

Update on Market Discount Rates

As at 30 June 2022

# **NOW YOU KNOW** HOW TO **ASSESS YOUR DISCOUNT RATES RELIABLY**



Now you know

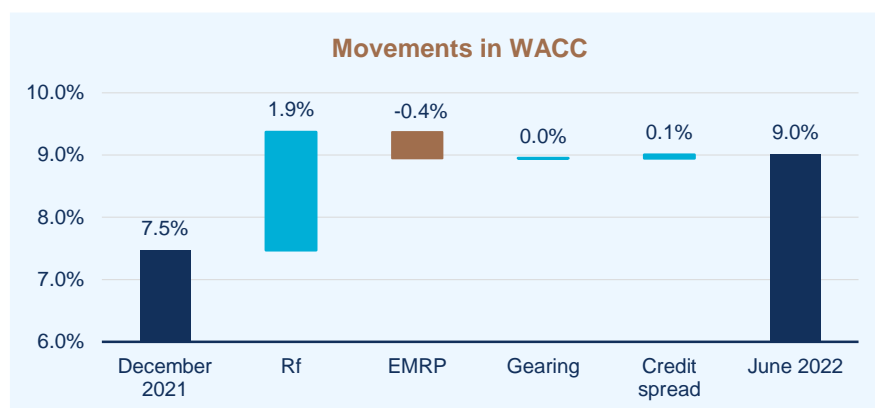
**LEADENHALL**

## 1. Introduction

Global recession fears, alongside rising inflation and interest rates, have fuelled market volatility in recent months, driving a decline in markets towards the end of June 2022. The selection of a reasonable discount rate therefore remains a key consideration, whether for the purpose of financial reporting or for any valuation analysis.

The following chart presents a summary of the overall change in our assessment of the weighted average cost of capital (**WACC**) for the market as a whole from 31 December 2021 to 30 June 2022.

### 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 increased over the period due to a rise in the risk-free rate, moderated by a decline in the equity market risk premium (**EMRP**). All other things being equal, this will lead to lower asset values.

The ongoing economic uncertainty 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.

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.

**“Global inflation is high. It is being boosted by COVID-related disruptions to supply chains, the war in Ukraine and strong demand which is putting pressure on productive capacity. Monetary policy globally is responding to this higher inflation, although it will be some time yet before inflation returns to target in most countries.”**

**Philip Lowe, RBA Governor – The RBA and the Australian Economy, Address to CPA Australia Riverina Forum**

**“Many companies are facing changing market conditions and uncertainties. Directors and preparers should assess the impact on current and future performance, asset values and provisions.”**

**ASIC – focus areas for 30 June 2022 reporting**



## 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

### Application to Specific Businesses

Determining an appropriate discount rate to apply to a specific business may require consideration of variables and risks unique to that business. This may be addressed through the inclusion of a company specific risk premium in the discount rate.

### 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 remain close to historical lows

December 2021	June 2022	Change
1.67%	3.66%	1.99%

Source: Reserve Bank of Australia Statistical Table F2

The sharp rise in government bond yields since December 2021 is likely to result in an increase in overall discount rates, all other things being equal.

Despite the recent rise in bond yields, risk-free rates remain 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 of these 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) or business segment, based on the relative riskiness of that business.

##### Observed industry betas have remained broadly unchanged

Sector	Dec 2021	Jun 2022	Change
Energy	1.75	1.53	(0.22)
Consumer Durables & Apparel	0.72	0.85	0.13
Metals & Mining	1.15	1.03	(0.12)
Health Care Equipment & Services	0.72	0.83	0.11
Pharmaceuticals & Biotechnology & Life Sciences	0.62	0.73	0.11
Software & Services	1.77	1.87	0.10

*Source: RoZetta Institute Ltd – Risk Measurement Service as at 31 March 2022 (latest available)*

There have been minimal changes over the past six months and, out of 24 discrete industries reported, only the 6 industries above showed a change in the observed beta of 0.10 or greater.

**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 30 June 2022 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 more than risk-free rates (indicating a widening of the credit spread) since December 2021. This is based on the yields of BBB-rated corporate bonds.

### Lending rates are rising

Indicator rates	Dec 2021	Jun 2022	Change
Corporate bonds (BBB 10 years)	2.98%	5.54%	2.56%
Credit spread (to risk-free rate)	1.31%	1.88%	0.57%

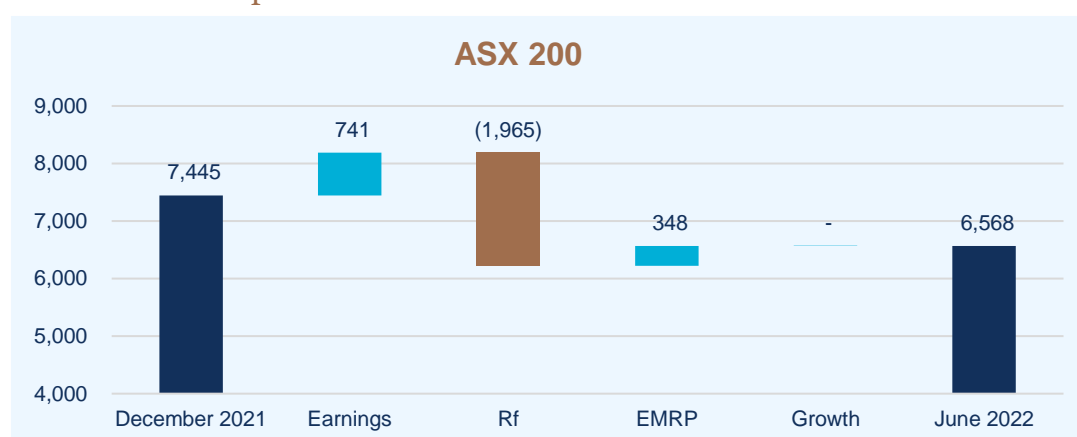
Source: S&P Capital IQ

**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. Declining 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 and movements in the market risk premium in the following charts.

### Decline in the implied EMRP



Source: Leadenhall

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

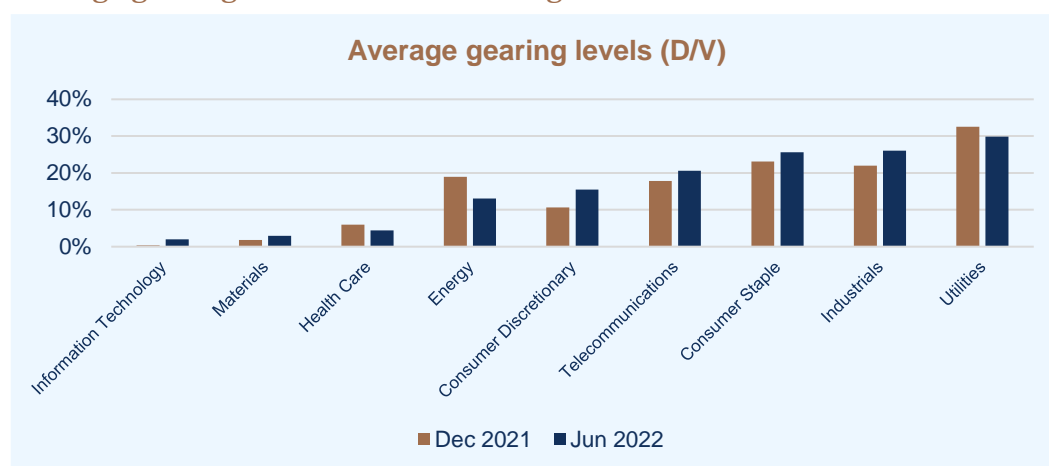
The chart presented above shows a decrease in the index predominantly driven by rising bond yields, partially offset by an expected recovery in forecast earnings in the short-term and a decline in the EMRP since December 2021.

**Leadenhall Solution:** We have decreased our assessment of the EMRP from 6.75% at 31 December 2021 to 6.25% at 30 June 2022. This reflects the moderating impact of the EMRP on the decline in market indices, despite the substantial movements in bond yields.

## 7. Capital structure

Debt levels across industries have remained stable on average over the past six months. Thus, changes in optimal gearing are unlikely to significantly impact your discount rate.

Average gearing levels remain unchanged



Source: S&P Capital IQ

**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 or the average observed in an industry at any particular point in time. 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.

## 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 discount 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



# NOW YOU KNOW WE CAN HELP YOU EXPLAIN THE RESULTS IN WORDS YOUR BOARD WILL UNDERSTAND

## 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.

