

Update on Market Discount Rates

As at 31 March 2020

# NOW YOU KNOW HOW TO ASSESS YOUR DISCOUNT RATES RELIABLY



Now you know

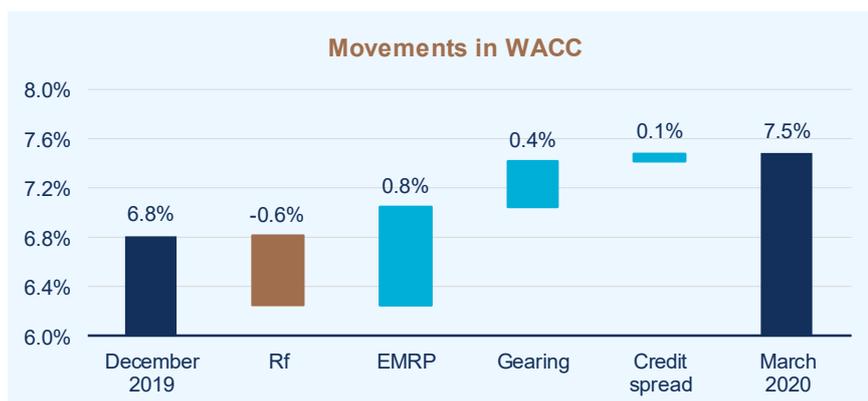
LEADENHALL

## 1. Introduction

With the ongoing impact of COVID-19 on economic activity and markets, we are presenting an out-of-cycle update on discount rates as at 31 March 2020 to enable you to assess the potential valuation impacts of COVID-19 on your business, and to ensure your selection of a reasonable discount rate in light of recent market volatility.

The following chart presents a summary of the overall change in the weighted average cost of capital (**WACC**) for the market as a whole since 31 December 2019.

### Market discount rates have risen



Source: Leadenhall

Note: Movement in WACC is for the overall market and is not company specific

The cost of capital has risen over the period predominantly as the equity market risk premium (**EMRP**) has increased with the incidence of COVID-19. All other things being equal, this will lead to lower asset values.

The impact of COVID-19 does not alter the best practice approach of using expected cash flows as the basis for valuations. In fact, the greater uncertainty associated with future earnings indicates that additional rigour may be required in developing robust projections. These forecasts should be coupled with an appropriate discount rate calculated using post COVID-19 inputs.

As recognised experts, this update helps you understand the assumptions we make which you can rely on for a reasonable outcome.

**Leadenhall Solution:** It is important to understand and be able to justify the assumptions that support your projected cash flows and WACC as well as ensuring cross-checks to market metrics (such as market capitalisation and EBIT multiples) are undertaken where observable. Leadenhall can assist with this analysis.

**“There is considerable uncertainty about the near-term outlook for the Australian economy. A very large economic contraction is expected to be recorded in the June quarter and the unemployment rate is expected to increase to its highest level for many years”**

**RBA – statement by Philip Lowe, Governor**

**“The impact of the Covid-19 outbreak on economic prospects is severe”**

**OECD – Coronavirus: The world economy at risk**



## 2. Framework

We have used the standard WACC and capital asset pricing model formulae.

### Weighted Average Cost of Capital

#### Model

$$WACC = K_e \times (E/V) + K_d \times (D/V) (1-t)$$

#### Components

WACC	Weighted average cost of capital
$K_e$	Cost of equity
$E/V$	Proportion of equity in capital structure
$K_d$	Cost of debt
$D/V$	Proportion of debt in capital structure
$t$	Corporate tax rate
$V$	Market value of business (where $V = D + E$ )

### Capital Asset Pricing Model

#### Model

$$K_e = R_f + \beta(R_m - R_f) + \alpha$$

#### Components

$K_e$	Cost of equity
$R_f$	Risk free rate
$\beta$	Beta, a measure of exposure to market risk
$R_m$	Required return from investing in the market
$R_m - R_f$	Equity market risk premium
$\alpha$	Company specific risk premium



### 3. Selecting the risk-free rate ( $R_f$ )

The risk-free rate should be in the same currency as the asset being valued and its maturity should match the life of the investment. In Australia, the most common proxy for the long-term risk-free rate is the yield on ten-year Commonwealth Government bonds which have been as follows:

#### Risk free rates have fallen to new historical lows

December 2019	March 2020	Change
1.37%	0.77%	(0.60%)

*Source: Reserve Bank of Australia Statistical Table F2*

Government bond yields have declined sharply since December 2019 after two successive 25 basis point cuts to the cash rate by the Reserve Bank of Australia (**RBA**) as a response to the economic slowdown precipitated by COVID-19 restrictions.

Risk free rates are at historically low levels. Rather than adopting current market observed risk free rates, some valuers are adjusting observed risk-free rates to reflect a long-term average rate. However, some valuers are then not adjusting other parameters accordingly – leading to inconsistent and unreliable discount rate conclusions.

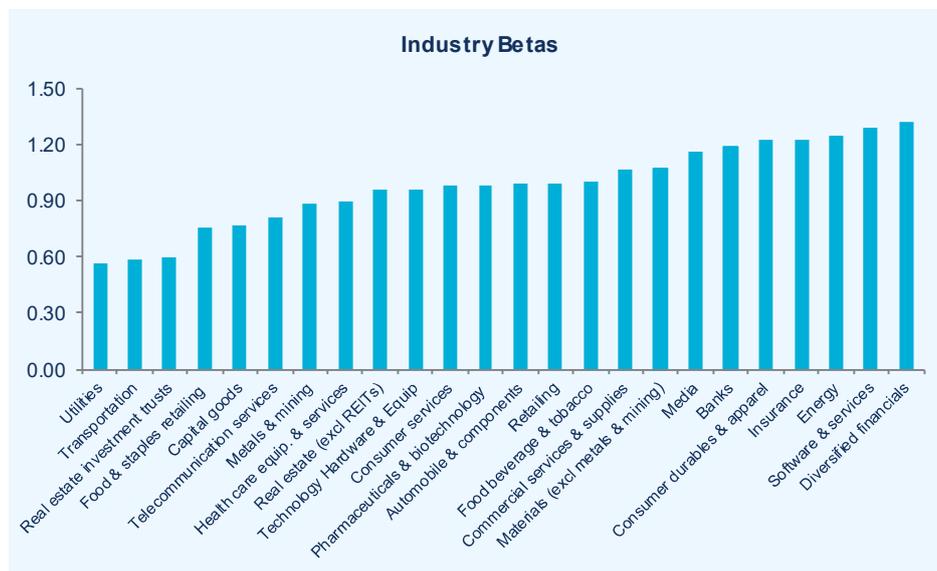
**Leadenhall Solution:** We avoid the dangers of normalising by using market observed risk free rates coupled with a contemporaneous assessment of the EMRP. This better reflects the current views implicit in capital markets and responds more quickly to changes in market pricing.



#### 4. Assessing Beta ( $\beta$ )

Beta is a measure of the relative riskiness of a business compared to the market as a whole. An appropriate beta needs to be selected for each cash generating unit (CGU), based on the relative riskiness of that business.

#### Industry betas should remain broadly unchanged



Source: SIRCA Limited – Risk Measurement Service as at 31 December 2019

In our view, COVID-19 is not a beta issue. It has not impacted industries in proportion to their betas and there is presently no reason to expect underlying beta has changed for any specific industry. The incidence of COVID-19 will introduce significant noise into beta estimation. At present, we are therefore using pre COVID-19 data for beta estimation.

**Leadenhall Solution:** Rather than simply adopting an industry beta, we recommend undertaking a detailed analysis of the companies in a sector that have comparable risk to the business being valued. The betas for comparable companies should be based on data up to 31 December 2019 and generally need to be ‘ungeared’ to remove the impact of actual debt levels and then ‘re-gear’d to the optimal debt level (which is not necessarily the actual debt level) of the business being valued.



## 5. Cost of debt ( $K_d$ )

The cost of debt is generally related to the risk-free rate, with the difference being a credit spread. The following table shows that corporate lending rates have risen slightly (widening the credit spread given the decline in the risk-free rate) since December 2019. This is based on the yields of BBB-rated corporate bonds. Credit spreads for companies with ratings below BBB are likely to have widened further.

### Lending rates have increased

Indicator rates	Dec 2019	Mar 2020	Change
Corporate bonds (BBB 5 years)	2.27%	2.34%	0.07%

Source: S&P Capital IQ

**Leadenhall Solution:** Instead of historical borrowing costs, the cost of debt should be based on the *current* borrowing cost – as if the business were to be refinanced in the current market at ‘optimal’ gearing levels.



## 6. Increased market risk premium

Equity market movements can be broken down into changes in earnings, changes in growth expectations and changes in discount rates. We then disaggregate the change in discount rates into movements in the risk-free rate, debt levels and movements in the market risk premium in the following charts.

### Substantial increase in the implied EMRP



Source: Leadenhall

Note: Growth relates to longer-term growth expectations, not the near term earnings which are expected to be reduced by COVID-19 related factors.

The chart presented above shows a decrease in the index driven primarily by a change in the EMRP. This is likely attributable to the heightened level of uncertainty in future cash flows stemming from the COVID-19 epidemic. It should be noted that, at present, there is a lag in downgrades to brokers' earnings forecasts which understates the effect of earnings changes on the index (and overstates the impact of the change in EMRP).

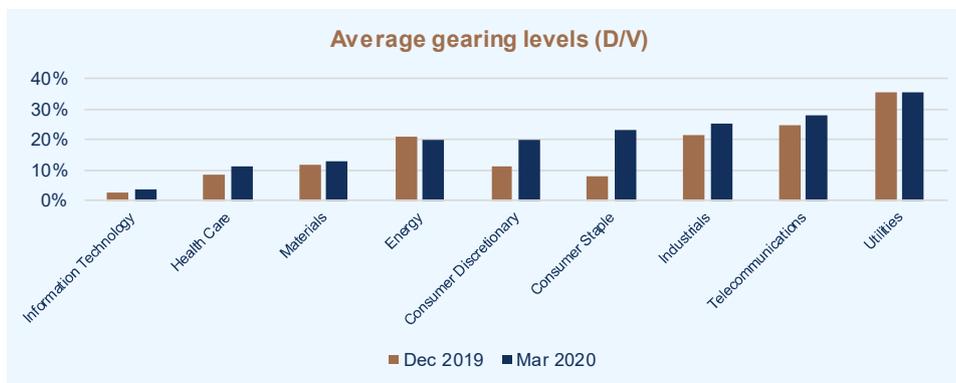
**Leadenhall Solution:** We've increased our assessment of the EMRP from 6.75% at 31 December 2019 to a range from 7.50% to 8.00% at 31 December 2019. This widened range reflects the greater uncertainty associated with future cash flows.



## 7. Capital structure

Debt levels across most industries have remained stable on average over the past three months. An exception is the retail industry (both discretionary and staples) which has been heavily affected by a change in accounting standards for leasing, resulting in a significant increase in reported debt for companies in that sector.

### Average gearing levels remain generally similar



Source: Capital IQ. Note: Debt levels for December 2019 and March 2020 are based on analysis of net debt as at 30 September 2019 and 31 December 2019 respectively.

**Leadenhall Solution:** As with the cost of debt, the proportion of debt used in the calculation of WACC should be based on an optimal capital structure. This is not necessarily the actual level of debt in the company. The efficient or optimal level of debt included in a discount rate should be an assessment of the level of debt that can be sustained by the specific business or CGU over the medium to long term.

However, as many businesses are experiencing significant reductions in earnings, the optimal level of debt they can support may be substantially reduced. Banks have already significantly increased provisions and expected write-offs (in anticipation of disruption to customers caused by COVID-19). Similar to the impact experienced during the GFC, banks will likely attempt to minimise further losses by increasing banking covenants to ensure businesses have the ability to repay loans as and when they become due. This will be particularly evident to organisations seeking to extend borrowings at this time.

## 8. Our other concerns that may attract attention

Given the impact of the COVID-19 response on economic activity and the heightened uncertainty around future earnings and cash flows, emphasis should be placed not only on the discounts rates adopted but on the preparation of robust cash flow projections. Some common issues we have observed are:

- ◆ Optimistic forecasts with insufficient allowance for capital investment and / or time to recovery
- ◆ Inconsistencies between the discount rate and cash flows
- ◆ Relying on a single valuation methodology without considering any cross-checks

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## Our difference

Leadenhall doesn't just offer thought leadership; it prides itself on *knowledge delivery*. Reports such as these contain the most recent, relevant information available, clearly presented to go beyond the maths and provide you with a deeper understanding of the critical issues.

This analysis is updated regularly throughout the year with reports issued in December and June in line with full year and half year reporting for most Australian companies. Discount rates herein are expressed in nominal post-tax terms.<sup>1</sup>

<sup>1</sup>Accounting standard AASB 136 – Impairment of Assets requires value in use to be assessed with a pre-tax discount rate (paragraph 55). However, market practice in Australia is to perform this analysis using a post-tax discount rate (and post-tax cash flows), with the implied pre-tax discount rate being disclosed in the financial statements.

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