

Ratio Analysis

	Tesla	Toyota
Liquidity Measure		
1 Current Ratio	0.8313	1.0200
Long-Term Solvency Measures		
2 Total Debt Ratio	0.7877	0.6040
3 Times Interest Earned Ratio	0.3362	13.1432
4 Debt Equity Ratio	3.7104	1.5253
5 Profit Margin	-0.0495	0.0912
6 Total Asset Turnover	0.7216	0.5599
7 Equity Multiplier	4.7104	2.5253
8 Return on Assets	-0.0357	0.0510

Common Balance Sheet

	Tesla		Toyota	
	\$000	%	\$000	%
Current Assets				
Cash and cash equivalents	3,685,618	12.39%	53,868,132	11.37%
Receivables	949,022	3.19%	80,661,533	17.03%
Inventories	3,113,446	10.47%	23,910,648	5.05%
Other current assets	558,222	1.88%	12,456,468	2.63%
Total current assets	8,306,308	27.93%	170,896,781	36.08%
Non-current Assets				
Property, Plant & Equip	11,330,077	38.10%	96,664,216	20.41%
Receivables	421,548	1.42%	164,572,971	34.75%
Intangibles	350,651	1.18%	-	0.00%
Other non-current Assets	9,331,030	31.38%	41,489,164	8.76%
Total non-current assets	21,433,306	72.07%	302,726,351	63.92%
Total Assets	29,739,614	100.00%	473,623,132	100.00%
Current Liabilities				
Payables	5,498,704	18.49%	67,797,590	14.31%
Short Term Debt	2,567,699	8.63%	87,996,479	18.58%
Other current liabilities	1,925,733	6.48%	11,753,389	2.48%
Total current liabilities	9,992,136	33.60%	167,547,458	35.38%
Non-current Liabilities				
Long Term Debt	9,403,672	31.62%	94,204,237	19.89%
Other non-current liabilities	4,030,202	13.55%	24,316,588	5.13%
Total non-current liabilities	13,433,874	45.17%	118,520,825	25.02%
Total liabilities	23,426,010	78.77%	286,068,283	60.40%
Net Assets	6,313,604	21.23%	187,554,849	39.60%
Equity				
Share Capital (Contributed equity)	10,249,300	34.46%	8,327,547	1.76%
Reserves	(5,317,832)	-17.88%	183,331,425	38.71%
Other equity	1,382,136	4.65%	(4,104,123)	-0.87%
Total equity	6,313,604	21.23%	187,554,849	39.60%

Common Income Statement

	Tesla		Toyota	
	\$000	%	\$000	%
Operating Revenue	21,461,268	100.00%	265,174,501	100.00%
Cost of Sales	(17,419,200)	-81.17%	(215,619,465)	-81.31%
Gross Profit	4,042,068	18.83%	49,555,036	18.69%
Selling, general and admin expenses	(2,834,491)	-13.21%	(18,288,374)	-6.90%
R&D	(1,460,370)	-6.80%	(9,605,913)	-3.62%
Other operating expenses	-	0.00%	318,513	0.12%
EBIT	(252,793)	-1.18%	21,979,262	8.29%
Finance revenue	24,533	0.11%	-	0.00%
Finance costs	(663,071)	-3.09%	(248,987)	-0.09%
Abnormals	(135,233)	-0.63%	(326,148)	-0.12%
Other	21,866	0.10%	2,247,423	0.85%
Earnings before tax	(1,004,698)	-4.68%	23,651,550	8.92%
Income tax expense	(57,837)	-0.27%	(4,552,684)	-1.72%
Income/loss from affiliates	-	0.00%	4,242,890	1.60%
Profit after tax	(1,062,535)	-4.95%	23,341,756	8.80%
Other comprehensive income (net)	-	0.00%	831,487	0.31%
Total Comprehensive income	(1,062,535)	-4.95%	24,173,243	9.12%

All numbers in \$000. Balances as at 31/12/2018

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Equity		
Share capital	10,249,300	8,327,547
Retained earnings	(5,317,832)	183,331,425
Other equity	1,382,136	(4,104,123)
Total Equity	6,313,604	187,554,849

Task 2

Financial Health Ratio Analysis

Liquidity

The most effective way to measure a company's liquidity is the quick ratio. Tesla has a quick ratio of 1.37 while Toyota's is only 0.88. This indicates that Tesla has the ability to meet short term obligations more easily than Toyota.

Solvency

The best measure of solvency in the auto industry is the debt to equity ratio due to its capital-intensive nature. Currently, Tesla has a D/E of 3.71 and Toyota 1.53. Although in many industries a D/E of 1 is desirable in the auto industry 2.5 is normal. Investors prefer a ratio lower as it indicates a company is able meet debt obligations with equity, rather than through creditors.

Operating Efficiency

Inventory turnover is an effective measure of efficiency as it indicates how quickly the company is able to sell stock. The industry average for inventory turnover is 11.66/year (CSI MARKET, 2019). Tesla performed at a rate of 5.59 and Toyota at 9.02. This is due to the lengthy delivery times and lack of inventory Tesla holds.

Profitability

The return on assets ratio indicates to investors the possible return to shareholders. Tesla currently has an ROA of -3.57%, whereas Toyota's is 5.1%. This is a key indicator that at this point in time Tesla is not profitable, therefore not paying dividends to investors. This also means that the company must rely on investors, rather than profit to pay debts.

Based on this ratio analysis Toyota is more financially healthy than Tesla.

DuPont Analysis

The three key ratios in the DuPont Analysis are profit margin, asset turnover and equity multiplier. These three ratios indicate operating efficiency, asset use efficiency and leverage respectively, together forming the ROE (Return on Equity). The average ROE for the auto industry is 18% (CSI Market & Maverik, 2019). Using the DuPont Analysis ratio investors will seek higher profit margins and asset turnover. A rise in the equity multiplier indicates that the investment would be riskier and more than likely the company is not performing as well financially.

Tesla has a profit margin of -4.95%, an asset turnover ratio of 0.72 and an equity multiplier of 4.71, making the ROE -16.83%. Increasing the volume of sales will assist with both increasing the profit margin and asset turnover, in turn increasing the ROE.

Toyota has a profit margin of 9.12%, an asset turnover ratio of 0.56 and an equity multiplier of 2.53, making the ROE 12.89%. The company's ROE could be increased by improving asset turnover through a reduction in inventory held and/or increasing sales.

Overall, based on the DuPont Analysis, Toyota is more financially healthy as they are profitable. Tesla also boasts a higher equity multiplier, meaning that investing in the company comes with more risk as assets are more often financed through debt than shareholder equity.

Purchase Decision – Based on Financial Factors

Based on the financial ratio analysis and the DuPont analysis, it is clear that Toyota is significantly more financially healthy compared to Tesla, therefore it is more desirable to purchase a Prius compared to a Model 3.

The most critical ratio to look at is the profit margin. As Tesla's is negative this is a good indication that the company is not financially healthy. In fact, Tesla is yet to make a profit in 16 years of operation. A loss of shareholder interest may result in a closure of the business. There are three key impacts of this. Firstly, supercharger stations may be closed down, meaning customers will not be able to travel long distances. Secondly, the number of available spare parts and repairers would drop, making it more difficult to repair a broken car. Finally, a loss of business for Tesla would also mean that warranties on new cars will not be honoured. All of these factors would significantly lower the value of the car.

Non-Financial Factors

Environmental Impact

Tesla's entire business model is based on creating a planet which is more sustainable (Tesla, n.d.). This vision has driven all decisions within the company, including, fully powering all supercharger stations with solar energy.

Toyota's main goal is to achieve legal compliance. Additionally, the company outlines non-specific or measurable goals of 'reducing water usage' and 'reducing greenhouse gas emissions' Toyota Australia Sustainability Report (2018).

In a study conducted by Cone (2017) it was revealed that 92% of customers are more likely to trust a company which supports social and environmental issues and 87% would purchase a product from one given the chance. Proving, consumers are more interested in purchasing from a company with a positive environmental impact, giving Tesla an advantage.

Vehicle Range

The Model 3 has a range of approximately 500km (Krok, 2017). This should not be an issue to a consumer simply using the car for day to day life, it may become an issue if the consumer wanted to drive long distances or interstate.

The Prius has the ability to run on just petrol. When travelling long distances this is essential as electric charging stations are not available. Although the Prius has the ability to travel 1030km in hybrid mode the fully electric distance is limited to just 40km.

The Prius would be a more desirable car for most consumers based on the range as it has the ability to run on petrol when electric charging stations are not available.

Overall, it is important to appreciate both financial and non-financial factors when it comes to purchasing a car. The customer should identify their needs in terms of range and sustainability as these are two of the key non-financial factors. Also, an understanding of the implications of the company's financial positions is important. In this situation the most important factors would be the financial health and range of the vehicle as these two factors significantly impact the experience of owning either car. Therefore, purchasing a Prius would be the desirable.

Word Count: 976 Words

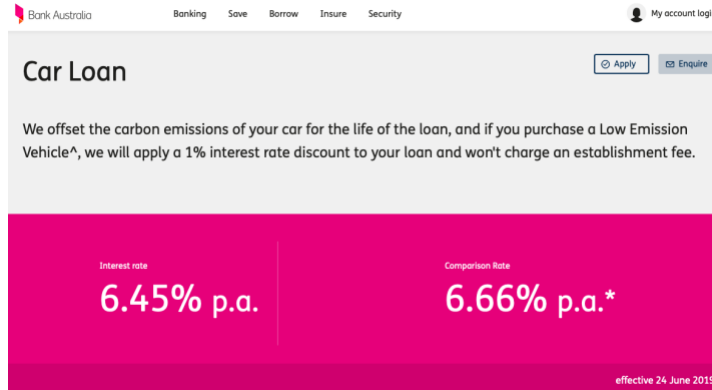
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- Toyota. (2018). *Environmental Impact Management*. Toyota Australia.

Task 3

Bank Australia

Interest Rate



Bank Australia Banking Save Borrow Insure Security My account login

Car Loan

[Apply](#) [Enquire](#)

We offset the carbon emissions of your car for the life of the loan, and if you purchase a Low Emission Vehicle*, we will apply a 1% interest rate discount to your loan and won't charge an establishment fee.

Interest rate	Comparison Rate
6.45% p.a.	6.66% p.a.*

effective 24 June 2019

<https://www.bankaustralia.com.au/personal/borrow/personal-loans/car-loan/>

Retrieved 15/09/19

***Bank Australia Low Emission Vehicle criteria:** Bank Australia may provide a Low Emission Vehicle (LEV) pricing benefit if the car is Pure Electric, Plug In Hybrid Electric, Regenerative Hybrid or the internal combustion engine produces less than 125 g / km Tailpipe CO₂ (g/km) as published by Green Vehicle Guide®.

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<https://www.bankaustralia.com.au/personal/borrow/personal-loans/car-loan/>

Retrieved 15/09/19

Vehicle details	Tailpipe CO ₂ (g/km)		
	Comb	Urban	Extra
* non-current model Download Our Latest Factsheets			
Tesla Model 3 Standard Range Plus (E1RB) Pure Electric, 4 door 5 seat Sedan, 2WD Released: 2019	na	na	na
Toyota Prius Hybrid 1.8L 4cyl Electric/Petrol 91RON, 1 Spd CVT, 4 door 5 seat Hatch, 2WD Released: 2016	80	78	82

<https://www.greenvehicleguide.gov.au/Vehicle/QuickCompareVehicles>

Retrieved 15/09/19

Summary

Both Tesla Model 3 and Toyota Prius Hybrid are eligible to waive the \$150 establishment fee and a 1% discount on the interest rate as these cars meet the criteria stated on the Green Vehicle Guide. This means that the interest rate will be 5.45% p.a.

Monthly repayment amount calculated in Task3.xlsx

National Australia Bank

Interest Rate

Variable rate ¹

Headline rate	12.69% p.a.
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Rate can range from 10.69% p.a. to 18.69% p.a.

Comparison rate	13.56% p.a.
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Rate can range from 11.58% p.a. to 19.53% p.a.

Fixed rate ¹

Headline rate	12.69% p.a.
---------------	--------------------

Rate can range from 10.69% p.a. to 18.69% p.a.

Comparison rate	13.56% p.a.
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Rate can range from 11.58% p.a. to 19.53% p.a.

Fees

Application fee	\$150
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Monthly fee	\$10
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Exit fee	\$0
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<https://www.nab.com.au/personal/personal-loans/car-loans>

Retrieved 15/09/19

Summary

Assumption: 12.69% p.a. rate was applied as credit history is not available to get a personal quote.

NAB does not offer discounts for green vehicles. There is fees attached to this loan.
Monthly repayments calculated in Task3.xlsx

Details of Fees and Charges Below

Which Bank Offers a Cheaper Loan?

The loan for Bank Australia offers a better interest rate in comparison to the loan from NAB. The total savings over the five-year period for getting the Bank Australia loan instead of the NAB loan would be:

$$\$667.73 \times 60 = \$40063.80$$

$$\$804.20 \times 60 = \$48252.00$$

$$\$48252.00 - \$40063.80 = \mathbf{\$8188.20}$$

This means that based purely on the financial calculations of the total loan repayment amount the buyer of the vehicle should choose to get a loan from Bank Australia.

Non-Financial Factors Which May Affect a Loan Decision

Ethics

During the past 12 months a number of practices performed by big banks have been exposed as not only being illegal, but also unethical. NAB was a bank which was exposed for charging customers fees for no service, knowingly accepting falsified payslips and bank statements to sell loans which could not realistically be payed off and sharing customer details with third parties (Yeates, 2019). Bank Australia is a credit union which is run by members to benefit members rather than stockholders, like NAB. Due to the nature of the bank there has not been similar news stories about Bank Australia.

Carbon Offset Loan

Bank Australia offers a unique car loan which offsets the carbon emitted with the car which you purchase. For those consumers who are concerned over their social and environmental impact, the Bank Australia loan would be highly desirable as a portion of the interest is contributed to a carbon offset program (Bank Australia, 2016). NAB does not offer such a program, as mentioned previously, the bank has a key focus on maximising shareholder wealth, rather than member interests (National Australia Bank, 2019).

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Personal loans

Effective 30 April 2019

	Car loan	Personal loan
Purpose	New or used vehicle purchase up to the age of 7 years.	Any worthwhile purpose.
Interest rate type	Fixed *an interest rate discount may apply for vehicles that meet Bank Australia Low Emission Vehicle criteria [^]	Variable
Minimum loan amount	\$1,000	\$1,000
Maximum loan term	7 years – new vehicle 5 years – used vehicle	10 years
Discounted rate for home owners	No	Yes
Establishment fee – new loan	\$150 *Waived for vehicles that meet Bank Australia's Low Emission Vehicle (LEV) criteria [^]	\$150 Waived where loan purpose is for sustainable home improvements
Monthly fee	\$0	\$0
Repayment frequency	W, F, M	W, F, M
Additional repayments accepted	Yes	Yes
Redraw	No	Yes – only available for the home owners product
Early repayment penalty	No	No
Availability of loan insurance	No	No
Security	Goods mortgage (subject to assessment)	Unsecured or goods mortgage (subject to assessment)

[^] Low Emission Vehicle criteria

Bank Australia may provide a Low Emission Vehicle pricing benefit if the car is Pure Electric, Plug In Hybrid Electric, Regenerative Hybrid or the internal combustion engine produces less than 125 g / km Tailpipe CO₂ (g/km) as published by Green Vehicle Guide[®].

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SECTION 4

Loans, Overdrafts and Other Lending Facilities

Loans

We will advise you in writing of any agreed borrowing facility which will cover the interest rate, how and when it is charged, and what fees are payable. Fees typically include an Application Fee and a Loan Service Fee.

Changes to interest rates are advised by press advertisements and appear on your loan account statement. Details of current rates can be obtained from your branch.

Application fees are non-refundable upon acceptance of loan or lending facility. If the facility is declined by NAB or not accepted by you, the application fee will be refunded.

Personal Loans			
	Application Fee	Loan Service Fee	Default Fee
Fixed and Variable Rate Personal Loans	\$150	\$10 per month for unsecured tiered; otherwise free.	\$35, to be paid to us each time we issue to you a notification for failing to pay or repay any amount you have to pay us
Tertiary Student Package Deferred Repayment Loan (product no longer for sale)	N/A	N/A	\$35, to be paid to us each time we issue to you a notification for failing to pay or repay any amount you have to pay us

Personal Project Loans (product no longer for sale)	
Monthly Service Fee First debited on the closing date of the last statement period during the access period, and then monthly on the closing date of each statement period thereafter.	\$7