I. EXECUTIVE SUMMARY

As independent external financial advisors to Berkshire Hathaway and 3G Capital ("**Acquirers**"), we conclude that the **Acquirers should acquire Heinz** and the offer price of US$72.50/share for a **total transaction value of US$28 billion is reasonable** for 3 reasons:

1. Heinz could achieve long-term revenue growth as it further expands into emerging markets. Heinz's revenue growth in emerging markets has "*expanded rapidly, with 108.3% sales growth in 2012*" and such growth surpassed its 2 biggest competitors in emerging markets, Mondelez and Nestlé. Heinz can emerge as a "*market leader*" in emerging markets, driving long-term revenue.

2. Heinz could achieve long-term cost reductions as it may enjoy a lower overall effective tax rate with further expansion into emerging markets and realize "*operational efficiencies in production*" by leveraging on the synergies post-acquisition, especially Berkshire's financial backing and 3G's expertise in aggressive cost-cutting.

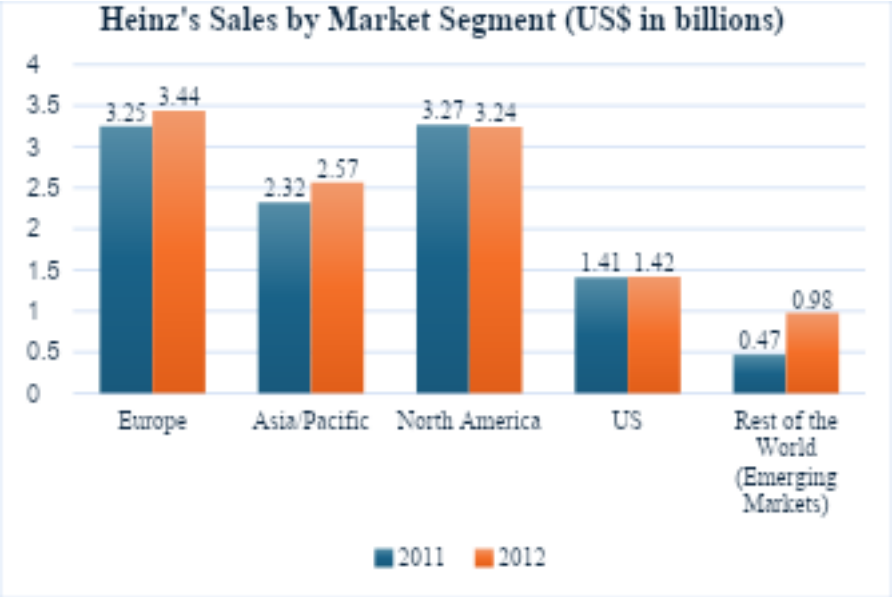
3. Based on our sensitivity analysis, we conservatively estimate Heinz's Enterprise Value ("**EV**") at US$31.9 billion, an upside of 14% from the offer of US$28 billion.

II. INTRODUCTION

Heinz has a storied history spanning 156 years since 1869, growing from "*one of the first food-processing companies in the United States*" to "*one of the leading food products companies in the world*". With a diversified product portfolio ranging from pre-packaged foods to infant

nutrition, Heinz is a global market leader in the food processing industry as "*few competitors offered exactly the same robust line of products*". By expanding its global footprint, Heinz derives 60% of its sales from international markets, especially in emerging markets where sales grew by 108.3% in 2012, outpacing sales growth in other markets (**Figure 1**).

Figure 1: Heinz's Sales



Heinz operates in an industry where there are significant economies of scale. As such, the "*market leader*" has the potential to enjoy: (a) a low threat of new entrants, which will face significantly higher costs at the onset; (b) a low threat from competitors, given that its smaller competitors would also similarly face higher costs; (c) a correspondingly low threat of substitution, given that the competitors' products would likely be priced higher; and (d) a correspondingly low threat from buyers, given that consumers would have higher switching costs in purchasing the competitors' more highly priced products.

Given the "*winner-takes-all*" nature of the food processing industry, Heinz has the potential to enjoy significantly higher revenue and profits should it become a "*market leader*" in emerging

markets, which it has the potential to achieve should it quickly seize growth opportunities in emerging markets, as "*competition in emerging markets was disaggregated*". This makes Heinz an attractive target to acquire.

In 2012, Heinz's biggest competitors in emerging markets were Mondelez and Nestlé. While Heinz derived 21% of its sales from emerging markets, Nestlé and Mondelez derived 40% and 44% of their sales from such markets in 2012. They competed against Heinz in product offering, especially packaged food. Heinz's canned foods and ready-to-eat meals competed against Nestlé's ready meals and canned foods and Mondelez's packaged food like *Philadelphia.*

III. FINANCIAL ANALYSIS

A. Heinz's financial position/performance

Given the Acquirers' focus of investing over a long-term horizon, we place greater emphasis on Heinz's profitability (**Table 1**), liquidity (**Table 2**) and solvency (**Table 3**) metrics to ensure that Heinz can generate strong profits to provide high returns on investment and remain financially stable in the long-term. Less emphasis was placed on Heinz's activity ratios (**Table 4**) as its operations evolve due to "*improving production procedures*".

Table 1: Profitability

Ratios	12 months ended 29 Apr 2012	12 months ended 28 Apr 2013	Trend	Our observations
Gross Profit Margin	35%	36%	Increase	Heinz's profitability generally improved with increasing gross profit margin and operating profit margin. However, declining return on capital employed and return on equity suggest reduced efficiency in generating returns for shareholders. Overall, while profitability margins improved, there may be some concerns about Heinz's ability to sustain high returns on investment.
Operating Profit Margin	13%	14%	Increase	
Net Profit After Tax Margin	8%	9%	Increase	
Return on Capital Employed	32%	26%	Decrease	
Return on Equity	64%	47%	Decrease	

Table 2: Liquidity

Ratios	12 months ended 29 Apr 2012	12 months ended 28 Apr 2013	Trend	Our observations
Current Ratio	1.47	1.07	Decrease	Heinz's liquidity worsened with declining current and quick ratios, suggesting a weakened ability to meet short-term obligations and a decline in Heinz's capacity to meet short-term obligations using its most liquid assets.
Quick Ratio	0.96	0.79	Decrease	

Table 3: Solvency

Ratios	12 months ended 29 Apr 2012	12 months ended 28 Apr 2013	Trend	Our observations
Debt-to-Asset	0.42	0.46	Increase	Heinz's solvency position indicates increased financial leverage with rising debt-to-asset ratio and debt-to-equity ratio, which could pose a risk if debt levels become unsustainable. However, Heinz's interest coverage ratio improved indicating a stronger ability to meet interest obligations. While Heinz can manage its interest expenses, its rising debt levels may lead to higher financial risk if not managed carefully.
Debt-to-Equity	1.79	2.11	Increase	
Interest Coverage	5.13	5.86	Increase	

Table 4: Activity Ratios

Ratios	12 months ended 29 Apr 2012	12 months ended 28 Apr 2013	Trend	Our observations
Days of Inventory on Hand (DOH)	32.29	49.71	Increase	Heinz's operational performance has mixed results – Heinz had slower inventory turnover due to increasing DOH and DSO and less efficient use of resources with a declining asset turnover ratio. However, its working turnover capital improved, and its number of days payables improved, reflecting a longer payment cycle to suppliers.
Days of Sales Outstanding (DSO)	15.76	24.86	Increase	
Number of Days Payables	32.77	53.93	Increase	
Working Capital Turnover	18.65	23.87	Increase	
Asset Turnover	1.92	1.22	Decrease	

B. Heinz's cashflow position

Heinz's cashflow position is healthy for 3 reasons:

First, Heinz's operating cashflows were consistently positive from 2011 to 2013, reflecting its ability to generate sufficient cash to fund operations. While operating cashflows slightly declined from US$1.49 billion in 2012 to US$1.39 billion in 2013, this trend is not concerning as it may be due to payment towards long-term obligations, such as US$139 million in share repurchases.

Second, Heinz's investment cashflows improved from 2011 to 2013, indicating its enhanced ability to use capital efficiently. Cash used in investing activities decreased from -US$402 million in 2012 to -US$373 million in 2013 even as capital expenditures increased from US$419 million in 2012 to US$399 million in 2013, suggesting that Heinz can fund growth initiatives while simultaneously liquidating non-productive assets as evidenced by proceeds from disposal of PP&E rising from US$7 million in 2012 to US$19 million to 2013.

Third, Heinz's financing cashflow was positive, reflecting strong access to capital as evidenced by it raising US$1.09 billion in 2013. However, this exposes Heinz to liquidity and solvency risks.

C. Competitor Analysis

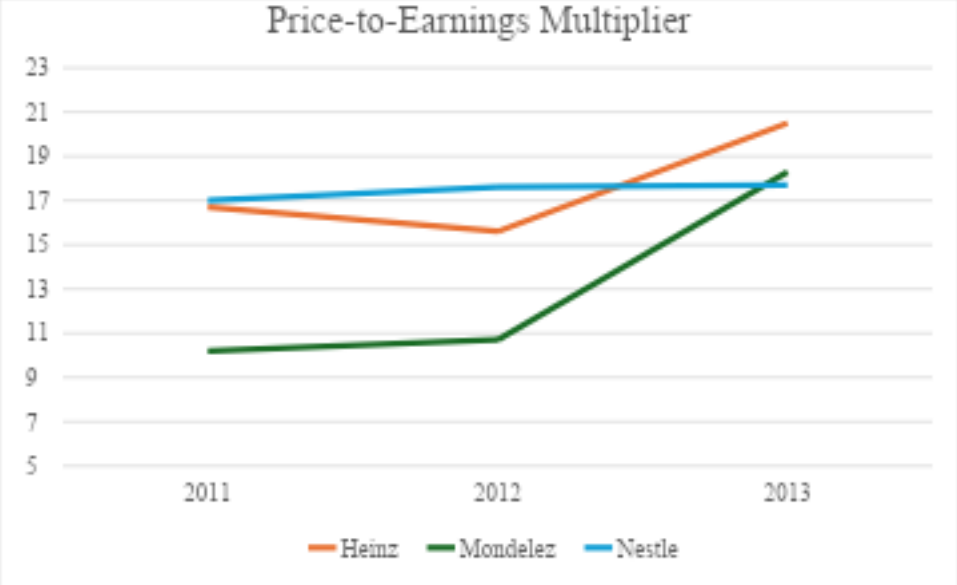
As explained above, Heinz's greatest competitors in emerging markets are Mondelez and Nestle. Benchmarking Heinz's financial performance against them, we assess that Heinz has solid fundamentals as it showcases strong operational profitability, earnings growth potential and strong cashflow generation.

When compared to its competitors, Heinz's valuation viz. its competitors also suggests that investors are optimistic about its earnings growth, with its price-to-earnings multiplier (**Figure 2**)

and enterprise value to EBITDA multiplier (**Figure 3**) above its competitors. However, Heinz's valuation based on its free cash flow is lower than its competitors (**Figure 4)**.

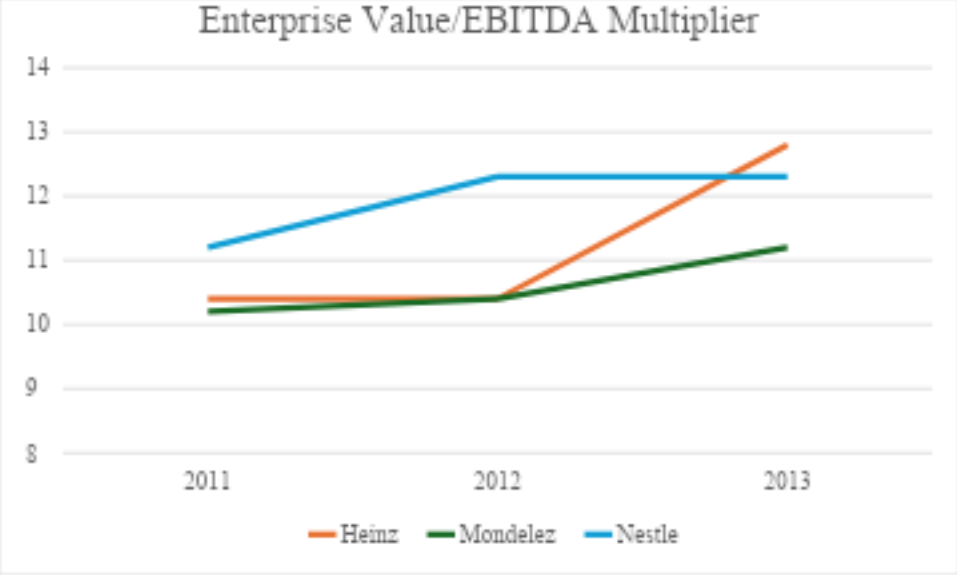
(i) Price-to-Earnings Multiplier

Figure 2: Price-to-Earnings Multiplier



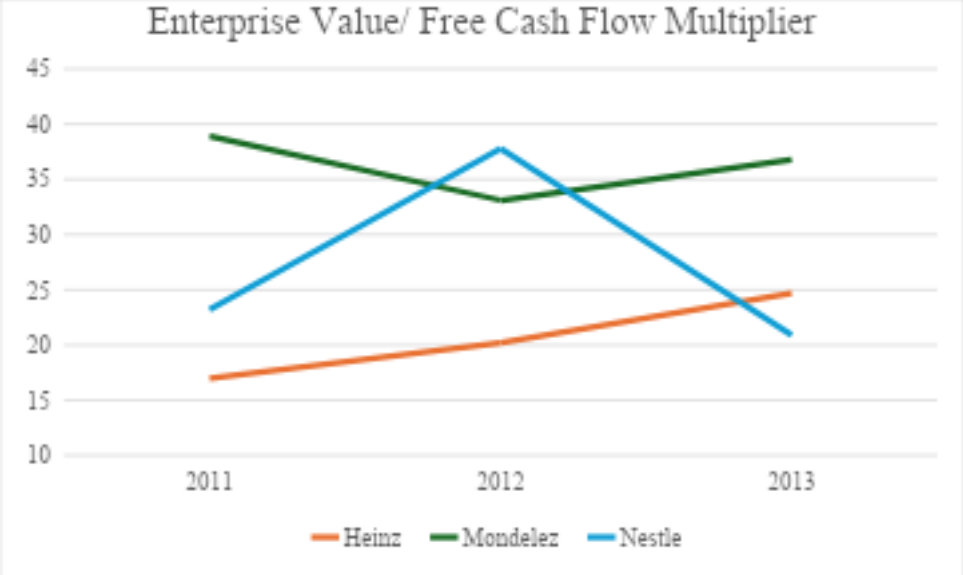
(ii) Enterprise Value/EBITDA Multiplier

Figure 3: Enterprise Value/EBITDA Multiplier



(iii) Enterprise Value/Free Cash Flow Multiplier

Figure 4: Enterprise Value/Free Cash Flow Multiplier



IV. HEINZ IS AN ATTRACTIVE TARGET

The Acquirers should acquire Heinz as it is an attractive target for 3 reasons.

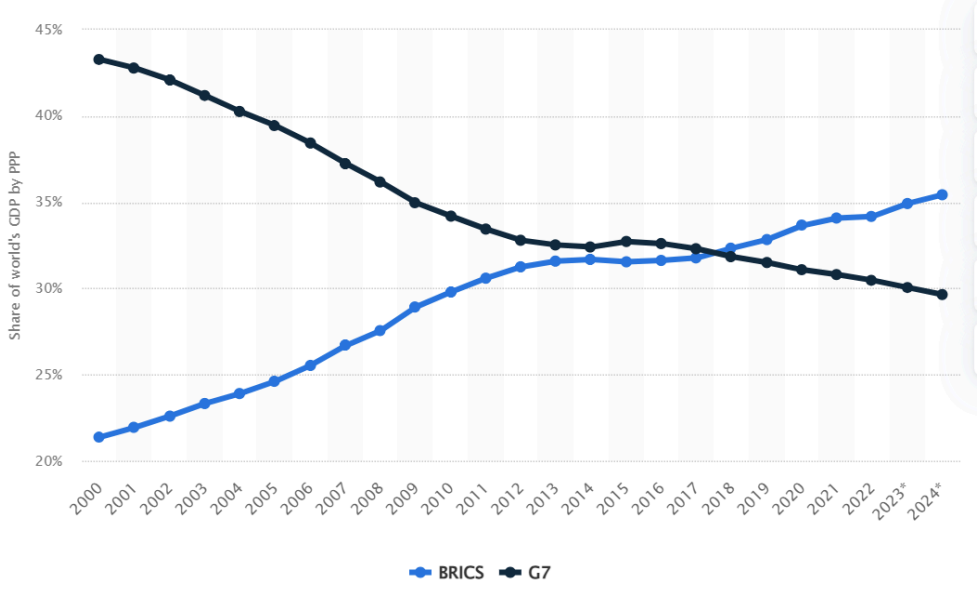
First, Heinz has high potential for long-term revenue growth as it expands into emerging markets:

a) First, Heinz's revenue has been steadily increasing at a Compound Annual Growth Rate ("**CAGR**") of 4.49% from US$10.56 billion in 2011 to US$11.53 billion in 2013. Heinz outpaced Nestlé and Mondelez, which faced revenue declines at a CAGR of -15.2% and -8.36% respectively (Exhibit 4, p.19).

b) Second, Heinz's revenue growth in emerging markets has been exceptionally high, with sales surging by 108.3% in 2012. Heinz far surpassed Nestlé and Mondelez, which faced revenue growth of -0.4% and 10.2% in emerging markets in 2012 respectively (Exhibit 4, p.19). Should this trend continue, Heinz could emerge as the "*market leader*" in emerging markets, allowing Heinz to earn substantial revenue in the long term.

c) Third, Heinz can leverage on "*strong potential growth in product sales*" as the BRIC countries overtake the G7 in economic growth. The BRIC countries' share of GDP surpassed G7 in 2018 (**Figure 5**) and such rapid economic growth would buoy Heinz's revenue growth.

Figure 5: Comparison of GDP



Second, Heinz can realize "*operational efficiencies in production*" post-acquisition to reduce costs in the long-term in 2 aspects:

a) First, Heinz could enjoy a lower overall effective tax rate as it further expands beyond the US. Heinz's effective tax rate fell from 26.2% in 2011 to 18.0% in 2013. With further expansion into emerging markets (which typically have lower tax rates) and revenue growth driven by such markets, Heinz's effective tax rate may continue to decline. With a lower overall effective tax rate, Heinz can enjoy higher after-tax profits.

b) Second, Heinz can leverage on the synergies post-acquisition, especially Berkshire's financial backing and 3G's expertise in aggressive cost-cutting, to reduce costs. Heinz is focused on improving its "*production procedures to optimize plant capacity utilization*". 3G's involvement post-acquisition would intensify such cost-cutting efforts, generating synergies. Based on typical synergies in the food industry, there may be cost reduction of up to 3.2% of target sales (Table 2, p.7).

Third, despite its deteriorating liquidity and solvency positions, Heinz remains sufficiently liquid and solvent to expand into emerging markets post-acquisition for 2 reasons:

a) First, as explained above, Heinz's cashflow position remains healthy.

b) Second, the Acquirers' involvement can support Heinz's liquidity and solvency positions. With Berkshire's backing, Heinz could reduce its working capital requirements, improve its credit terms *vis-a-vis* customers and suppliers and have greater access to capital markets.

Heinz's ability to maintain liquidity and solvency is critical as it expands into emerging markets. Heinz requires substantial capital to keep pace with competition which has expanded aggressively in such markets, such as Nestlé allocating US$320 million for expansion in Indonesia and Thailand in 2011 and acquiring a 60% stake in Chinese confectionery brand Hsu Fu Chi for US$1.7 billion.

V. VALUATION OF HEINZ

To provide a considered view of Heinz's valuation, we conduct a sensitivity analysis to estimate Heinz's valuation in 3 cases – base, bullish and bearish.

A. Financial projections for 3 cases

In the base case, we assume that Heinz's revenue growth continues a similar trajectory from 2014 to 2018 without any cost reductions (**Table 5**).

Table 5: Assumptions for Base Case

Area	Key Assumptions
Revenue Growth Assumptions	Applying the relevance & reliability principle structured based on historical data: • Heinz's sales in Europe, Asia/Pacific, North America, and the US are projected to grow at the same rate as observed between 2011 and 2012. • Growth in the 'Rest of the World' is assumed to decelerate by 20% annually from 100% to 20% over four years (i.e., 80% in 2013, 60% in 2014, etc.), followed by a constant 20% growth rate thereafter. • A 10% discount rate on sales is applied to account for exchange rate fluctuations, ensuring a prudent revenue forecast.
Cost Reduction Assumptions	Applying the conservatism principle to not understate expenses: • Cost of goods sold (COGS) and selling, general & administrative (SG&A) expenses as a percentage of sales constant at 66% and 22% of revenue respectively, in line with the highest recorded rates from 2011 to 2013. • Interest income, interest expense, and other expenses are projected using the most adverse historical values from 2011 to 2013, representing a worst-case scenario. • A flat tax rate of 18% is applied, consistent with 2013 levels, despite expectations of a lower effective tax rate as Heinz expands into regions with lower corporate tax rates than the US.
Cashflow Projection Assumptions	Applying the conservatism principle to not over project benefits and under project expenses: • Net income projections are aligned with conservative revenue and cost estimates above. • Depreciation and amortization are based on the lowest historical rate from 2011 to 2013, minimizing the impact of potential future tax benefits. • Deferred tax benefits and pension contributions are projected at the highest (i.e., most negative) levels recorded from 2011 to 2013, ensuring a cautious outlook. Using the consistency principle to allow better comparability overtime: • For other cash flow components, given the absence of forward-looking disclosures from Heinz, we apply a historical average of 2011–2013 values as a reasonable estimate.

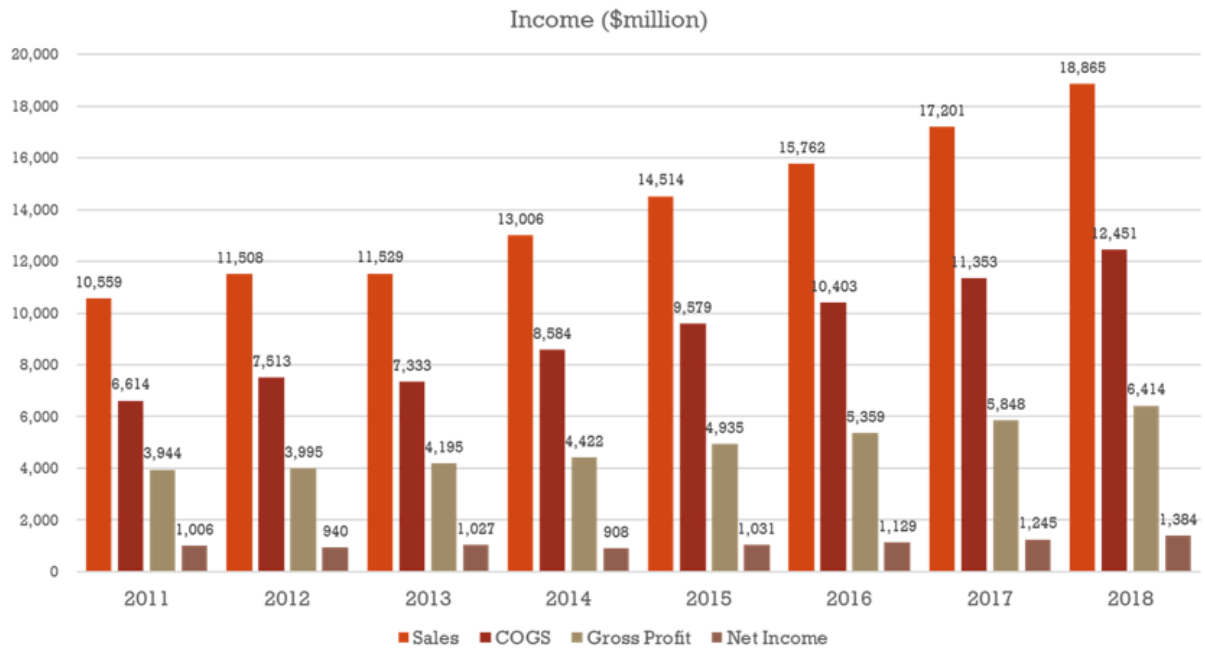
In the bullish case, we assume that Heinz can reap cost reductions from 2014 to 2018, particularly that Heinz can lower its COGS as a percentage of sales by 3% and its effective tax rate by 1%. In the bearish case, we assume that Heinz's revenue growth in emerging markets slows considerably, particularly falling to 20% annually from 2014 onwards (**Table 6**).

Table 6: Assumptions for Bullish and Bearish Cases

Area	Bullish Case	Bearish Case
Revenue Growth Assumptions	• Same as Base Case	• Growth in the 'Rest of the World' drops to 20% annually from 2014 onwards. • Remaining same as Base Case.
Cost Reduction Assumptions	• COGS as a percentage of sales decreases to 63% per year from 2014 to 2018. • Effective Tax Rate as a percentage of EBT decreases to 17% per year from 2014 to 2018. • Remaining same as Base Case.	• Same as Base Case
Cashflow Projection Assumptions	• Same as Base Case	• Same as Base Case

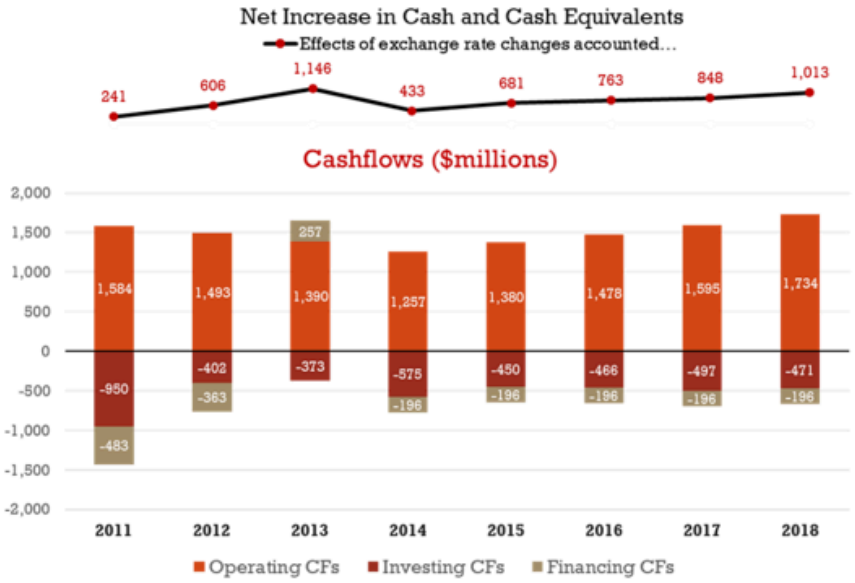
Our detailed financial projections for the 3 cases are computed in the **Annex** with the projected income and cashflows summarized below (**Figure 6** and **Figure 7**).

Figure 6: Projected Income



Income Margin	Trend	Factors
Gross Profit	Stable profit margin of 34% out of Sales	Increase in Sales can dilute the impact of an increase in COGS due to economies of scale achieved over the years, resulting in consistent margins.
Net Profit	Stable at 7% out of Sales	The culmination of effective sales growth, cost control and operational efficiency balanced out to achieve stable margins.

Figure 7: Projected Cashflow



Cashflows	Trend	Factors
Operating	Consistently positive, reflecting Heinz's ability to generate sufficient cash to fund internal operations.	✓ Upward trend of net income ✓ Increase in accounts payables indicating source of cash as Heinz negotiates better terms with suppliers
Investing	While negative, it reflected improvements due to enhanced capital efficiency.	✓ Sale of short-term investments shows an increase in later years due to strategic use of liquid assets to generate cash while still meeting investment returns will further optimize cash availability.
Financing	Outflows reduced given short-term debt raised in 2013.	✓ Stabilized Heinz's financing cash flows thereafter, after dividend payments and purchases of treasury stock. There is sufficient liquidity with less pressure to cashflows.

B. **Heinz's Enterprise Value**

To estimate Heinz's EV, we apply the EBITDA multiple and the Perpetual growth methods using a discount rate of 4.53% based on Heinz's Weighted Average Cost of Capital (**Table 7**):

Table 7: Heinz's WACC

Weighted Average Cost of Capital ("WACC")		
Heinz Cost of Debt (Rd)	4.70%	Assume constant from 2013
Heinz Beta	0.651	Assume constant from 2014
Risk Free Rate	1.80%	Assume constant from 2015
Market Risk Premium	6%	Assume constant from 2016
Cost of Equity (Re)	5%	Based on CAPM
Total Debt Value (D)	US$3,848,339	Based on total long-term debt
Shares Outstanding	323,000,000	Based on diluted average common shares outstanding
Share Price	$72.50	Correct as at 1 Apr 2013
Total Equity Value (E)	23,417,500,000	
Total Value (V)	23,421,348,339	
Tax Rate (T)	18%	
WACC	4.53%	WACC = (E/V x Re) + ((D/V x Rd) x (1-T))

Under the EBITDA multiple method, we apply an EBITDA multiple of 11.3, consistent with the median and average EBITDA multiple used in the industry in 2013 (Exhibit 4, p.24) and comparable with precedent transactions from the packaged food, beverage and related industries (Exhibit 5, p.25). Under the Perpetual growth method, we apply a terminal growth rate of 2% for Heinz's Free Cash Flow, equivalent to the target inflation rate.

Based on the assumptions above, our conservative estimates of Heinz's valuation are:

c) Under the base case, Heinz can be valued between US$26.4 and US$35.9 billion.

d) Under the bearish case, Heinz's valuation risks falling to between US$21.6 and US$23.7 billion.

e) Under the bullish case, Heinz's valuation could potentially increase to be between US$43.4 and US$53.5 billion.

For sensitivity analysis, on the footing that we assign a weight of 20% each for the bearish and bullish cases and a weight of 60% for the base case, Heinz's EV can be conservatively estimated at US$31.9 billion, representing an upside of 14% from the offer of US$28 billion (**Table 8**).

Table 8: Sensitivity Analysis

Item (Millions)	Bearish Case	Base Case	Bullish Case
EBITDA Multiple Method	$21,573.16	$26,418.47	$33,329.50
Perpetual Growth Method	$23,719.34	$35,892.31	$53,450.64
Average	$22,646.25	$31,155.39	$43,390.07
Weight	20%	60%	20%
Expected	$4,529.25	$18,693.24	$8,678.01
Overall	**$31,900.50**		

VI. RECOMMENDATIONS

Given the Acquirers' focus on investing over a long-term horizon, we assess that Heinz is a value investment in the long-term. The Acquirers should acquire Heinz because it could achieve long-term revenue growth by seizing growth opportunities in emerging markets, unlocking higher revenues and profitability. The acquisition could generate synergies which lead to "*cost-reduction opportunities*", enhancing Heinz's financial position.

To maximize Heinz's value post-acquisition, Heinz must improve its operational efficiency and manage costs effectively and closely monitor debt repayment to maintain financial stability and avoid liquidity risks. Ultimately, given Heinz's strong operating cashflows of US$1.39 billion in 2013 and the Acquirers' strong financial firepower, Heinz is well-positioned to receive liquidity and solvency support if needed.

The Acquirers' offer price of US$72.50/share for a total value of US$28 billion is reasonable. We estimate Heinz's EV is between US$21.6 billion in the bearish case and US$53.5 billion in the bullish case. Adopting a sensitivity analysis, we conservatively estimate Heinz's EV at US$31.9 billion, an upside of 14% over the Acquirers' offer of US$28 billion.