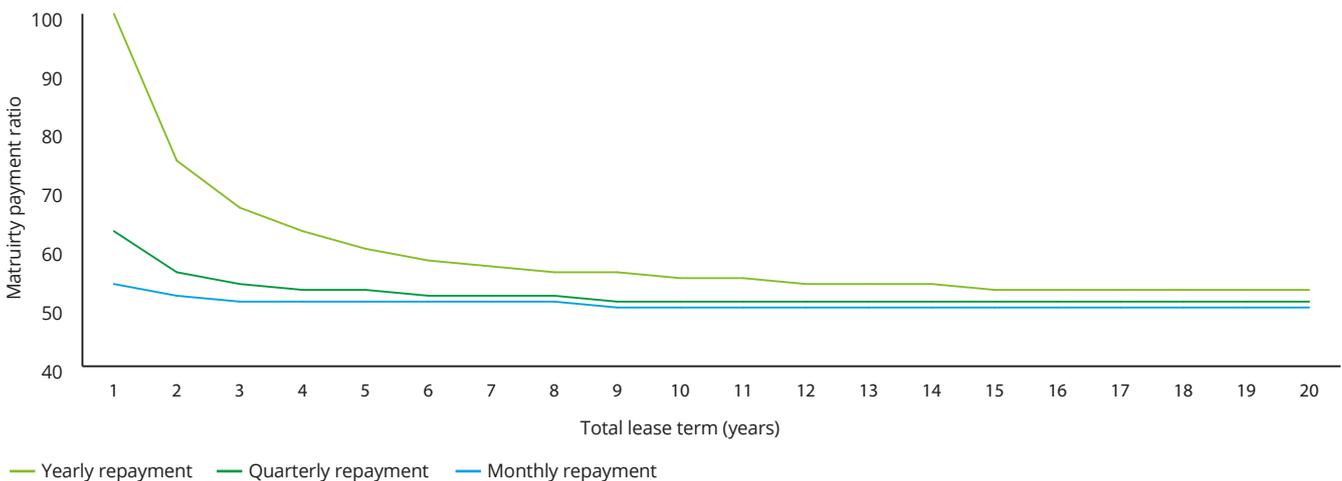
- a) A weighted average repayment maturity for term debt, assuming full repayment at the end of the term.
- b) A weighted average payment profile for a lease, assuming equal annual payments made at the end of each period and no initial rent free period.
- c) The ratio of (a) and (b) expressed as a percentage (the maturity payment ratio).

The table below illustrates this for (a) a 10 year £100m government bond (no interest assumed for simplicity) and (b) a 10 year lease with £10m annual payments made at the end of the year. The resulting ratio is 55%.

Year	1	2	3	4	5	6	7	8	9	10	Total	Weighted average repayment maturity
Bond cash flows	-	-	-	-	-	-	-	-	-	100	100	10.0
Weighted payments	-	-	-	-	-	-	-	-	-	1000	1000	
Lease cash flows	10	10	10	10	10	10	10	10	10	10	100	5.50
Weighted payments	10	20	30	40	50	60	70	80	90	100	550	

The resulting graph below outlines how the maturity payment ratio varies against the total duration of the lease.

Comparison of total lease term against maturity payment ratio



This graph shows that:

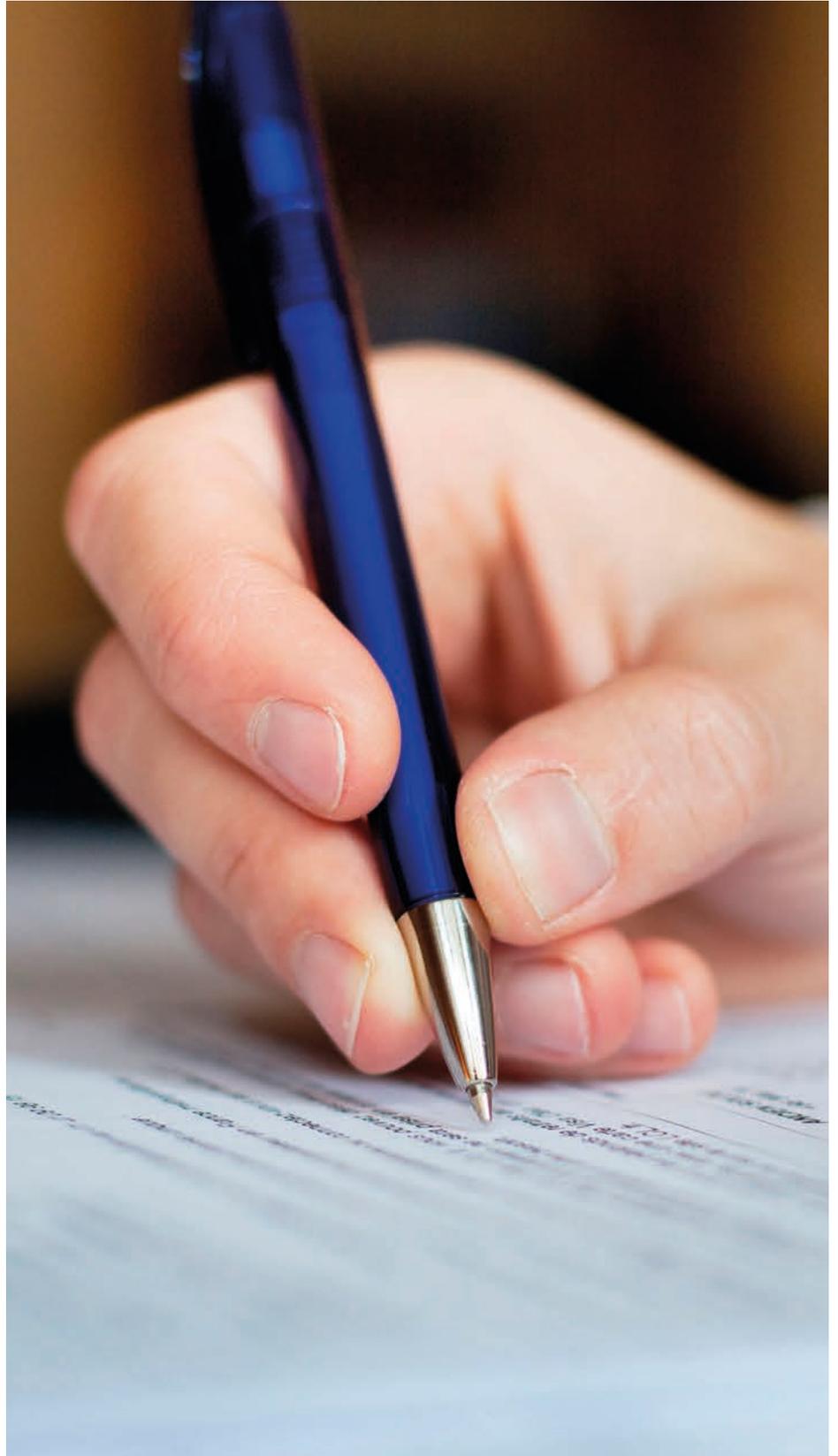
- a lease with a 5 year contractual term and an annual repayment profile would correlate to a government bond with 60% of this duration, so a 3 year debt instrument.
- assuming more frequent payments, such as quarterly or monthly payments commonly found in leases, makes the curve trend to 50% more quickly.

A typical approach used for setting discount rates to determine defined benefit pension scheme liabilities also matches bond durations against the weighted average duration of the pension liabilities, rather than the maximum term of the liabilities. A similar approach for leases would therefore appear appropriate.



In general there is publicly available data available for risk free rates, interest rate yield curves and government bonds however there may be some circumstances when exact matches to the characteristics of an underlying lease cannot be made for the currency, the term or the date on which the risk free rate was measured. In such cases, a degree of judgement or estimation may be required to determine a suitable reference rate.

Applying a portfolio approach to leases denominated in different currencies, with different terms or in different economic environments may not give an answer that is materially consistent with determining individual IBRs. If applying the full retrospective approach then the lease commencement date will also be an important factor in determining portfolios. Care should therefore be taken when using the portfolio approach to ensure the risk free rates used as a starting point to determine the IBR are appropriate for the portfolio as a whole.



Step 2: Determining the financing spread adjustment



The data available to companies to calculate their financing spread adjustment will depend on the type of organisation and the financing structures they have chosen to use. We have outlined below three examples of possible financing structures; for each debt structure there are differences in the data points available to calculate the component of the IFRS 16 discount rate.

Types of debt financing	Typical types of companies	Data points available
Multiple debt financing arrangements, including bonds, loan notes and bank facilities	Large Public Interest Entity	Multiple data points
One primary debt financing arrangement, most likely to be a bank facility	Public Interest Entity/Private Company	Single data point
No significant debt financing arrangements	Private Company	None

There are two key points to note:

1. For companies which have issued debt listed on a public exchange, it may be that they have rates available which comprise both the reference rate and the financing spread adjustment – an “all-in rate”.
2. For some organisations data may be available for individual lessee entities, where subsidiaries are themselves debt issuers (see the first and second combinations below). For other organisations, data may only be available for the Group, being the parent company itself or dedicated financing companies operating on the parent company’s behalf (see the third and fourth combinations below).

Combinations of possible data points

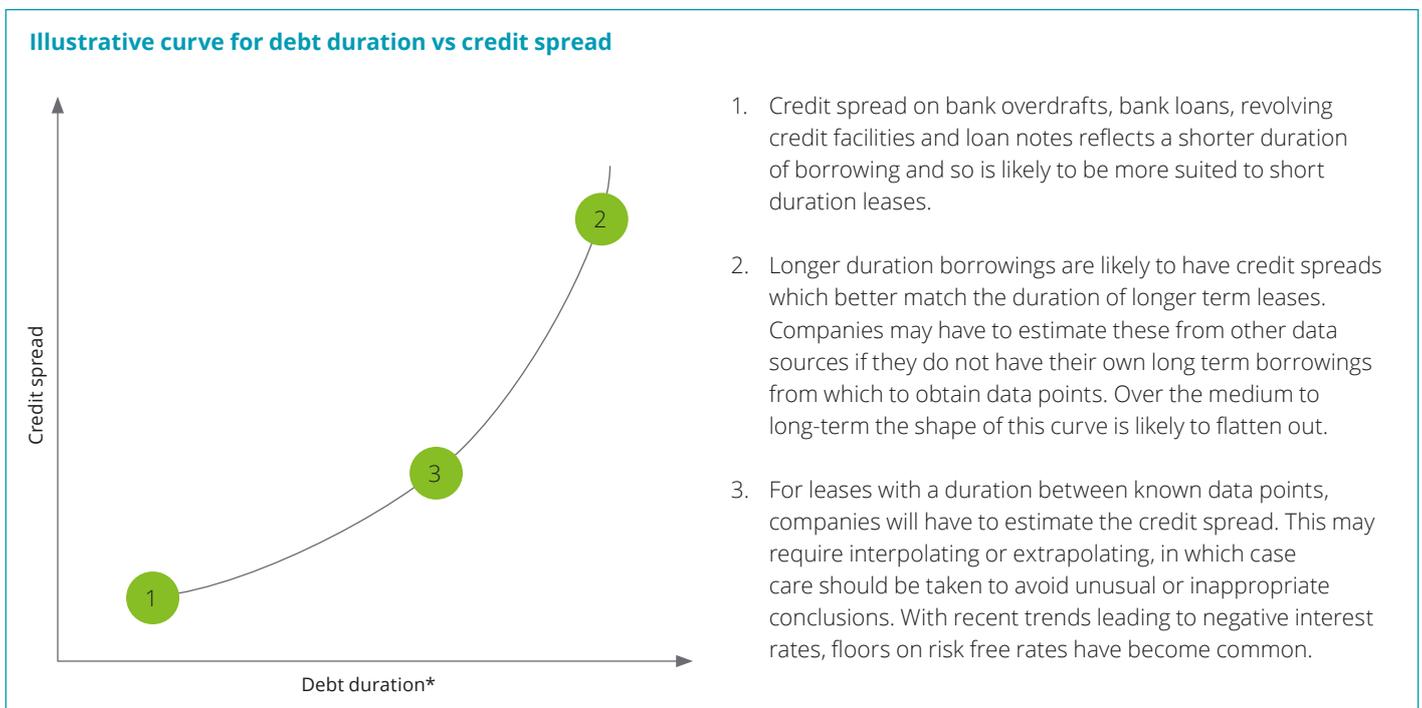
Lessee specific “all-in” rate		
Reference rate	Lessee credit spread	
Reference rate	Group credit spread	Lessee credit spread
Group “all-in rate”		Lessee credit spread

Care should be taken when using an “all-in rate” as typically companies have only a limited number of data points available (e.g. only certain currencies, or certain terms) and so it may also be appropriate to separately determine a reference rate and financing spread adjustment to ensure the three factors outlined on page 7 are fully assessed.



For companies with zero debt and/or net cash balances, this process may require consideration of both historical as well as future debt facilities, in order to assess whether the historical position is representative of the underlying position of the business. We do not believe it is reasonable to assume that companies in this situation will have a zero spread, as IFRS 16 requires the discount rate to reflect the rate of interest the lessee would have to pay to borrow.

For companies with few, if any, individual data points on their credit spread, it may be appropriate to seek indicative pricing from several banks or look to other data points available, such as similar sized companies in a similar industry as different sectors and industries can differ widely in terms of credit risk. The illustrative graph below sets out why this is the case.



*Similar to the example on page 10, there is a need for companies to consider the weighted average lease term against the weighted average payment period for their debt, rather than the absolute term durations. For example, high yields or unusual repayment profiles may mean that the duration of the debt is not appropriate for matching directly to the weighted average lease term, and so additional analysis may be required.

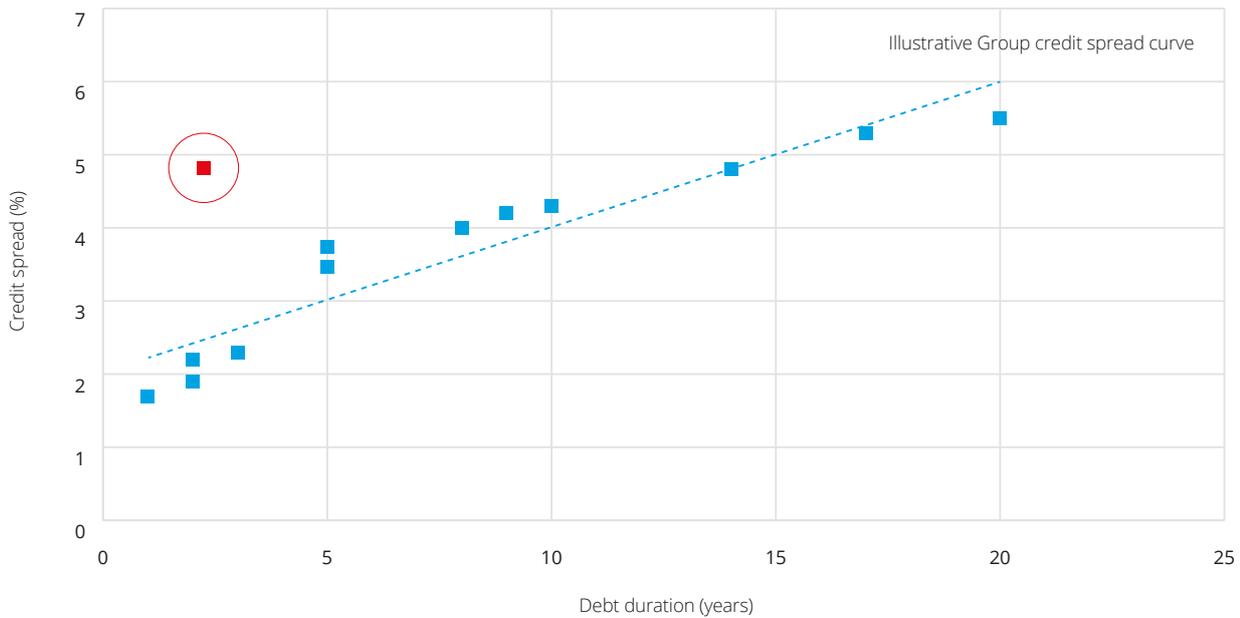


Example 5: Determining a group and subsidiary credit adjustment

A Group with international operations principally in Asia has a range of debt financing arrangements, including bank overdrafts, revolving credit facilities and bonds of both medium-term and long-term durations. The Group policy is to obtain all debt financing centrally from a parent company and head office perspective, in order to minimise the costs of finance. The data points for its debt arrangements are included in the graph below, the currency of which matches the currency of the majority of lease cash flows throughout the Group.

For one subsidiary that operates in South America, the Group has allowed it to obtain a small local bank facility in order to comply with local regulatory and tax requirements. The Group has not guaranteed this facility, which is shown in red in the graph below.

Comparison of debt duration versus credit spread



In determining a group credit adjustment, it may be appropriate for the company to exclude the local bank facility, on the basis that it does not provide reliable evidence to the credit adjustment for the Group as a whole. Additionally the local bank facility is likely to be insignificant in value when compared with the larger value Group banking facilities and so on a weighted value basis would have negligible impact compared to the other data points. Given the shortage of data points at medium-term durations, it may then be appropriate to estimate the credit spread using the remaining short-term and long-term data points to determine a Group credit spread curve, as illustrated.

When determining a subsidiary credit adjustment for the South American entity, this single data point provides some valuable context for the individual lessee entity. It indicates a 200-300bps margin on top of the Group debt facilities of similar short-term duration. For longer durations, the company could start by estimating the South American entity credit spread by consistently supplementing the Group credit spread curve with an additional 200-300bps margin, however it is likely that the subsidiary credit spread adjustment would need to be increased for longer duration leases.



For a number of entities, credit spreads obtained from key financing arrangements (as described on page 12) will relate to the parent company of a group, which may or may not be the entity that is party to the lease arrangements.

- While companies may want to take into consideration the group's debt structure and historical funding mechanisms to argue that all borrowings are group-led, IFRS 16 is very clear that the incremental borrowing rate is lessee specific.
- Given the lessee is responsible for making the lease payments, we believe it is appropriate to consider what rate the lessee would achieve on their own, even if theoretically all funding would ultimately be achieved through a group debt structure.
- Depending on who the issuer is, and whether there are written guarantees for the lease payments in place, it may mean that in some instances it is appropriate to determine a group credit spread that is applicable to all lessees in a group.

To determine the lessee credit spread in the situation where group credit spread data points are available, we think companies should be taking into account the following factors:

Factors supporting an increased IBR for the lessee (a positive lessee credit spread)	Factors supporting the same, or a decreased IBR, for the lessee (a negative lessee credit spread)
Loss-making subsidiary, intermediate holding company or equivalent type of entity.	Profitable trading subsidiary in good financial standing, with lender able to benefit as other creditors are structurally subordinated (ie debt lower down the group structure is more likely to be recovered in the event of a default).
Reduced ability to generate dividend income for the parent company, so the company is not positively contributing to the overall Group credit rating.	Lease is contractually guaranteed by the parent company, or another Group company which is profitable on a standalone basis.

Companies may need to seek specialist input to get indicative subsidiary financing rates, in order to be able to determine an appropriate adjustment.



Levels of indebtedness

In considering the value of the lease in determining an IBR, we would expect that a lender considers the overall level of indebtedness of the entity (ie leverage) and whether the value of the lease results in a change to the leverage ratio such that it warrants a higher IBR.

Typically leverage is assessed by financiers using the ratio of EBITDA to net debt (or an equivalent metric). Lenders have typically adjusted net debt under IAS 17 to include their estimate of the operating lease impact and so while the accounting under IFRS 16 will be different and therefore net debt: EBITDA ratios will likely change, we would expect the level of indebtedness to remain a relevant factor in considering whether to finance a new lease arrangement.

In practice, different financing structures may lead to additional assumptions when accounting for the overall level of indebtedness:

- **Revolving credit facility** – Revolving credit facility rates are a useful data point for assessing the credit spread to be used in the IBR. Taking into account revolving credit facility rates preparers should consider the relevance of any tiered rates or utilisation fees depending upon their level of indebtedness which includes lease liabilities.
- **Term loans/Bonds** – When these types of debt funding are used as a means to determining the level of indebtedness, the lessee should consider if they would be able to raise additional funds at the same level as their previous funding achieved or if additional indebtedness would likely lead to a higher margin being charged (in line with the principles of the utilisation fees discussed above).

One notable exception is that property assets are typically financed on a loan to value basis (“LTV”) and so the LTV ratio is also a relevant consideration in addition to the level of leverage for the lessee company. The LTV ratio is discussed further on the following page.

In considering the value of the lease in determining an IBR, we would expect that a lender considers the overall level of indebtedness of the entity (i.e. leverage) and whether the value of the lease results in a change to the leverage ratio such that it warrants a higher IBR.

Step 3: Determining the lease specific adjustment



The key requirement of IFRS 16 is that the discount rate is directly linked to the asset itself, rather than being a general incremental borrowing rate. In theory, the risk of default is mitigated for the lessor as they have the right to reclaim the underlying asset itself. With the right of use asset effectively being pledged as collateral against the risk of default, this is a secured lending arrangement. This is important because:

- when the lessee-specific credit spread is derived from corporate borrowings, these are typically unsecured lending arrangements; and
- taking into account the security of the underlying asset could reduce the credit spread charged by a lender.

While all leases will reflect a secured borrowing position, in practice certain assets may be more valuable to a lessor and easier to redeploy. For example:

- the costs of repossessing an asset of low value and/or short duration (eg a printer) would be high relative to the underlying value of the asset and the associated lease cash flows, so the benefits of having this security would likely be relatively insignificant; or
- for larger value assets and/or leases with a longer duration (eg a car or a property) the benefit of having security is more valuable as there is increased likelihood of the lessor obtaining value in the event of default.

Assuming the loan financing arrangement is at fair value, the value of the lease financing is equal to the value of the underlying asset which would be obtained by the financier. This means that the LTV ratio would therefore be 100%. In theory, a secured financing adjustment for a particular asset class would be broadly equal for each lease, irrespective of the individual nature of the leased assets.

For most companies with unsecured borrowings, they will not have data points available to determine an adjustment for the lease itself, to reflect the secured position the lessor has. As such, they may need to approach their bank or lender to get indicative rates for unsecured and secured borrowings of different durations, in order to be able to determine an appropriate adjustment.

A potential, complementary, approach is obtaining data to support the relative magnitude of the final discount rate or the lease specific adjustment for specific asset classes. We discuss the potential use of property yields on the following page.





Property yields

In the basis for conclusions of IFRS 16, property yields is specifically identified as a potential data point for companies to consider:

“The IASB noted that, depending on the nature of the underlying asset and the terms and conditions of the lease, a lessee may be able to refer to a rate that is readily observable as a starting point when determining its incremental borrowing rate for a lease (for example, the rate that a lessee has paid, or would pay, to borrow money to purchase the type of asset being leased, or the property yield when determining the discount rate to apply to property leases). Nonetheless, a lessee should adjust such observable rates as is needed to determine its incremental borrowing rate as defined in IFRS 16.”

Purpose	For investors seeking to value property assets, a yield reflects the expected relationship at a point in time between income receivable and the valuation of the asset. The valuation is determined by a multiplier being applied to the rental income to be received, with the multiplier representing $1/\text{Yield}$.
Suitability	Valuing commercial property where all likely buyers in the market view the asset as an investment. It is less suitable for markets where owner occupiers are more prevalent than investors (e.g. residential properties and small scale industrial units). That makes it generally a good approach for valuing commercial investments such as offices, retail properties and larger industrial properties.
Determination	Determined by assessing the yield profile from recent, comparable sales of similar assets with similar characteristics. The “equivalent yield” reflected by comparable sales represents the weighted average of current and future rental income, smoothing out the effect of rent free periods and vacancy.
Factors of influence	“All Risks”, which includes location, quality of property, specification, future rental and capital growth prospects, tenant covenant strength (i.e. the ability of that tenant to meet its financial commitments) and local supply/demand dynamics in both the tenant (occupier) and investor markets.

In general terms, the lower the risk associated with the income from a property, the lower the applicable yield and the higher the multiplier driving the valuation.



In considering how a property yield would need to be adjusted to arrive at an IFRS 16 IBR, we have set out in the table below a summary of how it typically compares to the IBR and IRIL definitions in IFRS 16.

IBR	IRIL	Property yield
Lease specific debt borrowing rate	Lease specific lessor pricing rate	Lessor (i.e. freeholder) desired rate of return
Reflects lease specific current and future cash flows over the lease term	Reflects lease specific current and future cash flows over the lease term	Reflects implicitly expected future market rental growth for all future periods into perpetuity
Does not consider capital appreciation	Reflects capital appreciation over the lease term	Reflects capital appreciation into perpetuity
Reflects an individual asset’s quality	Reflects an individual asset’s quality	Reflects asset quality relative to the general quality of all assets in a particular market
Lessee specific rate	Lessee specific rate	Average market participant rate

We think it will be difficult for companies to quantitatively adjust property yields for the above factors to arrive at an IBR. However we do think that property yields provide some evidence of:

- (a) the range in which an IBR for a property lease would sit, with the property yield likely to represent the upper end of the range; and
- (b) the adjustments required between IBRs for properties of different types and in different locations (i.e. determining a lease specific adjustment).

For companies wanting to use property yields to help them determine lease specific adjustments, there are several important assumptions to be aware of:

- the currency of property lease cash flows are aligned with the currency in which the property is valued (ie its home market);
- the duration of the property yield data points available are aligned to the weighted average term of the lease, or that sufficient property yield data points exist bearing in mind that the longer the lease the lower the yield due to the longer period of rental income security; and
- the property yields are aligned to the characteristics of the property lease being assessed (i.e. in the quality, sector and location of the property).

While there are some publicly available data sources for benchmark property yields, these data points bring their own challenges, as they typically reflect agents' views of likely pricing for hypothetical “best in class” assets. Each asset is unique, and a bespoke view of yield could be applied to each asset, reflecting differences in perceived asset quality. If it is not practical to get a property valuer’s view of the specific yield applicable to each asset, companies may need to consider taking out specialist subscriptions in order to get access to more detailed benchmark data, in order to address or minimise some of the above challenges. Yields for secondary assets are much more difficult to determine, since there are much greater degrees of variance in respect of asset characteristics. Property yields can be used to value leasehold, as well as freehold interests, but leaseholds are rarely sold as investments, so these yields are especially difficult to determine and subject to a high degree of valuer judgement. On the following page we set out one potential example of how companies could use property yield data in this context.



Example 6: Property yields providing additional data to determine lease specific adjustments to IBR

Assume a company has a mixed portfolio of properties in 3 UK cities, consisting of offices, industrial warehouse and retail locations.

Assume relevant prime “best in class” benchmark property yields are as follows:

Type of property	London	Manchester	Birmingham
Office	3.50%	5.00%	5.50%
Industrial	4.50%	5.50%	6.00%
Retail	2.25%	4.50%	5.00%

Some themes that could be drawn from this data and used to adjust other data points to determine a more asset-specific IBR include:

- Industrial properties appear to, in general terms, trade at a 0.5%-1.0% premium to office properties; or
- Yields for properties in Birmingham appear to generally be 0.5% higher than equivalent properties in Manchester.

Timing considerations

All of the data points discussed so far are specific to a certain point in time, namely when the debt financing arrangement was entered into.

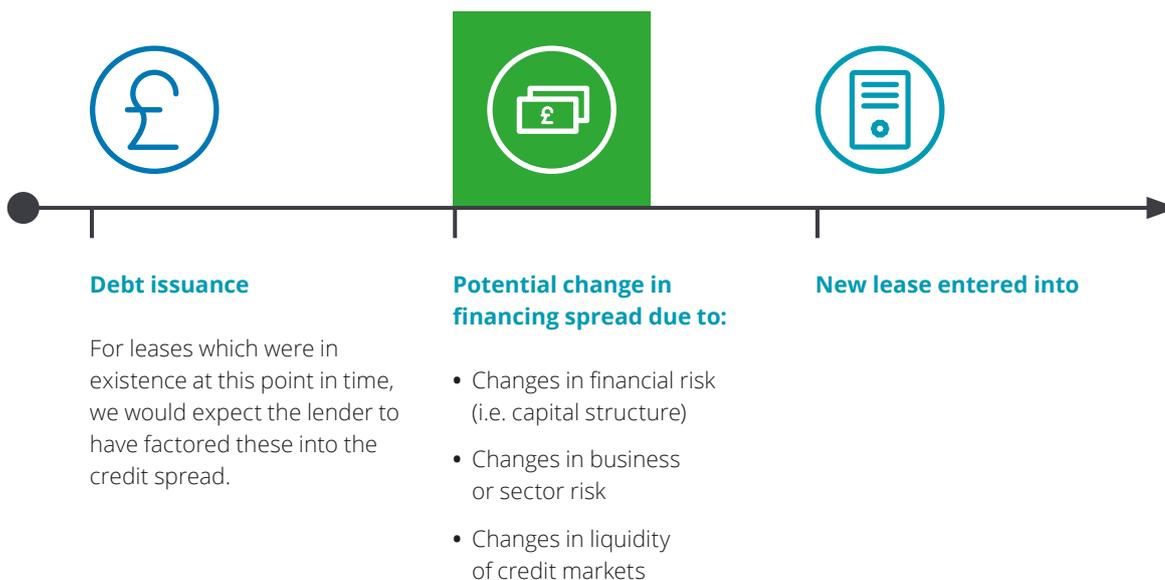
Typically this will not align with the date when a lease is entered into, so companies therefore need to consider whether adjustments to data points are required.

Reference rate

Data points for publicly listed government bonds, and interest rate yields are generally available on a daily basis, so companies should be able to align these with lease start dates. Certain currencies or duration of government bonds with fewer data points may require assessment at a weekly or monthly time period. Data is typically readily available for historical periods.

Financing spread adjustment

For debt arrangements which are publicly traded, daily, weekly or monthly credit spreads can be obtained depending on how actively the debt is traded. Otherwise there needs to be consideration as to whether the credit spread determined by the lender at the date the debt arrangement was entered into is still appropriate for use at the date of lease inception. Historical spreads may require adjustment changes since the date of debt issuance, as outlined in the diagram below.



Transition considerations

Economic impact of the transition

In addition to publishing the new lease accounting standard, the IASB published an effects analysis, highlighting the expected impacts of IFRS 16. This analysis states the following:

“The change to lease accounting does not affect a company’s economic position or commitments to pay cash, which are typically already considered by lenders.”

Based on this principle, companies need to be careful not to make adjustments which are not relevant to determining discount rates on transition. Specifically, the “level of indebtedness” adjustment discussed in Step 2 may not be required on transition, depending on transition approach taken and the relevant facts and circumstances, as it could be assumed that the outstanding borrowings were issued after having given due consideration of the pre-existing operating lease commitments. Following transition, the renewal of a lease may also not require assessment of certain factors, if the underlying economics have not changed from when the lease was originally entered into.

Retrospective implementation approach	Modified retrospective implementation approaches
<p>Issuers choosing the full retrospective implementation approach are required to determine discount rates as of the date of lease inception. This adds another layer of complexity to the factors discussed on the previous page in that different discount rates will need to be determined for leases that commenced at different times. For large issuers with a significant number of historical debt agreements, this may involve obtaining multiple data points at different periods in time.</p> <p>For companies with significantly less information available, the process to determine an IFRS 16 IBR may involve applying constant credit spreads to historical changes in reference rates, only taking into account significant changes in credit standing when data is available. Careful consideration and analysis will need to be applied to ensure the determined lease liability valuations are not materially misstated through the use of too broad or simplistic discount rate assumptions.</p>	<p>Those using one of the modified implementation approaches will be required to calculate all incremental borrowing rates as of the date of initial application, rather than as of the date of lease inception. We would therefore expect that the remaining term of each lease is considered, rather than the original lease term.</p> <p>Similar to the issues for the retrospective approach, issuers will need to consider timing differences and make appropriate adjustments to historical spreads that are no longer reflective of the credit standing or economic environment as of the transition date.</p>

These considerations are illustrated on the following page.

Example 7: Adjusting data points: Retrospective approach

Assume two leases exist at the initial application date of IFRS 16, entered into as follows, along with a debt issuance as indicated. The table below outlines how, based on the transition approaches available, the various data points would be considered for use in determining an IBR.

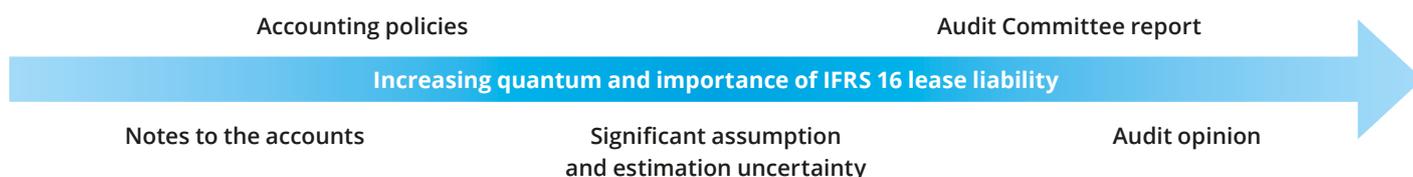


	Full retrospective	Modified retrospective
IBR	<ul style="list-style-type: none"> The IBRs are needed at the date of each lease being entered into. 	<ul style="list-style-type: none"> The IBRs are needed at the date of initial application.
Credit spread	<ul style="list-style-type: none"> For lease 1, the starting point would be to obtain the credit spread of the original debt issuance (not shown above). For lease 2, the credit spread at the point of the debt renewal would be used as a starting point. In both cases, consideration would need to be given as to whether these data points require adjustment for factors occurring after each debt issuance but prior to the respective lease being entered into (eg downgrading by a credit rating agency). For lease 1, a comparison of the credit rating for the original debt issuance and the renewal would also be warranted. 	<ul style="list-style-type: none"> The most recent data point prior to the date of initial application is the debt issuance renewal. Consideration would need to be given as to whether this data point required adjustment for factors occurring after the debt renewal, up to the date of initial application.
Indebtedness	<ul style="list-style-type: none"> We would expect lease 1 to be factored into indebtedness considered by the lender at the point in time of the debt issuance renewal, but this would not be the case for lease 2. Assuming no other changes, there would be an increase in indebtedness as a result of lease 2 being entered into. Consideration would therefore need to be given to making an adjustment to the IBR for lease 2 for the increased indebtedness since the time of the debt renewal, if significant. The same approach could be taken in respect of lease 1, using the data points available from the original debt issuance. 	<ul style="list-style-type: none"> The most recent data point prior to the date of initial application is the indebtedness as considered at the debt issuance renewal. Consistent with the rationale given for the Full Retrospective approach, consideration would need to be given to making an adjustment for the increased indebtedness, since the time of the debt renewal, as a result of entering into lease 2.

Financial reporting and disclosure considerations

While IFRS 16 does not require disclosure of the actual discount rates used, we believe that market practice may dictate disclosure where lease liabilities are highly material for public companies.

In our view, there are several places in an annual report or financial statements where the discount rate assumptions may be discussed, specifically:



Companies who record a material liability in their financial statements are likely to consider the discount rate assumption as a significant assumption and source of estimation uncertainty, based on the requirements of IAS 1 *Presentation of Financial Statements*:

“An entity shall disclose, along with its significant accounting policies or other notes, the judgements [...] that management has made in the process of applying the entity’s accounting policies and that have the most significant effect on the amounts recognised in the financial statements.”

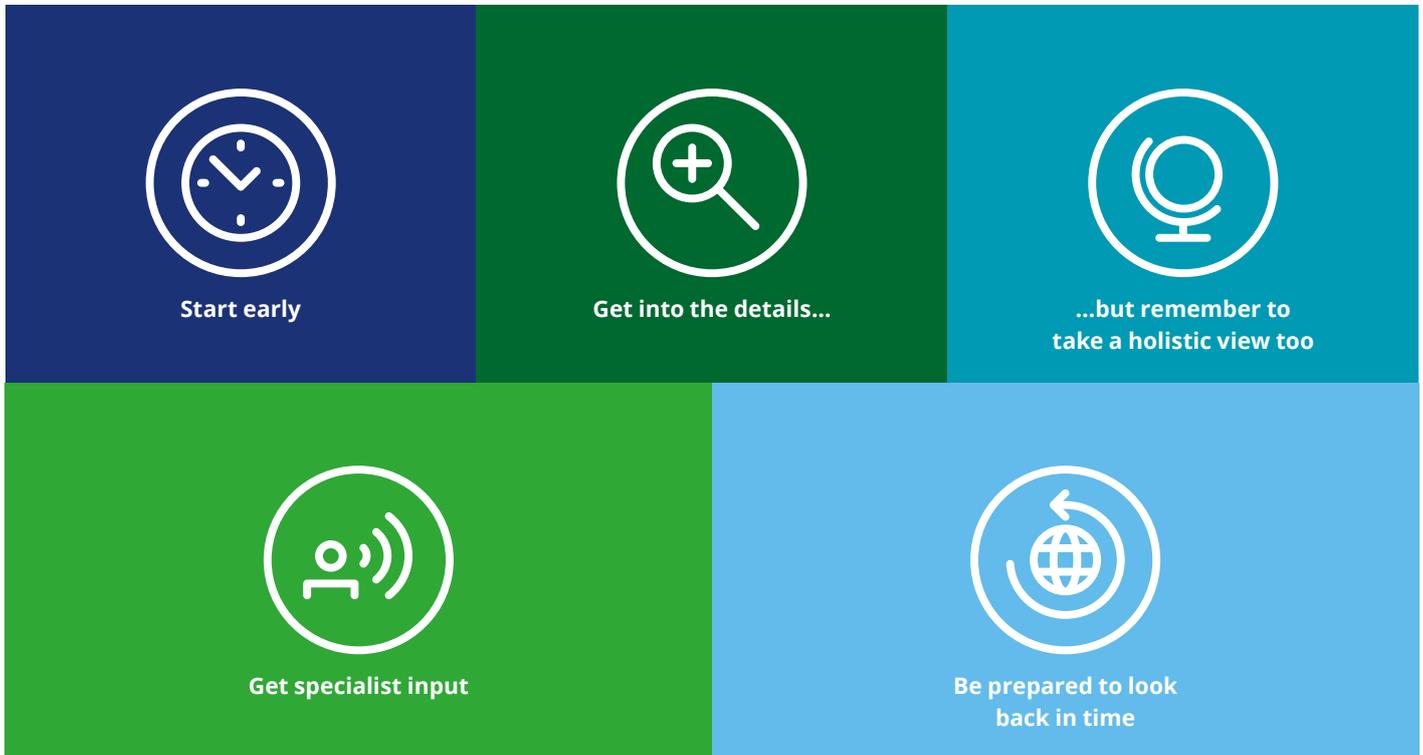
The necessary audit committee and external auditor commentary on this significant accounting estimate will potentially require discussion of the year on year change in discount rates and the driving factors behind these changes, even if the absolute amount or range of the discount rates is not disclosed. This will be an area to watch closely, especially if regulators start to scrutinise discount rate methodologies and judgements used by companies.

Given indebtedness ratios such as net debt to EBITDA can be key performance indicators or covenant compliance metrics for listed companies and private companies, we expect the change brought about by IFRS 16 to result in significant focus on the discount rate assumption from shareholders, debtholders, banks, regulators and external analysts:

- Senior management will need to ensure they have a robust process and controls in place for determining this assumption, using appropriate inputs, and for those public companies with audit committees, that appropriate oversight of this assumption occurs.
- Public reporting from audit committees and external auditors are also both likely to need to include commentary on this assumption, including how both parties have each satisfied themselves that the discount rate assumptions used are appropriate. For some companies this disclosure may only happen at transition, but for others this may continue in future periods.

We believe that a careful balance is needed in the level of precision used to determine the inputs to the incremental borrowing rate and the degree to which the final rate is set as if it could have a material impact.

Key takeaways for success



Contacts

Lucy Newman

Partner

IFRS 16 implementation

lcneman@deloitte.co.uk

Chris Overd

Director

IFRS 16 implementation

coverd@deloitte.co.uk

Elizabeth Chrispin

Director

Global IFRS 16 technical lead

echrispin@deloitte.co.uk

Pete Westaway

Director

UK IFRS 16 technical lead

pwestaway@deloitte.co.uk

Roger Lamont

Director

Debt Advisory

rolamont@deloitte.co.uk

Phil McManus

Manager

Debt Advisory

phmcmanus@deloitte.co.uk

Russell McMillan

Partner

Real Estate Advisory

rmcmillan@deloitte.co.uk

Clive Worland

Director

Real Estate Advisory

cworland@deloitte.co.uk

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