

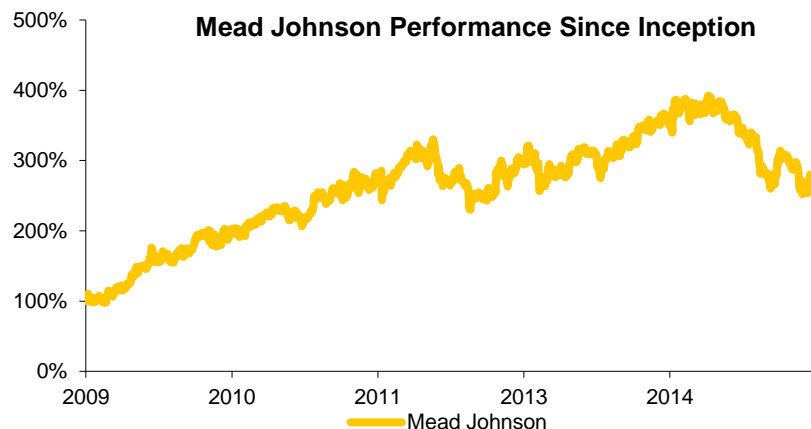
## Mead Johnson Nutrition Company (NYSE:MJN)

March 20, 2016

**Sector:** Consumer Staples

**Sub-Sector:** Food Products

### Mead Johnson Performance Since Inception



**Current Price:** 75.79

**Target Price:** \$80.79

**Upside:** 6.6%

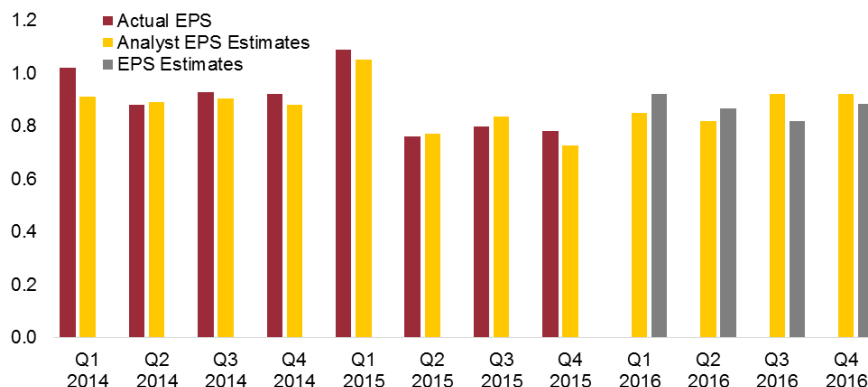
**Recommendation:** **HOLD**



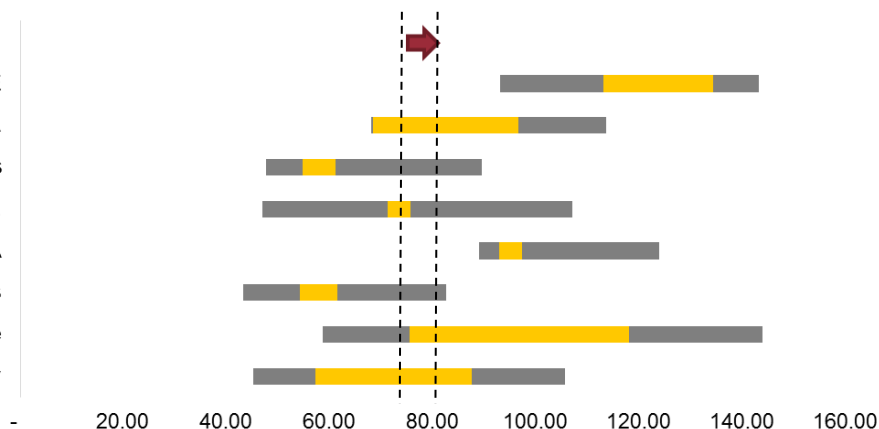
### Financial Overview

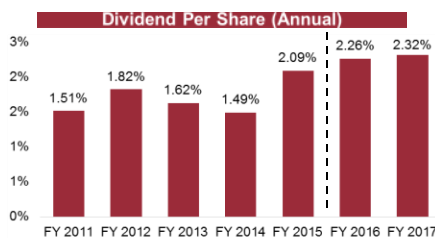
Market Data		LTM Income Profile	
Share Price	\$75.79	Revenue	\$4,071 M
Market Cap	\$13,410 M	Gross Profit	\$2,616 M
Net Debt	\$1,322 M	EBIT	\$936M
EV	\$14,732 M	Net Income	\$654M
Dividend Yield	2.3%	NI Margin	16.0%
Beta (5 Year)	0.98	LTM Diluted EPS	\$3.3
Credit Rating	BBB	NTM Diluted EPS	\$3.5
Multiples		Ratios	
EV/Revenue LTM	3.9x	D/E	21%
EV/Revenue NTM	4.0x	ROA	15.1%
EV/EBITDA LTM	14.5x	ROC	25.7%
EV/EBITDA NTM	14.9x	Debt/EBITDA	2.8x
P/E LTM	23.6x	EBITDA/Interest Expense	14.6x
P/E NTM	22.1x		
MC/LFCF	18.2x		

### EPS Estimates



Comparables LTM P/E  
Comparables LTM EV/EBITDA  
Comparables LTM EV/Revenues  
Comparables NTM P/E  
Comparables NTM EV/EBITDA  
Comparables NTM EV/Revenues  
DCF Exit Multiple  
DCF Perpetuity





## Executive Summary

Our current valuation of Mead Johnson provides a 12 month target price of \$80.81, compared to its closing price of \$75.79 on March 8, 2016. This implies a capital gain upside of 6.6% along with an estimated dividend yield of 2.3%, and a \$1.81 dividend per share for fiscal 2016. The projected earnings per share for fiscal 2016 is \$3.49/share. Our investment recommendation for this equity is HOLD.

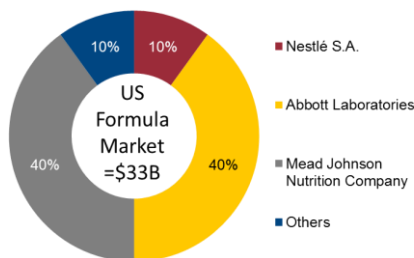
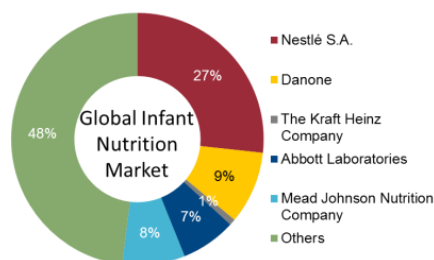
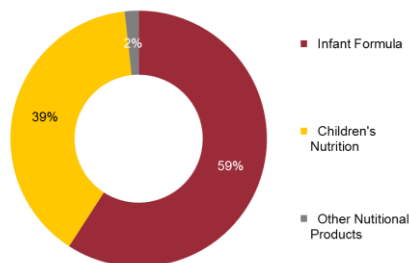
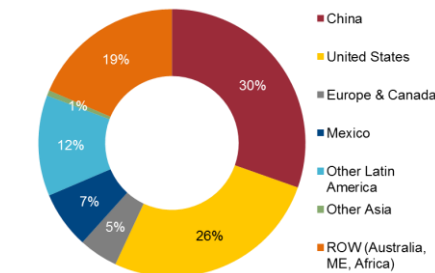
## Business Overview

With more than 70 product offerings in over 50 markets worldwide, Mead Johnson operates in the infant formula and foods industry and has over 100 years' worth of experience manufacturing, distributing, and selling infant formulas, children's nutrition, and other nutritional products. In 2009, the company successfully completed its IPO and became a public enterprise. Its product mix contains the well-recognized and highly renowned baby formula brand "Enfamil". Mead Johnson's children nutrition products are primarily composed of milk powder and milk concentrate for young toddlers. Almost 60% of their revenues are generated from the sale of their infant formula products. The other 40% is overwhelmingly composed of children's nutritional products the majority of which are milk-based powders and products. As a result of their heavy reliance on milk powders as an input, they can be categorized as a pure play company within this industry due to the similarity of their product offerings. Mead Johnson derives over 50% of their sales from China and the United States. Mead Johnson sells through a variety of distribution channels from grocery stores, to wholesalers, to drug stores, to baby food specialty stores, and increasingly through e-commerce channels.

## Industry Overview

The industry that Mead Johnson operates in can be characterised as an oligopoly with four main players constituting over 50% of the worldwide baby nutrition market. Along with Mead Johnson, the other three big players are Nestlé (VTX: NESN), Danone (EPA: BN), and Abbott Laboratories (NYSE: ABT). The other three major players within this industry segment are all giant conglomerates thus rendering Mead Johnson as the only pure play company within the industry. The U.S infant formula market is predominately dominated by Abbott Laboratories and Mead Johnson with both companies commandeering 40% of the market share in that region. The Chinese market offers the greatest potential for growth for the baby formula products and as a result this market is intensely competitive with Mead Johnson leading the way at 12% of Chinese baby formula market share.

Brand image and reputation of products is the biggest catalyst in maintaining long-term financial success for the companies within this industry. The 2008 Chinese Melamine milk scandal further demonstrated the importance of this fact with



## TRUST, GOOD NUTRITION AND SAFETY ARE TOP BABY FOOD PURCHASE ATTRIBUTES



many Chinese consumers only willing to buy premium baby formula products now from reputable companies and recognized brand names. Some prominent brand names within this industry are Mead Johnson's *Enfa*-products, Nestlé's *Gerber* products, Danone's *Dumex* product line, and Abbot's *Similac* brand.

As one would expect in such an industry, there are high barriers to entry in the vast majority of countries due to the countless approvals and regulations companies need to abide by in order to have their formula products sold to customers. In addition to this, the importance of brand name and brand image is paramount and as a result, many new companies would have trouble appealing to parents as their brand will be relatively unknown compared to the big four formula companies.



Consumer preferences in the Asia-Pacific help the industry as the vast majority of the population there believes baby formulas to be more beneficial to their infant's development than traditional breast milk. With companies notoriously marketing the benefits of formula over baby milk, this perception is further solidified in the Asia-Pacific as formula contains iron which breast milk does not contain and companies such as Mead Johnson have also launched new product lines under their "enhanced infant formula" such as the *Enfamil Lipid* products which claim to better the eyesight of infants. Some infant formulas are further enhanced with

docosahexaenoic acid (DHA) and arachidonic acid (ARA) which are omega-3 fatty acids found in breast milk and certain foods, such as fish and eggs. Some studies suggest that including DHA and ARA in infant formula can help infant eyesight and brain development, but other research has shown no benefit. Regardless of scientific evidence, marketing these formulas as enhanced nutrition for infants only further solidifies the perception among parents that infant formula is indeed superior to breast milk and thus funnels increased revenues to corporations selling baby formula. These enhanced formula product lines are also marked up in price and are often sold at hefty premiums which generate large margins for companies selling them.

Global demographic trends are also expected to support the growth of the industry. The enactment of the two child policy in China effective starting January 1, 2016 is expected to add another 85 million babies by the year 2020. In other parts of the world, child birth rates are declining steadily as increased education is having the impact of couples choosing to produce fewer babies amongst themselves. However, the declining population growth is offset by an increase in wealth as a larger working class can afford to purchase more expensive premium baby formula products. In addition to this, there has been an uptick of mothers across the globe, and most profusely in Latin America, going back to work upon having a baby instead of staying at home. As a result of the increasingly on-the-move lifestyles of parents, the demand for formula products, and specifically concentrate formula products, is expected to grow.

The industry is fairly price inelastic especially outside of North America. Globally, only 13% of parents seek out baby food for the lowest price compared to 30% for the North American region. Europe is the least susceptible to price changes as only 9% of parents indicated that they seek out baby food with the lowest price. Globally, 41% of parents stated that they buy from whatever brand they want, regardless of price. Here, Africa and the Middle East lead with 45% of parents

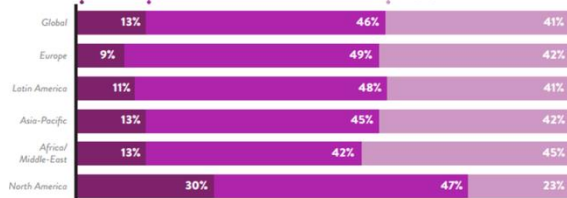
## PRICE IS AN IMPORTANT BABY FOOD PURCHASE DRIVER

Percentage of respondents that selected the statement

*I always seek out baby food with the lowest price, regardless of what the brand is.*

*I have a limited set of baby food brands I'm willing to buy, and I choose the least expensive one out of that set.*

*I buy whatever brand I want, regardless of price.*



having the same notion meanwhile only 23% of North American products are loyal to one particular brand regardless of the price. In the Asia-Pacific region, the 45% of parents stated that they buy the cheapest formula available from a limited set of baby food brands, 42% of parents buy from just one brand regardless of price, and only 13% always seek out the lowest price available, regardless of the brand. From these results, brand loyalty and price inelasticity seem to be prevalent within the industry.

Word-of-mouth is the most effective method to market products within this industry. Recommendations from family/friends are the biggest catalyst for parents to switch brands. Lowering prices is the sixth most important driver for parents to switch brands thus once again giving credence to the idea that the industry is fairly price inelastic. Traditional venues of advertising such as advertising

through television, magazines, and newspapers are the second most prevalent sources for influencing purchases.

## WORD-OF-MOUTH AND TRADITIONAL ADVERTISING ARE MOST IMPACTFUL BABY FOOD SOURCES

Sources used to learn about baby food products and for influencing purchases

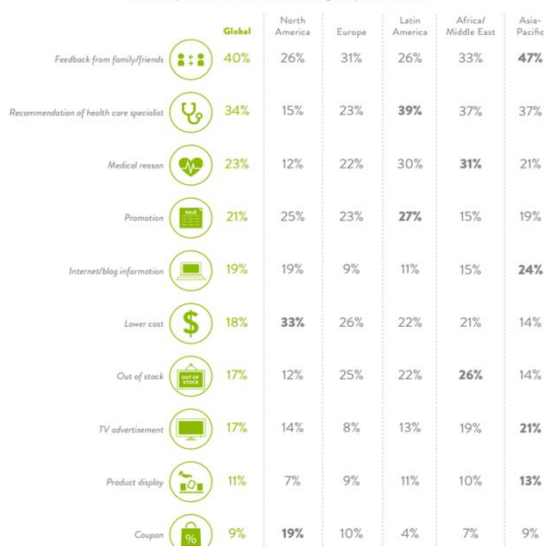
### GLOBAL AVERAGE

	SOURCES FOR LEARNING	SOURCES FOR INFLUENCING
<b>WORD-OF-MOUTH</b>	Recommendation from Friends/Family	44%
	Recommendation from Baby Health Experts (e.g., doctor, nurse)	36%
<b>TRADITIONAL</b>	TV Advertising	33%
	Parenting Magazines	22%
	Magazine or Newspaper Advertising	16%
	Radio Advertising	7%
<b>IN-STORE</b>	Products on Shelf in Store	30%
	Special Displays In Store or In-Store Sales/Promotions	18%
	Store Circular	14%
		5%
<b>ONLINE</b>	Parenting Websites	26%
	Baby Blogs	19%
	Brand/Manufacturer Website, Email or Mobile App	19%
	Social Media (e.g., Facebook)	19%
	Online Advertising	16%
	Store Website, Email or Mobile App	13%
	Other Websites or Mobile Apps	8%

Source: Nielsen Global Baby Care Survey, Q1 2015

## WORD-OF-MOUTH COMMUNICATIONS IS THE BIGGEST SWITCHING DRIVER FOR BABY FOOD

Most important reasons for switching baby food brands

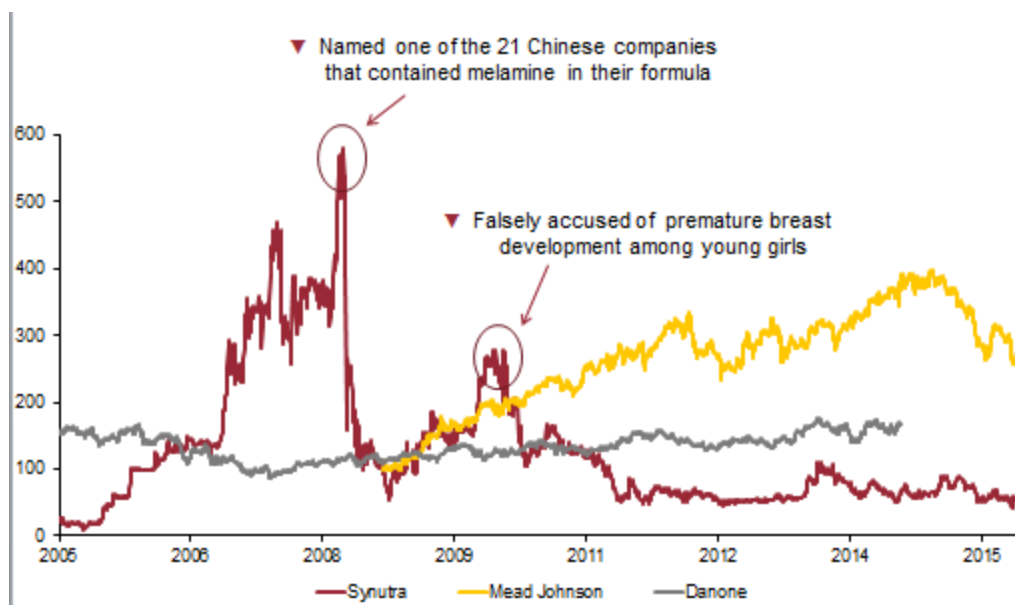


albeit slowly. Another contributing factor to shifting consumer preferences away from premium brands in North America is due to rigorous standards imposed by government regulators upon this industry. The difference between premium brands and non-premium brands is minimal at best as all companies have to abide by the same regulations and standards which are imposed by the FDA in America.

This industry is also characterised by its fervent competition. Large marketing dollars are spent to convince parents of the superiority of their brands compared to their competitors. Recently, more marketing is also needed to persuade parents to feed their infants formula rather than to breastfeed their babies. Since most premium baby formula products are uniform regardless of brand, parents will



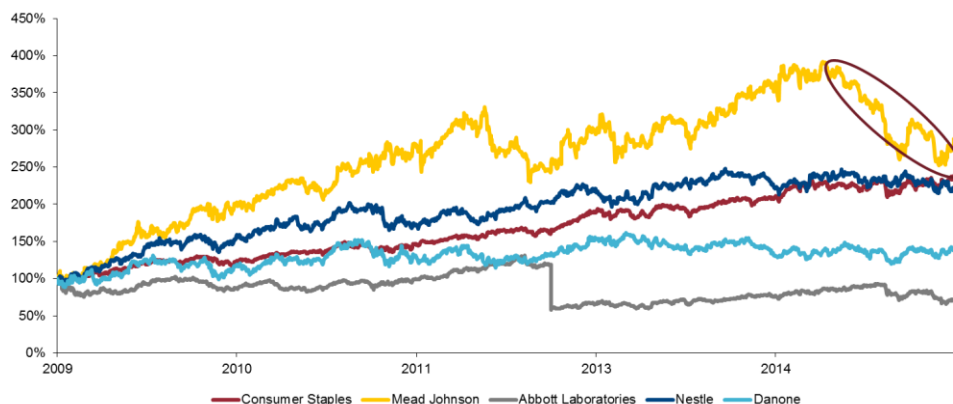
often buy formula which is recommended to them by their friends or health care experts. Since corporations cannot control word-of-mouth interactions between potential consumers, they invest a lot of money towards advertising through traditional media. The high levels of competition also have led companies to be mired in various scandals in the last few decades. Nestlé still has a boycott enacted on them by Baby Milk Action as a result of their aggressive marketing tactics in the 1970s in developing nations which led to the deaths of several hundred infants in impoverished countries. In addition to this, Save the Children discovered that Nestlé's sales representatives had been disguising themselves as nurses and selling to new mothers in hospitals in China. Danone has also come under fire for false marketing tactics by slapping on UNICEF and WHO logos onto their products as well as instigating panic buying among consumers in the UK by declaring that their baby formula products were in limited supply. Nestlé and Danone are also embroiled in a bitter rivalry which has seen Nestlé winning a bidding war against Danone for Pfizer's infant nutrition segment in 2012. Abbott Laboratories has had a history of price fixing settlements dating back to the 1970s along with a more recent recall of baby formula products due to cases of botulism among infants being fed their products. Mead Johnson has not escaped scrutiny either as they settled a \$12 million case with the SEC regarding bribery accusations from Chinese hospitals



claiming that health care providers were bribed by Mead Johnson to promote their baby formula to mothers of newborn babies which is strictly outlawed in China. Such scandals have the effect of destroying large swaths of value for companies as public perception is of utmost importance within this industry. As example of the disastrous impact of the Chinese Milk Scandal in 2008 is displayed on the left where Synutra, one of the 21 Chinese companies that was found to have its products

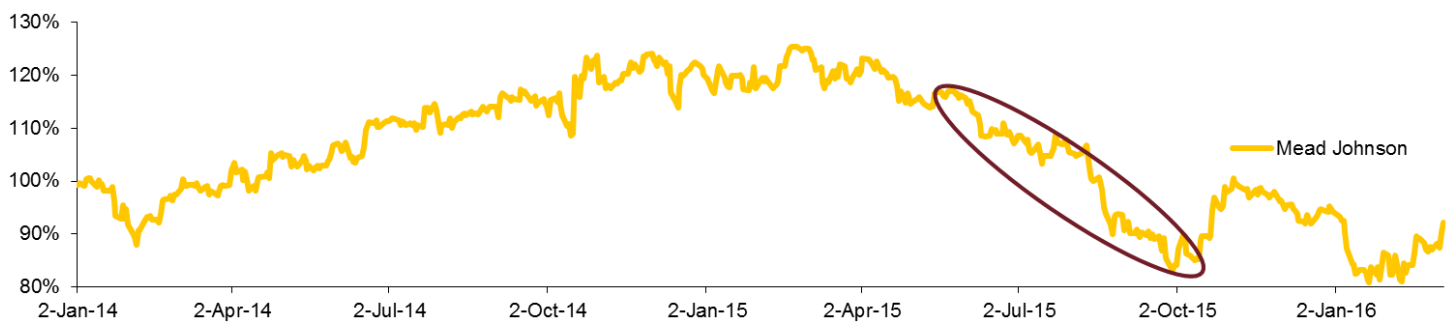
laced in melamine, had its enterprise value destroyed and their share price has still not recovered to this day. This example demonstrates the biggest risk that companies in this industry face – once public confidence in your company has been shattered, it is almost impossible to repair.

## Financial Analysis



Mead Johnson's share price declined steadily from mid-2014 until the end of 2015. Since then the share price has somewhat rebounded. The main contributors towards that decline were back-to-back EPS misses in Q2 and Q3 of 2015 coupled with a sales forecast downgrade from 6% to 4% in Q2 2015 by the CEO of the company. The CEO commented that Mead Johnson's previous sales

forecast were too optimistic about the Chinese market and thus he expected sales to grow at 4% for fiscal 2016.

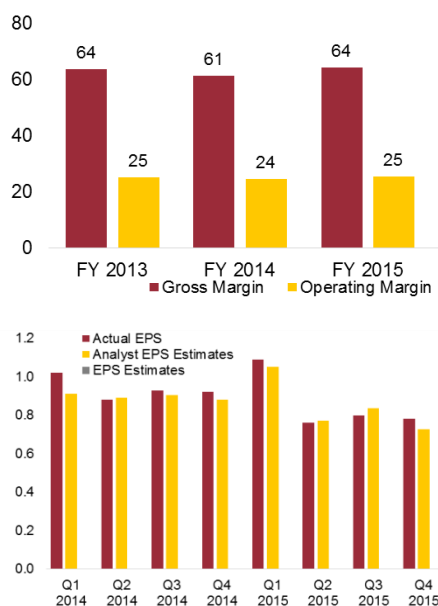


Related more specifically to the decline in share price from June to October of 2015 were four underlying factors:

1. Dairy Decline – China is producing more milk domestically and reducing imports. There was 40% YoY decrease in imported milk powder in China in 2015.
2. Supply Glut – China's reduction has caused a global supply glut which means MJN and its competitors have lower input costs; but this has led to competitors slashing prices which forced MJN to cut prices in Q2 2015 or risk losing market share.
3. Importance of Imports – Market share and customer loyalty is paramount in this industry; once a customer switches, it can be hard to persuade them to switch back if the baby responds better to the new product. MJN introduced its first FULLY imported product in China in April 2015 (prior to this, the products were finished in China). Due to the 2008 scandal, mothers want products which are not touched in China. MJN took 7 long years to implement this.
4. Shifting Consumer Trends – Government has implemented a two year plan to encourage mothers to breastfeed and wants the overall breastfeeding rates to rise to 50% (currently at 30% in rural areas and 16% in urban areas). Formula companies in China are not allowed to hand out free samples or market the products in hospitals. On July 28, 2015, MJN settled \$12m with the SEC regarding illegally marketing products in Chinese hospitals.

All of these factors contributed to the decline in share value displayed in the graph above.

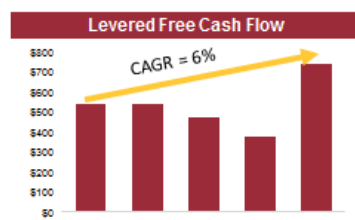
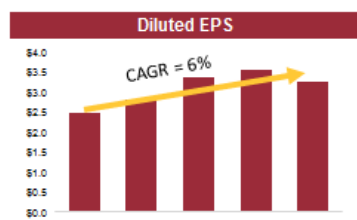
CAGR revenues from 2011 to 2015 have increased by 4%. Exclusion of the fiscal 2015 year gives a CAGR from 2011 to 2014 of 6%. Historically, the company has had a beta of close to 1.0 thus implying that Mead Johnson is highly correlated with the trends of the market. Given the industry that Mead Johnson operates in, it is highly unlikely that the company reacts this strongly to fluctuations in economic trends. The beta of 1.0 is likely a result of the timing of MJN's IPO. By going public in 2009, the worst of the Great Recession was already behind us and as a result, the reaction of Mead Johnson's share price to a recessionary market was not observable.



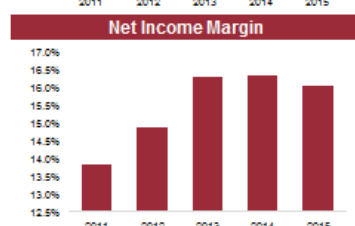
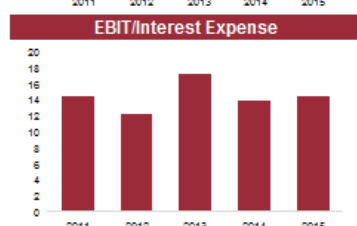
Mead Johnson's gross margins have consistently remained between 60-65% with operating margins staying constant at around 25%. Mead Johnson's ability to charge high prices for their products stems from their brand recognition and the reputation of their brand.

Mead Johnson has also consistently outperformed analyst EPS estimates. Q2 and Q3 of 2015 are exceptions to this caused primarily due to the low dairy prices in China causing a flood of new competitors offering cheaper prices for baby formula. This ultimately put pressure on premium baby formula companies to reduce their prices as well thus cutting into margins. In addition to this, the \$12 million settlement by Mead Johnson for illegally bribing doctors in Chinese hospitals to promote their brand also hurt earnings.

Mead Johnson's diluted EPS has also seen a growth of 6% from 2011 to 2015. Over the same time frame, levered free cash flows have increased by the same

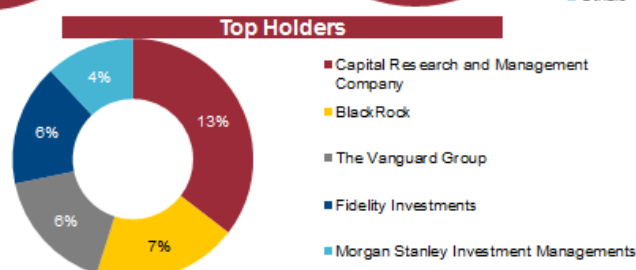
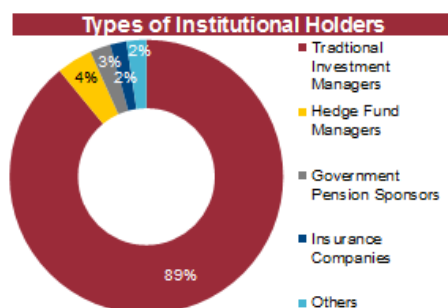
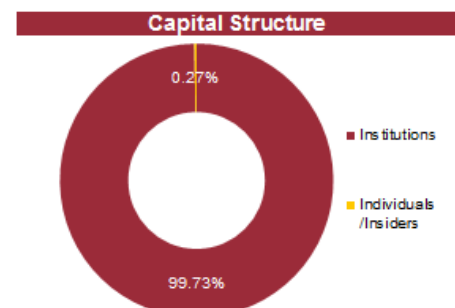


amount. Mead Johnson's EBIT/Interest Expense has remained fairly flat over the past 5 years at around 14x as a testament to their ability to pay off their debt obligations. Lastly, Mead Johnson's net income margins have improved from 14% to 16% in the last 5 years displaying their increased operational efficiencies.



## Management Team and Ownership Structure

Mead Johnson is owned primarily by institutions of which 89% are traditional investment managers. This shows long-term confidence in Mead Johnson and further highlights its position as a value investment. The top holders of Mead Johnson are also all very reputable equity management funds as can be seen on the figure to the left.



Mead Johnson's current management team is also further highlighted below.

## Management Team



COO and Executive VP  
Charles M. Urbain

**Compensation:** \$2.4M (\$1M Cash, 1.4M Equity)

**Past Experience:** Worked for PwC before joining MJN and moved up the ranks until he became the GM of the Philippines

**Current Role:** Assumed position in September 2015; leads company's commercial operations and guides MJN's external affairs



CEO and President  
Kasper Jakobsen

**Compensation:** \$7M (2M Cash Compensation, 5M Equity)

**Past Experience:** Marketing roles for Unilever in the Asia Pacific region -> joined MJN in 1998 to develop MJN's china growth strategy -> VP of Asia Pacific -> become president of the Americas -> COO and Executive VP in January 2012 -> CEO and president

**Current Role:** Appointed to the BoD of the company in June 2012 and become CEO and President

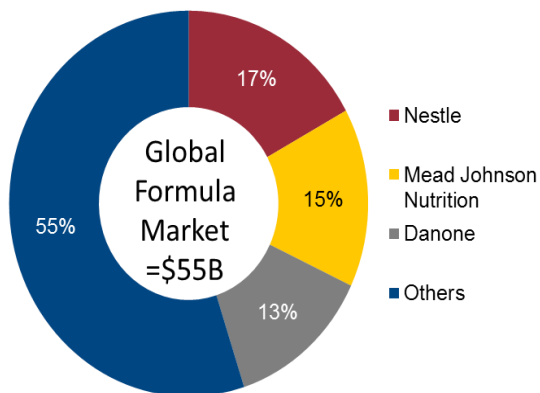


CFO and Executive VP  
Michel Cup

**Compensation:** \$3.3M (\$1.4M Cash, \$1.9M Equity)

**Past Experience:** Held several senior finance roles until 2008 at Danone and Numico before serving as CFO in a variety of businesses in Europe and he was at D.E Master Blenders as a CFO before joining MJN

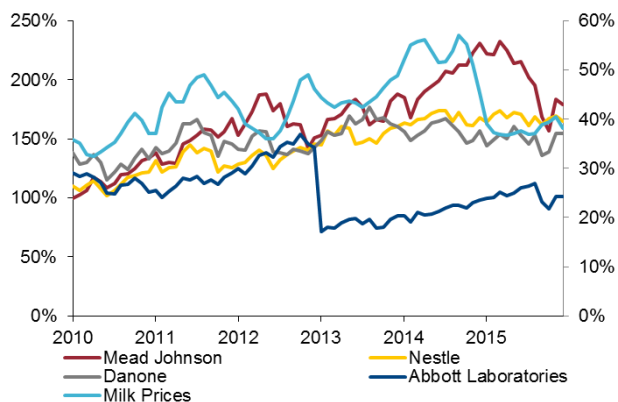
**Current Role:** Assumed position in September 2015 as CFO



## Investment Catalysts

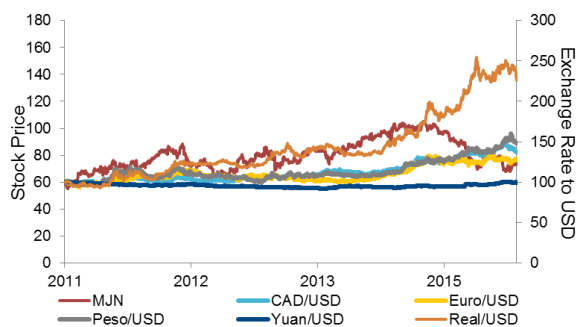
Mead Johnson is the only pure play company within the top 4 baby formula giants. This lack of diversity amplifies all of the industry strengths and enables it to perform better than its competitors with favourable market conditions such as low dairy prices. Mead Johnson is also second in global market share in the baby formula industry and possesses a strong reputation for the high quality of its brands. Along with Abbott's *Similac*, *Enfamil* is a leading baby formula brand worldwide. In addition to this, Mead Johnson enjoys the highest margins among the big 4 competitors as a result of it being a pure player within the baby formula industry. Mead Johnson has also had fewer ethical and legal issues than its counterparts, Nestlé, Danone, and Abbott Laboratories historically.

## Investment Risks



Mead Johnson being the least diversified company due to it being a pure play company within the baby formula industry serves as a double edged sword as its exposure to industry weaknesses is amplified. While more diversified companies like Nestlé, Danone, and Abbott Laboratories can offset the industry risks by having other segments of their product line performing well, Mead Johnson is not able to do the same as almost all of their products involve milk products as an input and output. As a result of this, their exposure to dairy prices is accentuated. In addition to this, they are highly susceptible to swings in consumer preferences. This

is especially true in China where Mead Johnson is more exposed to Chinese consumer trends than its competitors due to Mead Johnson having the largest portion of their revenues coming from China relative to its rivals. As a result of this, while the enactment of the two child policy will have a greater positive influence on Mead Johnson's performance than its competitors, the Chinese government plan to increase the number of breastfeeding women will be more detrimental to Mead Johnson than it would be to its competitors. Changing consumer patterns in Western world towards breastfeeding will also have the same effect on Mead Johnson due to its lack of diversification relative to its competitors.



Another area of concern may be that Mead Johnson is quite susceptible to changes in foreign exchange rates. While the Yuan/USD is expected to remain stable over the long term due to the Chinese government's insistence on pegging the Yuan to the USD, a stronger USD means a decline in sales dollars for Mead Johnson. This impact of the strengthening USD can be seen on the graph to the left.

Yet another significant investment risk for Mead Johnson is the poor track record of it being an industry leader and pouncing on new trends and patterns. Historically, Mead Johnson has been late reacting to changing industry trends and consumer patterns. Firstly, they provide no organic baby formula or baby food offerings despite the rise in demand for organic products worldwide. Secondly, there is a shifting consumer preference in China of buying baby food and formula products through e-commerce channels. This is mostly done by



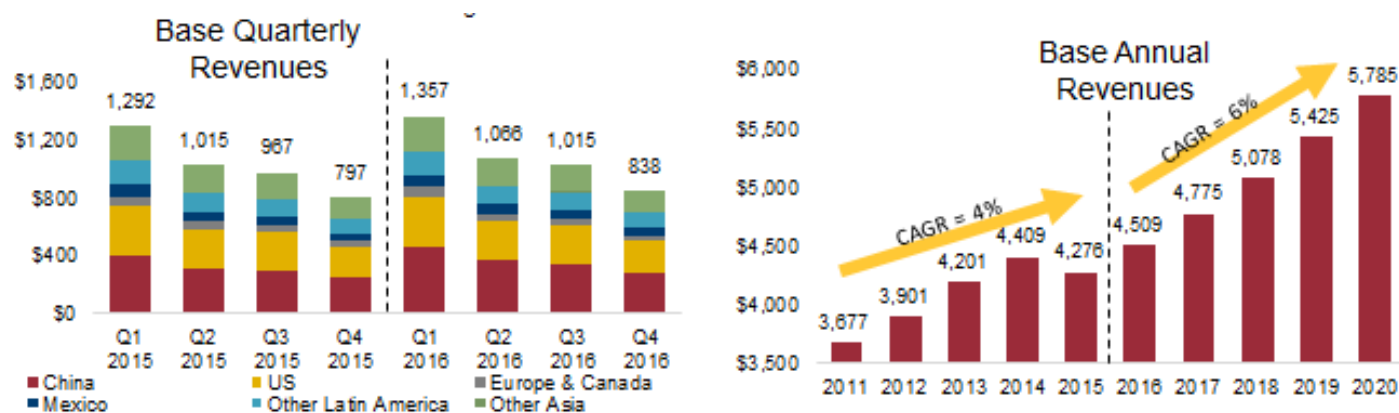
Chinese parents to ensure that the infant formula and food is imported from outside countries. Mead Johnson has not yet pounced on this opportunity and is only now beginning to look into ways to expand their e-commerce channels to allow for these sorts of transactions. Lastly, Mead Johnson has been stupendously late in delivering a fully imported baby formula product into China. The Chinese milk scandal occurred in 2008 which prompted many parents to banish all formula products not coming from overseas and yet Mead Johnson only introduced their fully imported formula products in 2015. That's a lag of 7 years which is inexcusable considering the shifting consumer trends and patterns were observable upon the onset of the scandal. In spite of all this, it is to be noted that the current management team is newly instilled and therefore the status of Mead Johnson currently being a laggard in the industry may be subject to change depending on the direction the new management team takes moving forward.

### Discounted Cash Flow Model

The most important assumptions for the DCF model were revenue assumptions. For these I did the following:

1. Took global population growth projections for infants (0-24 months) for segmented regions
2. Got breastfeeding rates for segmented regions
3. Took the % of infant population not being breastfed for the different regions
4. Got the revenue growth rates by each region based on population metrics as well as other sources and also took into account the effects of forex fluctuations on revenue and the effect of dairy price fluctuations on COGS. For China, incremental effect of 2 child policy was also taken into account.
5. Took 2016-2020 sales projections, convergence was from 2021-2030 and 2030 onwards was the terminal growth rate which was also based on population growth metrics (CAGR 2015-2030)

Using these revenue projections, the following quarterly and annual revenues were calculated:



The annual CAGR growth of 6% from 2016 to 2020 is deemed reasonable as historical CAGR growth from 2011 to 2014 was also 6% before market conditions caused a decrease in revenues in 2015. Along with this, China's lifting of the one child policy is mostly responsible for the increase in sales over this time period.

Breastfeeding rates were kept constant at their historical rates for all the segmented regions.

Milk prices were estimated to continue to decline a further 6% based on the consensus of industry analysts. This would reduce the cost of sales for Mead Johnson and increase their margins as a result.

Most other assumptions pertaining to the income statement were carried forward as a % of sales.

Net working capital assumptions were based on the quarterly average of days sales outstanding, days inventory outstanding, as well as days payables outstanding for fiscal 2009 through fiscal 2015.

The terminal growth rate for revenues was 0.52% starting in 2030. This was derived using weighted averages of the 7 different regions. China had the highest terminal growth rate of 1.5% as a result of the increase in infant population due to the enactment of the two-child policy in addition to a growing working class which would mean less breastfeeding mothers and wealthier families spending a greater proportion of their income on premium baby formulas. In most other areas the terminal growth rate was assumed to be between -0.3% to -0.8% based on their declining infant populations in the year 2030 and onwards.

### **Comparable Analysis**

As a result of Mead Johnson's immediate competitors all being enormous diversified conglomerates, it was determined that these companies were not suitable to perform an appropriate comparable analysis with. In lieu of these companies, similar companies to Mead Johnson were chosen based on the following criteria:

1. US Based company
2. Beverages or Dairy product Companies
3. Revenues between \$3-\$8B (Rounded to nearest Billion)
4. Companies must be focused on one type of product offering or derive most of their revenues from one type of product offering

Based on that screening criterion, five competitors emerged: The Hershey Company, Campbell's Soup, The J.M Smucker Company, Perrigo Foods, and Whitewave Foods. Due to these companies not being involved with the same products as Mead Johnson, the comparable analysis implied share prices were not taken into account and thus were left out of the investment summary. For more details on the comparable analysis please refer to the appendix.

### **Expected Shortfall**

Mead Johnson's expected shortfall is -8.24% based on a 5% monthly VaR. The 5% daily VaR is -2.24%, with the 10% monthly VaR being -6.83% and a 10% daily VaR being -1.65%. All of these low numbers are a reflection of Mead Johnson's stability and indicate low price fluctuations.

### **Conclusion**

We project a HOLD recommendation for Mead Johnson with a one year target price of \$80.79 thereby implying a 6.6% capital gain upside over the current price of \$70.79. With the inclusion of dividends, the implied upside increases to 8.9%. Despite this potentially healthy upside, we feel that there are too many uncertainties and risks involved within the industry to recommend a BUY. The risk of most concern to us deals with the legal issues that companies are mired in within this industry. In addition to this, brand reputation can easily be tarnished and is incredibly difficult to repair as can be seen from Synutra's demise. Mead Johnson's history of price fixing collusions along with their recent bribery settlement ultimately dissuades us from projected a BUY recommendation for this company as the risks are too great to warrant such a recommendation.

The target share price was derived by using a 50% weighting on the DCF valuation using an EV/EBITDA exit multiple and the other 50% was constituted of using the perpetual growth method with a terminal growth rate of 0.52%.

## Appendix

### Appendix 1: Mead Johnson's Product Mix



### Appendix 2: Big 4 Premium Brands

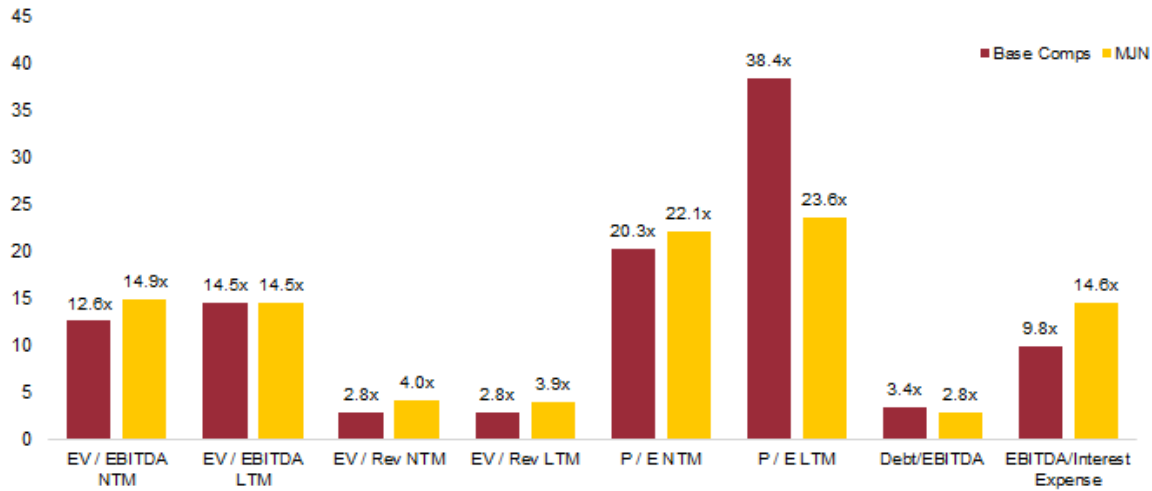


### Appendix 3: Comparable Analysis Implied Share Price



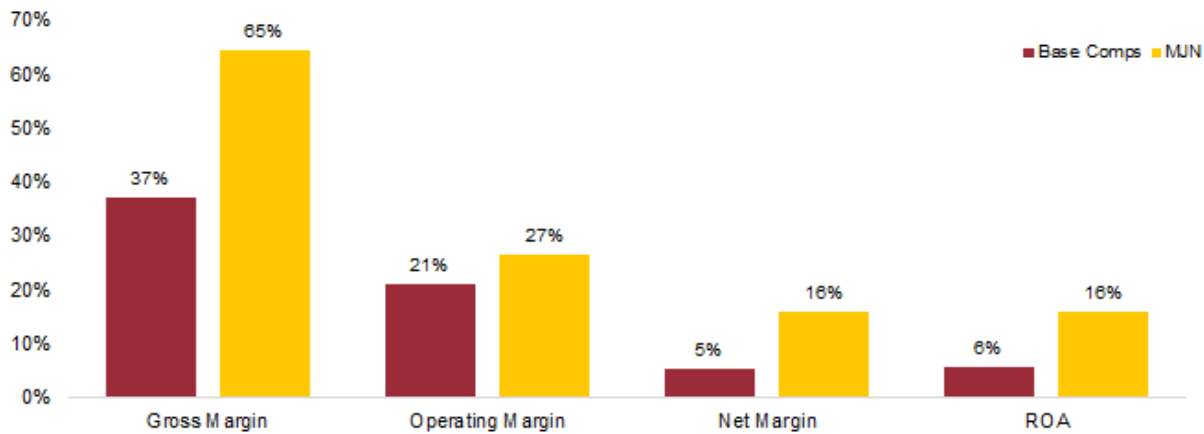
Implied Share Price						
	EV / EBITDA NTM	EV / EBITDA LTM	EV / Rev NTM	EV / Rev LTM	P / E NTM	P / E LTM
Average	\$100	\$85	\$60	\$62	\$75	\$122
Min	\$89	\$68	\$43	\$48	\$47	\$93
Bear	\$93	\$68	\$54	\$55	\$71	\$113
Base	\$95	\$77	\$58	\$57	\$72	\$126
Bull	\$97	\$97	\$61	\$61	\$76	\$134
Max	\$124	\$114	\$83	\$89	\$107	\$143

### Appendix 4: Comparable Analysis Multiples



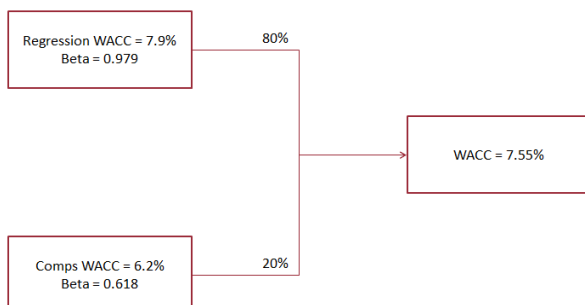
	EV / EBITDA NTM	EV / EBITDA LTM	EV / Rev NTM	EV / Rev LTM	P / E NTM	P / E LTM	Debt/EBITDA	EBITDA/Interest Expense
Base Comps	12.6x	14.5x	2.8x	2.8x	20.3x	38.4x	3.37	9.79
MUN	14.9x	14.5x	4.0x	3.9x	22.1x	23.6x	2.75	14.55
	19%	0%	43%	36%	9%	-38%	-18%	49%

### Appendix 5: Comparable Analysis Margins and Profitability



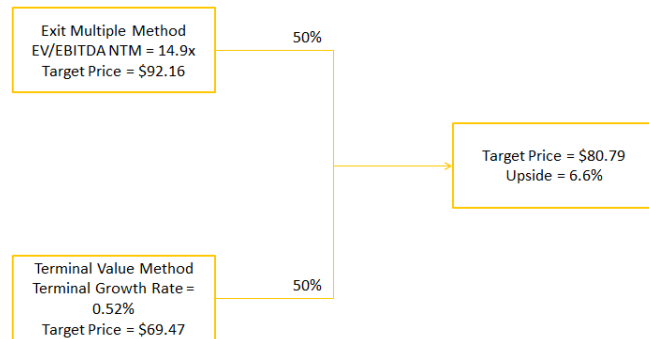
	Gross Margin	Operating Margin	Net Margin	ROA
Base Comps	37%	21%	5%	6%
MUN	65%	27%	16%	16%
Overvalued/Underval	27%	6%	11%	10%

### Appendix 7: WACC Weightings





## Appendix 8: DCF Weightings



## Appendix 9: Revenue Projections – Population Growth/Decline

Country Name	Series Name	2015 [YR2015]	2020 [YR2020]	2025 [YR2025]	2030 [YR2030]	2040 [YR2040]	2045 [YR2045]	2050 [YR2050]
China	Age population, age 0, female, interpolated	33657000	29951000	26112000	25083000	24704000	24305000	23457000
United States	Age population, age 0, male, interpolated	7669000	8558000	8452000	8548000	8749000	8857000	9043000
Mexico	Age population, age 01, female, interpolated	4681000	4489000	4348000	4144000	3799000	3658000	3534000
Indonesia	Age population, age 01, male, interpolated	10498000	9072000	9340000	9013000	8772000	8578000	8366000
India	Age population, age 0, female, interpolated	48860000	50451000	48769000	48001000	44502000	43424000	42173000
Australia	Age population, age 0, male, interpolated	603000	693000	656000	670000	705000	742000	771000
Canada	Age population, age 01, female, interpolated	751000	808000	793000	796000	812000	848000	874000
Germany	Age population, age 01, male, interpolated	1369000	1410000	1375000	1313000	1214000	1212000	1230000
France	Age population, age 0, female, interpolated	1565000	1545000	1530000	1555000	1594000	1584000	1571000
Russian Federatic	Age population, age 0, male, interpolated	3819000	3307000	3121000	2767000	2970000	3135000	3094000
United Kingdom	Age population, age 01, female, interpolated	1554000	1660000	1623000	1566000	1632000	1678000	1692000
Saudi Arabia	Age population, age 01, male, interpolated	1237000	1179000	1179000	1154000	1172000	1148000	1111000
Egypt, Arab Rep.	Age population, age 0, female, interpolated	5315000	4359000	4658000	4659000	5238000	5205000	5136000
Iran, Islamic Rep.	Age population, age 0, male, interpolated	2701000	2328000	1960000	1741000	1861000	1883000	1768000
Turkey	Age population, age 01, female, interpolated	2767000	2379000	2397000	2305000	2187000	2123000	2056000
Iraq	Age population, age 01, male, interpolated	2368000	2581000	2784000	3023000	3534000	3765000	3967000
Brazil	Age population, age 0, female, interpolated	6223000	5682000	5539000	5287000	4874000	4709000	4573000
Colombia	Age population, age 0, female, interpolated	1482000	1420000	1338000	1286000	1184000	1140000	1095000
South Africa	Age population, age 0, female, interpolated	2040000	2151000	1997000	1975000	1909000	1862000	1802000
Argentina	Age population, age 0, female, interpolated	1503000	1470000	1466000	1452000	1422000	1401000	1380000
Venezuela, RB	Age population, age 0, female, interpolated	1187000	1169000	1148000	1124000	1072000	1046000	1019000
Nigeria	Age population, age 0, female, interpolated	13061000	13878000	15146000	16318000	18614000	19537000	20330000

## Appendix 10: Revenue Projections – Breastfeeding Rates

Red Cell	>> Number was used as BEAR case for Forecasting Revenues
Orange Cell	>> Number was used as BASE case for Forecasting Revenues
Green Cell	>> Number was used as BULL case for Forecasting Revenues

### American Rates

% of Babies Breastfed for Entire 24 Months	% of Babies Breastfed for Entire 24 Months	% of Babies Breastfed for Entire 24 Months
8.88%	1.92%	30.72%

### Chinese Rates

Government wants overall rate to rise to 50% by the year 2020

	Weighted Average			Weighted	
Total Rural Population	44.4%	13.32%	New Births in Rural Areas	24%	7.200%
Total Urban Population	55.60%	8.90%	New Births in Urban Areas	76%	12.16%
% of Population Currently	22.22%	Breastfed			

### Latin America Rates - Mexico

% of Babies Breastfed for Entire 24 Months	% of Babies Breastfed for Entire 24 Months	% of Babies Breastfed for Entire 24 Months
3.75%	2.25%	5.25%

### Europe Rates

% of Babies Breastfed for Entire 24 Months	% of Babies Breastfed for Entire 24 Months	% of Babies Breastfed for Entire 24 Months
6.00%	0.78%	23.05%

### Other Asia Rates - Indonesia

% of Babies Breastfed for Entire 24 Months	% of Babies Breastfed for Entire 24 Months	% of Babies Breastfed for Entire 24 Months
10.50%	6.30%	14.70%

### R.O.W Rates – Average of Australia, Nigeria, and Egypt

% of Babies Breastfed for Entire 24 Months	% of Babies Breastfed for Entire 24 Months	% of Babies Breastfed for Entire 24 Months
10.68%	6.41%	14.95%

## Appendix 11: Bear, Base, Bull Cases for Population Growth

BASE	Population of 0-24 Month Babies w/ Base % Being Breastfed					
Region		2015	2025	2030	2015-2020 CAGR	2015-2030 CAGR
China	2 Child Policy Impact 3,400,000 extra babies born every year	26,179,761	33,534,238	32,733,841	6.88%	1.50%
United States		6,987,657	7,701,093	7,788,564	2.22%	0.73%
Europe & Canada		8,514,520	7,935,480	7,517,180	-0.73%	-0.83%
Mexico		4,505,463	4,184,950	3,988,600	-0.83%	-0.81%
Other Latin America		10,005,188	9,135,088	8,805,913	-1.29%	-0.85%
Other Asia		53,125,410	52,007,555	51,027,530	0.06%	-0.27%
ROW (Australia, ME, Africa)		26,879,679	27,491,555	28,445,546	-0.36%	0.38%
Global		136,197,677	141,989,958	140,307,173	1.38%	0.20%
BEAR	0-24 Months of Age w/ Bear % Being Breastfed					
Region		2015	2025	2030	2015-2020 CAGR	2015-2030 CAGR
China		26,179,761	21,556,000	21,041,500	-2.16%	-1.45%
United States		6,987,657	5,855,546	5,922,054	-3.23%	-1.10%
Europe & Canada		8,514,520	6,496,153	6,153,723	-4.63%	-2.14%
Mexico		4,505,463	4,119,730	3,926,440	-1.15%	-0.91%
Other Latin America		10,005,188	8,992,723	8,668,678	-1.60%	-0.95%
Other Asia		53,125,410	49,566,977	48,632,942	-0.90%	-0.59%
ROW (Australia, ME, Africa)		26,879,679	26,177,377	27,085,765	-1.34%	0.05%
Global		136,197,677	122,764,505	121,431,102	-1.62%	-0.76%
BULL	0-24 Months of Age w/ Bull % Being Breastfed					
Region		2015	2025	2030	2015-2020 CAGR	2015-2030 CAGR
China		26,179,761	37,869,581	36,965,707	9.52%	2.33%
United States		6,987,657	8,289,722	8,383,878	3.73%	1.22%
Europe & Canada		8,514,520	8,376,355	7,934,815	0.34%	-0.47%
Mexico		4,505,463	4,250,170	4,050,760	-0.53%	-0.71%
Other Latin America		10,005,188	9,277,453	8,943,148	-0.99%	-0.75%
Other Asia		53,125,410	54,448,133	53,422,118	0.98%	0.04%
ROW (Australia, ME, Africa)		26,879,679	28,805,733	29,805,328	0.57%	0.69%
Global		136,197,677	151,317,146	149,505,754	2.70%	0.62%

## Appendix 12: Revenue Assumptions Summary

		Base Projections					Convergence Steps										Terminal Value	
	5 Yr Historical CAGR	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
Sales	5.32%	7.0%	7.0%	7.0%	7.0%	7.0%	6.32%	5.64%	4.96%	4.28%	3.60%	2.92%	2.24%	1.56%	0.88%	0.20%		
China	10.7%	15.0%	15.0%	15.0%	15.0%	15.0%	13.65%	12.30%	10.95%	9.60%	8.25%	6.90%	5.55%	4.20%	2.85%	1.50%		
United States	1.76%	2.22%	2.22%	2.22%	2.22%	2.22%	2.07%	1.92%	1.77%	1.62%	1.47%	1.32%	1.17%	1.02%	0.88%	0.73%		
Europe & Canada	-2.81%	-0.73%	-0.73%	-0.73%	-0.73%	-0.73%	-0.74%	-0.75%	-0.76%	-0.77%	-0.78%	-0.79%	-0.80%	-0.81%	-0.82%	-0.83%		
Mexico	-0.95%	-0.75%	-0.75%	-0.75%	-0.75%	-0.75%	-0.76%	-0.77%	-0.77%	-0.78%	-0.78%	-0.79%	-0.79%	-0.80%	-0.80%	-0.81%		
Other Latin America	-11.0%	-1.22%	-1.22%	-1.22%	-1.22%	-1.22%	-1.18%	-1.14%	-1.10%	-1.07%	-1.03%	-0.99%	-0.96%	-0.92%	-0.88%	-0.85%		
Other Asia	-24.9%	0.06%	0.06%	0.06%	0.06%	0.06%	0.02%	-0.01%	-0.04%	-0.07%	-0.11%	-0.14%	-0.17%	-0.20%	-0.24%	-0.27%		
ROW (Australia, ME, Africa)	-12.7%	0.57%	0.57%	0.57%	0.57%	0.57%	0.55%	0.53%	0.51%	0.49%	0.47%	0.46%	0.44%	0.42%	0.40%	0.38%		
Weighted Sales	-0.32%	5.03%	5.03%	5.03%	5.03%	5.03%	4.58%	4.12%	3.67%	3.22%	2.77%	2.32%	1.87%	1.42%	0.97%	0.52%		
		Bear Projections					Convergence Steps										Terminal Value	
	5 Yr Historical CAGR	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
Sales	5.32%	6.4%	6.4%	6.4%	6.4%	6.4%	5.68%	4.97%	4.25%	3.54%	2.82%	2.10%	1.39%	0.67%	-0.05%	-0.76%		
China	10.7%	10.7%	10.7%	10.7%	10.7%	10.7%	9.48%	8.27%	7.06%	5.84%	4.63%	3.41%	2.20%	0.98%	-0.23%	-1.45%		
United S	1.76%	1.00%	1.00%	1.00%	1.00%	1.00%	0.79%	0.58%	0.37%	0.16%	-0.05%	-0.26%	-0.47%	-0.68%	-0.89%	-1.10%		
Europe &	-2.81%	-2.81%	-2.81%	-2.81%	-2.81%	-2.81%	-2.74%	-2.68%	-2.61%	-2.54%	-2.48%	-2.41%	-2.34%	-2.27%	-2.21%	-2.14%		
Mexico	-0.95%	-0.93%	-0.93%	-0.93%	-0.93%	-0.93%	-0.92%	-0.92%	-0.92%	-0.92%	-0.92%	-0.92%	-0.92%	-0.92%	-0.91%	-0.91%		
Other La	-11.0%	-9.68%	-9.68%	-9.68%	-9.68%	-9.68%	-8.80%	-7.93%	-7.06%	-6.19%	-5.31%	-4.44%	-3.57%	-2.70%	-1.82%	-0.95%		
Other As	-24.9%	-0.90%	-0.90%	-0.90%	-0.90%	-0.90%	-0.87%	-0.84%	-0.81%	-0.78%	-0.74%	-0.71%	-0.68%	-0.65%	-0.62%	-0.59%		
ROW (Au	-12.7%	-1.34%	-1.34%	-1.34%	-1.34%	-1.34%	-1.20%	-1.06%	-0.92%	-0.78%	-0.64%	-0.50%	-0.37%	-0.23%	-0.09%	0.05%		
Weighte	-0.32%	1.89%	1.89%	1.89%	1.89%	1.89%	1.60%	1.31%	1.02%	0.73%	0.44%	0.15%	-0.14%	-0.43%	-0.72%	-1.01%		

		Bullish Projections					Convergence Steps										Terminal Value
5 Yr Historical CAGR		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Sales	5.32%	8.0%	8.0%	8.0%	8.0%	8.0%	7.26%	6.52%	5.79%	5.05%	4.31%	3.57%	2.84%	2.10%	1.36%	0.62%	
China	10.7%	19.0%	19.0%	19.0%	19.0%	19.0%	17.33%	15.67%	14.00%	12.33%	10.66%	9.00%	7.33%	5.66%	3.99%	2.33%	
United S	1.8%	3.73%	3.73%	3.73%	3.73%	3.73%	3.48%	3.23%	2.98%	2.73%	2.48%	2.23%	1.98%	1.72%	1.47%	1.22%	
Europe &	-2.8%	0.34%	0.34%	0.34%	0.34%	0.34%	0.26%	0.18%	0.10%	0.02%	-0.06%	-0.14%	-0.22%	-0.31%	-0.39%	-0.47%	
Mexico	-1.0%	-0.53%	-0.53%	-0.53%	-0.53%	-0.53%	-0.54%	-0.56%	-0.58%	-0.60%	-0.62%	-0.63%	-0.65%	-0.67%	-0.69%	-0.71%	
Other La	-11.0%	-0.99%	-0.99%	-0.99%	-0.99%	-0.99%	-0.96%	-0.94%	-0.91%	-0.89%	-0.87%	-0.84%	-0.82%	-0.79%	-0.77%	-0.75%	
Other As	-24.9%	0.98%	0.98%	0.98%	0.98%	0.98%	0.88%	0.79%	0.70%	0.60%	0.51%	0.41%	0.32%	0.23%	0.13%	0.04%	
ROW (Al	-12.7%	13.40%	13.40%	13.40%	13.40%	13.40%	12.13%	10.86%	9.59%	8.32%	7.05%	5.77%	4.50%	3.23%	1.96%	0.69%	
Weighte	-0.32%	9.13%	9.13%	9.13%	9.13%	9.13%	8.32%	7.51%	6.69%	5.88%	5.07%	4.25%	3.44%	2.63%	1.81%	1.00%	

### Appendix 13: Other Assumptions

Net Working Capital Assumptions		Q1 Average	Q2 Average	Q3 Average	Q4 Average
Days Sales Outstanding		32.0	33.8	37.4	46.5
Days Inventory Outstanding		103.8	114.3	117.7	148.2
Days Payables Outstanding		94.3	107.3	107.0	152.7
Prepaid Expenses (% of Sales)		5%	6%	5%	6%
Accrued Expenses (% of Sales)		46%	49%	56%	69%
Other Current Liabilities (% of Sales)		6%	8%	7%	11%
Other Assumptions		Q1 Average	Q2 Average	Q3 Average	Q4 Average
COGS (% of Sales)		36%	36%	37%	38%
Operating Expenses (% of Sales)		37%	40%	40%	41%
Depreciation and Amortization (% of Sales)		2%	2%	2%	1%
Income Tax Rate (% of pre-tax income)		27%	25%	22%	21%
Capex (% of Sales)		5%	3%	4%	4%

### Appendix 13: Correlation Matrix

- ▲ Mead Johnson is the company most adversely affected by Milk Prices
- ▲ Danone is the company most adversely affected by fluctuation in the forex rates (for all the different foreign exchange presented here)
- ▲ Mead Johnson's performance depends greatly on milk prices since it is a pure player in the industry
- ▲ Nestle and Danone are the two companies most impacted by the strength of the USD. Although all four companies are negatively impacted by this, Nestle and Danone generate more of their income internationally than Mead Johnson and Abbott Laboratories and thus fluctuations in the USD affect them the most

Correlation Matrix (Monthly)	MJN	Nestle	Danone	ABT	Milk Prices	Peso/USD	CAD/USD	Yuan/USD	Euro/USD	Real/USD
MJN	100%									
Nestle	42%	100%								
Danone	52%	66%	100%							
Abbott	34%	29%	28%	100%						
Milk Price	-16%	8%	0%	8%	100%					
Peso/USD	-47%	-58%	-58%	-21%	-21%	100%				
CAD/USD	-33%	-46%	-54%	-19%	-19%	69%	100%			
Yuan/USD	-24%	-19%	-30%	-20%	-20%	31%	31%	100%		
Euro/USD	-25%	-41%	-58%	-13%	-27%	54%	66%	18%	100%	
Real/USD	-37%	-50%	-51%	-11%	-16%	64%	63%	11%	54%	100%

### Appendix 13: Types of Baby Formula

▲ There are three types of baby formulas:

1. **Cow milk protein-based formulas** - Most infant formula is made with cow's milk that's been altered to resemble breast milk. This gives the formula the right balance of nutrients — and makes the formula easier to digest. Most babies do well on cow's milk formula.
2. **Soy-based formulas** - Soy-based formulas can be useful if you want to exclude animal proteins from your child's diet. Soy-based infant formulas might also be an option for babies who are intolerant or allergic to cow's milk formula or to lactose, a carbohydrate naturally found in cow's milk.
3. **Protein hydrolysate formulas** - These types of formulas contain protein that's been broken down (hydrolyzed) — partially or extensively — into smaller sizes than are those in cow's milk and soy-based formulas. Protein hydrolysate formulas are meant for babies who don't tolerate cow's milk or soy-based formulas

▲ ...which come in three forms:

1. **Powder**—the least expensive of the infant formulas. It must be mixed with water before feeding (**most popular**) Side Note: In the 1970s Nestle came under fire for going to 3<sup>rd</sup> world countries and exploiting uneducated mothers by selling them powdered formula – this later led to widespread death among babies in areas of Africa and Asia because these premium brands led to poverty for families and the water mixed with the powder was often unclean
2. **Liquid concentrate**—must be mixed with an equal amount of water (**least popular**)
3. **Ready-to-feed**—the most expensive form of formula that requires no mixing (**most convenient**)

#### Appendix 14: Competitive Landscape

Mead Johnson	Nestle
<ul style="list-style-type: none"> <li>▲ <i>Enfamil</i> is considered a highly premium brand and is recommended by pediatricians in the U.S</li> <li>▲ Rigorous testing (over 2000 safety checks) of it's products ensures high quality</li> <li>▲ Highest gross margins among the Big 4</li> <li>▲ Science based approach to formula (smarter instead of tastier)</li> <li>▼ Late to react to changing formula trends</li> </ul>	<ul style="list-style-type: none"> <li>▲ Acquired Pfizer's Infant Nutrition segment in 2012; 85% of sales of that segment were in developing nations (high growth)</li> <li>▲ Very large presence in India (85% share)</li> <li>▲ More diversified product lines for all ages</li> <li>▼ Marketing campaign breaches international standards (led to boycotts)</li> <li>▼ Unethical history – 1970s boycott due to exploitation of LEDCs women</li> </ul>
Danone	Abbott Laboratories
<ul style="list-style-type: none"> <li>▲ Became a market leader in China with their acquisition of Numico in 2007</li> <li>▲ Reaction breached intl. formula marketing standards has been ethical (50% violations reduction vs. 3% for Nestle)</li> <li>▼ Lost joint venture with Mead Johnson to acquire Pfizer Nutrition/Wyeth in 2012</li> <li>▼ Untruthful marketing tactics (panic buying in the UK in 2012) breaches intl. standards</li> </ul>	<ul style="list-style-type: none"> <li>▲ Most consumer facing company of the bunch (50% of nutrition sales come from patients and customers not 3<sup>rd</sup> parties)</li> <li>▲ <i>Similac Total Comfort</i> is the industry standard for infants with digestive issues</li> <li>▲ First company to launch non-GMO formula</li> <li>▼ Abbott has a history of settlements related to price fixing since the 1970s</li> <li>▼ Recall in 2013 due to cases of botulism</li> </ul>

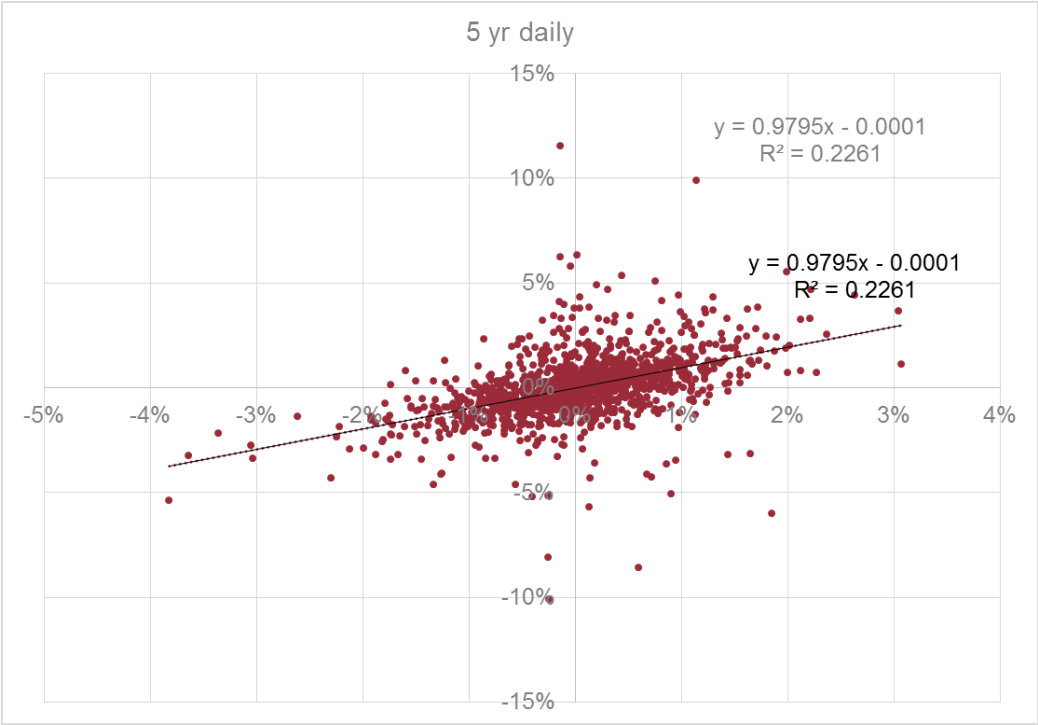
#### Appendix 15: Value at Risk



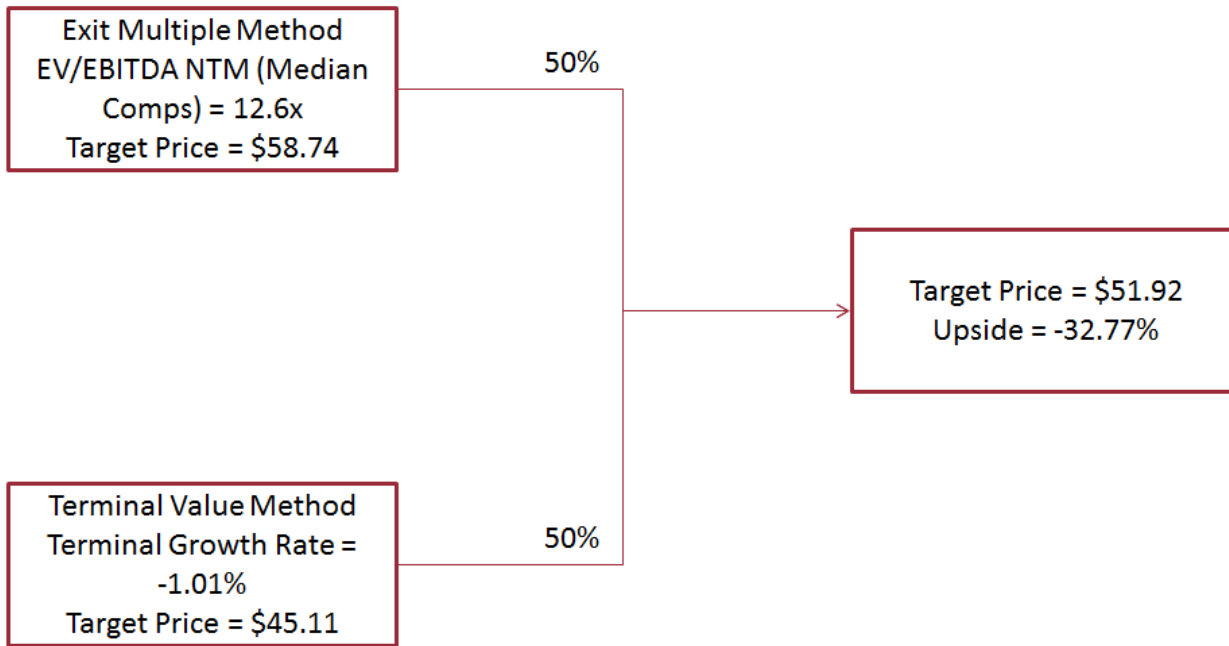
Mead Johnson Nutrition Company Daily	
Value At Risk %	Expected Return %
5%	-2.24%
10%	-1.65%
15%	-1.22%
20%	-1.00%
25%	-0.78%
30%	-0.60%
35%	-0.44%
40%	-0.25%
45%	-0.08%
50%	0.06%
55%	0.19%
60%	0.32%
65%	0.48%
70%	0.65%
75%	0.85%
80%	1.10%
85%	1.40%
90%	1.86%
95%	2.63%
100%	11.49%

Mead Johnson Nutrition Company Monthly	
Value At Risk %	Expected Return %
5%	-8.24%
10%	-6.83%
15%	-4.72%
20%	-3.43%
25%	-2.15%
30%	-0.59%
35%	0.04%
40%	0.62%
45%	1.59%
50%	2.16%
55%	2.62%
60%	3.01%
65%	3.23%
70%	3.43%
75%	3.94%
80%	5.07%
85%	6.82%
90%	9.13%
95%	11.82%
100%	16.98%

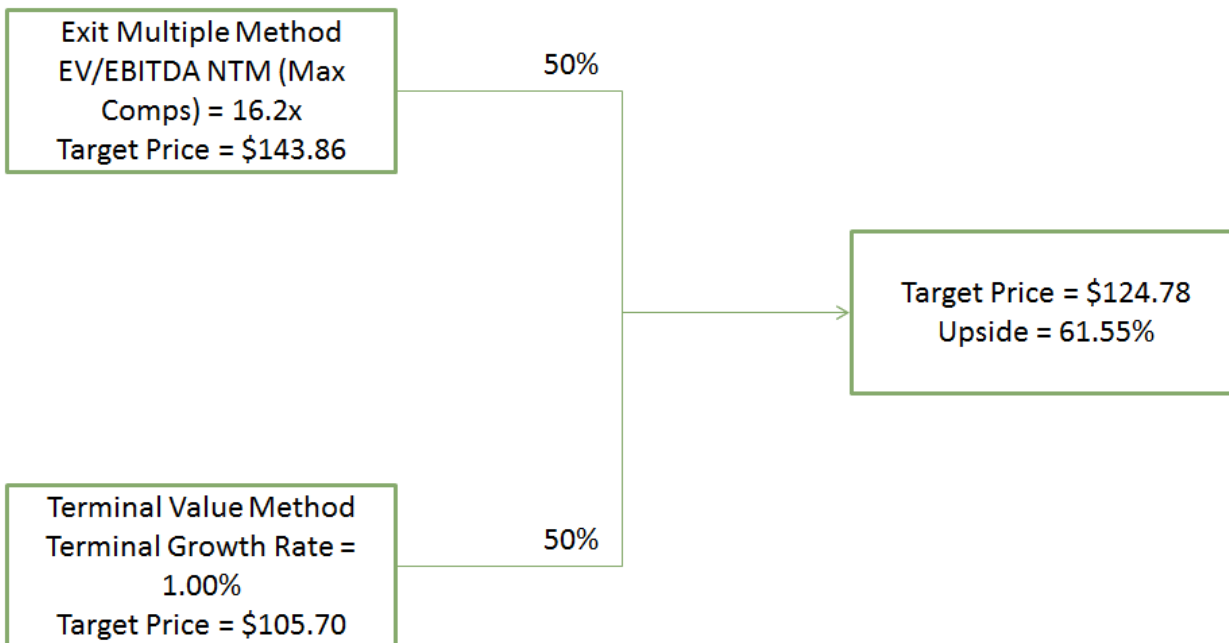
Appendix 16: Regression Beta



#### Appendix 17: DCF Bear Weightings



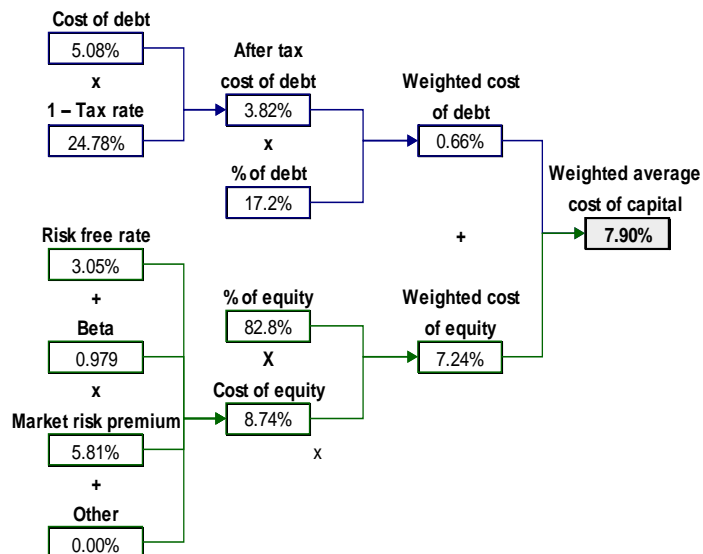
#### Appendix 18: DCF Bull Weightings



#### Appendix 19: Regression WACC Complete Breakdown

WACC			
<b>Cost of debt:</b>			
Cost of debt		5.08%	
Marginal tax rate		24.78%	
After-tax cost of debt: $5.08\% \times (1 - 24.78\%) =$		3.82%	
<b>Cost of equity:</b>			
Risk free rate <sup>(1)</sup>		3.05%	
Beta		0.979	
Market risk premium		5.81%	
Other		0.00%	
Cost of equity = $3.05\% + (0.979 \times 5.81\%) + 0.00\% =$		8.74%	
<b>Percentage of capital:</b>			
Total debt	2,987.5	17.2%	
Market value of equity	14,401.7	82.8%	
Total capital	17,389.2	100.0%	
<b>Weighted average cost of capital:</b>			
WACC = $(3.82\% \times 17.2\%) + (8.74\% \times 82.8\%) =$		7.90%	

1) 30 Year Bond Yield for U.S



## Appendix 20: Comparable Companies WACC Complete Breakdown

Comparable Companies	Ticker	5 Yr Levered Beta	Debt	Mkt. Val. Equity	Debt / Mkt. Cap.	Debt / Total Cap.	Marginal Tax Rate	Unlevered Beta
The Hershey Company	NYSE:HSY	0.218	2,420.5	20,175.3	12.0%	10.7%	43.12%	0.204
Campbell Soup Company	NYSE:CPB	0.383	4,112.0	19,206.4	21.4%	17.6%	31.17%	0.333
The J. M. Smucker Company	NYSE:SJM	0.539	5,284.3	15,262.7	34.6%	25.7%	36.13%	0.441
Perrigo Company Public Limited Company	NYSE:PRGO	0.305	5,375.0	18,130.4	29.6%	22.9%	#VALUE!	#VALUE!
The WhiteWave Foods Company	NYSE:WWAV	1.514	2,133.5	7,256.6	29.4%	22.7%	34.30%	1.269
Nestlé S.A.	SWX:NESN	0.252	22,018.4	222,376.1	9.9%	9.0%	25.88%	0.235
Danone	ENXTPA:BN	0.483	13,529.4	43,049.5	31.4%	23.9%	30.94%	0.397
The Kraft Heinz Company	NasdaqGS:KHC	0.000	25,250.0	93,776.5	26.9%	21.2%	36.13%	---
Abbott Laboratories	NYSE:ABT	0.631	9,001.0	58,445.6	15.4%	13.3%	18.13%	0.561

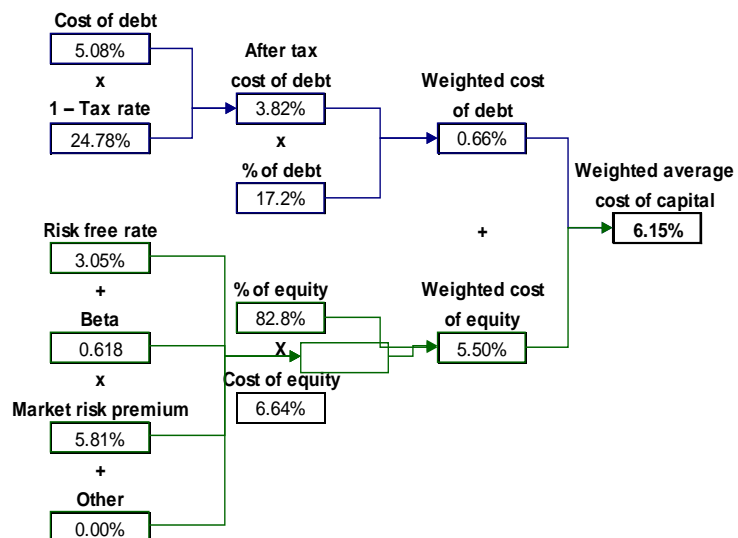
<b>Average</b>	<b>0.628</b>	<b>6,080.1</b>	<b>27,232.7</b>	<b>24.0%</b>	<b>19.0%</b>	<b>32.30%</b>	<b>0.534</b>
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Re-levered Beta = Averaged Unlevered Beta x (1 + Debt / Equity x (1 - Tax Rate))  $0.534 \times (1 + 20.7\% \times (1 - 24.8\%)) = 0.618$

Re-levered Beta **0.618**

<b>Mead Johnson Nutrition Company</b>	<b>MJN</b>	<b>0.628</b>	<b>2,987.5</b>	<b>14,401.7</b>	<b>20.7%</b>	<b>17.2%</b>	<b>24.78%</b>	<b>0.543</b>
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WACC via Comparables		
<b>Cost of Debt:</b>		
Historical weighted average cost of debt	5.08%	
Marginal tax rate	24.78%	
After-tax cost of debt: $5.08\% \times (1 - 24.78\%) =$	3.82%	
<b>Cost of Equity:</b>		
Risk free rate <sup>(1)</sup>	3.05%	
Re-levered beta	0.618	
Market risk premium	5.81%	
Other	0.00%	
Cost of equity = $3.05\% + (0.618 \times 5.81\%) + 0.00\% =$	6.64%	
<b>Percentage of Capital</b>		
Total debt	2,987.5	17.2%
Market value of equity	14,401.7	82.8%
Total capital	17,389.2	100.0%
<b>Weighted Average Cost of Capital:</b>		
WACC = $(3.82\% \times 17.2\%) + (6.64\% \times 82.8\%) =$		6.15%



### Appendix 21: DCF Base FCFF Exit Multiple and Perpetual Growth Method with Sensitivity Analysis

FCFF Exit Multiple			Free Cash Flow Perpetual Growth Method		
<b>Cumulative PV of Free Cash Flow</b>			<b>Total PV of Free Cash Flow</b>		
	8,512			8,512.4	
% of Enterprise Value	45.3%		% of Enterprise Value	58.8%	
<b>Terminal Value</b>			<b>Terminal Value</b>		
FY 2030 EBITDA	1,995.8		FY 2030E Free Cash Flow	1,205.8	
Exit Multiple	14.9x		Terminal Growth Rate	0.52%	
Terminal Value	29,727.5		Terminal Value	17,248	
Discount Factor	0.35		Discount Factor	0.35	
PV of Terminal Value	10,258.94		Present Value of Terminal Value	5,952	
% of Enterprise Value	54.7%		% of Enterprise Value	41%	
<b>Enterprise Value</b>			<b>Enterprise Value</b>		
	18,771.37			14,465	
Less: Total Debt	2,981		Less: Total Debt	2,981	
Add: Cash and Cash Equivalent	1,701		Add: Cash and Cash Equivalents	1,701	
<b>Equity Value</b>			<b>Equity Value</b>		
	17,491.77			13,185	
Common Shares Outstanding	189.80		Common Shares Outstanding (million)	189.80	
<b>Implied Price Per Share</b>			<b>Implied Price Per Share</b>		
	92.16			69.47	
<b>Perpetuity Growth Rate</b>			<b>Implied Exit Multiple</b>		
2030E Free Cash Flow	1,205.78		2030E EBITDA	1,995.79	
WACC	7.55%		Terminal Value	17,248	
Terminal Value	29,727.5		<b>Implied Exit Multiple</b>		
<b>Perpetuity Growth Rate</b>				8.64	
	3.36%		<b>Averaged Price Per Share</b>		
				\$ 80.81	

		EV/EBITDA Exit Multiple				
		12.9x	13.9x	14.9x	15.9x	16.9x
WACC	8.55%	\$76.23	\$79.40	\$82.57	\$85.74	\$88.90
	8.05%	\$80.42	\$83.81	\$87.20	\$90.59	\$93.98
	7.55%	\$84.89	\$88.52	\$92.15	\$95.78	\$99.40
	7.05%	\$89.67	\$93.55	\$97.44	\$101.32	\$105.20
	6.55%	\$94.77	\$98.93	\$103.09	\$107.24	\$111.40



		Terminal Growth Rate				
		-0.48%	0.02%	0.52%	1.02%	1.52%
WACC	8.55%	\$56.46	\$57.80	\$59.32	\$61.04	\$63.00
	8.05%	\$60.59	\$62.20	\$64.03	\$66.12	\$68.53
	7.55%	\$65.26	\$67.21	\$69.44	\$72.00	\$75.00
	7.05%	\$70.58	\$72.95	\$75.69	\$78.88	\$82.65
	6.55%	\$76.69	\$79.61	\$83.01	\$87.02	\$91.83

## Appendix 22: DCF Bull FCFF Exit Multiple and Perpetual Growth Method with Sensitivity Analysis

FCFF Exit Multiple		Free Cash Flow Perpetual Growth Method	
Cumulative PV of Free Cash Flow	11,393	Total PV of Free Cash Flow	11,393.2
% of Enterprise Value	39.9%	% of Enterprise Value	53.4%
Terminal Value		Terminal Value	
FY2030 EBITDA	3,077.3	FY2030E Free Cash Flow	1,868.6
Exit Multiple	16.2x	Terminal Growth Rate	1.00%
Terminal Value	49,816.5	Terminal Value	28,825
Discount Factor	0.35	Discount Factor	0.35
PV of Terminal Value	17,191.67	Present Value of Terminal Value	9,948
% of Enterprise Value	60.1%	% of Enterprise Value	47%
Enterprise Value	28,584.90	Enterprise Value	21,341
Less: Total Debt	2,981	Less: Total Debt	2,981
Add: Cash and Cash Equivalent	1,701	Add: Cash and Cash Equivalents	1,701
Equity Value	27,305.30	Equity Value	20,061
Common Shares Outstanding	189.80	Common Shares Outstanding (million)	189.80
Implied Price Per Share	143.86	Implied Price Per Share	105.70
Perpetuity Growth Rate		Implied Exit Multiple	
2030E Free Cash Flow	1,868.65	2030E EBITDA	3,077.33
WACC	7.55%	Terminal Value	28,825
Terminal Value	49,816.5	Implied Exit Multiple	9.37
Perpetuity Growth Rate	3.66%	Averaged Price Per Share	\$ 124.78

		EV/EBITDA Exit Multiple				
		14.2x	15.2x	16.2x	17.2x	18.2x
WACC	8.55%	\$118.71	\$123.59	\$128.48	\$133.36	\$138.25
	8.05%	\$125.47	\$130.70	\$135.93	\$141.15	\$146.38
	7.55%	\$132.70	\$138.29	\$143.89	\$149.48	\$155.07
	7.05%	\$140.42	\$146.41	\$152.40	\$158.39	\$164.37
	6.55%	\$148.68	\$155.09	\$161.51	\$167.92	\$174.33

		Terminal Growth Rate				
		0.00%	0.50%	1.00%	1.50%	2.00%
WACC	8.55%	\$84.03	\$86.37	\$89.02	\$92.04	\$95.53
	8.05%	\$90.68	\$93.50	\$96.72	\$100.44	\$104.76
	7.55%	\$98.26	\$101.69	\$105.65	\$110.26	\$115.70
	7.05%	\$106.97	\$111.19	\$116.10	\$121.89	\$128.84
	6.55%	\$117.08	\$122.31	\$128.49	\$135.89	\$144.92

## Appendix 23: DCF Bear FCFF Exit Multiple and Perpetual Growth Method with Sensitivity Analysis

FCFF Exit Multiple		Free Cash Flow Perpetual Growth Method	
<b>Cumulative PV of Free Cash Flow</b>	6,731	<b>Total PV of Free Cash Flow</b>	6,731.4
<i>% of Enterprise Value</i>	54.2%	<i>% of Enterprise Value</i>	68.4%
<b>Terminal Value</b>		<b>Terminal Value</b>	
FY2030 EBITDA	1,313.3	FY2030E Free Cash Flow	778.8
<i>Exit Multiple</i>	12.6x	<i>Terminal Growth Rate</i>	-1.01%
<b>Terminal Value</b>	16,506.7	<b>Terminal Value</b>	9,013
<i>Discount Factor</i>	0.35	<i>Discount Factor</i>	0.35
<b>PV of Terminal Value</b>	5,696.45	<b>Present Value of Terminal Value</b>	3,110
<i>% of Enterprise Value</i>	45.8%	<i>% of Enterprise Value</i>	32%
<b>Enterprise Value</b>	12,427.87	<b>Enterprise Value</b>	9,842
Less: Total Debt	2,981	Less: Total Debt	2,981
Add: Cash and Cash Equivalent	1,701	Add: Cash and Cash Equivalents	1,701
<b>Equity Value</b>	11,148.27	<b>Equity Value</b>	8,562
Common Shares Outstanding	189.80	Common Shares Outstanding (million)	189.80
<b>Implied Price Per Share</b>	58.74	<b>Implied Price Per Share</b>	45.11
<b>Perpetuity Growth Rate</b>		<b>Implied Exit Multiple</b>	
2030E Free Cash Flow	778.76	2030E EBITDA	1,313.30
WACC	7.55%	Terminal Value	9,013
Terminal Value	16,506.7	<b>Implied Exit Multiple</b>	6.86
<b>Perpetuity Growth Rate</b>	2.70%	<b>Averaged Price Per Share</b>	\$ 51.92

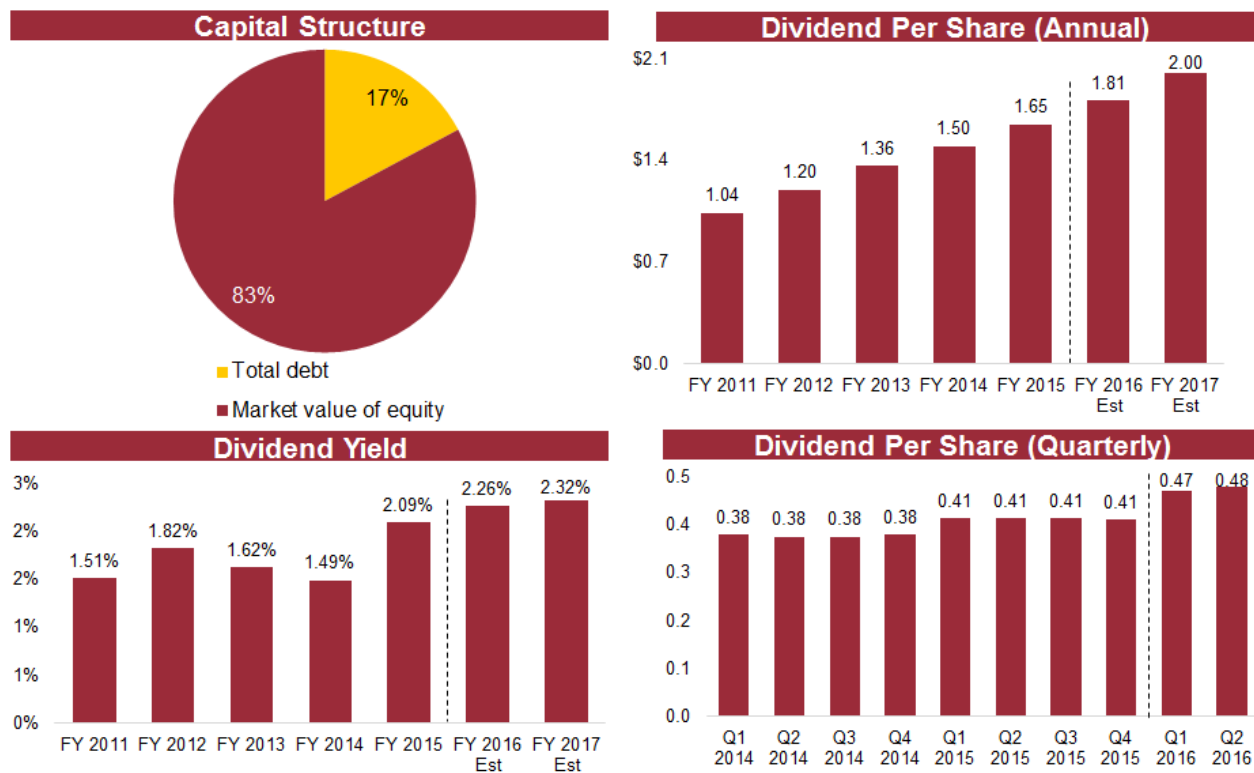
		EV/EBITDA Exit Multiple				
		10.6x	11.6x	12.6x	13.6x	14.6x
WACC	8.55%	\$48.80	\$50.89	\$52.97	\$55.06	\$57.14
	8.05%	\$51.33	\$53.56	\$55.79	\$58.02	\$60.25
	7.55%	\$54.02	\$56.41	\$58.79	\$61.18	\$63.57
	7.05%	\$56.89	\$59.44	\$62.00	\$64.55	\$67.11
	6.55%	\$59.94	\$62.68	\$65.41	\$68.15	\$70.88

		Terminal Growth Rate				
		-2.01%	-1.51%	-1.01%	-0.51%	-0.01%
WACC	8.55%	\$38.18	\$38.81	\$39.51	\$40.28	\$41.15
	8.05%	\$40.57	\$41.31	\$42.14	\$43.06	\$44.10
	7.55%	\$43.23	\$44.11	\$45.09	\$46.19	\$47.44
	7.05%	\$46.19	\$47.23	\$48.41	\$49.74	\$51.26
	6.55%	\$49.51	\$50.76	\$52.18	\$53.80	\$55.67

## Appendix 24: EPS Estimate vs. Analyst Consensus EPS Estimate

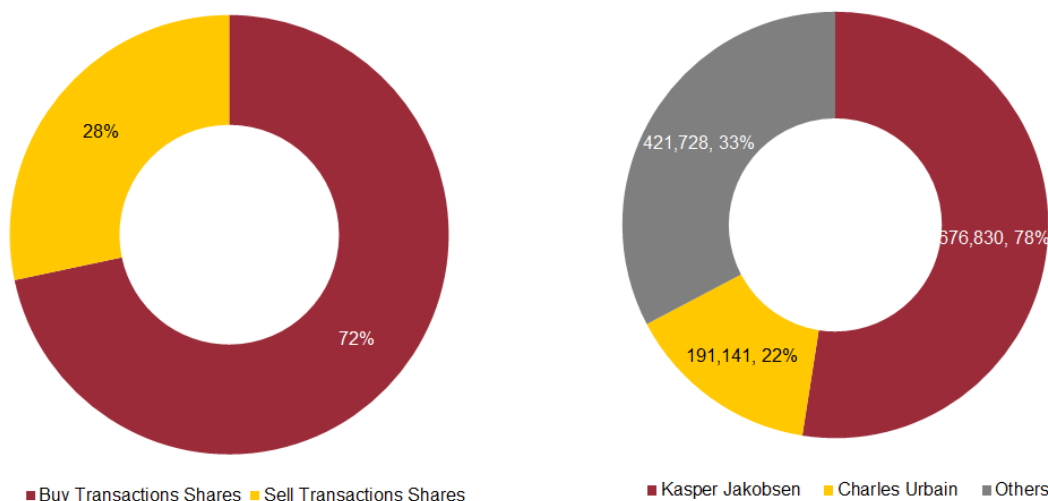
	Analyst Consensus	EPS Estimate
Q1 2016	\$0.85/share	\$0.92/share
Q2 2016	\$0.82/share	\$0.87/share
Q2 2016	\$0.92/share	\$0.82/share
Q2 2016	\$0.92/share	\$0.88/share

#### Appendix 25: Capital Structure and Dividend Payout



#### Appendix 26: Insider Trading

▲ Buy Share Transaction mainly include the purchasing of options to exercise them



## Appendix 27: Football Field Metrics

Mead Johnson Nutrition Company Valuation Football Field						
Football Field W/ NTM Historical Multiples and LTM Comparables						
	Min	Q1	Median	Q3	Max	Weighting
DCF Perpetuity	45.10	57.27	69.45	87.55	105.66	50%
DCF Exit Multiple	58.72	75.43	92.14	117.99	143.83	50%
Comparables NTM EV/Revenues	43.26	54.17	57.73	61.44	82.66	0%
Comparables NTM EV/EBITDA	89.01	92.79	94.61	97.30	123.85	0%
Comparables NTM P/E	46.87	71.29	71.74	75.62	106.97	0%
Comparables LTM EV/Revenues	47.57	54.78	57.15	61.08	89.40	0%
Comparables LTM EV/EBITDA	68.01	68.36	76.80	96.62	113.67	0%
Comparables LTM P/E	93.03	113.14	125.59	134.29	143.15	0%
Current Price			75.79			
Target Price			\$ 80.79			
Implied Upside (Downside)			6.6%			

Football Field Chart					
	Min	Q1	Median	Q3	Max
DCF Perpetuity	45.11	12.18	12.18	18.11	18.11
DCF Exit Multiple	58.74	16.71	16.71	25.85	25.85
Comparables NTM EV/Revenues	43.26	10.91	3.56	3.71	21.22
Comparables NTM EV/EBITDA	89.01	3.78	1.83	2.69	26.54
Comparables NTM P/E	46.87	24.43	0.45	3.87	31.36
Comparables LTM EV/Revenues	47.57	7.21	2.37	3.93	28.32
Comparables LTM EV/EBITDA	68.01	0.35	8.44	19.82	17.05
Comparables LTM P/E	93.03	20.11	12.45	8.70	8.86

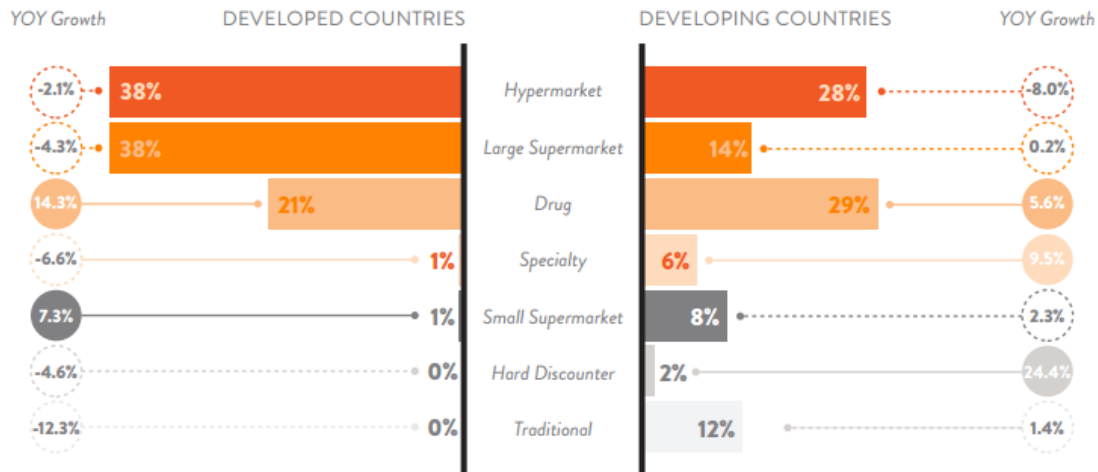
## Appendix 27: Baby Formula Sales by Store Format





## BABY FORMULA IS GROWING MOST IN SMALLER STORE FORMATS

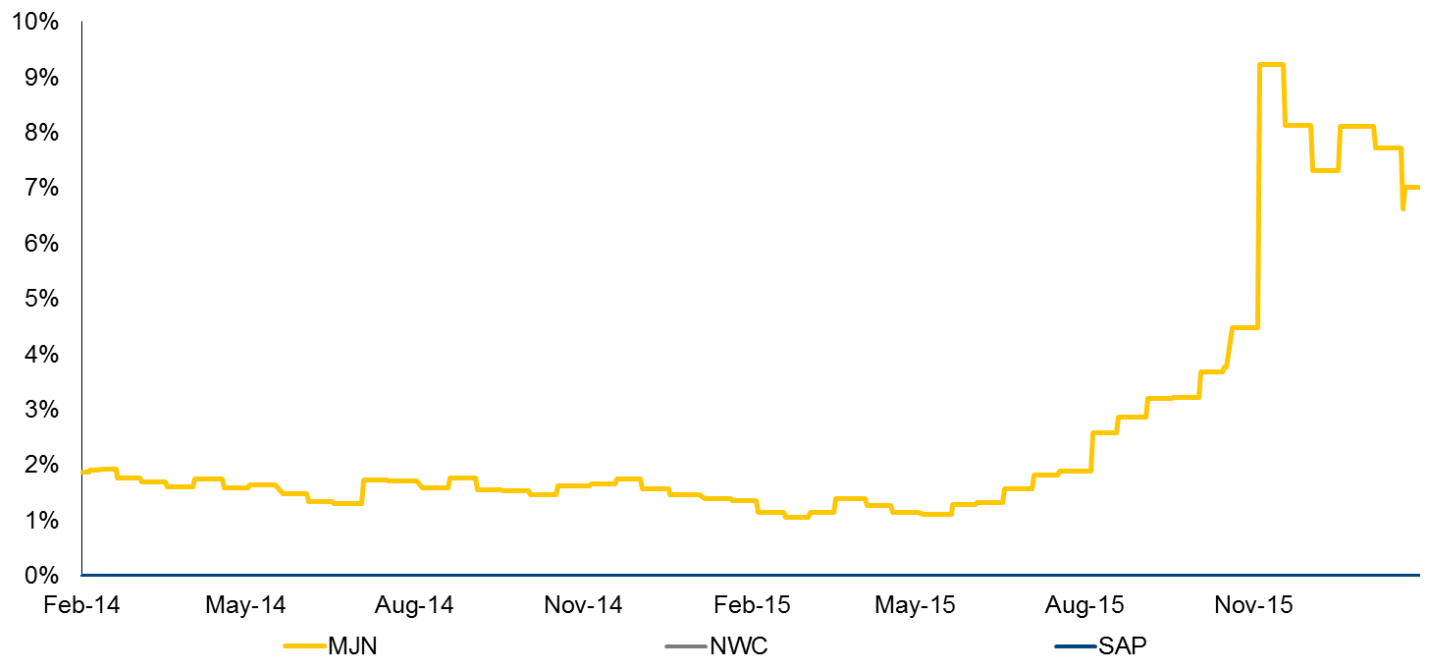
Share of 2014 baby formula value sales and growth by channel



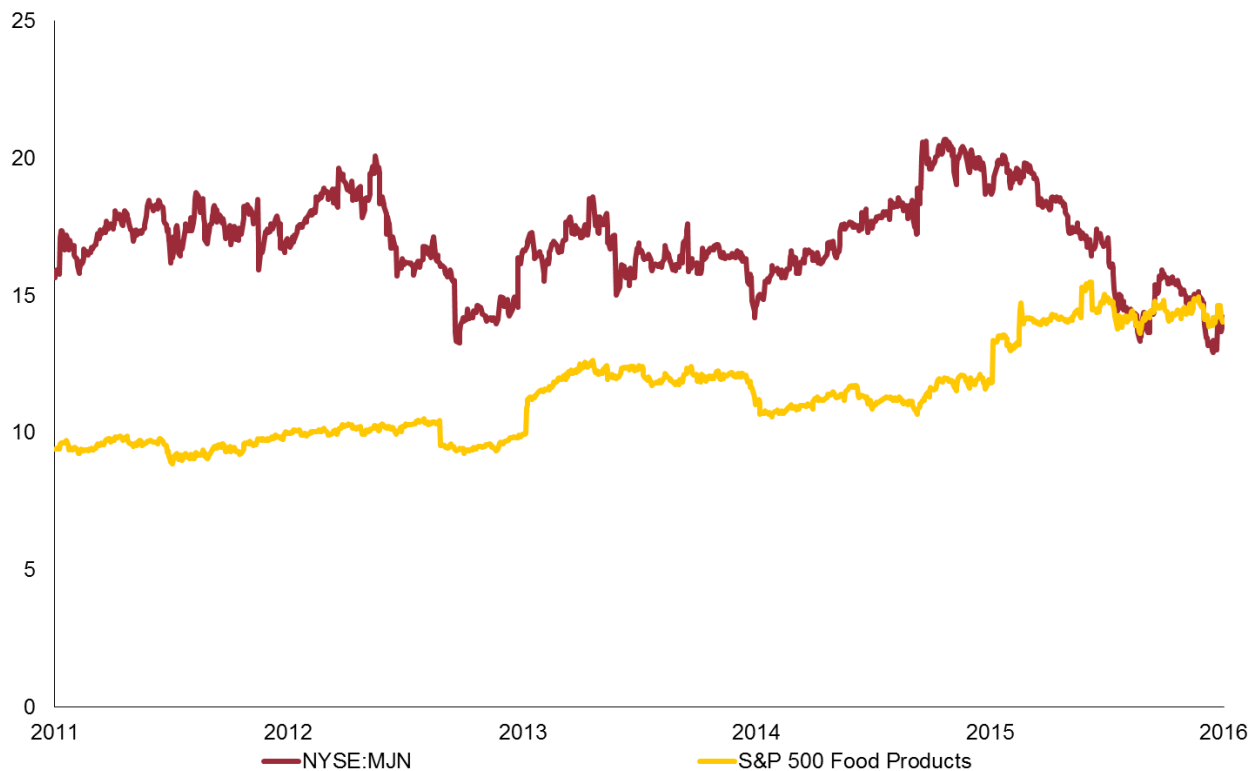
Source: Nielsen Retail Measurement Sales data

Note: See Methodology section for a listing of developed and developing countries

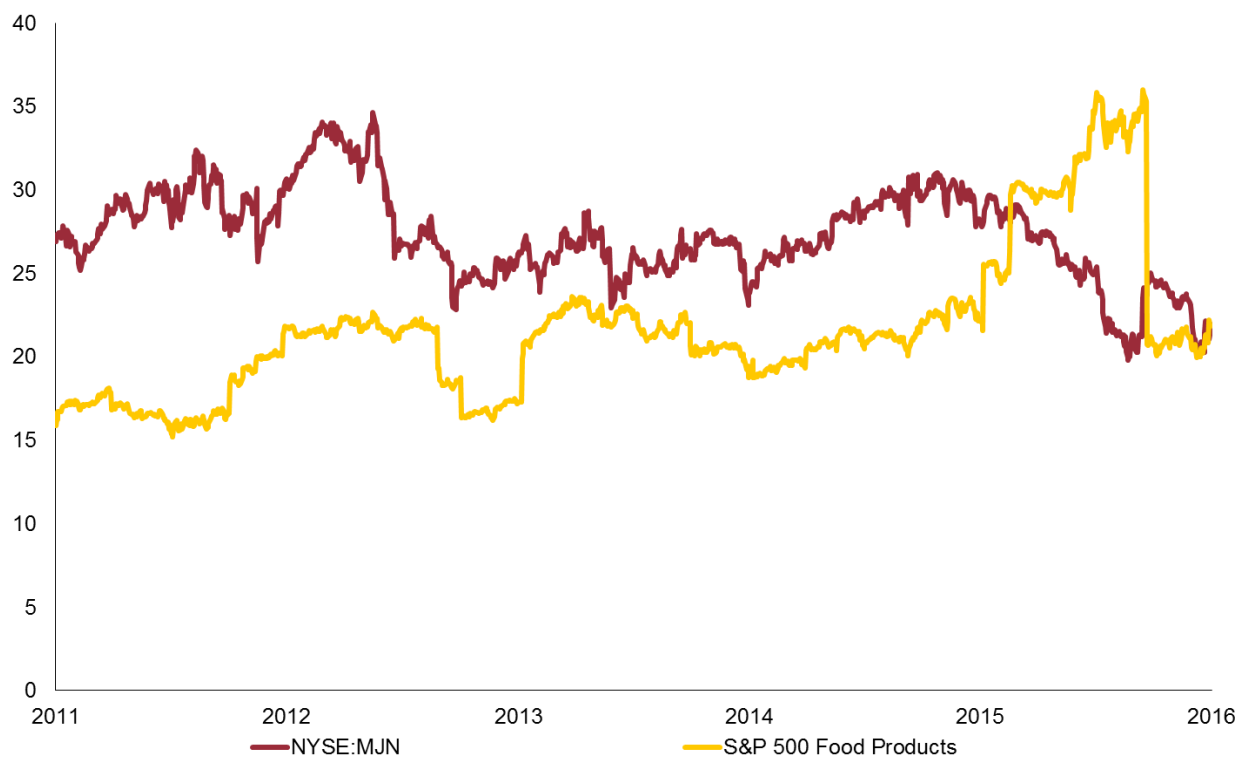
### Appendix 28: Short Interest



### Appendix 29: MJN Historical EV/EBITDA



Appendix 29: MJN Historical P/E



Appendix 30: Hedging Activity

- ▲ The Company uses foreign exchange contracts to hedge forecasted transactions, primarily foreign currency denominated inter- company purchases anticipated in the next 18 months and designates these derivative instruments as foreign currency cash flow hedges when appropriate
- ▲ The forward starting swaps effectively mitigated the interest rate exposure associated with the Company's offering of the 2044 Notes, the proceeds of which were used to redeem all of the Company's 2014 Notes

Notional Amount of Underlying	Fixed Rate Received	Variable Rate Paid (U.S. 3 Month LIBOR +)	Fair Value Asset
\$ 700.0	4.9%	3.14%	\$ 13.7

- ▲ The Company utilizes commodity hedges to minimize the variability in cash flows due to fluctuations in market prices of the Company's non- fat dry milk purchases for North America
- ▲ The following hedges are recorded at fair value

(In millions)	Hedge Designation	Balance Sheet Location	September 30, 2015	December 31, 2014
Foreign exchange contracts	Cash Flow	Prepaid expenses and other assets	\$ 13.3	\$ 13.0
Interest rate forward swaps	Fair Value	Other assets	13.7	—
Commodity contracts	Cash Flow	Prepaid expenses and other assets	0.7	—
Foreign exchange contracts	Cash Flow	Accrued expenses	—	(0.2)
Commodity contracts	Cash Flow	Accrued expenses	(0.3)	(0.8)
Interest rate forward swaps	Fair Value	Other liabilities	—	(0.9)
Net asset/(liability) of derivatives designated as hedging items			\$ 27.4	\$ 11.1

#### Appendix 31: Manufacturing Facilities



#### Appendix 32: Chinese Milk Scandal

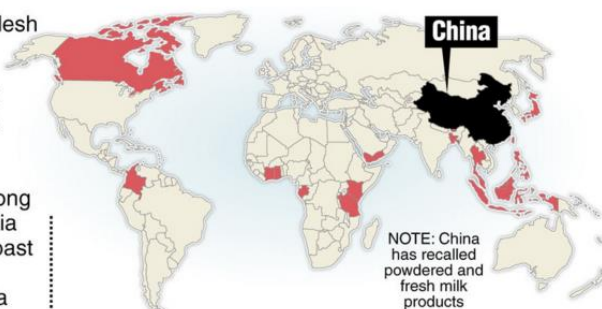
- ▲ 2008 Chinese Milk Scandal which killed 6 babies and infected 300,000 more with melamine (used to manufacture plastic) which caused severe kidney problems such as kidney stones
- ▲ The controls tests used to test for protein levels fails to distinguish between nitrogen in melanin and naturally occurring nitrogen in amino acids
- ▲ Just four years prior to this, 13 infants had died from malnutrition due to watered-down milk
- ▲ Aftermath:
  - 11 countries stopped importing dairy products from China
  - Two people got executed by the Chinese government (Dairy farmer + manager of a milk production center)

## Banned dairy from China

Countries are banning and recalling Chinese dairy imports, fearing melamine-tainted milk has made its way to their markets.

### ■ Countries that have banned or recalled Chinese dairy products

- Bangladesh
- Bhutan
- Brunei
- Burundi
- Canada
- Gabon
- Ghana
- Hong Kong
- Indonesia
- Ivory Coast
- Japan
- Malaysia
- Myanmar
- Philippines
- Singapore
- Taiwan
- Tanzania
- Yemen



### What is melamine?

- Used as filler substance in tainted baby formula; when testing for nutritional value melamine shows up as a protein, product appears more nutritious
- Not toxic, but causes kidney stones and renal failure

Source: AP, Reuters

Graphic: Melina Yingling

© 2008 MCT

## Appendix 33: Historical DPS and Historical Yield

