

ASX: MQG

Industry: Financial Services (Diversified Banks)

Market Cap	Avg. Daily Vol. (30)	Current Price: 21/05/2020	Valuation	ESG	Overall
			Recommendation	Recommendation	Recommendation
			Strong Buy	Strong Buy	Strong Buy
			Moderate Buy	Moderate Buy	Moderate Buy
			Hold	Hold	Hold
			Moderate Sell	Moderate Sell	Moderate Sell
			Strong Sell	Strong Sell	Strong Sell
			No Investment	No Investment	No Investment
AUD \$36.86b	1,795,969	Target Price: \$106.43			
		Upside: 2.34%			

Key Data

52 Week Range	70.45
Institutional Ownership	32.2%
ROTE	18.96%
Current P/E	10.52
P/B	1.76
P/NTA	1.92
EPS	8.41

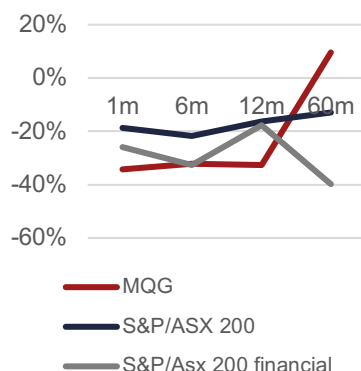
Dividend

Payout Ratio	62.47%
Dividend Per Share	5.75
Dividend Yield	6.90%
5 Year Div. Growth	14.89%

Relative Performance

MQG	
1m	-34.26%
6m	-32.16%
12m	-32.56%
60m	9.59%
S&P/ASX 200	
1m	-18.69%
6m	-21.73%
12m	-16.41%
60m	-12.93%
S&P/ASX 200 Financial	
1m	-25.99%
6m	-32.52%
12m	-17.71%
60m	-39.79%

Source: Bloomberg



Source: Bloomberg

Macquarie went down with the boat, but has its sails back up again!

Fundamental analyst findings on Macquarie Group Limited (MQG) indicate a **Hold** recommendation with a target price of \$106.43 representing a potential upside of 2.34%. MQG is an Australian holding company for subsidiaries that derive revenue from the provision of banking, advisory, financial, investment and fund management services. Macquarie is divided into four Operating Groups which are supported by four Central Service Groups. In the international diversified banks industry, MQG is confronted with a high industry competition. The main drivers behind this BUY recommendation are discussed below.

Further depreciation of Australian Dollar will boost earnings

MQG's foreign revenue amounts to 66%. This would mean that if the Australian dollar would depreciate further, the earnings of MQG would increase. In addition, the Quantitative Easing the Australian government is contemplating about, would push the dollar would even more.

Ongoing investments

As world's largest infrastructure manager, MQG is currently experiencing a rising demand in infrastructure assets due to COVID-19. The main reason for this is that infrastructure assets have long-term contract agreements with predictable cash flow. This can be derived from the fact that MQG is still raising infrastructure funds. On top of this, most of their long-term investments are still intact.

Strong focus on risk management

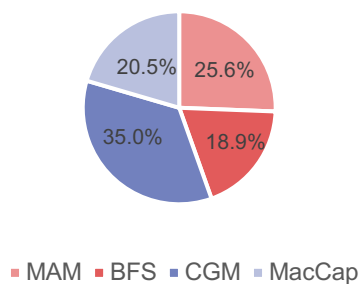
Macquarie has acquired a strong focus on risk management throughout the past years. As a result, the company is well positioned within the global investment banking and diversified space. Their diverse operations across regions and products & investor types, should ensure the company weather economic cycles. Also, their funding is diversified with an average funding term that went from 4.5 in 2018 to 5.6 years in 2019. These are indicators that there is less risk of not being able to pay creditors and that they have the money to make certain investments under the right circumstances.

Potential impairments, reduced fees and gains on sale

In a market dislocation, which is currently applicable, the client activity could be impacted which drive impairment losses and reduce the ability for the group to realise gains on the sale of its initial investment.

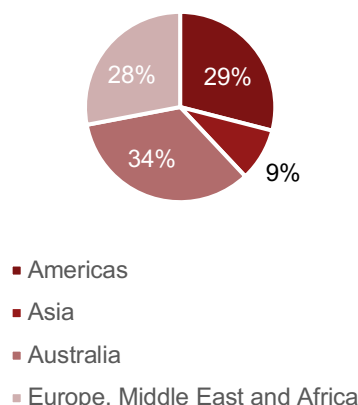
Income Statement Ending 31 March 2019					
AUD \$m	FY 2018	FY 2019	FY 2020F	FY 2021F	FY 2022F
Net Interest Income & Trading income	3,937	4,550	4,930	4,971	5,002
As % of net operating income	36.1%	35.4%	40.9%	45.7%	40.9%
Other Income	6,980	8,300	7,120	5,906	7,225
As % of net operating income	63.9%	64.6%	59.1%	54.3%	59.1%
Net Operating Income	10,917	12,850	12,050	10,877	12,227
Operating expenses	(7,456)	(8,887)	(8,851)	(8,753)	(9,084)
As % of Net Operating Income	68.3%	69.7%	73.5%	80.5%	74.3%
EBIT	3,464	3,867	3,199	2,124	3,143
Net Profit	2,557	2,982	2,498	1,657	2,455

Figure 1: 2019 Revenue breakdown Operating Groups



Source: Annual Report

Figure 2: 2019 Revenue breakdown internationally



Source: Annual Report

Figure 3: Porter's five forces

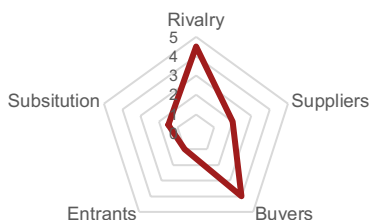
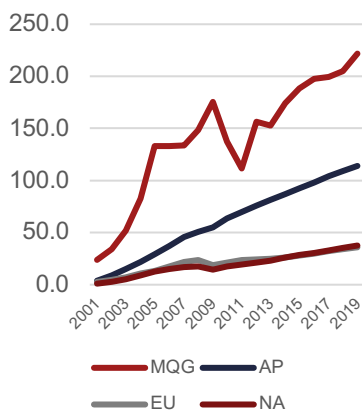


Figure 4: MQG Revenue vs World GDP growth



Source: Bloomberg & IMF

Business Description

Company overview

Macquarie Group Limited (MQG) is an Australian holding company for subsidiaries that derive revenue from the provision of banking, advisory, financial, investment and fund management services. The firm acts on behalf of institutional, corporate and retail clients, and counterparties around the world.

Macquarie is divided into four Operating Groups which are supported by four Central Service Groups ([Appendix 1](#)). The Operating Groups are split between annuity-style businesses and market-facing businesses ([Appendix 2](#)).

Annuity-style businesses

Macquarie Asset Management (MAM) has 542.7B Assets Under Management (AUM). The revenue is obtained by the following two divisions: Macquarie Infrastructure and Real Assets (MIRA) and Macquarie Investment Management (MIM). MIRA is a leading global alternative asset manager, specialising in direct infrastructure and real assets. MIM is a diversified alternative securities manager, offering capabilities across listed equities, fixed income and listed alternatives.

Banking and Financial Services (BFS) serves the Australian market and provides a diverse range of personal banking, wealth management and business banking products and services to retail clients advisers, brokers and business clients.

Markets-facing businesses

Commodities and Global Markets (CGM) provides clients with an integrated, end-to-end offering, across global markets including equities, fixed income, foreign exchange and commodities.

Macquarie Capital (MacCap) provides advisory and capital raising services and undertakes global investing activities.

Vision

Macquarie's purpose: *"Is to realise opportunity for the benefit of our clients, our shareholders and our people. We are in business to be profitable, but it is the way we do business that defines us. Our approach is based on three long-held principles: Opportunity, Accountability and Integrity."*

Strategy

Macquarie Group is continuing to take measures to implement a medium-term strategy outlined in 2015. Entailing the adoption of a conservative risk management approach and balance sheet with diverse funding sources; diversifying its business mix across annuity-style and capital markets facing activities for institutional, corporate, government, and retail clients; and expanding to adjacent geographies and product categories.

Revenue breakdown

Operating Groups

Deriving from [Figure 1](#), it becomes apparent that the market-facing-enterprises amounted to a larger percentage of the revenue, when compared to annuity-style business. Whereas the largest source of income is the CGM business.

Internationally

When putting things into perspective it can be concluded ([Figure 2](#)) that this diversification doesn't only occur across different markets as is seen in the Operating Groups, but that it also transpires internationally. With only a lower reliance on Asia.

Figure 5: Future net income forecast VS net interest/net revenue 2019

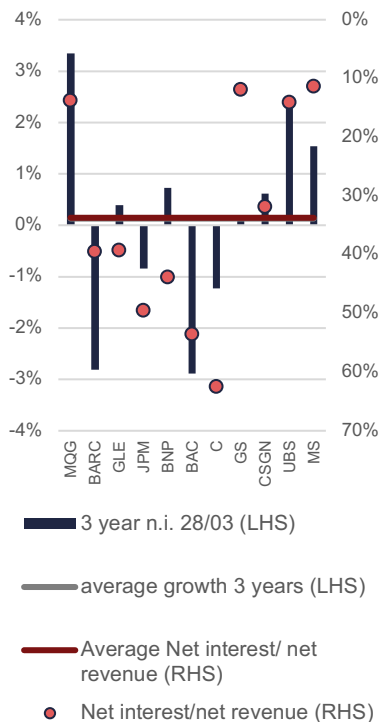


Figure 6: 2019 Revenue breakdown MacCap

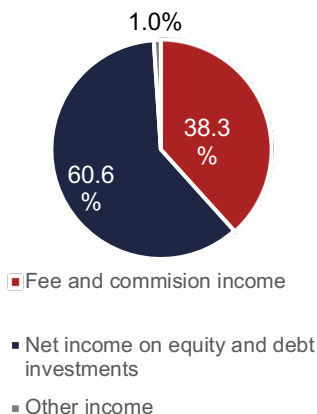
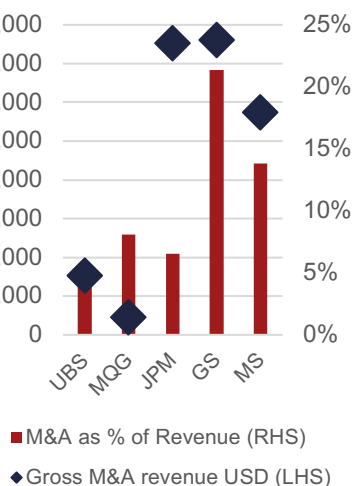


Figure 7: M&A revenue with Competitors



Industry Overview and Competitive Positioning

Competitive landscape

Macquarie can be described as an internationally active and diversified bank. This broadens the field of competitors MQD has to deal with ([Appendix 4](#)). Accordingly, MQG is confronted with a high industry competition ([Figure 3](#)). In spite of that each firm has his own domestic monopoly/oligopoly, like MQG has its own monopoly as a diversified bank in Australia, are they exposed to abundant competition on international levels, pre-eminently in the investment banking and asset management divisions. In addition, a relatively high bargaining power of the buyers is applicable as a result of similar products/services.

Each firm in this competitive landscape has its own experience, brand identity and elite build-up in the past decades. This on the hand ensures a way to distinguish themselves, but on the other hand also faced off new entries.

Furthermore, the large Assets Under Management (AUM) of the firms enables them making significant investments, which substitute companies or individuals are not capable of. However, other parts of the products/services that the diversified banks offer can be done by other (smaller) companies such as; private equity firms, online banks, or (small) investment banks.

Lastly, the diversified banks luxuriate in the independence that emerged by the low bargaining power of suppliers. As in contrast to retail banks, most banks in this landscape have diverse funding ([Appendix 7](#)), resulting into limited influence by fluctuating interests imposed by government vehicles (think of the RBA in Australia, or the Federal Reserve in the USA), and ultimately in the dwindling of the bargaining power of suppliers ([Appendix 3](#)).

Life cycle assessment

The diversified banking industry, including Macquarie, finds itself in the mature stage of the life cycle. This is primarily indicated by high dividends ([Figure 14](#)) and a steady amount of cash flows. However this doesn't automatically coincide with low growth, whereas Macquarie's revenue grew with a Compounded Annual Growth Rate (CAGR) of 8.24% in the past 5 years.

In the beginning of this century (2001-2005) [Figure 4](#) indicates that MQG was in its growth stage, however, in more recent years, the slope more closely mimics the GDP growth, which is an indicative of a more mature firm. In addition, Macquarie has made multiple acquisitions to secure growth as well, for example, they took over a London green investment bank 2 years ago.

Industry analysis

As said in the business description, MQG is divided into separate businesses with each their own industries. Before jumping into the separate industries, we will glance at the diversified banks industry as a whole. [Appendix 4](#) indicates that the corona virus will not only impact the firm in the short perceivable future, but its significant effects will also transcend towards the medium-term growth of the company. In short, the appendix showed that the average revenue growth of the companies almost doubled, whereas the average net income decreased with 95%. Furthermore, where the estimated net income went down for all banks, the estimated revenues differed per bank.

The falling interest rates impact the margin of the diversified banks, which coincides with a decreases of the net income. This is confirmed on the basis of [Figure 5](#), which suggests that companies with a high net interest / net revenue percentage, have a forecasted low growth or a decrease in growth. Whereas companies with a low net interest / net revenue percentage, typically display high forecasted growth. However, given the fact that all companies are exposed to these interest rates, regardless of the degree, it makes sense that the forecast growth of the net income diminished for the entire industry.

Plus, a net revenue increase occurs due to the descending interest rates and can be elucidated by the fact that more loans will be taken under these circumstances.

Macquarie Capital (MacCap)

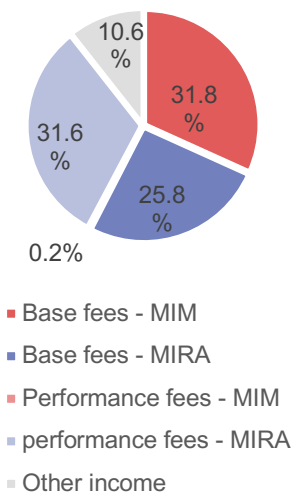
MacCap is a market-facing-business which, as laid out in ([Figure 6](#)), gathers 38% of its revenue from fees and income that stems from traditional investment banking operations (including M&A, advisory and underwriting). The remaining 60% is collected via net income on equity and debt investments.

Figure 8: 2019 Revenue breakdown CGM



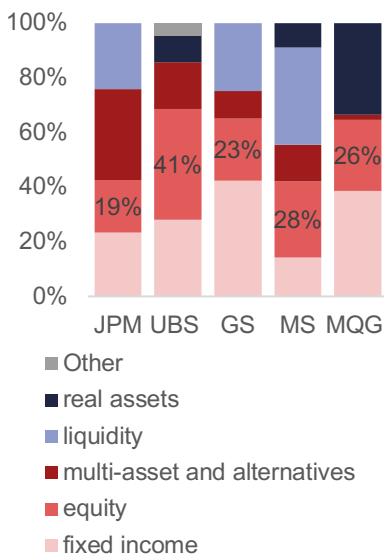
Source: Annual Report

Figure 9: 2019 Revenue breakdown MAM



Source: Annual Report

Figure 10: AUM diversification



Source: Annual Report(s)

M&A

Given the diversified competition in the M&A industry due to inclusion of smaller companies such as private equity firms, the industry typically concurs with a competitive environment. The atrocious effect of the COVID-19 virus on the global M&A deals was answerable with a decrease of 30% in Q1 2020, in comparison to Q1 2019 (**Appendix 5**). Of these transactions, the larger transactions appear to be at risk of not moving forward. Once the COVID-19 virus abates, the M&A activities in both medium- and long-term will adjust to the “new normal”. As there is a tremendous amount of dry powder that needs to be deployed, record high valuations will likely decrease, whereas it will continue to have favourable conditions with low interest rates and access to financing - both from commercial lenders and alternative financing sources (i.e. – private credit/debt funds) - and certain underlying dynamics which have been driving the M&A to this point (i.e. – digital transformation and technological disruption) will continue.

MQG has a limited amount of M&A exposure (8.1% of the revenue) (**Figure 7**), nevertheless the impact COVID-19 can still be felt. However, the large firms such as Goldman Sachs and Morgan Stanley, experience greater exposure and will feel the impact accordingly.

Equity & Debt investments

MQG obviously doesn't specify in which exact markets they have put their equity and debt, however, they did disclose their partaking in Green/Renewable Energy & Technology. In the foreseeable future, the equity and debt investments will decrease as a result of COVID-19. Nonetheless, the long-term values of those investments are still unblemished as can be availed from **Appendix 6**.

Commodities and Global Markets (CGM)

CGM has a diversified income stream (**Figure 8**). Most of the divisions are conspicuous, hence Risk management products (27.3%) and Inventory management & Trading (16.6%) have been examined.

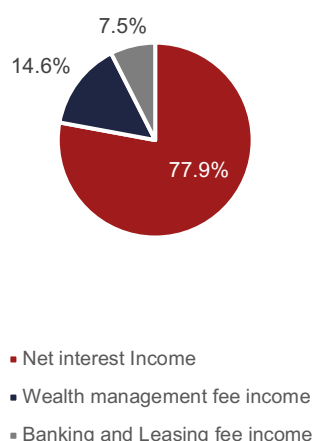
Risk management products is generated from the provision of hedging and risk management services to clients. The income is mainly driven by client volumes, which are influenced by the level of price volatility in the markets in which those clients operate. Taking the current state of affairs around COVID-19 into consideration, it can be stated that the risk management will most likely operate more effectively.

Inventory management and trading facilitates client transactions and provides CGM with trading opportunities where there is an imbalance between the supply and demand for commodities. Revenue is reliant on a number of factors, inclusive of the volume of transactions, the level of risk assumed and the volatility of price movements across commodity markets and products. As the derivatives are currently more volatile as a result of the COVID-19 virus, the contract price is usually higher. Indicating that also inventory management and trading will most likely do better in the current economic environment.

Macquarie Asset Management (MAM)

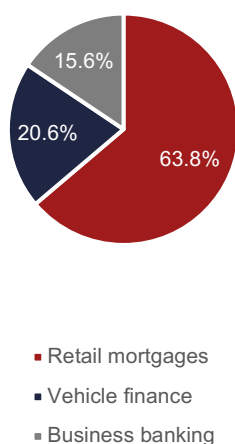
The impact of the market dislocation, as a result of COVID-19, has the most impact on equities in comparison to real assets and fixed income. Since it has the most, it means that the amount of equity is definitely of significance in comparison to the asset management of the diversified banks. It becomes clear from **Figure 10** that MQG has a 26% equity exposure, which is a significant, however, the other 74% mainly consists of real assets and fixed income, both of which are stable incomes. This indicates that the impact on MQG asset management is preservative. The equity exposure falls under MIM and could lead to a significant decrease in base fees (**Figure 9**). Unfortunately, it doesn't say where the equities are invested in. Looking at the competitors, UBS has high equity exposure, indicating that the impact of the corona virus can be significant for them. Except for UBS, the rest of the diversification banks have similar diversification comparable to MQG. Another trend in the asset management industry is the fee gap. This trend is described as a significant drop in the average fee margin in the industry. As both the AUM and the cost are increasing, the Asset managers can only solve the problem by increasing its (base) fees, which is exactly what MQG did in 2019.

Figure 11: 2019 Revenue breakdown BFS



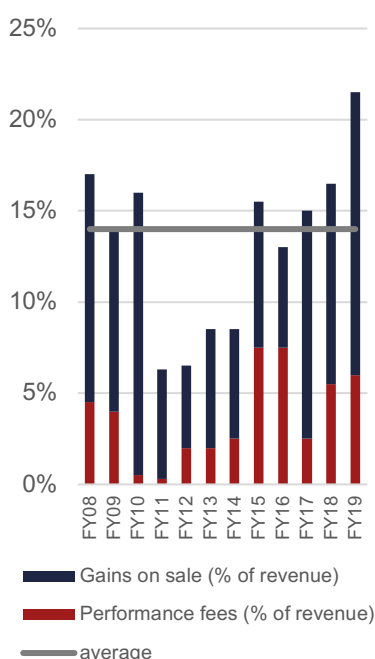
Source: Annual Report

Figure 12: BFS Loan portfolio



Source: Annual Report

Figure 13: MQG volatile items (as % of revenue)



Source: Annual Report

Banking and financial Services (BFS)

The merits of BFS essentially flow from interest earnings (**Figure 11**) which are collected from the loan portfolio that primarily comprises residential mortgages in Australia, loans to Australian businesses, vehicle leases, insurance premium funding and credit cards.

This loan portfolio (55.8B) of MQG largely consist of housing mortgages. In the housing market bottom line, due to the impact of COVID-19, there will be a pullback by buyers and it will take the momentum out of the market, as well as price falls. This can result in a negative growth for the mortgages, decrease in Fees and increase in impairments.

Investment Summary

Taking the current economic environment into account where COVID-19 is a worldwide pandemic and the fact that it already has impacted their future growth (as acknowledged before), the key drivers and risks will be aimed at COVID-19.

Key drivers

Further depreciation of Australian Dollar will boosts earnings

MQG's foreign revenue amounts to 66% (**Figure 2**). This would mean that if the Australian dollar would depreciation further, the earnings of MQG would increase. In addition, the Quantitative Easing the Australian government is contemplating about, would push the dollar would even more.

Ongoing investments

As world's largest infrastructure manager, MQG is currently experiencing a rising demand in infrastructure assets due to COVID-19. The main reason for this is that infrastructure assets have long-term contract agreements with predictable cash flow. This can be derived from the fact that MQG is still raising infrastructure funds. On top of this, most of their long-term investments are still intact (as acknowledged before).

Strong focus on risk management

Macquarie has acquired a strong focus on risk management throughout the past years. As a result, the company is well positioned within the global investment banking and diversified space. Their diverse operations across regions and products & investor types, should ensure the company weather economic cycles. Also, their funding is diversified (**Appendix 7**) with an average funding term that went from 4.5 in 2018 to 5.6 years in 2019. These are indicators that there is less risk of not being able to pay creditors and that they have the money to make certain investments under the right circumstances.

Summary of Risks

Potential impairments, reduced fees and gains on sale

In a market dislocation, which is currently applicable, the client activity could be impacted which drive impairment losses and reduce the ability for the group to realise gains on the sale of its initial investment.

Macroeconomic headwinds

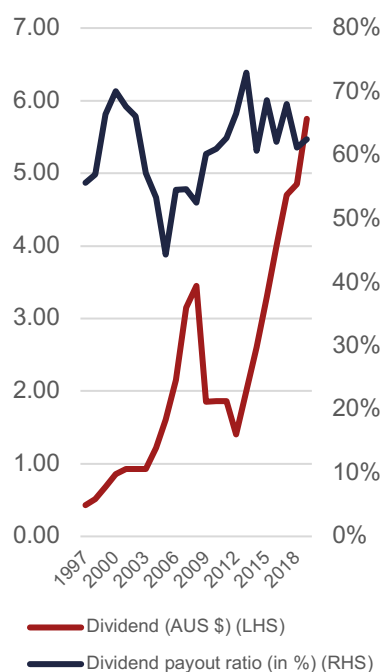
The world, and especially Australia, is facing a recession. A recession in Australia would impact the BFS business significantly, which accounts to 18.9% of the revenue in 2019 (**Figure 1**). Supplementary, the impact of COVID-19 could also translate into massive unemployment and huge debt levels, which are both unfavourable for MQG.

Dividend Yield/ Policy

Looking at the dividend yield of MQG (**Figure 14**), it becomes clear that in recent years the dividend pay-out ratio was between 60 and 70%. This growth is characteristic for an increasing net income which, once sustained, could lead until even more growth and value for investors.

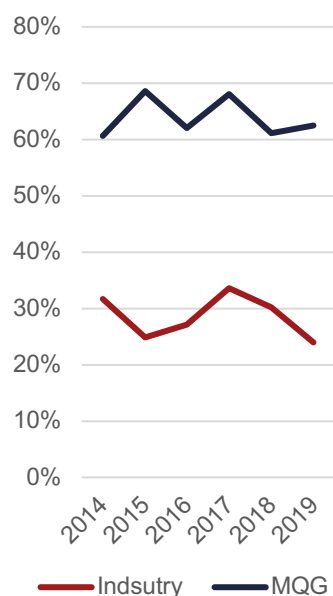
In comparison to its peers (**Figure 15**), the payout ratio of MQG can be described as high. Having the high forecasted growth of MQG in mind (**Figure 5**), there can be stated that MQG is outperforming its peers while also returning more to it shareholders.

Figure 14: Dividend Policy/Yield



Source: Bloomberg

Figure 15: Dividend Payout Industry



Source: Bloomberg

Figure 16: Intrinsic Value

Target Price Breakdown	
Price from DCF	\$107.59
Weighting	50%
Price from RV	\$105.26
Weighting	50%
Target Price	\$106.43
Current Price	\$104.00
Upside	2.34%

Source: Personal Estimates

Valuation

The intrinsic Value of MQG has been derived using an equal weighting of two approaches: (I) The Discounted Cash Flow model (DCF), in the form of a Discounted Free Cash Flow to Equity model (FCFE), and the market based approach in the form of Relative Valuation (Multiples), utilising the P/E and P/B ratio of the industry. Equally weighted, these approaches have yielded a target price of **\$106.43** representing an **2.34%** upside (**Figure 16**). The equal weighting was given because when combined, both models deliver a sound fundamental analysis, utilizing in-depth company analysis and consolidate the strength of the market pricing power.

Discounted Cash Flow Model

Given MQG nature being a bank, the Discounted Free Cash Flow to Equity (FCFE) has been brought to bear. The FCFE ignores debt, which is essential for the valuation of banks. Two key variables that drive value are Cost of Equity (COE) and the Terminal Growth Rate (TGR). On top of this, the Free Cash Flow is forecasted. The DCF Valuation produced an Intrinsic Value totalling **\$107.59**, which offers an upside of **3.45%** (**Figure 17 / Appendix 9**).

Cost of Equity

The Capital Asset Pricing Model (CAPM) has been used to derive the COE of **11.19%**. We have used a Risk-Free Rate of **0.40%** and a risk premium of **9.30%**. The risk premium, which according to KPMG was 6.00%, has been increased as we believe incremental risk is emerging as a result of Covid-19. Finally, the beta of **1.16** has been formed by a 5 year of monthly returns (**Appendix 10**). This time frame was selected to reduce the crowding and minimize day-to-day fluctuations to reflect a more accurate beta (**Figure 18**).

Terminal Growth Rate

As seen in **Figure 2**, 66% of the revenue comes from outside Australia, however, as the exact countries where the revenue came from were not stated in the reports, but only the continents were mentioned, made finding a positive regression extremely difficult. Eventually, all regressions came back negative. That's why there is chosen for the 2% long term inflation rate as the terminal growth rate. This terminal growth rate reflects the inflation not only for Australia, but also for the USA and Europe, whose inflation rate in the coming years is also forecasted to be around 2%.

Free Cash Flow

The Free Cash Flow was computed upon the forecasts made on the separate business of Macquarie, which added together formed the income statement (**Appendix 8**). These forecasts include the forecasted growths, however, also include the hard impact of Covid19. Nonetheless, as a result of MQG's good risk management, the incremental risks by Covid19 are limited. The essential reasons for the estimations, can be traced back in the section **Industry Analysis**.

Relative Valuation

The Relative Valuation was utilised to examine how MQG is priced against comparable companies in the diversified banking industry. By means of multiple pricings, a price of **\$105.26** was compounded, representing an upside of **7.81%** (**Figure 19**).

Peer Group Selection

MQG's peer group was carefully constructed to identify the most appropriate peers. Looking at the high exposure to international markets (66%) when compared to domestic market (34%) and adding the fact that there aren't any diversified banks similar to MQG's size in Australia, the peer group can only consist of internationally diversified banks. From this selection, the largest diversified banks were chosen. When looking at Market capitalization, MQG finds itself in the lower quadrant. The following peers have higher market capitalization and have been ranked accordingly: JPMorgan Chase (JPM), BNP Paribas (BNP), Bank of America (BAC), Citigroup (C), Goldman Sachs (GS), UBS Group (UBSG), and Morgan Stanley (MS). In like manner, the peers with lower market capitalization: Barclays (BARC), Société Générale (GLE), and Credit Suisse (CSGN).

Figure 17: DCF Valuation

FCFE	
Sum of PV	22,974
Cash & Equivalents	15,154
Equity Value	38,128
Number of Shares	354.38
Intrinsic Value	\$107.59
Upside	3.45%

Source: Personal Estimates

Figure 18: Cost of Equity

CAPM	
Risk-Free Rate	0.40%
Market Risk Premium	9.30%
Beta (5y Monthly)	1.16
Cost of Equity	11.19%

Source: Finance Yahoo & Personal Estimates

Figure 19: Relative Valuation

Summary	
Multiples	
P/E	\$105.26
Weighting	100%
P/B	\$91.08
Weighting	0%
Target Price	\$105.26
Current Price	\$104.00
Upside	1.21%

Source: Bloomberg, Yahoo Finance & Personal Estimates

Figure 20: P/E Multiple

P/E	
Peers Median	14.82
Historical Premium	28.12%
P/E Ratio	18.99
Adj EPS	5.54
P/E Price	\$105.26

Source: Yahoo Finance & Personal Estimates

Figure 21: P/B Multiple

P/B	
Peers Median	0.67
Historical Premium	155.20%
P/B Ratio	1.71
Adj BVPS	\$53.23
P/B Price	\$91.08

Source: Yahoo Finance & Personal Estimates

P/E Multiple

Based on the period 2016 till 2019, and forecasts for 2020 and 2021, MQG on average is trading at a premium of 28.12% against companies in the peer group for the P/E ratio. The premium can possibly be justified by the increase in revenue over the past 5 years, growing with a CAGR of 8.24%. Additionally, the steady Australian economy had no recessions in 28 years, may be another reason for the premium. However, due to Australian's first recession in 2020 as result of Covid19, this premium may not be sustainable in the future. In an effort to contain the damages, the EPS (Earnings per Share) forecasts for 2020 and 2021 are added to historical years. After adjusting the EPS, so it represents the same year as its international competitors (as MQG has a different fiscal year), a target price was derived of **\$105.26**, representing an **1.21%** upside (**Figure 20**).

P/B Multiple

Based on the period 2016 till 2019, MQG has been trading on an average premium of 155.20% against companies in the peer group for the P/B ratio. However, due to the large difference in premiums and the limited amount of information available, we believe that the P/B doesn't demonstrate an accurate value of MQG. That's why the P/B isn't weighted in the relative valuation and thus is coincided with a weighting of 0% (**Figure 21**).

Financial Analysis

MQG shows a great profitability, outperforming its peers on every profitability ratio assessed. Furthermore, they show great strength in the balance sheet with a strong solvency and liquidity ratios. With a decreasing trend in liquidity, management should make sure the strong liquidity will continue in the future.

Liquidity

To assess the liquidity of MQG, the Basel III Liquidity Coverage Ratio (LCR) has been used. This ratio refers to the proportion of highly liquid assets that are held by financial institutions, to ensure their ongoing ability to meet short-term obligations. Thus, the higher the liquidity coverage ratio, the better it is. Looking at **Figure 22**, there can be seen that MQG since reporting the LCR ratio, shows that they are well exceeding the minimum requirement of 100%. However, the ratio decreased with a CAGR of -4.26%, which MQG should make sure the liquidity stays strong in the coming future.

Furthermore, the Loan-to-deposit ratio is shown in **Figure 23**. As seen the loans well succeed the deposits of the firm. However, as MQG's funding is only for 40% in deposits (**Appendix 7**), and as MQG nature being a diversified bank, this is only natural. Looking at the past 5 years, there can be seen that the loan-to-deposit ratio is slightly decreasing. As the loans were pretty stable, the deposits have increased in the past few years.

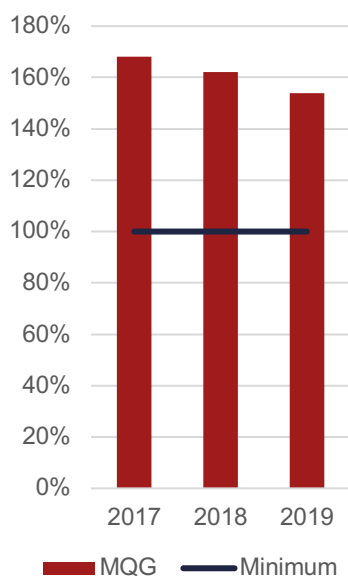
Solvency

To assess the solvency of MQG, the Basel III Common Tier Equity (CET1) has been used. The CET1 ratio compares a bank's capital against its risk-weighted assets to determine its ability to withstand financial distress. Thus, the higher the CET1 ratio, the better it is. Looking at **Figure 24**, there can be seen that MQG in the past five years stayed above the minimal requirement of 7.10% (from which 4.5% CET1 requirement plus 2.6% buffer). Furthermore, the CET1 showed a positive trend, as the CET1 increased with a CAGR of 3.5%

Profitability

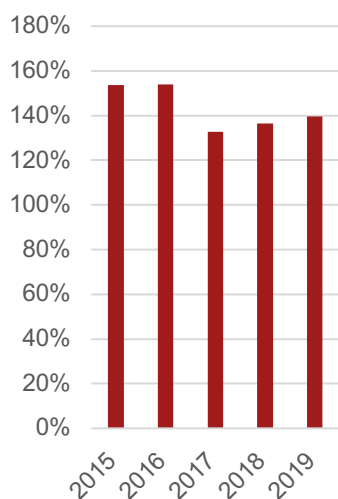
When comparing MQG's profitability against industry peers mentioned above, the profitability ratios show that the bank has historically been able to outperform the average of the competitors significantly. The profitability ratios that will be used the compare against the peers are Return on Assets (ROA), Return on Equity (ROE), and the Profit Margin. Furthermore, the DuPont decomposition will be made to further analyse the drivers of the Return on Equity.

Figure 22: Liquidity Coverage Ratio



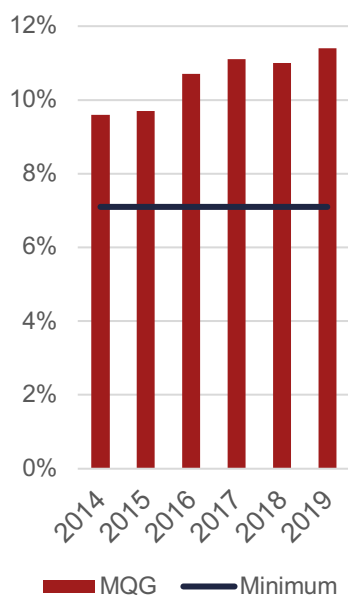
Source: Bloomberg

Figure 23: Loan-to-deposit ratio



Source: Annual Report

Figure 24: CET1 Ratio



Source: Bloomberg

Return on Assets

The Return on Assets (ROA) can be seen in **Figure 25**, as you can see MQG's ROA is almost double in comparison to the average of the industry. From looking at the historical CAGR of 15.34%, which is higher than the industry average CAGR of 14.63%, indicates that the gap between the two has increased in the past few years.

Return on Equity

The Return on Equity (ROE) can be seen in **Figure 26**, similarly to the ROA, the ROE was also double the average of its industry in 2014. However, unlike the ROA, the gap between the industry average and MQG has decreased, as the CAGR of MQG is 12.13% against its industry peers of 14.54%.

Profit Margin

The profit margin can be seen in **Figure 27**, also here MQG was able to outperform its industry peers, however, the gap is minimum. The CAGR of MQG of 8.47% against its industry CAGR of 9.54%, indicates that the small gap is closing, so MQG should be careful.

DuPont Decomposition

The Dupont Composition (**Table 1**) was formed of a combination of Net Profit Margin (NPM), Asset Turnover (AT), and Financial Leverage (FL). The DuPont ROE had a steady growth, with a slight downfall in 2017, with a CAGR of 9.87%. As the FL had a CAGR of -4.06%, and the NPM and AT increased with respectively a CAGR of 7.88% and 6.15%, indicates that the NPM and AT are the main drivers of the growth of the ROE. The decrease of the FL, with a growing equity, indicates that the Assets and liabilities are increasing. The main reason for this increase in both the assets and liabilities, was the margin money being added to the balance sheet in 2018. When looking at the NPM, it can be said that the CAGR of the costs is slightly lower than that of the sales, however, the main driver of the NPM can be seen in a decrease in income tax (from 35.65% in 2015 to 22.73% in 2019). Furthermore, the increase in AT is mainly due to the fast increase in sales in comparison with the assets of the company, indicating an improving efficiency rate regarding the use of its assets.

Table 1: DuPont Analyses

DuPont Decomposition						
	2015	2016	2017	2018	2019	CAGR
Net Profit Margin %	17.26%	20.36%	21.39%	23.42%	23.38%	7.88%
Yoty growth %		17.93%	5.09%	9.46%	-0.15%	
Asset Turnover	0.05	0.05	0.06	0.06	0.06	6.15%
Yoty growth %		4.19%	10.02%	0.71%	9.98%	
Financial Leverage	13.06	12.56	10.59	10.52	11.06	(4.06%)
Yoty growth %		-3.80%	-15.70%	-0.62%	5.13%	
DuPont ROE	11.14%	13.17%	12.84%	14.06%	16.24%	9.87%

Source: Annual Report

Figure 25: Return on Assets

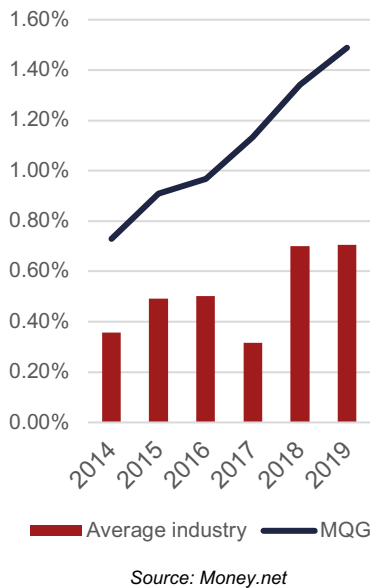


Figure 26: Return on Equity

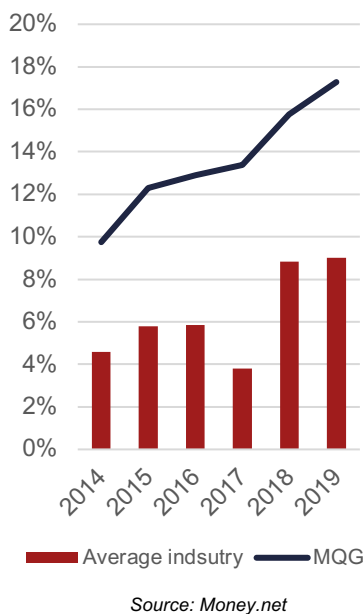
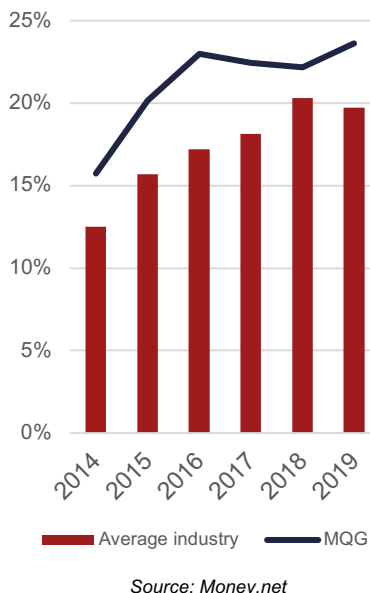


Figure 27: Gross profit Margin



Investment Risks

There are several risks that will be discussed and eventually will be put in a risk matrix (**Figure 28 / Appendix 11**). Supplementary to the original two axes risk matrix, the liberty was taken to make the risk matrix three axes as we believe it missed a crucial criterion: namely, to what extent MQG has influence on reducing the risk.

Economic > Credit Risk – Economic slowdown Covid19 (ECR1)

Due to Covid19, the weakened economy and the lockdowns, an increase can be seen in unemployment and customer trust continues to decrease. Moreover, Australia is facing its first recession in 28 years, just like many countries across the world. This has a negative impact on MQG and can lead to more defaults / impairments on their loans such as mortgages. On the other hand, this coincides with an increase in credit requests at banks and other financial institutions, which ultimately increases their income in that field again. However, the provided credit comes with more risk, which inevitably again increases the risk of defaults/ impairments. Most of this risk is contracted via the market and to what extent a cure is coming, all of which MQG has no influence on. However, MQG does have influence on the mitigation of risk by investigating the background of the business that are requesting the loan. Which is an important part of credit risk.

Market Risk – Equity Risk (MR1)

Due to MQG significant investment in equities, they are currently exposed to 8.5b in equity investments, which could possibly result in potential impairments due to Covid19. The impact on client activity (mostly M&A and Asset management) will primarily affect the base and performance fees. Volatile items such as the performance fees and gains on sale, have an exposure of 22% (**Figure 13**), all of which are likely to get struck by a significant hit on the short term. Furthermore, long market dislocations as a result of covid19, could impact MQG even more, as for example, one of the investments is an airport in the UK, which is also affected by it. In short, most of this risk is beyond MQG's reach, however, they could prevent it in the future.

Market Risk – Upcoming Asian Diversified Banks (MR2)

It is foreseeable that banks in Asia will enter the (international) diversified banking industry in the years to come, which would weaken the competitive position of the current banks in the market, including MQG. However, reputation is of utmost importance in this industry, so it may take a while until the upcoming Asian diversified banks have a similar notoriety. Despite this fact, MQG can't prevent the Asian banks from entering the industry. Nonetheless in an effort to maintain competitiveness, MQG could collaborate with the newly entered Asian banks. In doing so, the Asian banks can lift upon MQG's reputation and MQG can board expand their position.

Currency Risk (CR1)

70% of MQG's revenue comes from outside Australia, indicating a severe currency risk. Before Covid19, the Australian dollar was declining in comparison with the rest of the world, which is favourable for MQG. However, due to Covid19, the Australian is equal to the rest of the world. A further decrease of the Australian dollar would be favourable. To mitigate this risk, MQG hedges exchange rates.

Reputation Risk (RR1)

In the past few years in Australia, a lot of investigations have been done by royal commissions on the banks. Luckily for MQG, they didn't get an investigation, however the other big 4 banks in Australia, experienced reputation damages as a result of these check-ups. As reputation is an extremely important intangible asset in the banking business, it is important to make sure the reputation is protected. MQG risk management is good but could always be improved. Also, in the Diversified banking industry, ESG plays an extremely important role in terms of impacting a firm. The current situation on ESG of MQG will be challenged in the next and final section.

Figure 28: Risk Matrix

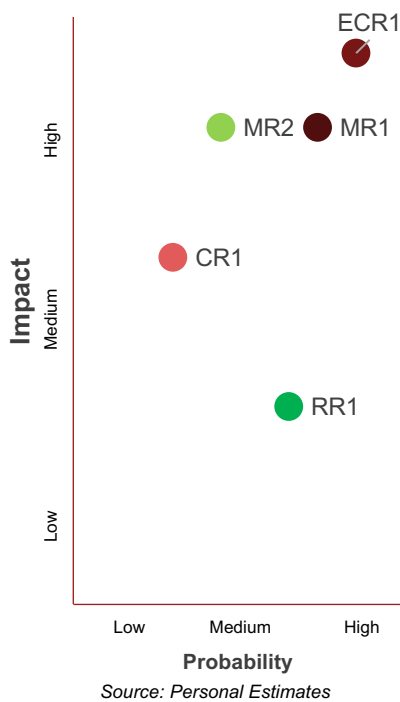
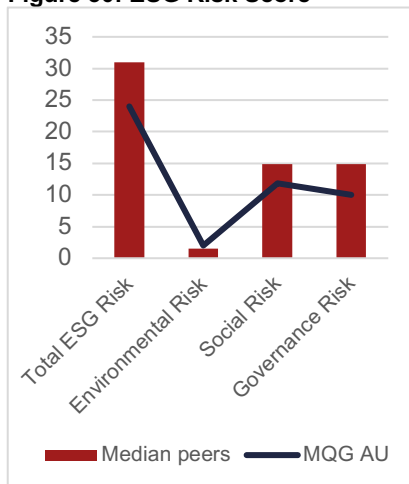


Figure 29: ASX 8 Principles

ASX Principles	Peers Score	MQG Score
Principle 1	4	4
Principle 2	4	4.5
Principle 3	3.5	4
Principle 4	4	4
Principle 5	4	4
Principle 6	4	3.5
Principle 7	3.5	4.2
Principle 8	3.5	4
Average	3.81	4.09

Source: Personal Estimates

Figure 30: ESG Risk Score



Environment, Social and Governance (ESG)

In 2019 MQG composed a new sustainability plan, which has to be realised by 2025. This plan consisted of five pillars shown in (Appendix 12). A view of the current situation progression regarding ESG is give below:

Corporate Governance

To analyse the corporate governance of the company, a closer look will be given to the board of directors and the executive remuneration. Those two combined, will perform a key part in assessing the ASX 8 principles on MQG (Figure 29 / Appendix 13)

Board of Directors

The board consist of a highly adequate team, all of which endeavour particular skills (Appendix 15). All board members have various commitments to other companies, which can result in keeping the effectiveness of the board away from its potential. In addition, the CEO is not the chairwoman, which is an indicative of positive corporate governance. Furthermore, there is a clear separation between management and ownership, as ten of the eleven board members are independent. Female presence on the board is limited, but still offers imperative diversification within the board. Finally, all directors possess moderate levels of shares within the company. By having their own money at stake, potential conflict of interest is limited. The board boasts no significant issues in relation to governance which drastically reduces downside potential for the firm.

Executive Remuneration

Similar to other companies, MQG bases it executive remuneration on the extent to which the short- and long-term goals are realized. In the past few years, the MQG executives were able attain almost all goals, which was a reason for the Australian Shareholders Association (ASA) in 2019 to ask the shareholders to reject the executive pay plans of MQG. This was in accusation of it withholding pertinent information and setting overly achievable performance targets. On the other hand, due to covid19, MQG decided not to pay its short-term bonus which was in harmony with the suggestions made by the group's executive committee.

Corporate Social Responsibility

Several of the biggest (diversified) banks are involved in the trade of coal, oil & gas. However, MQG has been avoiding this the past couple years in an effort to make room for significant investments in renewable energy, quintupling their coal, oil & gas trade. While MQG has made some good progress on climate risk disclosures in 2019, the company's continued their support for gas projects such as the Rio Grande. In doing so, they failed to provide targets to phase out fossil fuel exposure in order to live up the company's commitment that support the low-carbon transition required to meet the Paris climate goals. This caused a backlash from investors.

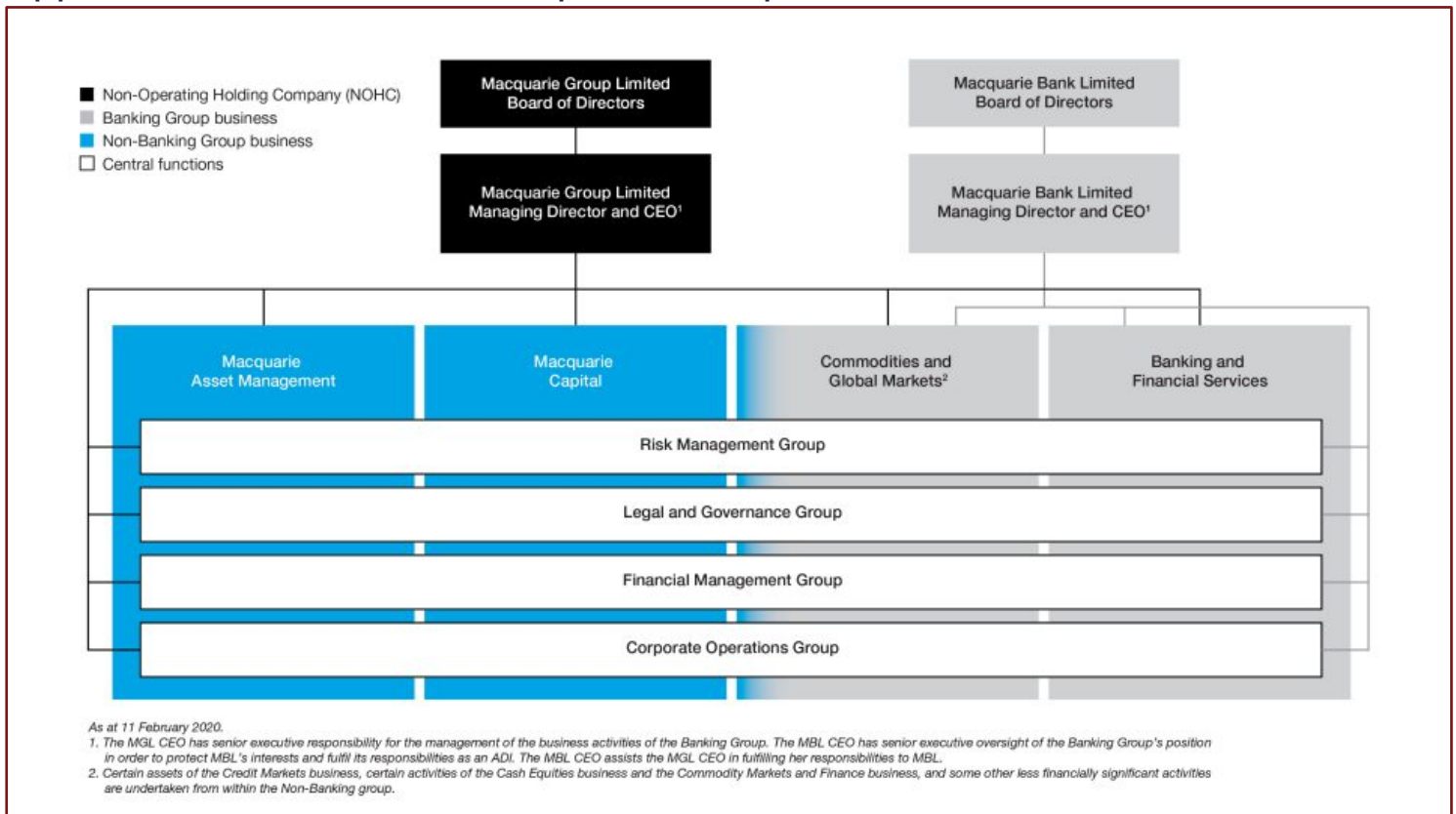
ESG Score

There are two different ESG scores that will be examined. Firstly, the ESG risk score obtained from Yahoo finance, which assesses the extent to which a company's enterprise business value is at risk driven by environmental, social and governance issues. The lower the score the better it is. MQG, as seen in (Figure 30), has an overall risk that is lower than its peers (besides for environmental risk), meaning that in light of this analogy MQG is performing better.

On the other hand, the second one is S&P ESG Evaluation. As elaborated in (Appendix 14) MQG shows an exact score of 39, which is exactly the same as the median of its peers. This indicates that, despite MQG's good preparations (according to the ESG score mentioned above), their ESG profile is lower than the average.

In summary, MQG's ESG is well recognized. They demonstrate responsiveness between management and investors, removing the majority of agency costs. However, with respect to information transparency towards shareholders, there is definitely room for improvement. The diminishing loan assets in coal, oil & gas trade is positive, but could still improve. In spite of their new mission, they still need to realize it, taking investor 'feedback' into account. Although, the amount of shareholder clashes is limited indicative for good risk management, there are still improvements that need to be made. A moderate buy recommendation is given.

Appendix 1: Structure of Macquarie Group Limited



Source: Annual Report

Appendix 2: SWOT Analysis

Strengths

- Macquarie has a diversified business portfolio across financial service segments and internationally. Its stable funding, diverse operations and annuity-style income from its infrastructure and real assets business should help it weather economic and markets.
- Macquarie has a strong focus on risk management and has a transparent and corporate governance
- MQG has the largest infrastructure AUM, which is one of the ways they distinguish themselves from others in the industry.
- Throughout the past 5 years, the net interest/ total revenue went down from 22.5% to 13.8%, indicating a less reliance on interest rate. Which is positive with the falling interest rates worldwide.
- Macquarie went the past 5 years from 6 to 4 operating groups, which enables MQG to reduce their cost base.

Opportunities

- After COVID-19, the M&A side of the business can go back to its "new normal"
- Further depreciation of Australian dollar will boost earnings
- If COVID-19 would continue, MQG could benefit from the rising demand in infrastructure assets.
- Strong support by government to ensure the coming recession is short and sharp.

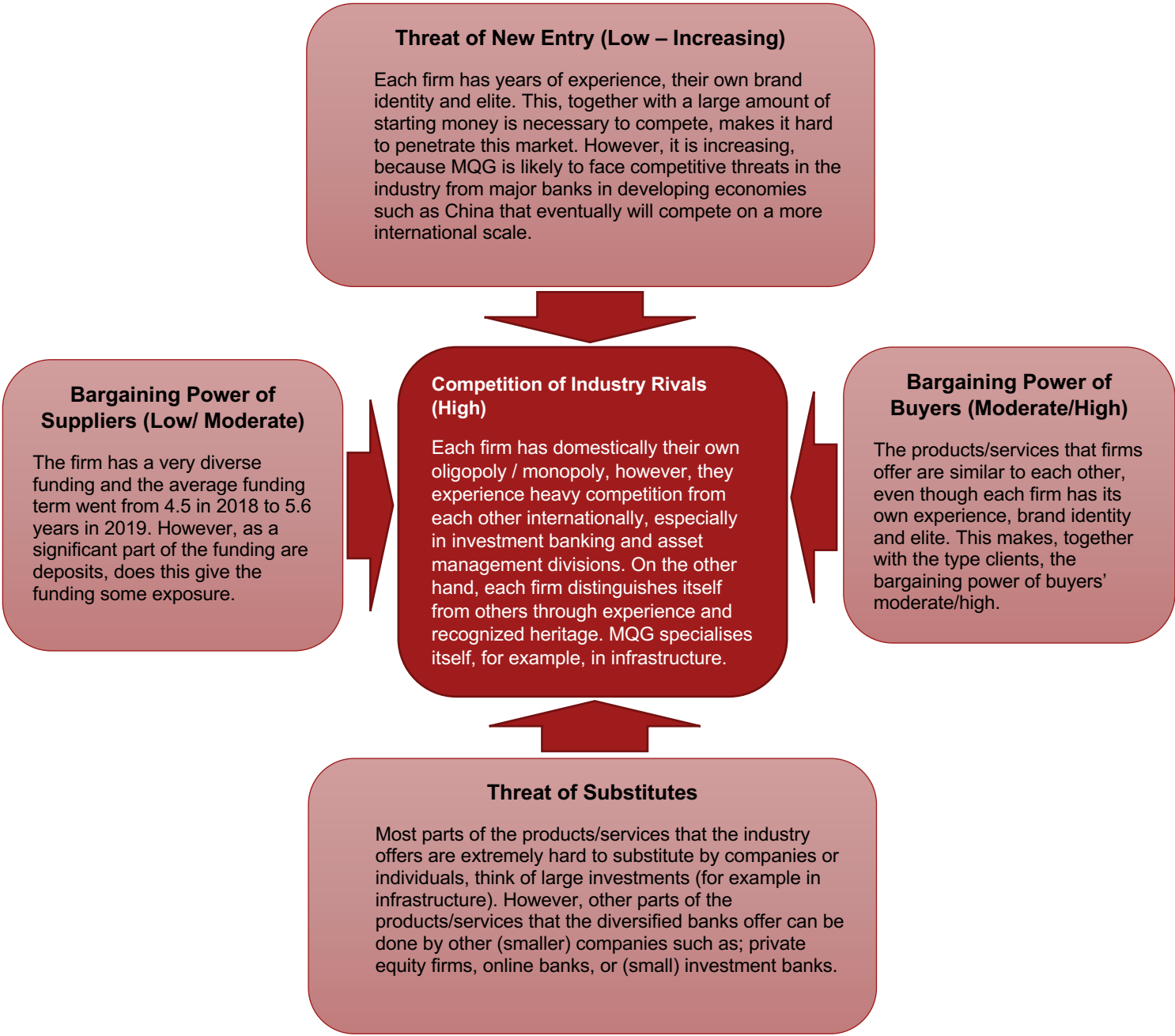
Weaknesses

- High competition in the industry
- Annuity-style business revenues are not as strong as expected, due to a significant amount on equity

Threats

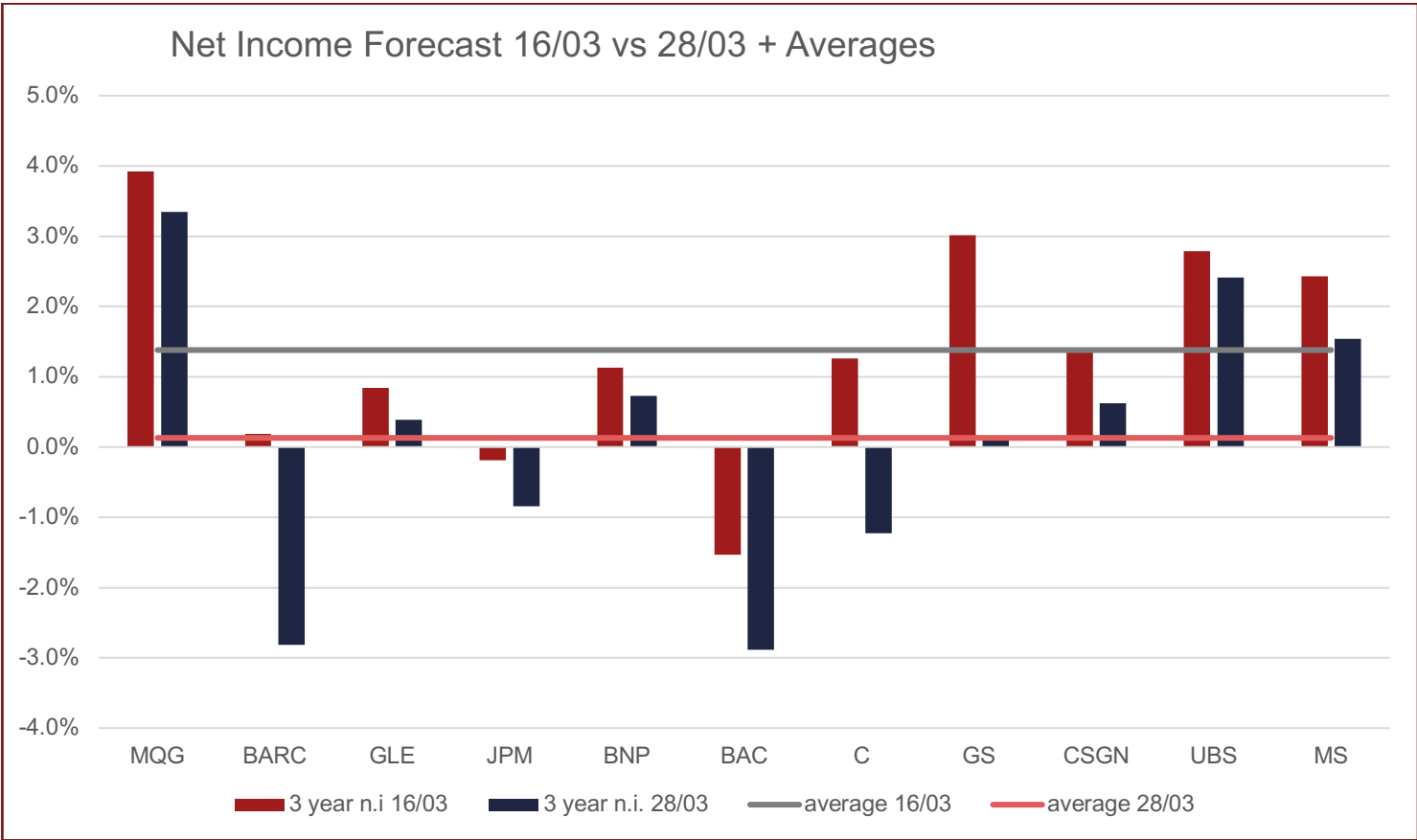
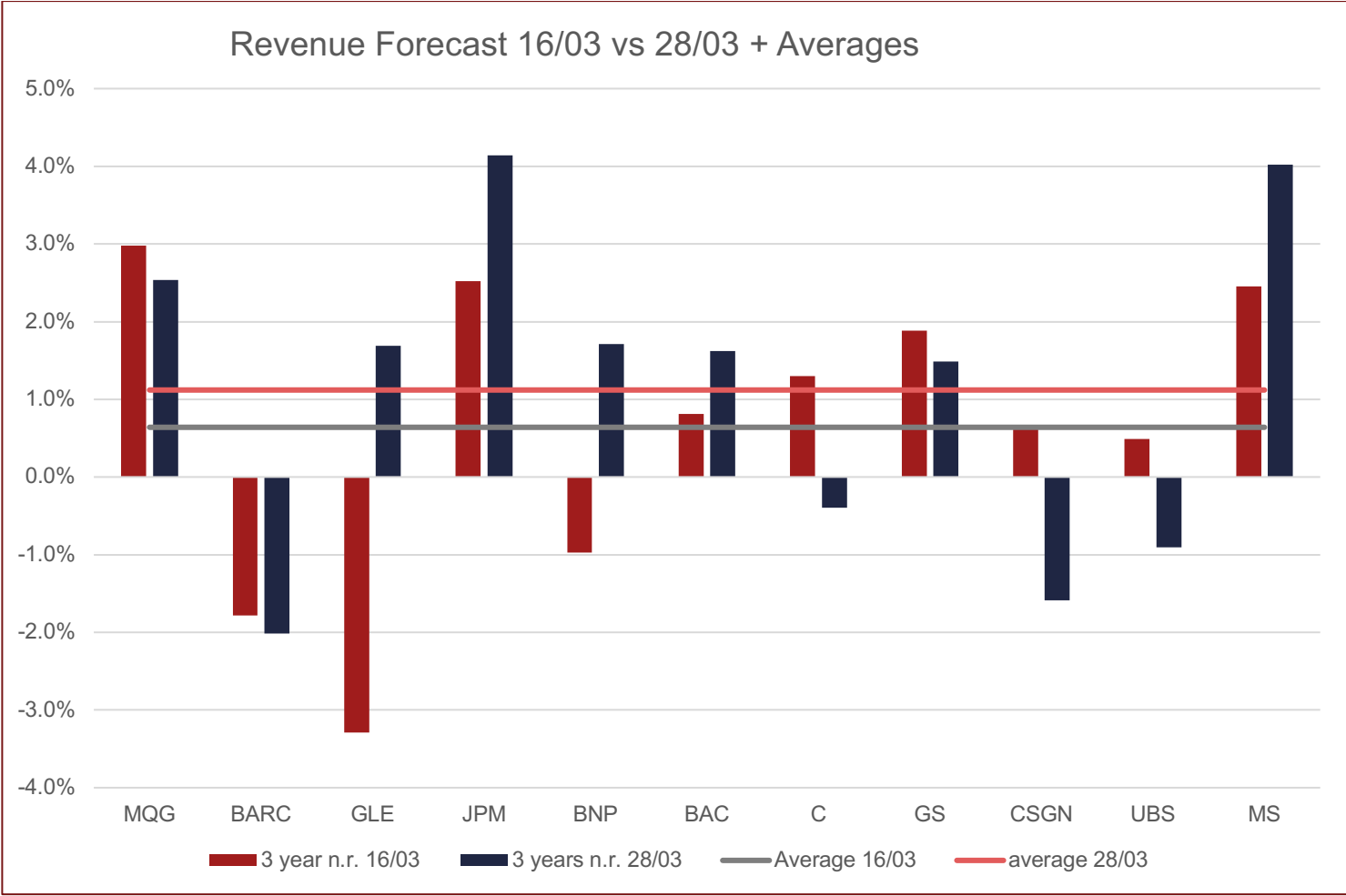
- Global economy is facing an economic recession. As MQG is linked to the global economy, this could have significant impacts, especially to the market-facing businesses.
- Potential impairments, reduced fees and gains of sale because of the impact of COVID-19
- Macquarie could face an increase in competitive threats in the industry from major banks in developing economies such as china, which eventually will compete on a more international scale.

Appendix 3: Porter's Five Forces Analysis



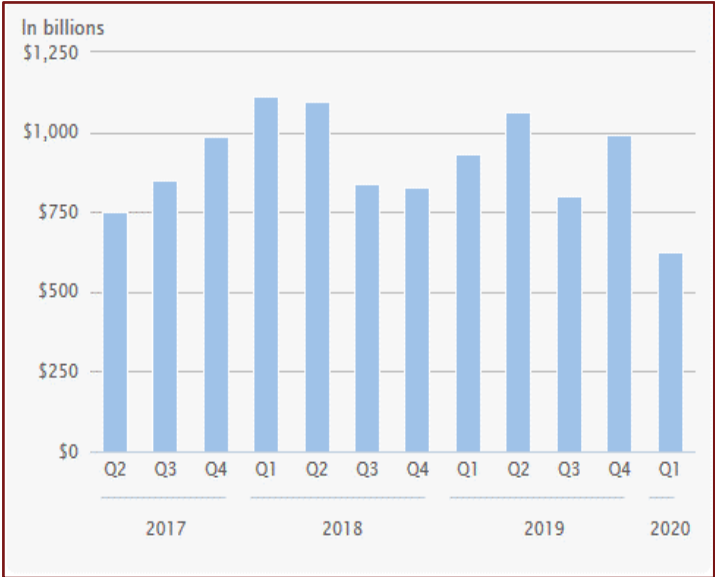
Source: Analyst Estimates

Appendix 4: Competition Future Growth 3 years of Net Income and Revenue



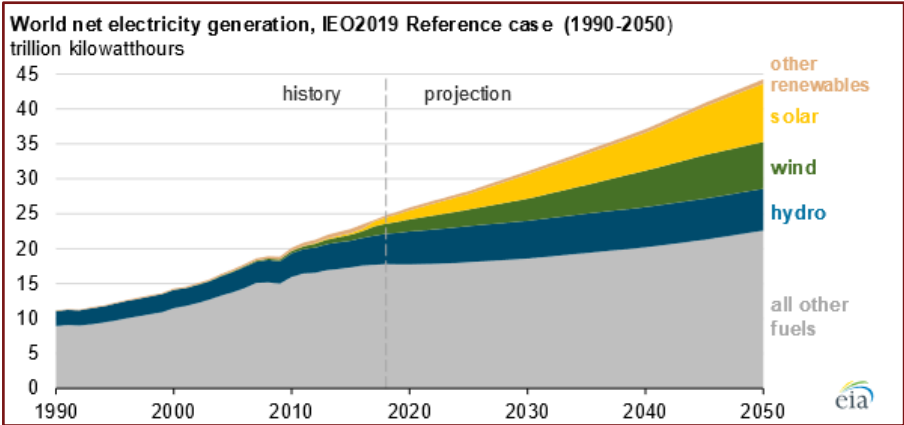
Source: Bloomberg

Appendix 5: Global M&A Revenue by Quarter



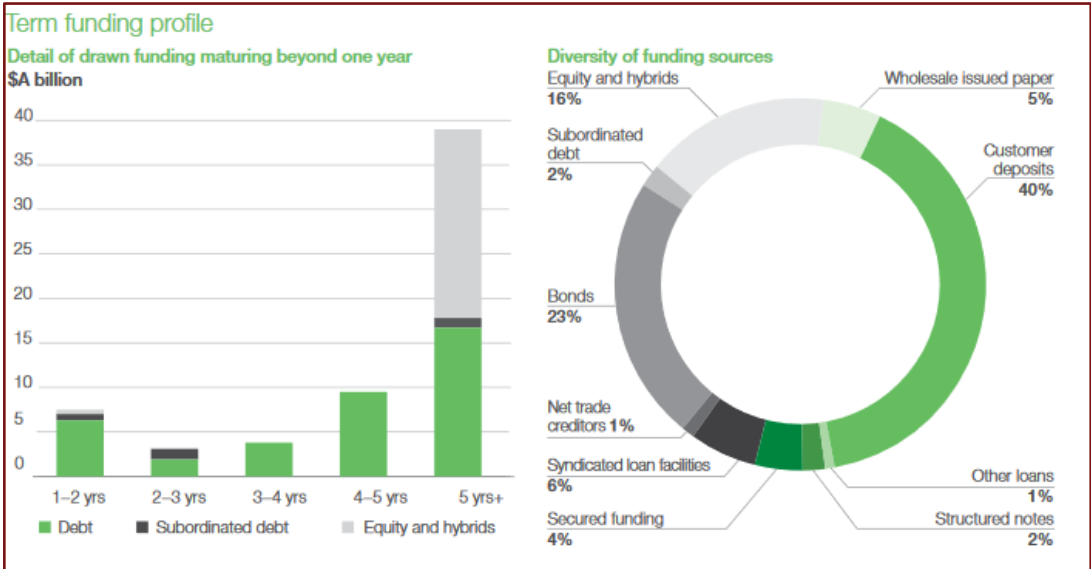
Source: Dealogic

Appendix 6: Long-Term Growth Green Energy Still Intact



Source: U.S. Energy Information Administration, International Energy Outlook 2020

Appendix 7: Term Funding Profile MQG



Source: Annual Report

Appendix 8: Income Statement

AUD \$M	2015	2016	2017	2018	2019	2020F	2021F	2022F
Net Interest and Trading Income	3,819	4,346	3,943	3,937	4,550	4,930	4,971	5,002
Net Fee & Commission Income	4739	4,862	4,331	4,670	5,526	5,567	5,036	5,788
Net Operating Lease Income	603	880	921	935	950	894	805	894
Share of Net Profit / (Losses) of Associates and Joint Ventures	3	-3	51	244	-56	-56	-56	-56
Other Operating Income								
Net Income on Equity and Debt Investments	704	602	1154	1300	2074	1289	1019	878
Credit and Other Impairments	(787)	(785)	(399)	(366)	(552)	(830)	(1121)	(559)
Other Income	179	255	364	197	358	256	223	280
Total Other Operating Income	96	72	1,119	1,131	1,880	714	121	599
Net Operating Income	9,260	10,157	10,365	10,917	12,850	12,050	10,877	12,227
Operating Expenses								
Employment Expenses	(4,143)	(4,244)	(4,379)	(4,493)	(5,217)	(5,387)	(5,332)	(5,439)
Brokerage, Commission and Trading-Related Expenses	(824)	(892)	(852)	(830)	(1,140)	(947)	(949)	(952)
Other Operating Expenses	(1,773)	(2,007)	(2,029)	(2,096)	(2,530)	(2,517)	(2,471)	(2,693)
Total Operating Expenses	(6,740)	(7,143)	(7,260)	(7,419)	(8,887)	(8,851)	(8,753)	(9,084)
Operating Profit Before Income Tax	2,520	3,014	3,105	3,498	3,963	3,199	2,124	3,143
Tax Expense	(899)	(927)	(868)	(883)	(879)	(694)	(461)	(682)
Tax Percentage	35.7%	30.8%	28.0%	25.2%	22.2%	21.7%	21.7%	21.7%
Profit After Income Tax	1,621	2,087	2,237	2,615	3,084	2,504	1,663	2,461
Non-Controlling Interest	5	-9	-5	-6	9	9	9	9
Macquarie Income (Preferred Securities)	-24	-17	-15	-14	-15	-15	-15	-15
Net profit	1,602	2,061	2,217	2,595	3,078	2,498	1,657	2,455

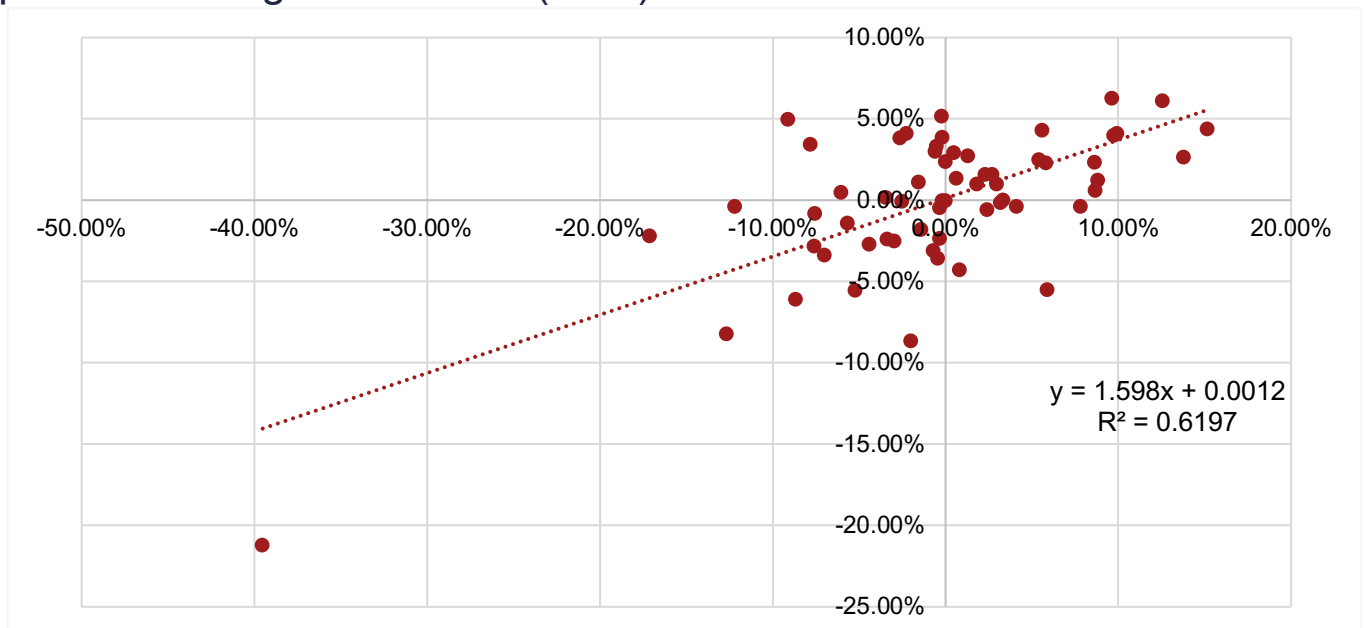
Source: Annual Report & Analyst Estimates

Appendix 9: Free Cash Flow to Equity (FCFE)

AUD \$M	2020F	2021F	2022F	Terminal Value
Net Income (After Tax)	2,498	1,657	2,455	
<i>Net Income (After Tax) Growth Rate</i>		(33.68%)	48.16%	
<i>Dividend Payout Ratio</i>	65%	65%	65%	
Dividends to Equity Holders	1,624	1,077	1,596	
Depreciation and Amortisation	1,451	1,174	1,494	
Capital Expenditure	874	580	859	
Free Cash Flow (to Equity)	2,201	1,671	2,231	
<i>Growth Rate FCFE</i>		(24.06%)	33.49%	
Terminal Value				24,769
Discount Factor	11.19%	11.19%	11.19%	
Growth Rate				2.00%
PV of FCFE	1,979	1,352	1,623	18,020
Total PV of FCF to Equity Holders (FCFE)				22,974
Less: Total debt				0
Add: Cash & Equivalents				15,154
Equity Value				38,128
Number of Shares Outstanding				354.38
Intrinsic Value Per Share				\$107.59
Share price				\$104.00
Upside				3.45%

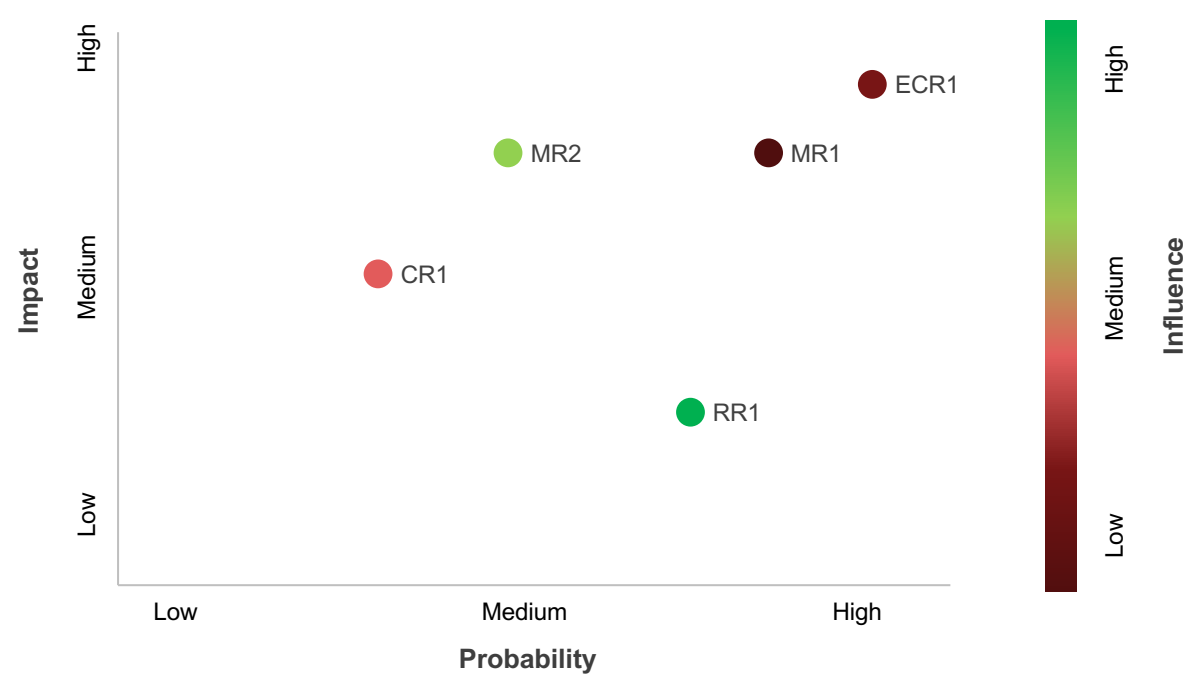
Source: Annual Report, Yahoo Finance & Analyst Estimates

Appendix 10: Regression Beta (5YM)



Source: Yahoo Finance

Appendix 11: Risk Matrix



Source: Analyst Estimates

Appendix 12: Sustainability Plan 2025



Source: Annual Report

Appendix 13: ASX 8 Principles

ASX Principles	Peers Score	MQG Score
1. Lay solid foundations for management and oversight	4	4
2. Structure the board to be effective and add value	4	4.5
3. Instil a culture of acting lawfully ethically and responsibly	3.5	4
4. Safeguard the integrity of corporate reports	4	4
5. Make timely and balanced disclosure	4	4
6. Respect the rights of security holders	4	3.5
7. Recognise and manage risk	3.5	4.2
8. Remunerate fairly and responsibly	3.5	4
Average	3.81	4.09

Source: Analyst Estimates

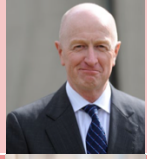
Appendix 14: S&P ESG Evaluation

S&P Global Ratings ESG Evaluation is a one of a kind assessment of a company’s ESG strategy and ability to prepare for potential future risks and opportunities. The ESG Evaluation is the ideal tool for investors in that it provides a forward looking, long term opinion of readiness for disruptive ESG risks and opportunities. The methodology is founded on our analysts’ sector and company expertise, relying upon in-depth engagement with company management to assess material ESG impacts on the company, past, present and future.



Source: S&P ESG

Appendix 15: Board of Directors

Name and Function		Since	Experience	Independent	Earnings 2019
Peter H Warne <i>Chairman and Non-Executive director</i>		Non- ex since August 2007 Chairman since April 2016	Mr. Warne has extensive knowledge of, and experience in, financial services and investment banking, through a number of senior roles at Bankers Trust Australia limited, including as Head of its global Financial Markets Group from 1988 to 1999.	Yes	<i>Income:</i> \$883,750 <i>Holdings:</i> 14,933
Shemara R Wikramanayake <i>CEO & Managing director</i>		December 2018	Before working at MQG, Ms. Wikramanayake worked as a corporate lawyer at Blake Dawson Waldron in Sydney. In her time at MQG, she has worked in nine cities in six countries and across several business lines, establishing and leading MQG corporate advisory offices and the infrastructure funds management business.	No	<i>Income:</i> \$18,035,835 <i>Holdings:</i> 883,625
Gary R Banks <i>Non-Executive Director</i>		August 2013	Mr. Banks has extensive experience across economics, public policy and regulation in Australia and internationally. He was Chairman of the Australian Productivity Commission from its inception in 1998 till 2012.	Yes	<i>Income:</i> \$370,500 <i>Holdings:</i> 6,541
Jillian R Broadbent <i>Non-Executive Director</i>		November 2018	Ms. Broadbent has extensive investment banking industry knowledge and markets expertise, including a deep knowledge of risk management and regulation in these areas.	Yes	<i>Income:</i> \$122,883 <i>Holdings:</i> 6,250
Gordon M Cairns <i>Non-Executive Director</i>		November 2014	Mr. Cairns has held a range of management and executive roles throughout his career with Nestle, Cadbury Ltd and PepsiCo culminating as CEO of Lion Nathan Limited from 1997 to 2004.	Yes	<i>Income:</i> \$335,500 <i>Holdings:</i> 12,734
Philip M Coffey <i>Non-Executive Director</i>		August 2018	Mr. Coffey served as the Deputy CEO of Westpac from 2014 until his retirement in May 2017. Mr. Coffey ah the responsibility of overseeing and supporting relationship with key stakeholders of Westpac and was responsible for Group's M&A.	Yes	<i>Income:</i> \$180,008 <i>Holdings:</i> 8,739
Michael J Coleman <i>Non-Executive Director</i>		November 2012	Mr. Coleman has had a career as a senior audit partner with KPMG for 30 years. He has significant experience in risk management, financial and regulatory reporting and corporate governance.	Yes	<i>Income:</i> \$428,500 <i>Holdings:</i> 8,861
Diane J Grady <i>Non-Executive Director</i>		May 2011	Ms. Grady has extensive international experience in a variety of industries having spent 25 years as a full-time independent director of public companies and non-profit boards and as a partner with McKinsey & Co.	Yes	<i>Income:</i> \$370,500 <i>Holdings:</i> 9,768
Michael J Hawker <i>Non-Executive Director</i>		March 2010	Mr. Hawker has substantial expertise and experience in the financial services industry including management experience in regulated entities in Australia and Internationally, and a deep understanding of risk management	Yes	<i>Income:</i> \$433,833 <i>Holdings:</i> 7,469
Glenn R Stevens <i>Non-Executive Director</i>		November 2017	Mr. Stevens worked at the highest levels of the RBA for 20 years, and as well as developing Australia's successful inflation target framework for monetary policy, played a significant role in central banking internationally.	Yes	<i>Income:</i> \$313,750 <i>Holdings:</i> 3,900
Nicola M Wakefield Evans <i>Non-Executive Director</i>		February 2014	MS Evans is an experienced No-Executive Director and has considerable management and legal experience having spent 29 years at King & Wood Mallesons.	Yes	<i>Income:</i> \$410,500 <i>Holdings:</i> 6,929

Source: Annual Report