

WACC Calculation Model			
Inputs:		Outputs:	
Six months 2020 Net income, in \$	\$545,000,000	Shares outstanding (2Q 2020 average)	1,434,210,526
Unadjusted EPS, in \$	50.38	Market value of MDLZ's equity, in \$	\$61,004,210,526
MDLZ's stock price	\$56.48		
Risk-free rate	0.66%		
Historical return on the S&P 500	9.71%		
Historical return on the 10-year Treasury note	4.88%	Market risk premium	4.83%
MDLZ's beta	0.63	Cost of equity for MDLZ	3.70%
Short-term borrowings, in \$	\$2,755,000,000		
Long-term debt, current portion, in \$	\$945,000,000	Book value of MDLZ's total debt, in \$	\$19,704,000,000
Long-term debt, in \$	\$16,004,000,000		
Six months 2020 Interest expense	\$218,000,000	After-tax Cost of debt for MDLZ	1.75%
Applicable tax rate	21.00%	MDLZ's WACC	3.32%

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Questions	Answers	Assumptions	Assumptions' Justification
a How many MDLZ shares are outstanding?	1,434,210,526	6 months 2020 Net income / Unadjusted (GAAP-based) EPS	As the US-based company, MDLZ reports under the GAAP requirements. The unadjusted EPS are based on the GAAP, therefore, dividing the net income for the period by th unadjusted EPS allows for calculating the average number of outstanding shares during the period
b What is the price of MDLZ stock? <i>(in \$)</i>	\$ 56.48	Most recent adjusted closing price	The most recent closing price reflects the current market price of the stock; therefore, it fits for calculating the market value of the company's equity
c How much is <i>the total market value of equity</i> issued by MDLZ <i>(in \$)</i>	\$ 81,004,210,526	Calculated by multiplying the answer for (a) and the answer for (b)	The market value of equity reflects the true economic claim of the wholly-owned funds, while the equity book value may not.
d What is the <i>risk-free rate</i> ?	0.66%	Yield on the 10-year Treasury Note on 29 September, 2020	The Yield on the 10-year Treasury note yield is the key benchmark for interest rates on bonds and other long-term debt except for the adjustable-rate mortgages, which follow the FedFunds rate.
e What is the <i>MDLZ's beta</i> ?	0.63	Adjusted beta from Yahoo	The adjusted beta better the raw beta fits for calculating the expected return because it tends to estimate a future beta based on the historic one.
f What is the <i>market risk premium</i> ?	4.83%	The excess return on S&P 500 versus 10-Year Treasury Bond in 1928-2019	The historical market risk premium reflects the historical average difference between returns from investing in equities and investing in risk-free instruments. The longer period smoothes the year-over-year fluctuations in returns and excess returns. Therefore, the average excess return on the S&P 500 Index versus 10-year Treasury Note in 1928-2019 is a good approximation of the risk premium expected by the equity investors in the long run.
g What is <i>the required rate of return on the MDLZ stock</i> ?	3.70%	Calculated as Risk-free Rate + Beta x Mkt Risk Premium	This figure reflects the cost of equity for MDLZ because it shows the size of gains that MDLZ should offer to investors to support the share price
h How much is <i>the total book value of</i> MDLZ's debt? <i>(in \$)</i>	\$ 19,704,000,000	Short-term borrowings and Long-term Debt (including current portion) as on 30 June, 2020	The book value of short and long-term borrowings of the company reflects the face value of its currently outstanding total borrowed funds. Therefore, this figure is a good approximation of the value of the company's debt in the absence of the data that allows for calculating the market value of the debt, such as the list of all issued debt securities and their current market prices or yields to maturity.
i What is <i>the weighted average cost of debt</i> for MDLZ?	1.75%	Annualized Net interest in 6 monts 2020 / Short and Long-term debt as on 30 June, 2020	The product of dividing the Net interest by the book value of the total Borrowings of the company reflects the average cost of outstanding borrowings for the company. Therefore, this figure is a good approximation for the average cost of debt for the company in the absence of the detailed data about all debt issues and their current yields.
j What is the <i>applicable tax rate</i> ?	21.00%	The U.S. corporate tax rate	The WACC is the common discount rate in the DCF-based valuations. Therefore, the applicable tax rate should reflect the anticipated effective tax rate for the company that may not coincide with its current effective tax rate that equals GAAP taxes / GAAP pretax income.
k What is <i>the total value of total capital</i> raised by MDLZ? <i>(in \$)</i>	\$ 100,708,210,526	Calculated by summing the answer to (c) and the answer to (h)	
l What is <i>the weight of capital raised by issuing equity</i> ?	0.804346	Calculated by dividing the answer to (c) by the answer to (k)	
m What is <i>the weight of capital raised by issuing debt</i> ?	0.195654	Calculated by dividing the answer to (h) by the answer to (k)	
n What is the <i>WACC</i> (after tax) for MDLZ?	3.32%	Calculated by adding the product of multiplying the answers to (l) and (m) and the product of multiplying the answers to (g) and (i)	