



Figure 1

Market Data		Class A Shares				
Closing Price		¥53.70				
Shares Outstanding		6,519,637,198				
Market Cap (BN)		¥350.10				
Eiluted P/E (LTM)		20.7 x				
Enterprise Value (BN)		¥360.11				
EV/EBITDA (LTM)		16.2 x				
Key Financials		2012	2013	2014	2015	2016
Net Income Growth		10%	18%	17%	-2%	15%
Gross margin		23%	24%	26%	26%	28%
ROA		8%	9%	11%	11%	11%
ROE		19%	21%	26%	24%	23%
Inventory Turnover		7.7	8.0	9.5	13.3	10.2
Interest Coverage		29%	34%	13%	24%	31%
Debt/Asset ratio		51%	62%	60%	62%	57%
Dividend Payout Ratio		58%	63%	40%	40%	44%
Valuation Result						
Valuation Data		15-Dec-17	Current Price		¥53.70	
Component			Value/Share	Contribution		
	AC		¥4.79	8.03%		
Major Appliance	Fridge		¥16.54	27.72%		
	WM		¥5.94	9.96%		
Small Appliance			¥24.71	41.40%		
Robots			¥7.69	12.88%		
Implied Share Price				¥59.67		
Upside				11.1%		
Midea's Cost of Equity				9.82%		
12-Month Target Price				¥65.53		
Projected Annual Dividend				¥1.05		
Total Return				24.0%		
Source: Company Annual Report, Team Analysis						

Valuation Date: Dec 15th

Stock Code: SZ:000333

Stock Exchange: SZSE

Closing Price: 53.70 CNY

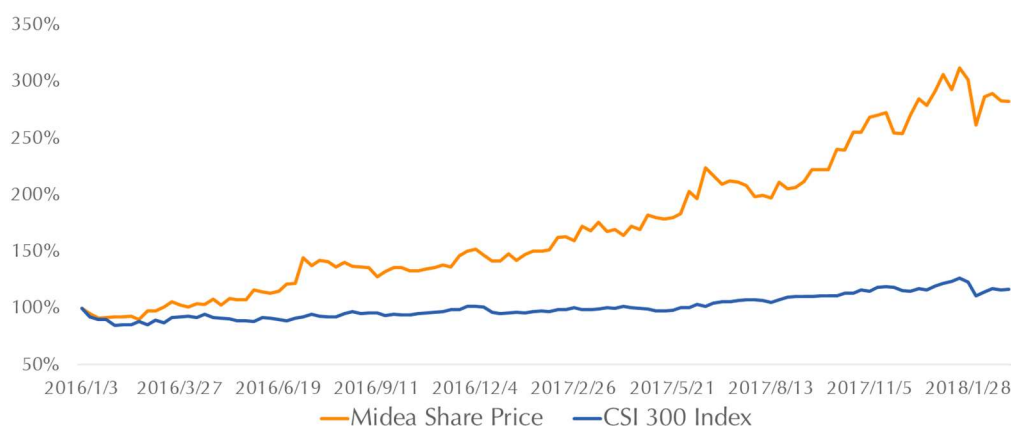
Implied Share Price: 59.67 CNY

Upside: 11.12%

Target Price: 65.53 CNY

Annual Dividend: 1.05 CNY

Total Return: 23.98%



Executive Summary

Midea Group Corporation, Limited, is a China-based technologies group, providing a large diversity of products and services including household appliances, robots, motors, and logistics. It ranked #450 in Global Fortune 500 Companies with the second largest market cap in A share manufacturing sector.

Investment Recommendation

We issue a BUY recommendation for Midea Group based on a projected 12-month target price of 65.53 CNY per A-share. With the current closing price of 53.70 CNY on December 15, 2017, the expected total return would be 23.98% for investors. We derive our target price through the following methods: (1) Using a Sum-of-the-Parts approach to arrive at an implied share price valuation, and (2) Forecasting the 12-month target price by Midea's cost of equity. The recommendation is driven by the following reasoning:

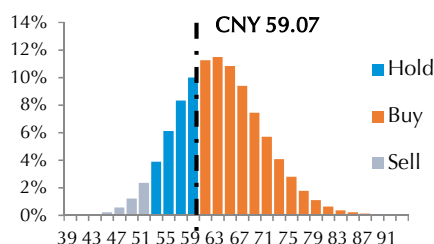
Investment Thesis and Outline

Backed by an industry that is stable but experiencing multi-dimensional upgrading, Midea has gained a strong and firm positioning in household appliance sector, with a potential growth driven by global expansion. Combining our analysis on current electric appliance industry with the sum-of-the-parts valuation, it is suggested that the stocks of Midea Group is currently underpriced. With close examination on Midea's risk exposure and their corresponding solutions, we draw the conclusion that there is an investment opportunity with a projected upside of 23.98% on Midea Group's A-stock under circulation.

- **An Upgrading Industry**, with an industry-wide trend of transformation in product technology, energy efficiency, consumption pattern, and online retailing platform.
- **Midea's Leading Positioning in Household Appliance Sector**, backed by the analysis of Midea's integrated industrial chain, diversified portfolio, promising global expansion, and successful utilization of M&As.
- **Sum-of-the-Parts Valuation**, using the 5-year DCF with two-stage growth terminals, 5-year DCF with EV/EBITDA exit terminals, and Acquisition Multiples methodologies to value major appliance sector, small appliance sector and robots sector respectively.
- **Investment Risks**, including market, operational, and financial risks, assessed with impact and likelihood and listed on a risk matrix, as well as displayed by a Monte-Carlo simulation. The simulation outcome implies 66.9% of the simulations suggest a buy recommendation, 28.7% suggest a hold recommendation, and only 4.4% suggest a sell recommendation.

Figure 2 Monte Carlo Simulation

Number of Iteration	100,000
Current Price	53.70 CNY (10.1% Percentile)
Target Price	65.53 CNY (68.9% Percentile)
25% Percentile	57.48 CNY
75% Percentile	66.84 CNY
Mean	62.36 CNY
Std. Dev.	7.0237
skeness	0.283
Kurtosis	0.200
Recommendation	Probability
Sell	4.4%
Hold	28.7%
Buy	66.9%



Business Description

Figure 3 Midea's Revenue Breakdown in 2016 (CNY in billions)

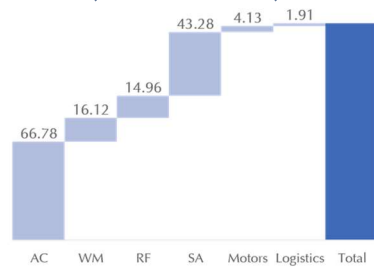
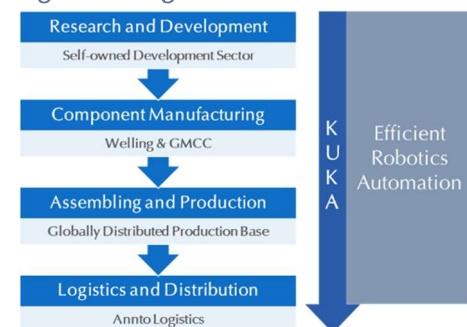
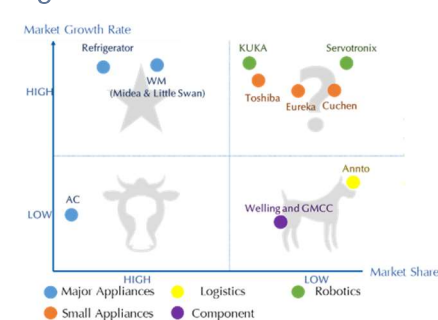


Figure 4 Integrated Industrial Chain



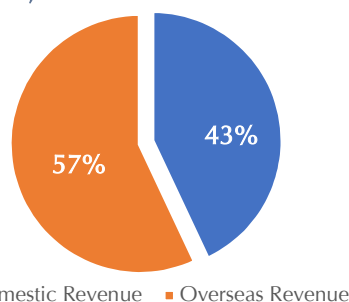
Source: Company Annual Report

Figure 5 Diversified Product Portfolio



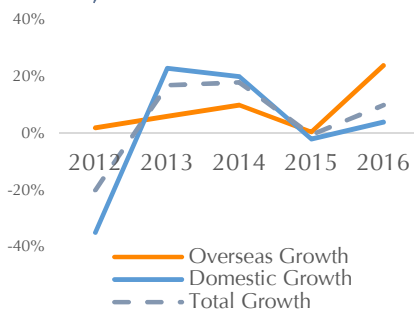
Source: Company Annual Report, Team analysis

Figure 6 Large Proportion of Overseas Revenue, 2016



Source: Company Annual Report

Figure 7 Rapid Growth of Overseas Revenue, 2012-2016



Source: Company Annual Report

Business Divisions

- In **Major Appliance** sector, Midea operates three product divisions including Heating, Ventilating and Air Conditioning (HVAC), Refrigerators, and Washing Machines (WM). First, the HVAC division, including residential and central air-conditioning, serves as the pillar of Midea's revenue stream. Second, the refrigerator division has developed more than 30 production lines including refrigerators, freezers, and wine cabinet, and runs three well-known brands, Midea, Little Swan, and Hualing, whilst the WM division also has three brands, Midea, Little Swan, and Royalstar under operation.
- In **Small Appliance** sector, Midea offers a wide range of products, mainly operating divisions of kitchen appliances, small domestic appliances, and environmental appliances. In particular, Midea occupies a dominant position in kitchen appliance market with the largest market share in China. Moreover, the acquisitions of two experts in small appliance, Toshiba and Eureka, largely contribute to Midea's product line extension and a move upward.
- **Robotics and industrial automation systems division** was initiated in 2015. The acquisitions of KUKA, Efront and Sevotronics, and the joint venture with Yaskawa lay a solid foundation for Midea's strategic layout in this division.
- **Components division** includes Welling, Midea Group's subsidiary, and GMCC, a joint venture between Midea and Toshiba-Carrier. They are the world's largest home appliance core components manufacturers and the leading brands of compressors and motors. **Smart logistics division** is operated by Annto Logistics Co., which helps to curtail supply chain and to develop intelligent inventory management system. Moreover, Swisslog, KUKA's subordinate automation solution provider, can further pump up Annto's logistic efficiency.

Business Strategies

- **Vertical integration of industrial chain plays an important role in cost control and efficiency enhancement.** Midea owns an integrated value chain from initial R&D centers, upstream component manufacturers to downstream distributors (Figure 4). Typically, Welling and GMCC produce and supply core components and the acquired Annto Logistics Co. provides Midea with smart logistics capabilities.
- **Multi-brand Strategy and Product Portfolio Diversification:** By various acquisitions and joint ventures, Midea's product lines cover almost all household appliance categories, ranging from large to small appliances, and from economical to high-end products (Figure 5). In particular, since Midea itself is a low-to-middle-end brand, the Group acquired foreign high-end brands like Toshiba (TLSC) and Eureka. Also, the Group jointly established two premium brands, Cuchen with South Korea's Lihom Cuchen and AEG with Germany's Electrolux. In addition, Midea successfully entered robotics industry by the joint venture with Yaskawa and the acquisition of KUKA. (Appendix B5)
- **Smart Home and Intellectualization:** After initiating the M-Smart Strategy in 2014, Midea has invested over 15 billion on establishing its smart home ecosystem by the Internet of Things (IoT); various smart appliances of Midea have been commercialized. Also, Midea has deployed turnkey smart home layouts in over 10 real estate projects in China. More importantly, the strong technological capabilities of KUKA and Servotronics can support Midea's intellectualization. (Appendix B8)
- **Globalization:** Midea's overseas revenue was 64 billion RMB in 2016, accounting for 43% of its total revenue (Figure 6) and was ranked second in terms of global market share. The overseas revenue growth of Midea far exceeds the domestic one (Figure 7). Midea owns more than 60 overseas branches and 12 manufacturing bases abroad; it sells to more than 200 countries, mainly to Asia, Africa, and South America. This global expansion has undergone 3 steps – initiated *Original Equipment Manufacturer (OEM)* business with the least risks followed by equity participation to actually engage in international businesses, and eventually transform into *Original Brand Manufacturer (OBM)* to establish its own brands in global market. Particularly, Midea leverages OEM to lower entry barriers in developed market whilst promotes its own brand and conducts localization to adopt to different marketplaces in developing countries. (Appendix B7)

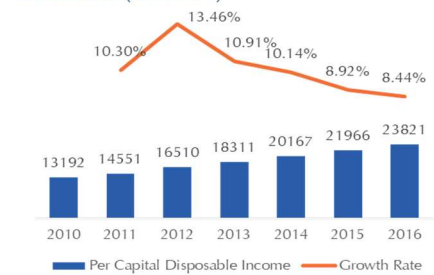
Industry Overview and Competitive Positioning

Household Appliances

Global Industry Outlook and Trends

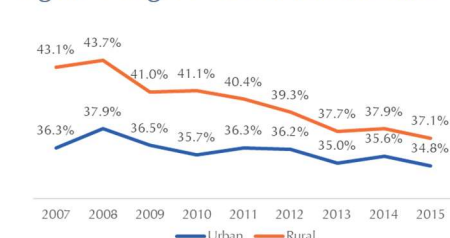
The markets can be categorized into two sectors, the mature markets developing markets. The mature markets mainly consist of Europe, America and Australia where the demand growth is low and sales are dominant by replacement, whereas growing markets mainly includes India, China and the Middle East, accounting for 68% of the

Figure 8 Per Capital Disposable Income in China (in CNY)



Source: National Bureau of Statistics of China

Figure 9 Engel's Coefficient in China



Source: National Bureau of Statistics of China

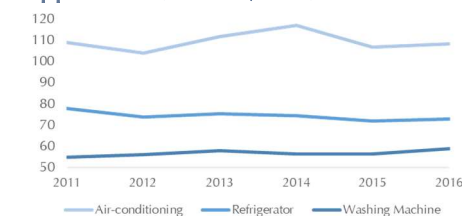
Figure 10 Market Concentration Level of Major Appliance

Subsector	HHI Index	CRn
AC	2058.06	70%
Refrigerator	2350.00	55%
WM	3016.00	70%

Notes: HHI is a measure of market concentration; CRn stands for concentration ratio.

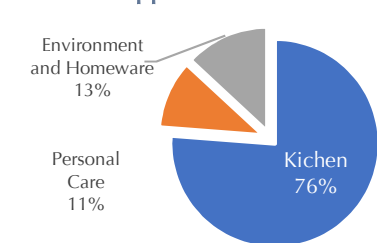
Source: Team Analysis, ChinaOL

Figure 11 Sales Volume of Major Appliances (in CNY, mm)



Source: ChinaOL

Figure 12 Global Sales Composition of Small Appliances



Source: Euromonitor

Figure 13 Average Service Life of Household Appliances

Average Service Life of Small and Major Appliances (year)				
Small	Electric Kettle	Toaster	Soybean Milk Machine	Coffee Machine
	1-1.5	1.5-2	2-3	2-5
Major	TV	AC	Fridge	Washing Machine
	8-10	8-10	10-15	10-12

Source: Xinsanban Think Tank

global appliances demand in 2016.

Technological innovation and new product development, increasing urbanization, and rising working class population are the driving forces of the global household appliances industry.

For the developing market, the major industry driver is the rise in per capita income, leading to a growing consumer spending. Strong economic growths in developing nations, such as China, India, and countries in the Middle East, are anticipated to boost the industry. In particular, APAC is expected to emerge as a good destination for companies to set up their factories due to its low labor and manufacturing costs.

Key Drivers in Developing Countries: Income Growth and Consumption Upgrade

The evolution of home appliance consumption is a dynamic process of interaction between income growth and consumption upgrade.

In China, for example, households with a **disposable income** of more than USD 10,000 increased by 76% in 2016. The rising income and quality of life enable consumers in the rural areas to buy home appliances for the first time and drives replacement purchase in urban areas, which mainly lies in factors such as luxury, convenience, and health-consciousness.

Consumption upgrade in China is occurring in upper-income brackets and among the younger generation; this trend manifests itself in three aspects. i) The lowering Engel's coefficient in China reflects the improving living standard, leading to an upgrade in consumption. Those better-off consumers are shifting to hedonic consumption – they buy appliances not only for basic necessities but demand premium goods in pursuit of convenience, living quality, enjoyment, etc. ii) Growing consumer base of millennials with increasing purchasing power will demand home appliances with higher quality, more stylish design, and better personalization. iii) Consumers expect more complete and flawless service system to save their time, especially in the today's fast-paced lives.

Major Appliances

■ **Mature Oligopolistic Market with High Industry Concentration:** Overall, the markets of major appliances have been mature and reaches an oligopolistic equilibrium (Figure 10). The Chinese market of ACs, refrigerators and washing machines are dominated by Midea, Haier and Gree, followed by Hisense. In terms of market share, Gree is the leader in residential and central air-conditioning; Haier is the leader in refrigeration and washing machines; both are followed by Midea with only small difference. Under the stable competitive landscape and demand, in the past few years the leading companies and the industry as a whole has jointly experienced steady and foreseeable growth.

■ **Moderate growth is expected** because of there is a relatively large number of these products already in use, especially for ACs. Sales of ACs are typically influenced by housing demand. In addition, WMs and refrigerators are anticipated to have higher growth due to more frequent technological upgrade than ACs. China will remain the world's largest purchaser and producer of major household appliances due to the world's biggest population and housing industry.

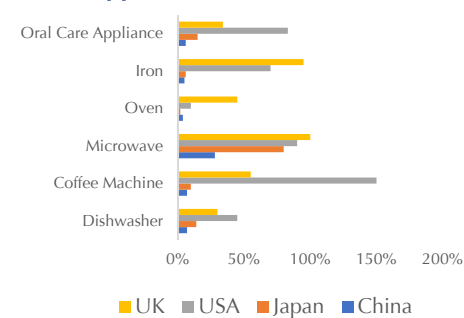
Small Appliances

■ **Small appliances have large variety.** They can be categorized into kitchen appliance, personal care appliance, and environmental and houseware appliance and the kitchen appliance has the largest market size (Figure 12). In total, there are more than 100 different kinds of small appliances. Compared to the major appliance, the small appliance has greater variety in product types. The large variety of small appliances provides room for product line extension which will further create new market demand.

■ **Consumption upgrade driven by incremental improvement and new product development.** Compared with large appliances, small appliances have shorter service life (Figure 13) and lower switching costs. Product replacement of appliances with universal penetration, such as kitchen appliances, are expected to be driven by incremental improvement of product performance; while the demand for emerging product categories such as personal care and environmental appliances will be created and stimulated by new product development.

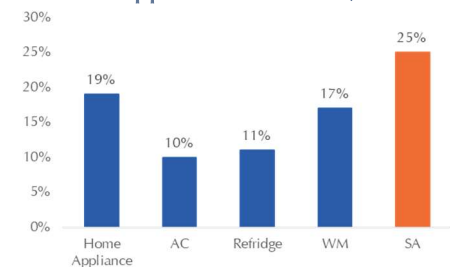
■ **Growth potential is large in China and other developing countries due to the low current penetration (Figure 14).** Average ownership of small appliances per household is 10 in China, which is significantly lower than that of 20-30 in western countries. Therefore, together with the rising income, the Chinese market of small appliances will be further exploited. Another growth driver is the rising penetration of western small appliances in China, such as toasters, ovens, coffee machines. Currently, the penetration in China is still lower than Japan, let alone western countries. Therefore, there exists a great potential for sales of western small appliances in China; the sales growth rates of these appliances largely outpace the traditional Chinese appliances such as rice cookers. This is due to the increasing acceptance of western lifestyle, especially

Figure 14 Market Penetration Rate of Small Appliances, 2016



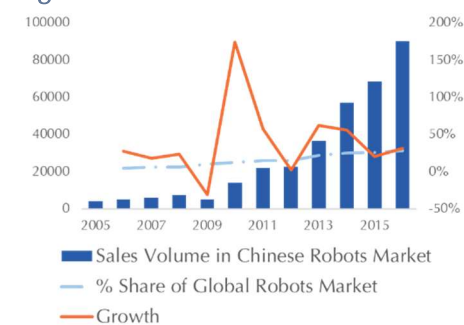
Source: Euromonitor

Figure 15 E-commerce Penetration Rate of Small Appliances in China, 2015



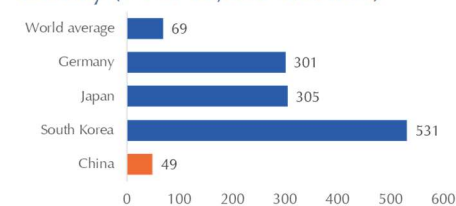
Source: Euromonitor

Figure 16 Chinese Robots Market



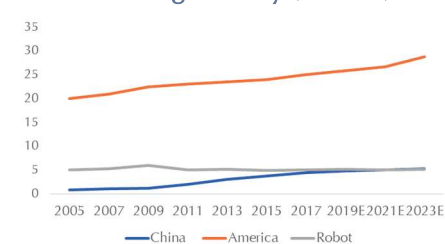
Source: The International Federation of Robotics

Figure 17 Global Industrial Robot Density (# Per 10,000 Workers)



Source: The International Federation of Robotics

Figure 18 Labor Cost Per Hour in Manufacturing Industry (in USD)



Source: The International Federation of Robotics

when millennials are becoming the main force of consumption. Given China as a typical case, such condition is expected to be similar in other developing countries.

- **E-commerce penetration rate of small appliances is high (Figure 15).** The small appliance is typically suitable for online retail because of small size and no need for professional installation. Therefore, the popularization of online shopping is expected to boost sales of small appliances. However, there also presents some concerns; the entry barrier to the online retail of small appliances is low, thus new market entrants, especially those with competitive prices, will trigger competition and reshuffle versus existing major market players.

Robotics Industry

- **Stock Markets:** Europe and North America have high automation level and steady demand for industrial robots. In America, President Trump claimed to restore the manufacture ability of America by bring manufacture industry plants back to the U.S. Industrial robots will become the key to achieve so because of its production efficiency and low cost compared to human labor forces (Figure 18). According to Soochow Security's estimation, the CAGR of U.S. industrial robot quantity sold could reach 19%, 15% and 10% in optimistic, neutral and conservative views, respectively.

- **Incremental Market: China and General Industry.** Main driver for robotics industry is the increasing needs of automated manufacture in emerging countries, especially in China (Figure 16), which has become the world's largest consumer of robotics products for five consecutive years since 2013. Also, China's production of industrial robots in the first half of 2017 accounted for 1/3 of the world's total production. This growth comes from two parts. First, China's industrial robot density is evidently lower than other countries and the world's average (Figure 17). According to the National Development and Reform Commission, China is aiming to reach 170 per 10,000 workers in 2020, indicating a tremendous growth potential for the future. Second, the aging workforce in China had caused issues like labor shortage, rising labor cost, and slowdown in productivity, creating demand for industrial automation (Figure 18). In particular, due to the one-child policy, China will have 35% population older than 60 by 2050, becoming the most aging country in the world.

Industry Overview and Competitive Positioning

Household Appliances

■ Overview of Competitive Advantages

- **Integrated Industrial Chain for Cost Reduction and Operation Efficiency:** The aforementioned self-owned R&D centers, manufacturer components and supply chain have reduced the Group's dependence on other upstream and downstream firms, and enabled it to minimize costs and conduct flexible inventory management. Midea has the most complete industrial chain compared with its peers (Figure 19). particular, with "Large Logistics" strategy supported by Annto, Midea outperforms its competitors by saving logistic cost of around 200 million RMB every year.

- **Wide Product Range for Diversified Revenue Stream and Risk Decentralization:** Midea's product lines become more evenly contributory to its revenue growth – its dependency on ACs constantly reduces since 2013. In contrast, the main competitors' revenues mainly rely on one or two main products. This helps Midea to spread risks and maintain superior performance when unfavorable conditions of some products occur.

Furthermore, M&As and joint ventures complement Midea's existing product mix. Compared with its competitors, Midea has better capabilities of covering different market needs. Midea absorbed TLSC to compensate for its shortcoming in high-end products. Also, the integration with Clivet, Eureka and Cuchen further enhances Midea's current strengths in ACs and environmental appliances.

- **Fast Global Expansion with Outstanding Margin:** By 2016, Midea ranked second with 4.6% market share in global household appliance market. Compared with its domestic competitors, Midea has the strongest overseas revenue stream (Figure 22). Also, Midea enjoys a significantly greater overseas gross margin of 25% (Figure 21). The participation in different markets raises Midea's risks tolerance in domestic market, and more importantly, guarantee a high potential growth. While sales growth in developed countries is stable yet limited due to market maturity, the emerging markets in developing areas like Southeast Asia and Central and South America witness a surprisingly growing demand for imported household appliance due to demographic and economic expansion and relatively low household appliance penetration. Midea has the superiority in global market share and profitability compared to domestic competitors, and has greater capacity to control costs through its global manufacturing

Figure 19 Industrial Chain Completeness of Midea, Gree, and Haier

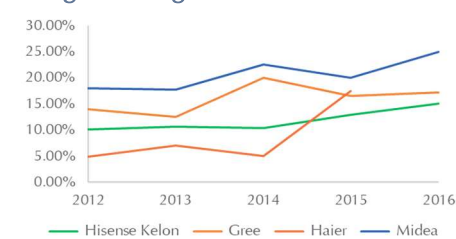
Comparison of Industrial Chain			
	Midea	Gree	Haier
Product Development	☆☆☆	☆☆☆	☆☆☆
Components Production	☆☆☆	☆☆	—
Manufacturing	☆☆	☆☆☆	☆☆
Logistics	☆☆☆	—	☆☆
Retailing	☆☆	☆☆☆	☆☆

Figure 20 Comparable Companies' Revenue Composition, 2016

	Midea	Gree	Haier
AC	42.0%	81.3%	15.7%
RF	9.4%	-	30.4%
WM	10.1%	-	19.7%
SA	27.2%	-	16.0%
Motor	4.5%	-	-
Logistics	3.2%	-	15.5%

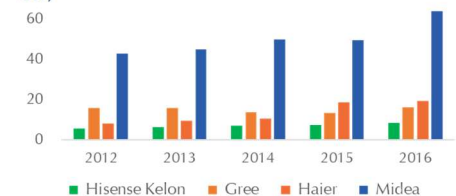
Source: Company Annual Report

Figure 21 Growth of Overseas Gross Margin among Peers



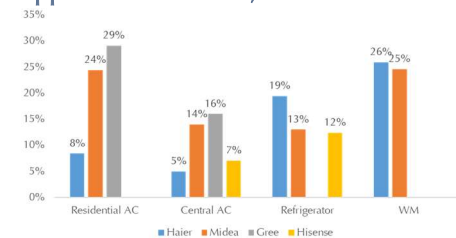
Source: Capital IQ, Team Analysis

Figure 22 Overseas Revenue (in CNY, bn)



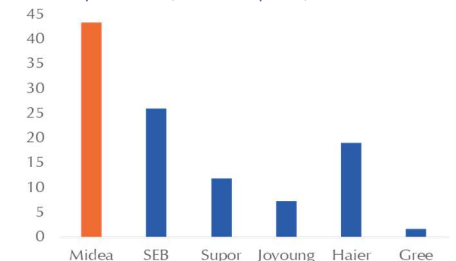
Source: Capital IQ

Figure 23 Market Share of Major Appliances in China, 2016



Source: ChinaOL

Figure 24 Small Appliances Sales in China, 2016 (in CNY, bn)



Source: Capital IQ

advantage than other international counterparts.

Major Appliances

- As a brand with a long history in China and the market leader by sales in 2016 according to Euromonitor, Midea establishes a reliable brand image for customers and is expected to maintain customers' trust and commitment for a considerable time period.
- The balanced performances across all product categories** of major appliances enable to resist depression of a certain type of product.

Small Appliances

- Midea's has outstanding performance in the growing small appliance market – its total sales rank first in China (Figure 24).
- Domestic Market: The Midea brand has overwhelming market share in the kitchen appliance market.** In particular, market shares of rice cookers, induction cookers, electric pressure cookers, and electric kettles have ranked first for 14 consecutive years. Midea's success in kitchen appliances is attributed to its R&D capabilities. For example, the Midea's has invented a high-end IH rice cooker that can compete with that of Japan and South Korea in quality, but sells in lower price. Such product type has been widely used in Japan and South Korea but is still at introductory stage and has huge growth potential in China.
- Global Market: Through continual efforts of M&As and joint ventures, Midea can enter developed markets using well-established foreign brands.** For example, Electrolux still takes 10% of the global market share in the vacuum cleaner market, and the sales of Toshiba's vacuum cleaner and electric cooker keeps in the top four in Japan market.

Robotics and Industrial Automation (KUKA)

KUKA has considerable growth potential with specialized technology: Continuous innovation and special focus on robotic control algorithm are the main competitive advantages of KUKA so that company could hold firmly its position despite its relatively smaller market share. Compared to its competitors, KUKA's possesses the highest growth rate in terms of revenue and profit (Figure 25). After the acquisition, company would also own the supply chain and market advantages in China thanks to Midea's domestic network. Thus, KUKA is estimated to maintain its high growth rate and gradually narrow down the distance between other Big Four (Figure 25).

Investment Summary

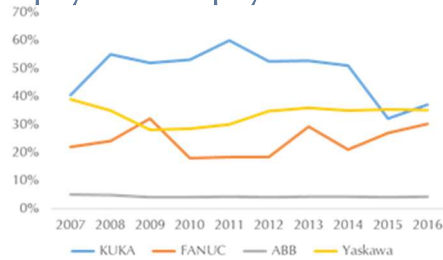
Investment Thesis

We issue a buy recommendation on Midea with a 12-month target price of 65.53 CNY per non-voting A share and a total return of 23.98% from its closing price of 53.70 CNY on 15 December, 2017. Sum-of-the-Parts Valuation approach, including Discounted Cash Flow to Firm with tailored terminal model and Acquisition multiples, were used to derive the target price in a comprehensive manner.

Investment Drivers

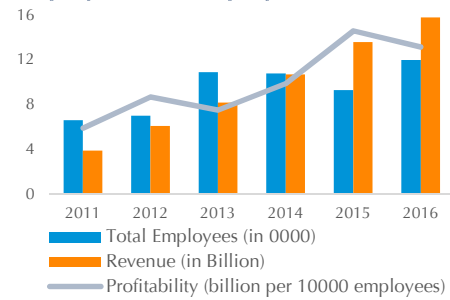
- Top Enterprise of White Goods with Stable Performance and Considerable Growth.** Midea is the only leading enterprise of white appliance with highly comprehensive value chain and diversified product portfolio. As an oligopoly, Midea has captured overwhelming market share and established strong brand equity, both contributing to its stable performance. Moreover, Midea is expected to generate large growth due to its strategic transformation from cost leadership to differentiation by continuously upgrading and differentiating its products with advanced technology, especially in small appliances sector.
- M&As enabled international business expansion, product portfolio diversification, and risk decentralization.** Midea's revenue growth is expected to be stable and robust due to its business expansion in new global markets and new product lines through extensive mergers and acquisitions. The horizontal integration of Toshiba (Japan), Eureka under Electrolux (Sweden), AEG (Germany), Cuchen (Korea) helped to diversify and advance Midea's own product portfolio, enabling Midea to satisfy different layers of needs and wants with comprehensive and premium offerings. Moreover, Midea now has easier access to the global market with other brands well-established technology, channels, partnerships, reputation, etc.
- Effective cost reduction by Vertical Integration and Economies of Scale.** Costs are expected to be further reduced by mass production and productivity upgrade. As Midea's businesses expand, the corresponding economies of scale will pare down labor costs and improve productivity. Moreover, by the vertical integration of value chain and the acquisition of KUKA and Servotronics, Midea will enhance its operational efficiency.

Figure 25 Increase in Profitability per Employee with Employees decreased



Source: Capital IQ

Figure 26 Increase in Profitability per Employee with Employees decreased



Source: Company Annual Report

Figure 27 Sum-of-the-Parts Valuation Result

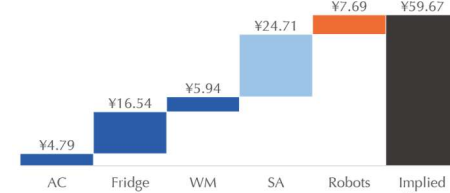


Figure 28 Appliance DCF Summary

DCF Summary - Base Case (in CNY, mm)

Implied Enterprise Value	
AC	¥31,063
Fridge	¥107,189
WM	¥38,505
SA	¥160,081
Implied Appliance Enterprise Value	¥336,838

Terminal Value Assumptions

2-Stage Terminal Growth Multiple (AC)	4%	2%
2-Stage Terminal Growth Multiple (Fridge)	7%	3.5%
2-Stage Terminal Growth Multiple (WM)	7%	3.5%
Terminal EV/EBITDA Multiple (SA)	18.34x	

WACC Assumptions and Calculation

Assumption	
Global Cost of Equity Assumptions	
Risk-free Rate	3.96%
Market Return	12.68%
Corporate Tax Rate (China)	15.00%
Corporate Tax Rate (Germany)	32.00%
Appliance Capital Structure Assumptions	
Debt/Capitalization for AC	21.58%
Debt/Capitalization for Fridge	17.84%
Debt/Capitalization for WM	19.10%
Debt/Capitalization for SA	31.44%
Appliance Cost of Debt Assumption	7.44%

Calculations

	Unlev. Beta	WACC
Appliance Division		
AC	0.955	12.60%
Fridge	0.839	11.45%
WM	0.651	9.96%
SA	0.742	10.72%
	Lev. Beta	Cost of Equity (Adj.)
Midea Group	0.816	9.82%

- **Large Growth Potential for Small Appliances.** Compared with developed countries, household ownership of small appliances is significantly lower in developing countries which implies huge market potential. Due to the income growth and consumption upgrade, demand for quality small appliances is expected to increase in China.
- **Synergies with KUKA to boost product upgrade, cost reduction, and business expansion.** Under the trends of consumption upgrade, it's do-or-die for appliance manufacturers to develop smarter products and improve productivity to meet the ever-changing needs. The acquisition of KUKA, along with the aforementioned intelligent manufacturing, had strengthened the intellectualization of Midea's products. By leveraging KUKA's advanced technology, Midea can upgrade its existing product functionality, creating more integrated and intelligent home ecosystem – Midea's core business focus in the future. Also, with KUKA' modern and efficient production robotics, Midea will be able to optimize its production process to achieve cost-effectiveness (Figure 26). Moreover, the Swisslog under KUKA will help Midea to develop information technology and smart logistics. After the acquisition, Midea also expands its businesses to the robotics market which is expected to boom in the incremental market according to the aforementioned analysis.

Valuation

Our target price is derived using a Sum-of-the-parts approaching, applying valuation methodologies including DCF with growth terminal, DCF model with exit multiple terminal, and Acquisition Multiple. We arrived at an implied share price of 59.67 CNY and a 12-month target price of 65.53 CNY.

Given the diversified business lines and multifaceted market conditions of Midea, we believe that a single valuation method is not able to accurately capture the intrinsic value of each business sector. Within the electrical appliance industry, the market condition and growth potential are by no means alike between major appliance and small appliance, let along its robots and automation division. Therefore, we employed an equally sophisticated approach—Sum-of-the-Parts approach with tailored adjustments to each business division to identify its unique business driver, financial performance, and operating risk nature. We valued major appliance division by 5-year DCF with two-stage growth terminals, small appliance division by 5-year DCF with EV/EBITDA exit terminals, and robot's division by acquisition multiples, then add them up to obtain an overall enterprise value for Midea.

5-year DCF model for major and small appliance division

Given the stability and predictability of cash flows in terms of growth and profitability, we adopted a discounted cash flow model to estimate the intrinsic value of for both major and small appliance division with separate modelling inputs. For each division, we applied tailored growth rate, terminal value calculation, and WACC in order to incorporate its business-specific risk profile and analyze its present value more accurately. We believe this approach would reveal each sector's specific market conditions, performance drivers, and profitability indicators, allowing for a more rigorous proforma forecasts and a flexible reflection for changes over time. The major appliance sector consists of Midea's household and central AC, heating and ventilation systems, RF, and WM, while small appliance sector mainly consists of its kitchen appliance, cleaning machines, and environmental appliance. In addition, we estimated the discount rate for each division separately and applied terminal growth model and exit multiple model to uncover its terminal value.

The DCF model is formulated using historical financial and operational data, revenue growth, industry outlook, competitive positioning, and company guidance. The accuracy of the perceived enterprise value is highly sensitive to the following factors, the derivation of which are explained as follow:

Weighted Average Cost of Capital("WACC")

The WACC and cost of equity were calculated separately to fairly value each subsegment and reflect sector-specific risk level. We derived the weighted-average unlevered betas for each sector on the basis of public comparable peer analysis and re-levered the results for each appliance segment's specific capital structure. The beta weight is calculated in accordance with comparable companies' market capitalization and segment revenue proportions. Based on the consolidated debt level of the whole company, we formulated the asset and liabilities for each business sector and derived the capital structure for Appliance Division, which we note as a necessary and rigorous way to value each segment's free cash flow and terminal value. Given each division's specific business nature and risk conditions, we believe that discounting at a single discount rate as a holistic valuation attempt would fail as it improperly consolidated the risks of robots and other business of Midea, to the appliance division. The comprehensive WACC calculations and supporting data are shown in Appendix A3.

■ Revenue Growth and EBIT Margin

We estimate the growth rate for AC, Fridge, Washing Machines and small appliance will continue their recent growth trajectory based on historical 4-year CAGR, and over time the revenue growth will become stable in the second phase projection, as in-line with the industry characteristics and management guidance. Though Midea has shown significant growth in washing machines and refrigerators over the past several years, the domestic market for major appliance is rather saturated, moving forward Midea will encroach upon their peak revenue generation level, limiting the future growth. Also, although the small appliance market is expected to remain buoyant, driven by the well-accepted idea of consumption upgrade, surging demand for intellectualized products, and favorable governmental support, we still derived the revenue growth for small appliance by using the revenue CAGR for the past 4 years due to the uncertain market potential and viewed this as a conservative estimation. The EBIT margin is forecasted utilizing a "ramp approach" for each business sector, reaching 11%, 10%, 9% and 15% for major AC, fridge, washing machines and small appliances, respectively. This steady growth projection is based on the judgement that the vertical integration of industrial chain of Midea would improve its overall cost control and operating efficiency, yielding higher profit margins. We note that the historical revenue and margin performances has incorporated both domestic and oversea presents, and our estimation is relatively conservative as oversea market is forecast to grow faster.

■ Terminal Value

Different terminal valuation models were used for major and small division based on bifurcated assumption of market conditions.

- **For major appliance division**, we applied the terminal growth model for each sector as we forecast the market to be highly saturated at ultimate mature stage and decay further due to the risk of long-term recession, taking the history of global leading appliances company, like Toshiabi and GE, who was once the industry giant and later sold out its business line, as a mirror. Due to the relatively long-time window to reach the ultimate mature stage, we divide the terminal growth into 2 stages to allow for a steady growth rate decay. We note that the 2-stage terminal growth rate forecasted for refrigerators and washing machine are higher than AC, as in accordance with the historical section revenue CAGR performance.

- **For small appliance division**, the terminal exit multiple approach is adopted as an alternative for terminal growth model because the market growth potential would remain strong within the forecasting period. The LTM EV/EBIT multiple of 18.34x is derived from the multiple median of industry comparable peers in the small appliance market over the past 3 years. (Appendix A2)

Figure 29 Acquisition Multiple Summary (in mm)

Transaction Summary	
Announcement Date	2016/5/18
Definitive Agreement Date	2016/6/16
Cash Price Per Target Security (€)	115.00 €
Shares Sought (in mm)	32.24
Consideration to Shareholders	3,707.60 €
% Sought	81.05%
Implied Equity Value	4,574.46 €
LTM Net Income (Q2, 2016)	75.20 €
Implied Equity Value/LTM Net Income	60.83x

Acquisition Multiple Valuation	
LTM Net Income (Q3, 2017)	86.70 €
Implied Equity Value/Net Income Multiple	60.83x
Current Implied Equity Value	5,274 €
Add: Total Debt for the Robotics (Q3, 2017)	1,348 €
Implied Enterprise Value	6,622 €
% Ownership	94.55%
Exchange Rate from EUR to CNY	7.86
Value of Midea Ownership Interest of Kuka	¥49,225

Figure 30 Sum-of-the-Parts Summary

(in CNY, bn, except per share data and shares OS)	
Division	Total Attributable Enterprise Value
Major Appliance	¥176.76
Small Appliance	¥160.08
Robot	¥49.23
Midea Enterprise Value	¥386.06
Less: Cash and Cash Equiv. (Q3, 2017)	(¥41.66)
Add: Total Debt (Q3, 2017)	¥39.27
Midea Implied Equity Value	¥383.67
LTM EBITDA	¥22.24
Implied EV / EBITDA	17.36 x
Current Share Price	¥53.70
Midea Implied Equity Value	¥383.67
Shares Outstanding	6,519,637,198
Implied Share Price	¥59.67
Upside (Downside)	11.12%
12-Month Target Price	¥65.53
Annual Dividend	¥1.05
Total Return	23.98%

Acquisition Multiple for Robot Division

The acquisition multiple model, a relative valuation method, was applied to derived Midea's robot and automation division, considering the timeliness of the acquisition of KUKA (announced on May 2016 and finalized on June 2016 and the openness and fairness of the purchase. We used the Implied Equity Value/ LTM Net Income multiple of 60.83x on the definitive agreement date as the valuation predictor, and derived an equity value from its most recent 1-year earnings (4Q2016-3Q2017). We believe the implied value is only a conservative approximation which not yet fully accounts for the rosy business outlook after the acquisition, evidenced from the roaring revenue generation of KUKA after the acquisition (revenue YoY growth 27% for 1Q-3Q2017), nor does it incorporate KUKA's synergy effect to Midea's original business after completing its industrial chain.

Sum-of-the-Parts Summary

Our valuation arrives at an implied equity value of 59.67 CNY based on reasonable financial forecasts and tailored valuation methodologies. The cost of equity for the Midea is calculated based on the weighted average beta of pre-acquisition beta of the company and KUKA. Using a cost of equity of 9.82%, we derived a 12-target price of 65.53 CNY. The annual dividend is estimated to be 1.05 CNY based on the recent dividend payoff policy combined with the estimated net income in 2017, which added up to a 12-month total return of 23.98%. We note that a big valuation increase for small appliance sector is reasonable and in accordance with the market trend, evidenced from the fact that the small appliance industry P/E(TTM) has increased from 25x-30x further to 30x-40x from 2010-2016, higher than that of Major appliance (16x-25x), as small appliance market is increasingly concentrated and witnessing a high-end trend, improving distribution and management ability.

Financial Analysis

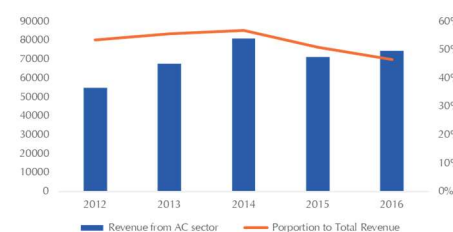
Key Financials	2012	2013	2014	2015	2016
Profitability & Growth					
Revenue Growth	10.3%	18.1%	17.4%	-2.1%	14.7%
Total Asset Growth	22.4%	10.5%	24.1%	7.1%	32.4%
Gross Margin	22.6%	23.5%	25.7%	26.3%	27.7%
Net Profit Margin	6.0%	6.8%	8.2%	9.8%	9.9%
ROA	7.7%	9.0%	10.7%	10.9%	10.6%
ROE	18.5%	21.2%	25.5%	24.3%	23.0%
Operation Analysis					
Days sales of Inventory	46.79	45.12	38.00	26.99	35.20
Asset turnover	1.17	1.25	1.18	1.08	0.94
Fixed Asset Turnover	1.29	1.31	1.31	1.12	1.07
Liquidity & Leverage Analysis					
Current Ratio	1.09	1.15	1.18	1.30	1.35
Quick Ratio	0.83	0.88	0.98	1.15	1.18
Interest coverage ratio	-	46.74	34.25	27.57	40.66
Debt/Asset ratio	0.51	0.62	0.60	0.62	0.57
Shareholder Ratios					
Dividend Payout ratio	58.4%	63.4%	40.1%	40.3%	44.0%

Source: Company Annual Report

Figure 31 Midea's Revenue and Net Profit



Revenue of AC Division



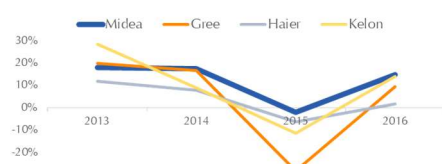
Source: Company Annual Report

Figure 32 ROE Decomposition

	2012	2013	2014	2015	2016
Net Profit Margin	6.0%	6.8%	8.2%	9.8%	9.9%
Asset Turnover	1.2	1.3	1.2	1.1	0.9
ROA	7.0%	8.6%	9.7%	10.6%	9.3%
Asset/Equity	2.6	2.5	2.6	2.3	2.5
ROE	18.5%	21.2%	25.5%	24.3%	23.0%

Source: Company Annual Report

Figure 33 Revenue Growth Comparison



Source: Company Annual Report

Figure 34 Midea's Sales Breakdown by Region (in CNY, mm)



Source: Company Annual Report

Solid Revenue Growth Driven by Business Transition and Oversea Sales

From 2012 to 2016, Midea has shown significant growth in revenue and net income attributed to shareholders with 4-year CAGR of 9.25% and 19.2%, respectively. In 1Q-3Q2017, both revenue and net profit has soared to a record-high 186.9B and 15B RMB, far exceeding the total number of FY2016. It is primarily driven by (i) strategic transformations, (ii) strong demand and dominating market shares in air conditioning market, and (iii) an increase in overseas revenue.

■ **Midea is the prime leader of white electronic market in terms of revenue.** Even during unusual economics shocks and industry overcapacity in 2015, Midea limited its revenue decline to only 2% and still managed to achieve a 17% growth in profit while its peers suffered an 10% decrease on average, showcasing the stability and sustainability in its performance. The 4-year CAGR of net profit (20.9%) is greater than that of total assets (14.2%) and net assets (15.7%), signaling its progress in strategic transformation from quantity-oriented to quality-oriented. Its core competency growth is increasingly promoted by its technological innovation, multi-brand penetration and clever use of leverages.

■ **The Air Conditioner (AC) division contributed more than 44% percent of Midea's total revenue and has increase by 40.3% in 1H2017** due to hot weather in summer and industrial stock replenishment. While the net profit kept growing, the decrease in the proportion of AC in total revenue since 2014, alongside numeric growth in small electronics, presents an attractive opportunity for Midea to better stabilize its performance and resist industrial risks through product diversification.

■ **In 2016, Midea generated over RMB 64 billion revenue from overseas markets,** accounting for 40% of its total sales. It is ranked the second largest household electronic company globally with 4.6% of the total shares over the world. Alongside the recovery of global economy and China's export structure upgrading, Midea can leverage its complete industrial chain and R&D strength transit from "made in China" to "intelligent manufacturing in China", capture tremendous profit and strengthen its tolerance of domestic market risks.

Improving Margin Driven by Revenue Growth and Operation Efficiency

The implementation of T+3 Made-To-Order model and all-factor lean management systems have reduced days sales of inventory from 47 days in 2012 down to 35 days in 1H2017, continuously accelerating operation efficiency and improving business cycles and cash flow management. Considering the current rising raw material price, exchange rate fluctuation and integration of acquired business, forward-looking profit margin are projected to be constrained. Although the industrial average margin is tightening, we forecast that the long-term growing trend will continue due to improved cost control and shift in product mix. Also, Midea needs to further strengthen its asset utilization and resource integration efficiency after active acquisitions.

Healthy Financial Leverage and Liquidity

Midea shows an improving current ratio from 1.09 to 1.35, allowing them to meet their short-term commitments with current assets as cash and short-term investments, but not too high to obscure its fund utilization efficiency and profitability. They also kept a healthy proportion of total asset that are financed with debt around 60%, stating a low probability of bankruptcy in an economic downturn and stronger ability in securing additional funding. Midea has more than adequate operating profit to repay its interest although experienced swings in their interest coverage ratios during recessions in industrial 2015, the average number far exceeds the industry average 9.7x. This trend is sustainable as it gradually reduced its indirect financing from domestic banks with higher cost and increased the relative low-cost financing from overseas commercial papers and banks loans.

Strong Revenue Contribution from New Acquisitions

Since 2010, Midea has formulated its long-term expansion strategy by extending its business layout and upgrading the product structure after the extensive acquisitions including KUKA Robotics (94% outstanding shares), Toshiba Appliance (80.1%), and Clivet S.p.A (80%) in 2016, funded through syndicated loan and company's own fund. The strong performances of the acquired enterprises are exceeding expectations.

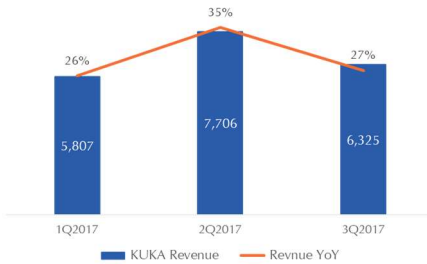
■ **KUKA Robotics has generated RMB 5.81 billion in 1H2017** and enjoyed YoY revenue growth over 35% and reached new quarter highs of orders number. KUKA's fast development in China also increased the group's overall automation level in

Figure 35 Improving Margin



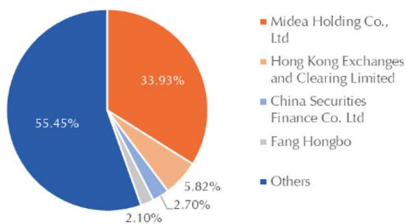
Source: Company Annual Report

Figure 36 KUKA Revenue growth, Q1Q3, 2017 (in EUR, mm)



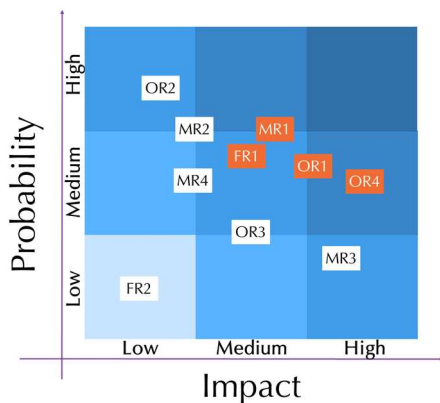
Source: Company Annual Report

Figure 37 Midea's Major Shareholders



Source: Company Annual Report

Figure 38 Risk Assessment Matrix



Source: Team Analysis

Figure 39 Correlation between Chinese Real Estate Growth and Appliance Sales Growth



Source: Wind, China Securities Journal

manufacturing and logistics, bringing mutual benefit and common progress.

- **Toshiba has generated RMB 7.53 billion** and is expected to turn losses into gains in 2017 due to reducing costs by using Midea's production facilities and integrating sales channels, leveraging its distribution in Asia to extend Midea's presence in global home appliance. These acquisitions not only expanded Midea's brand segmentation and global market coverage, but also integrated business sectors and completed the product chain, giving Midea the ability to improve sales revenue and profit margins, ultimately driving top line growth.

Corporate Governance

Incentive Mechanism

Midea Group distinguishes itself by its effective incentive mechanism. The company has up to now launched four stock option incentive plans, one restricted stock incentive, and three senior management "partner" stock ownership plans for key managerial and technical personnel, aligning the interest of management and shareholders. The company has also designed unique other approaches to appropriately motivate its employees. For senior management, the appraisal rewards are target-orientated and annual-performance-based. The R&D department encourages an open and innovative atmosphere and performances are assessed on a project-specific basis. Salaries in Midea are designed to be multi-dimensionally determined, including fixed salary, floating salary, performance bonus, special awards, and stock options.

Shareholder Structure

The Midea Group currently issues 6,548,526,400 A-shares, with 3.24% restricted ones held by domestic investors and 96.76% circulating, and has not issued any preferred stock. A-stock holders are entitled the rights to vote in annual or general meetings regarding major shifts of the company, including election of board of directors, transformations, merger, acquisition, and spin-offs. Midea Holding Co., Ltd. as the largest shareholder represents 33.93% economic interest of the company and He Xiangjian, board chairman of Midea Holding, is the actual controller of the Company. Also, as an incentive strategy, the company is constantly issuing new incentive stock options to its employees and management.

Investment Risks

Market Risks

- **MR1: Market Saturation of Large Appliances:** The large household appliances produced by Midea include AC, washing machine, and refrigerator. The overall domestic AC market remains stagnant from 2014 to 2016, and 75% of demand was replacement. Likewise, the overall refrigerator market increased only 0.9% the refrigerators sold domestically even decreased by 13.5% in 2016. The present demand for the large appliances is mainly resulted from the need for appliance replacement, indicating that the sales of large appliances would probably not increase significantly. The risk lies in whether Midea could achieve product transition and reduce the cost successfully, which also hinges on the level of integration of KUKA's manufacture technique.
Impact: Medium Probability: Medium-high
- **MR2: Changeable Demand and Product Replacement for Small Appliances:** Midea has shown its leading position in small kitchen appliances. As the small household appliance market possesses enormous potential in China, it could be the new source of growth in the future. However, due to the hedonic treadmill (users' tendency to adapt quickly to changed circumstances), customers will quickly get used to the new products and their initial excitement will tone down. As a result, such ever-changing demand further spurs rapid advances and replacement of small appliances, and thus emergence and popularization of new products. Risks exist in this changing market as Midea might fail to precisely understand consumers' needs and capture new market trend.
Impact: Medium-low Probability: Medium-high
- **MR3: International Trade Barriers.** Midea's overseas sales and performance would be influenced by the raw material expense, labor cost, tariff and regulations of the local markets. Therefore, if there are increasingly stricter trade barriers in target markets, especially in India, Africa, and ASEAN, they will affect sales of Midea. Also, KUKA's largest market, the United States, has announced to have more trade barriers to rebuild its economic strength. Such restriction, like increasing tariff, would further lower profit margin of KUKA, posing more challenges to Midea on improving profitability.
Impact: High Probability: Medium-low
- **MR4: Fluctuation of Real Estate Industry.** Statistics show flourishing of real estate industry will boom the household appliance market, especially for large appliances.

Figure 40

Business Sold by Leading Companies Recently	
Sony	Sold Laptop business "VAIO" together with 5,000 redundancies (2017)
Toshiba	Sold chip business, TV business(2017) and White Goods business (2016)
General Electric	Sold household appliance business (2016)
Siemens	Sold household appliance business (2014), OSRAM (2017) with 6,500 redundancies

Source: Tencent Tech, Sina Tech, GE, Sony, Toshiba's Company Filings

Figure 41 Sensitivity of Major Appliance's Gross Profit to Raw Material

Gross Profit Sensitivity				
% Change of Raw Material Expense		-10%	10%	20%
% Change of Major Appliance's Gross Profit				
Plastic	AC	0.6%	-0.6%	-1.2%
	Refrigerator	2.2%	-2.5%	-4.9%
	Washer	1.3%	-1.3%	-2.6%
Steel	AC	1.1%	-1.1%	-2.2%
	Refrigerator	1.1%	-1.4%	-2.7%
	Washer	1.4%	-1.3%	-2.7%
Copper	AC	1.3%	-1.4%	-2.8%
	Refrigerator	0.8%	-1.1%	-2.1%
	Washer	0.8%	-0.8%	-1.6%

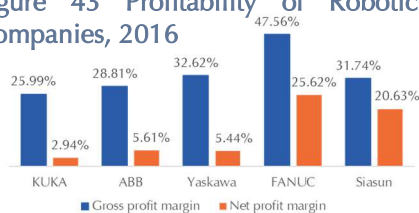
Source: Wind, China Securities Journal

Figure 42 Core Unit Production Capacity Comparison

Company	Controller	Servo Motor	Reducer
KUKA	Self-produce	Outsourcing	Outsourcing
FUNAC	Self-produce	Self-produce	Outsourcing
Yaskawa	Self-produce	Self-produce	Outsourcing
ABB	Self-produce	Outsourcing	Outsourcing
Siasun	Self-produce	Outsourcing	Outsourcing

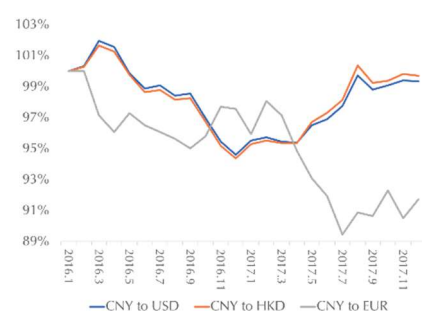
Source: China Securities Journal

Figure 43 Profitability of Robotics Companies, 2016



Source: Wind

Figure 44 Exchange Rate Fluctuation



Source: Bloomberg

Nevertheless, the domestic real estate market is likely to cool down in the few years as the Chinese government is planning to enact policies to controlling the housing price, including limitation on purchase in the first and second tier cities, increase in the interest rate and the property tax.

Impact: Medium-low Probability: Medium

Operational Risks

- **OR1: Future Depression Risk Referring to The Leading Appliance Companies.** Midea has put an effort in the global extension of brands and lines. Nevertheless, given the struggling performance of the foreign leading companies in the similar market, Midea might face the similar concern with Sony, Toshiba, General Electric and Siemens in the long run as they recently sold or slashed their business division to ease the expense burden, eager to transform into the asset-light companies. The poor performance and gradually mature business are the reasons behind these urgent sells. Thus, these foreign cautionary examples indicate the recent fabulous increase might not be readily sustained in the long term for Midea.

Impact: Medium-high Probability: Medium

- **OR2: Integration Challenges.** Despite facts that the impressive acquisitions of Toshiba and KUKA brought new market, technology, and reputation, new Midea Group faces challenges of digesting the differences in order to make full use of the acquisition advantages. As KUKA's industrial robot's technology is more advanced than original ones of Midea, due to the not-high average educational level of Midea's staff, employees might take time to learn and understand KUKA's manufacture technique before being massively used for the product line of the large appliances, which indicates that the expected growth and efficiency improvement might not be fully reached.

Impact: High Probability: Medium

- **OR3: Uncertainty of Kuka's Future Bargaining Power and Profitability.** The core tech-intensive parts of KUKA's robots are not self-produced yet provided by third-party upstream firms, so they have more bargaining power over KUKA. The weak bargaining power results in the profitability concern. Before KUKA's acquisition, Midea had the aggregate gross margin of 27.39% in 2016. However, the gross margin decreased in every business in the first half 2017 by 2%-5%, and the overall gross margin reduced by 2.7% to 25.1%. Likewise, the similar scenario also occurs in net profit margin which decreased by 2.1% to 7.8% in the first half 2017. The reason for the decreased profitability may be KUKA' acquisition, as KUKA's net profit margin was only 2.9%.

Impact: Medium Probability: Medium-low

- **OR4: The Fluctuation of Raw Material Expense..** After the increase in the second half 2016, the price of primary raw material has entered a high stage with short-term variation, and probably would remain heavy for the relative companies in the foreseeable future. Nevertheless, its kernel position in the whole supply chain and the economies of scale give Midea high bargaining power over its suppliers. Also, Midea does not rely much on its major suppliers, top five of which only account for 4.82% of its total procurement amount. These advantages provide the company with flexibility when raw material price fluctuation occurs.

Impact: Medium-low Probability: Medium-High

Financial Risks

- **FR1: Exchange Rate Fluctuation.** The large proportion of overseas businesses inevitably creates asset and liability in foreign currency, while the final settlement is in RMB. Therefore, exchange rate fluctuation has significant influence. The major foreign exchanges are USD, EUR, and HKD. If the rate of RMB to the foreign currency increased by 10% in 2016, there would be a 473,988,000 RMB loss to Midea group. Comparing to the possible loss of 175,190,000 RMB in 2015, Midea's global market expansion indeed raised the risk of the exchange rate. Midea focused more on financial derivatives in 2016 to mitigate this risk, as it turned financial losses in 2015 into gains in 2016.

Impact: Medium Probability: Medium-high

- **FR2: Interest Rate Risk.** The amount of long-term liability with interest Midea held in 2016 was 71 million RMB, smaller than the number in 2015 (83.8 million RMB). Since the company keeps close monitoring in bond interest rate and the amount of bond was not significant, 300,000 losses would come to the company if the rate went up by 50%, which was only a slight impact on the corporation.

Impact: Low Probability: Low

Section A: Valuation & Financial Analysis

Appendix A1: Appliance Discounted Cash Flow Model (in CNY, mm)

	2017E	2018E	2019E	2020E	2021E	2022E
Air Conditioning						
Revenue from External Customers	80,178	86,484	93,286	100,623	108,536	117,073
Operating expenses	(72,561)	(77,835)	(83,491)	(89,554)	(96,597)	(104,195)
EBIT	7,617	8,648	9,795	11,068	11,939	12,878
Taxes	(1,151)	(1,307)	(1,481)	(1,673)	(1,805)	(1,947)
Unlevered Net Income	6,466	7,341	8,314	9,395	10,134	10,931
Add: Depreication and Amortisation	1,821	2,068	2,298	2,561	2,863	3,210
Less: Capital Expenditure	(1,084)	(1,400)	(1,304)	(1,493)	(1,710)	(1,962)
Less: Changes in WC	3,875	1,426	2,208	2,248	2,866	3,550
Unlevered Free Cash Flow	3,327	6,583	7,101	8,216	8,422	8,629
WACC (Air Conditioning)	9.97%					
Discount Fator	100.0%	90.9%	82.7%	75.2%	68.4%	62.2%
PV of Unlevered Free Cash Flow	3,327	5,986	5,871	6,178	5,758	5,365
EBITDA	9,438	10,716	12,093	13,630	14,802	16,088
Terminal Growth Rate	Stage 1 (2023E-2027E): 4%		Stage 2 (2028E-): 2%			
Terminal Value						132,124
Discount Fator						56.5%
PV of Terminal Value						74,703
Implied Enterprise Value	107,189					
Washing Machine						
Revenue from External Customers	22,332	28,225	35,673	45,087	56,984	72,020
Operating expenses	(20,322)	(25,600)	(32,284)	(40,578)	(51,285)	(64,818)
EBIT	2,010	2,625	3,389	4,509	5,698	7,202
Taxes	(288)	(376)	(485)	(646)	(816)	(1,032)
Unlevered Net Income	1,722	2,249	2,904	3,863	4,882	6,170
Add: Depreication and Amortisation	152	172	192	213	239	267
Less: Capital Expenditure	(737)	(952)	(887)	(1,015)	(1,163)	(1,334)
Less: Changes in WC	1,022	433	764	916	1,368	1,985
Unlevered Free Cash Flow	114	1,036	1,444	2,145	2,590	3,118
WACC (Washing Machine)	10.72%					
Discount Fator	100.0%	90.3%	81.6%	73.7%	66.5%	60.1%
PV of Unlevered Free Cash Flow	114	936	1,178	1,581	1,723	1,874
EBITDA	2,162	2,797	3,580	4,722	5,937	7,469
Terminal Growth Rate	Stage 1 (2023E-2027E): 7%		Stage 2 (2028E-): 3.5%			
Terminal Value						57,301
Discount Fator						54.3%
PV of Terminal Value						31,099
Implied Enterprise Value	38,505					

	2017E	2018E	2019E	2020E	2021E	2022E
Refrigerator						
Revenue from External Customers	20,843	26,815	34,499	44,385	57,103	73,465
Operating expenses	(19,384)	(24,804)	(31,567)	(40,390)	(51,963)	(66,853)
EBIT	1,459	2,011	2,932	3,995	5,139	6,612
Taxes	(235)	(323)	(472)	(642)	(827)	(1,063)
Unlevered Net Income	1,224	1,688	2,461	3,352	4,313	5,548
Add: Depreication and Amortisation	303	345	383	427	477	535
Less: Capital Expenditure	(781)	(1,008)	(939)	(1,075)	(1,232)	(1,413)
Less: Changes in WC	742	332	661	811	1,234	1,823
Unlevered Free Cash Flow	5	693	1,244	1,893	2,325	2,848
WACC (Refrigerator)	11.46%					
Discount Fator	100.0%	89.7%	80.5%	72.2%	64.8%	58.1%
PV of Unlevered Free Cash Flow	5	622	1,001	1,367	1,507	1,656
EBITDA	1,763	2,356	3,315	4,422	5,616	7,147
Terminal Growth Rate	Stage 1 (2023E-2027E): 7%		Stage 2 (2028E-): 3.5%			
Terminal Value						47,742
Discount Fator						52.2%
PV of Terminal Value						24,905
Implied Enterprise Value	31,063					
Small Appliance						
Revenue from External Customers	50,056	56,909	64,702	73,561	83,633	95,084
Operating expenses	(43,298)	(48,942)	(55,320)	(62,527)	(71,088)	(80,821)
EBIT	6,758	7,967	9,382	11,034	12,545	14,263
Taxes	(1,057)	(1,246)	(1,467)	(1,726)	(1,962)	(2,231)
Unlevered Net Income	5,701	6,721	7,914	9,308	10,583	12,032
Add: Depreication and Amortisation	759	862	958	1,067	1,193	1,337
Less: Capital Expenditure	(1,735)	(2,240)	(2,087)	(2,388)	(2,737)	(3,140)
Less: Changes in WC	3,438	1,314	2,115	2,241	3,011	3,931
Unlevered Free Cash Flow	1,287	4,029	4,671	5,746	6,028	6,298
WACC (Small Appliance)	12.61%					
Discount Fator	100.0%	88.8%	78.9%	70.0%	62.2%	55.2%
PV of Unlevered Free Cash Flow	1,287	3,578	3,683	4,024	3,749	3,478
EBITDA	7,516	8,829	10,339	12,101	13,738	15,600
Terminal EV/EBITDA Multiple	18.34 x					
Terminal Value						286,066
Discount Fator						49.04%
PV of Terminal Value						140,283
Implied Enterprise Value	160,081					

	2017E	2018E	2019E	2020E	2021E	2022E
Consolidated (Appliance Division)						
Revenue from External Customers	173,409	198,434	228,160	263,654	306,255	357,642
Operating expenses	(155,566)	(177,182)	(202,662)	(233,049)	(270,934)	(316,687)
EBIT	17843	21252	25498	30606	35322	40954
Taxes	(2,731)	(3,253)	(3,905)	(4,687)	(5,410)	(6,272)
Unlevered Net Income	15,113	17,999	21,593	25,919	29,912	34,682

Net Working Capital Schedule

Accounts and Other Receivables	36,416	43,103	49,576	55,948	62,937	72,011
Inventory	16,231	20,159	23,383	25,912	28,499	33,386
Accounts Payable	26,886	32,022	38,421	46,117	53,223	61,710
Accrued Expenses	4,878	5,810	6,971	8,368	9,657	11,197
Deferred Revenue	7,226	8,269	9,508	10,987	12,762	14,903
Net Working Capital	13,656	17,160	18,060	16,389	15,795	17,586

Add: Depreciation and Amortisation

Less: Capital Expenditure	(4,338)	(5,600)	(5,216)	(5,971)	(6,842)	(7,849)
Less: Changes in WC	9,077	3,504	5,747	6,217	8,478	11,289

Unlevered Free Cash Flow	4,733	12,342	14,460	18,000	19,364	20,893
---------------------------------	--------------	---------------	---------------	---------------	---------------	---------------

DCF Assumptions - EBIT Margin

EBIT Margin (AC)	9.5%	10.0%	10.5%	11.0%	11.0%	11.0%
EBIT Margin (Fridge)	7.0%	7.5%	8.5%	9.0%	9.0%	9.0%
EBIT Margin (WM)	9.0%	9.3%	9.5%	10.0%	10.0%	10.0%
EBIT Margin (SA)	13.5%	14.0%	14.5%	15.0%	15.0%	15.0%

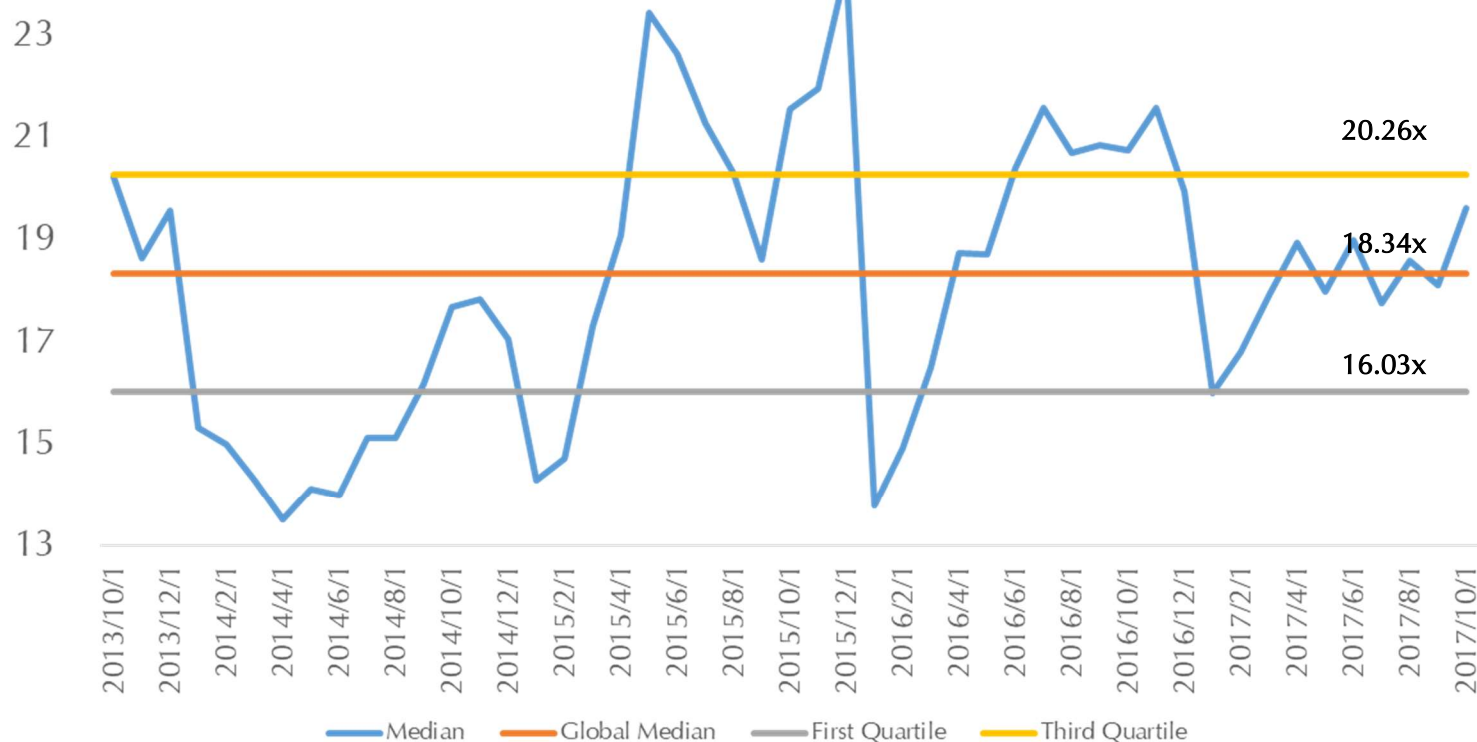
DCF Summary (in CNY, mm)

Implied Enterprise Value

AC	¥31,063
Fridge	¥107,189
WM	¥38,505
SA	¥160,081
Implied Appliance Enterprise Value	¥336,838

Appendix A2: Small Appliance Terminal Multiple Assumptions

The terminal EV/EBITDA multiple for small appliance was determined through a 3-year trading multiples analysis of comparable companies in the small appliances subsector. The global median (second quartile) of the 3-year trading multiples analysis was used as the terminal multiple. The chosen competitor set included: Robam Appliances (SZ:000243), Aishida Electric (SZ:002403), Joyoung Co.,Ltd (SZ:002242), Xinbao Electrical Appliances (SZ:002705).



Appendix A3: WACC Assumptions and Calculations

Important assumptions:

- Risk-free rate is assumed to be the 10-year Chinese Government of Bond Yield
- Beta is calculated on a weekly, three-year historical basis.
- Market return is calculated as the three-year CAGR of the CSI 300 Index
- Statutory Tax Rate of 15% for Midea Group, and Tax Rate of each subsector is derived by using their competitors.
- Each subsector will keep a steady capital structure as of 2016.

Comparable Companies Analysis (Subsector Unlevered Betas)

Company Name	Market Cap (in CNY, bn)	Proportion of Revenue from Subsector	Statutory Tax Rate	Debt/Equity	Beta	UnLevered- Beta
Air Conditioning						
Hin Kelon (SZ:000921)	20,972	38.84%	15.12%	1.90%	1.21	1.19
Hefei Meiling Co., Ltd. (SZ:000521)	5,735	53.31%	15.12%	35.70%	1.02	0.78
Gree Electric Appliances (SZ:000651)	287,552	80.00%	15.12%	33.50%	0.81	0.63
Weighted Ave.						0.65
Refrigerator						
Aucma Company Limited (SH:600336)	4,031	60.70%	16.08%	47.90%	1.12	0.80
Hefei Meiling (SZ:000521)	5,735	33.19%	16.08%	35.70%	1.02	0.78
Guangdong Homa Appliances (SZ:002666)	12,080	93.43%	16.08%	26.50%	1.05	0.86
Weighted Ave.						0.84
Washing Machine						
Wuxi Little Swan (SZ:200418)	33,474	90.37%	14.32%	1.90%	0.69	0.68
Hin Kelon (SZ:000921)	20,972	23.91%	14.32%	1.50%	1.21	1.19
Whirlpool China (SH:600983)	5,787	60.78%	14.32%	45.54%	0.85	0.61
Weighted Ave.						0.74
Small Appliance						
KingClean Electric (SH:603355)	18,911	-	15.64%	22.70%	1.48	1.25
Xinbao Electrical Appliances (SZ:002705)	9,965	-	15.64%	19.80%	0.98	0.84
Joyoung (SZ:002242)	13,884	-	15.64%	31.49%	0.86	0.68
Zhejiang Aishida Electric(SZ:002403)	4,176	-	15.64%	38.70%	1.11	0.83
Weighted Ave.						0.95

* The weight coefficient is set based on the market cap and proposition of revenue from corresponding subsector.

Consolidated Capital Structure Calculation

	2012	2013	2014	2015	2016
Short-term Borrowings	5,105	8,973	6,153	4,658	3,151
Long-Term Borrowing	2,388	711	19	90	2,254
Other Long-Term Liabiliti	1,372	362	1,056	237	9,684
Total Debt	8,866	10,047	7,229	4,985	15,090
Total Liabilities:	54,571	57,865	74,561	72,810	101,625
Debt/Liabilities	16.25%	17.36%	9.70%	6.85%	14.85%
Average Debt/Liabilities	13.00%				

Appliance Capital Structure Calculation (As of 2016)

	Total Liability	Total Asset	Debt/Total Lia	Total Debt	Debt/Equity
Air Conditioning	51,839	75,672	13.00%	6,720	28.20%
Refrigerator	8,254	13,064	13.00%	1,070	22.25%
Washing Machine	13,600	20,891	13.00%	1,763	24.18%
Small Appliance	42,648	54,416	13.00%	5,529	46.98%

CAPM and WACC for the Appliance Subsectors

Cost of Equity Calculation					
		Air Conditioning	Refrigerator	Washing Machine	Small Appliance
Risk-Free	3.96%				
Market Return	12.68%				
Market Risk Premium	8.72%				
Unlevered Beta		0.65	0.84	0.74	0.95
Debt / Equity		28.27%	22.31%	24.25%	47.11%
Tax Rate		15.12%	16.76%	14.32%	15.64%
Beta (Levered)		0.81	0.99	0.90	1.33
Cost of Equity		11.00%	12.63%	11.79%	15.60%

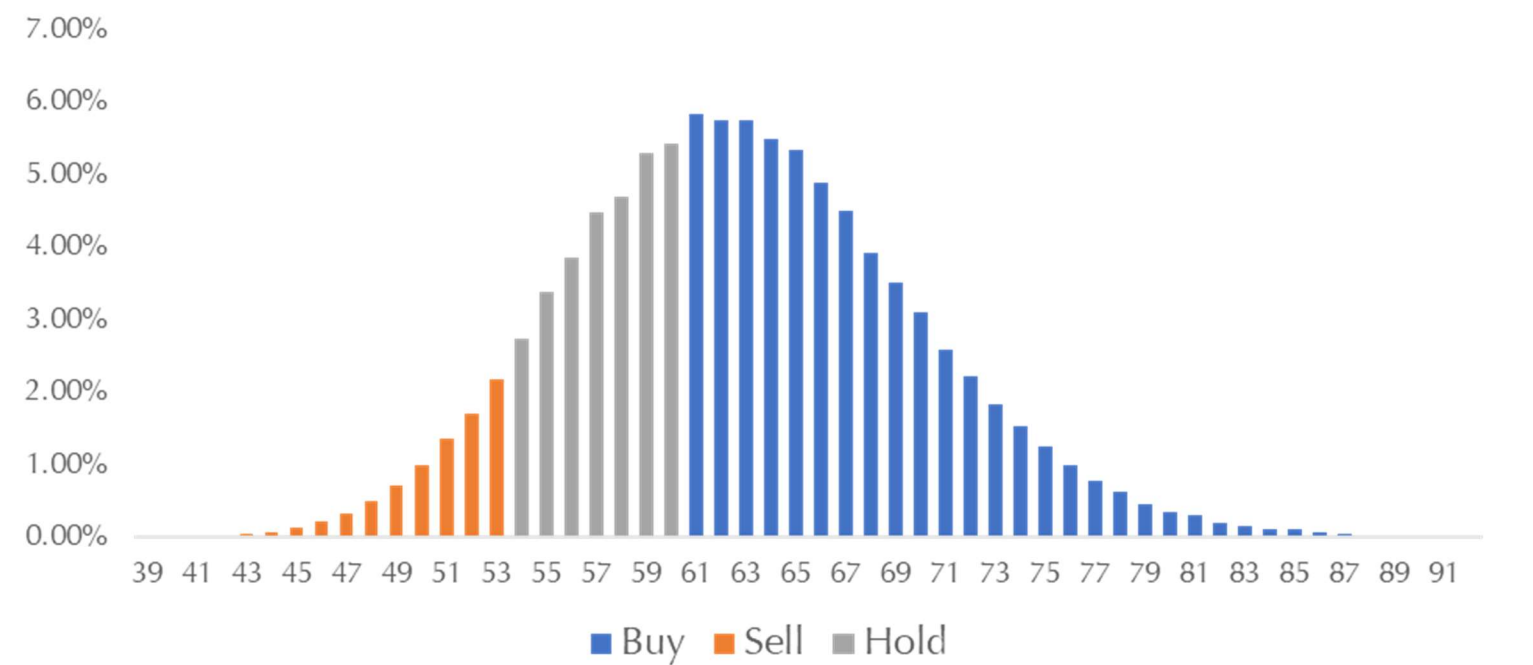
Weighted Average Cost of Capital Calculation					
		Air Conditioning	Refrigerator	Washing Machine	Small Appliance
Equity/Capitalization		77.96%	81.76%	80.48%	67.98%
Cost of Equity		11.00%	12.63%	11.79%	15.60%
Debt / Capitalization		22.04%	18.24%	19.52%	32.02%
Cost of Debt		7.44%	7.44%	7.44%	7.44%
Tax Rate		15.12%	16.76%	14.32%	15.64%
Beta (Levered)		0.81	0.99	0.90	1.33
WACC		9.97%	11.45%	10.73%	12.61%

Appendix A5: Monte Carlo Simulation

A Monte Carlo Simulation is performed to estimate the sensitivity of our model to the variations in our valuation assumptions about our implied share price and target price. We tested three factors related to revenue growth (1) Total revenue growth (2) Revenue growth in the large appliance business (Air conditioning, Refrigerator, Washer) (3) Terminal growth of the large appliance business. Regarding other ratios, we emphasize (4) EBIT/Revenue in every business sectors, (5) Multiple of the small appliance (evaluated based on its public comparable company’s peer set) and (6) The percentage of Depreciation & Amortization to the Non-Current Asset. Lastly, regarding the acquisition of KUKA, (7) EV/LTM net income is taken into consideration.

After executing 100,000 simulation we observed 66.9% potential of obtaining a target price above 10% upside or CNY ¥ 59.07 per share. Finally, an only 4.4% probability of the stock downgraded (5% downside) to a sell.

Variables	Mean	Standard Deviation
KUKA (EV/LTM Net income)	60.83	10.14(Mean/6)
EV/EBITDA Multiple (Small appliances)	Rivals' Median	Rivals' STD
Revenue Growth (Small appliances & Large appliances)	Historical Average	Historical STD
Terminal Growth (Washing Machine and Fridge)	7.00%	1.17%(Mean/6)
Terminal Growth (AC)	4.00%	0.67%(Mean/6)
Total Revenue Growth	Historical Average	Historical STD
Depreciation & Amortization % Non-Current Asset	Historical Average	Historical STD
EBIT/Revenue (large appliances)	Historical Average	Historical STD



Section B: Company Analysis

Appendix B1: Shareholder's Summary

Investor Name	% Outstanding	Position	Value (CNY)	Filing Date	Investor Type	Equity Assets (CNY)	Country
Midea Holdings Co., Ltd.	34.09%	2,212,046,613.00	90,694,189,320.01	31-08-2017	Strategic Entities	91,582,025,528.60	China (Mainland)
Fang Hongbo	2.11%	136,990,492.00	7,516,926,494.37	01-12-2017	Strategic Entities	6,053,594,490.35	China (Mainland)
Hillhouse Capital Management Ltd.	1.76%	113,891,138.00	4,669,550,980.93	31-08-2017	Investment Managers	58,190,954,776.48	China (Mainland)
Huang Jian	1.36%	87,980,000.00	3,607,191,064.36	31-08-2017	Strategic Entities	3,848,232,054.06	China (Mainland)
Xiaomi Technology Co., Ltd.	1.27%	82,500,000.00	3,382,510,375.20	31-08-2017	Strategic Entities	3,415,622,917.58	China (Mainland)

Source: Thomson Reuters

Appendix B2: Corporate Management

The management team consists of experienced talents from different backgrounds. Most of the presidents of the company joined Midea in 1990's and have undergone the major transitions of the group. Fang Hongbo, the current CEO and Chairman of the group, has accumulated 25 years of experience in Midea's different business segments including marketing and air conditioning, and was elected as president in 2013. Fang has led Midea to undertake a series of transformations and upgrading to drive the industry trend and has also helped Midea maintain a remarkable performance in the industry downtrend caused by excessive competition in 2015. Other management members are all equipped with comprehensive education and rich experience within the company or in related industry. The management's advanced management philosophy as well as insight and vision about the industry is believed to keep Midea quickly adjusting to the dynamic market and meeting shareholders' expectations.

Important Members of Directors, Supervisors and Senior Management

Name	Position	Starting Year of Tenure	Age	Education Background	Background
Fang Hongbo	Chairman and President	2012	50	Master	Joined Midea in 1992. Previously served as the General Manager of the Midea Air-Conditioning Business Department, the President of Midea Refrigeration Electric Appliances Group, the Chairman and President of GD Midea Holding Co., Ltd.
He Jianfeng	Director	2012	50	Bachelor	Also take the position of the Chairman and President of Infore Investments Holding Group Co., Ltd.
Gu Yanmin	Director and Vice President	2014	54	Doctor	Joined Midea in 2000. Functioned as Midea Group's Planning & Investment Head, Midea Air-Conditioning & Refrigeration Group's Overseas Strategy & Development Head, Vice President and Head of Overseas Business Expansion in the Marketing Department, and Midea Group's Head of Overseas Strategy.
Li Feide	Director and Vice President	2012	40	Master	Joined Midea in 1999. Served as the Company Secretary, the Strategic Operation Head, the Operational Management Head, and the President's Assistant.
Hu Xiaoling	Director	2012	47	Master	Used to be a Senior Auditor for Arthur Andersen Accounting Firm and Senior Manager of Direct Investment Department in China International Capital Co., Ltd before she joined the company. Now also serve as the Managing Director of CDH Investments Management (Hong Kong) Limited.
Liu Min	Chairman of the Supervisory Committee	2016	40	Master	Joined Midea in 1998. used to be the General Manager of an overseas marketing company under Midea's Household Air-Conditioning Division and the Chief Operations Officer of Midea.
Yin Bitong	Vice President	2016	49	Master	joined Midea in 1999. Used to be a general manager assistant and the Chief Marketing Officer of Midea's domestic marketing company for air conditioners, in addition to being a director and the General Manager of Wuxi Little Swan Co., Ltd. Currently also serves as the Household Air Conditioner General Manager.

Appendix B3: Governance Assessment

We use Standard & Poor's Corporate Governance Scores (CGS) methodology to achieve a quantitative measurement of Midea Group's performance in corporate governance.

Standard & Poor's Corporate Governance Score (CGS)

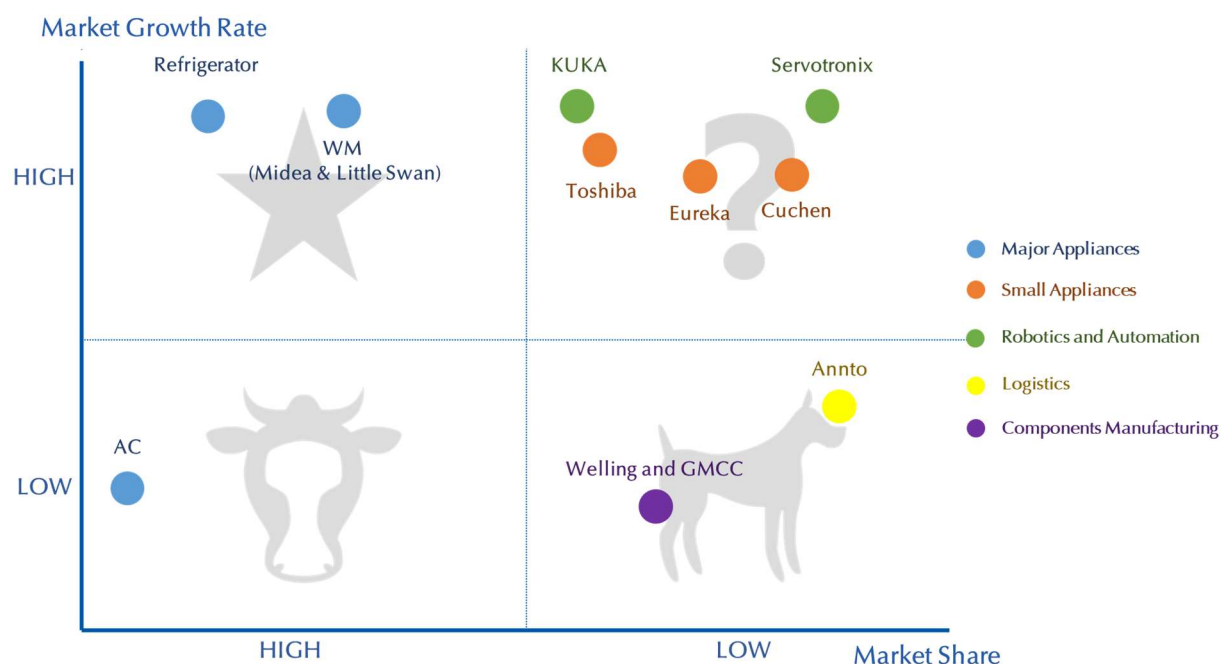
	Score	Weight	Calculation
1. Ownership structure and external influences	9/10	25%	22.50%
Transparency of Ownership Structure	10		
Concentration and Influence of Ownership and External Stakeholder	8		
2.Shareholder Rights and Stakeholder Relations	8.3/10	25%	20.75%
Shareholder Meeting and Voting Procedures	7		
Ownership Rights and Takeover Defenses	7		
Stakeholder Relations	9		
3.Transparency, Disclosure and Audit	8/10	25%	20.00%
Content of Public Disclosure	7		
Timing of, and Access to, Public Disclosure	7		
The Audit Process	10		
4.Board Structure and Effectiveness	7.7/10	25%	19.25%
Board Structure and Independence	6		
Role and Effectiveness of the Board	8		
Director and Senior Executive Compensation	9		
Total Corporate Governance Score			82.50%

Appendix B4: Related Parties

Midea's Major Subsidiaries

Company	Type of Company	Major Service or Product
GD MIDEA Commercial Air-Condition Equipment Co Ltd	Subsidiary	Air Conditioning
GD Midea Kitchen Electric Manufacturing Co Ltd	Subsidiary	Kitchen & Bath Appliance
GD Midea Heating & Ventilating Equipment Co Ltd	Subsidiary	Air Conditioning
Foshan Shunde Midea Electronic Technology Co Ltd	Subsidiary	Small Appliance
Hefei Midea Washing Machine Co Ltd	Subsidiary	Washing Machine
Guangdong Welling Motor Manufacturing Co Ltd	Subsidiary	Motor
Wuhu Meizhi Air Condition Co Ltd	Subsidiary	Air Conditioning
Wuhu Midea Kitchen & Bath Appliance Manufacturing Co Ltd	Subsidiary	Kitchen & Bath Appliance
Guangdong Midea Consumer Electrics Manufacturing Co Ltd	Subsidiary	Small Appliance
Foshan Shunde Midea Washing Appliances Mfg Co Ltd	Subsidiary	Washing Machine

Appendix B5: BCG Matrix Analysis



Stars:

Midea currently ranks second in both refrigerator and washing machine markets, with market shares of 13.0% and 24.6% respectively. There have been considerable average increments of 25.6% and 26.4% per year for Midea's sales of these two product categories since 2013, despite the shock caused by excessive inventories in Chinese major appliance market in 2015. Given its current penetration and continuing growth, these two product business divisions can be considered as "stars" for Midea.

Cash Cow:

Midea enjoys a high market share of 24.40% in AC market with a much lower growth than the other two major appliances. The AC business division is the largest cash generator, accounting for about 50% in the past years. With the continual efforts of product line extension, Midea increasingly reduces its dependence on AC business.

Question Marks:

The newly absorbed business divisions including Toshiba, Eureka, Cuchen, KUKA, and Servotronic are still at the early stage of development in the Chinese Market, indicating huge potential growth in the near future. Nonetheless, they have already established solid foundation in their home countries or even worldwide. For example, Toshiba ranks the top 3 or 4 in different product categories in Japan; KUKA is one of the top 4 players in global robotics industry; Cuchen is the second largest small cooking appliance producer in Korea. With their experience in the field and reliable qualities, they may achieve the same position in China. These companies are expected to grow rapidly and therefore drive the revenue of the Group once they open Chinese market. Risks may also exist when they fail to adapt to the new market. Therefore, these new businesses will be the focus of Midea's investment and operation during the next time period.

Dogs:

Midea's subsidiaries, Welling, GMCC, and Annto have low market penetration and slow growth, very likely due to the fact that they are mainly for internal consumption. In fact, these business divisions play indispensable roles in forming the complete industrial chain. They are considered as great opportunities for Midea once they attempt to extend the businesses outside the company.

Appendix B6: Midea's Global Expansion

1. Midea's Persistent Global Strategic Layout

Midea started its global expansion attempt from 1980s and has undergone three stages of globalization.

STEP 1: Midea Group started with a lowest risk as an OEM (Original Equipment Manufacturer) in the global market. Midea was able to take full advantage of its low labor cost as well as avoid the risks occurring in foreign trade. Midea also learnt from the industry leaders about the cutting-edge crafting technologies and built up close cooperation with the industry leaders. Midea Group managed to grow at a rate of 40% per year under the OEM strategy and received orders from 18 retailer groups and 10 world-known brands.

STEP 2: Midea integrated into international market through share participation and shareholding.

- **Carrier:** Carrier Corporation, one of the leading players in global refrigeration market, was Midea's previous OEM client. When Carrier transformed its focus on B2B, Midea grabbed this chance and took over Carrier's B2C business. In 2011, Midea entered into a joint venture with Carrier and founded Carrier Latin America. This makes Midea the largest air-conditioning manufacturer in Latin America area.
- **Miraco:** Midea acquired the Egyptian Company Miraco with 32.5% shareholding interest in 2010. Midea was able to take advantage of Miraco's brand, market positioning, and channels, which greatly lowered Midea's risk in extending its business in Egypt.
- **Toshiba:** Midea Group took over 80.1% of total shares of Toshiba Lifestyle Products & Services Corporation in 2016, and was entitled Toshiba's brand usage for 40 years and the right to more than 5000 of Toshiba's patents.
- **Clivet:** Midea took over 80% of Italian Company Clivet shares. Midea further increased market share in Europe, at the same time obtained a complete air-conditioning production line and advanced experience in technology management.

STEP 3: Midea made direct investment overseas and operates its original brands.

Overall, Midea adopt localization strategy for global expansion. In developed countries, Midea enters the markets as an OEM. In the emerging markets in less developed areas, it operates its own brand to realize localization. sets up joint ventures abroad, develops distribution channels, and hires local employees. Midea has built up 12 production bases in 6 foreign countries, including Vietnam, Belarus, Egypt, Brazil, Argentina, and India. Midea realizes the "global production, global distribution" strategy instead of "Chinese production, global distribution", in order to provide high-quality products at hand and offer well-rounded after-sales services in local markets.

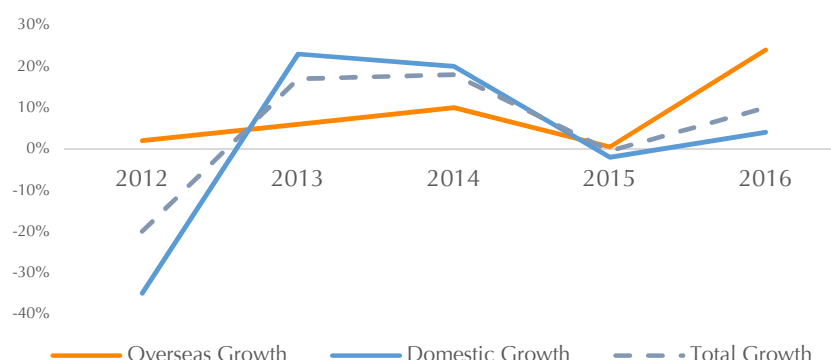
2. Midea's Continuous Overseas Expansion

■ Large Proportion of Overseas Revenue

As a result of long-lasting planning, arranging, and operating, the global strategy has brought Midea a great performance and a major income source. Midea's revenue earned overseas reached 64 billion in 2016, occupying nearly 40% of total. The proportion is expected to exceed 50% in the coming years.

■ Rapid Oversea Growth

Through actively entering new markets or expanding current business in existing markets, Midea's high overseas growth has turned into an income driver for Midea Group. Over the past six years, Midea's overseas revenue kept growing at an average rate of around 10%, while its domestic growth remained at around 6%.



■ Outstanding Performance Among Chinese Peers

Midea's overseas business outperforms its peers in many directions, including overseas revenue, share of overseas revenue, and profitability. Midea has been persistently generating higher revenue overseas when compared to similar large electric groups including Gree and Haier in China. Midea also takes the lead in the industry regarding market diversification: more than 40% of Midea's income comes from abroad, while the average overseas revenue is under 30% for its peers. At the same time, it scales up in the global market, Midea manages to maintain a high profitability as well. Midea's gross profit margin under export sales was 25% in 2016, only 6% lower than in its mature domestic market. Inferring from Midea's continuous growing gross margin from 11.7% in 2010 to 25% at present, Midea has gradually groped its way into the global household appliance market and found out the suitable way for its global operation.

3. Midea's Unyielding Position in The Global Market

Midea has gradually gained a firm position globally with a market share of 4.6%, ranking second among all.

Market Share in Global Household Appliance Market

Ranking	Company	Base Country	Market Share
1	Philips	Netherlands	5.0%
2	Midea Group	China	4.6%
3	SEB	France	4.0%
4	Spectrum Group	US	3.7%
5	Haier-GE Alliance	China&US	3.4%
6	Procter&Gamble	US	2.9%
7	Panasonic	Japan	2.9%
8	Whirlpool	US	2.6%
9	Jardine Matheson	US	2.5%
10	Conair	US	2.3%

Source: Euromonitor

4. Great Potential and Opportunity in The Global Market

While the current global household appliance market concentrates mainly in developed countries led by the US, emerging markets in developing countries can be the largest growing pole in the future. The fastest moving exporters after 2008 financial crisis emerge in Southeast Asia and Central and South America, including Philippine, Sri Lanka, Panama, India, Malaysia, etc. Considering the long-term trend in population expansion and income growth in developing countries, household appliance markets in these emerging areas are expected to shoot up and develop into the fastest growing markets globally.

The emerging markets has a lower rate of household appliance penetration and limited income per household. Therefore, the market expectation for household appliances is acceptable quality offered at affordable price. Midea can take advantage of its global manufacturing and cost control capability, which closely fits the market demand and grants Midea a strong competitive advantage in the emerging markets. Compared to all its domestic peers, Midea is the most internationalized; while compared to international specialized household appliance companies, Midea enjoys the advantage in manufacture and therefore cost control.

Appendix B7: Midea's Merger & Acquisition and Joint Ventures

M&A Summary

Closed Date	Target	Sellers	Primary Industry	Transaction Size (\$mm)	Percent Sold
Jun-30-2011	Jiangxi Guiya Lighting Co., Ltd.	-	Electrical Components and Equipment	29.54	100.00%
Jul-01-2011	Annto Logistics Co., Ltd.	Keppel Logistics Pte Ltd	Air Freight and Logistics	54.51	35.00%
Aug-01-2014	Wuxi Little Swan Company Limited (SZSE:200418)	Hillhouse Capital Management, Ltd. <i>Seller Funds:</i> Gao Ling Fund, L.P.	Household Appliances	2445.14	12.60%
Jan-29-2016	Efort Intelligent Equipment Co., Ltd.	-	Industrial Machinery	-	17.80%
Jun-30-2016	Toshiba Lifestyle Products & Services Corporation	Toshiba Corporation (TSE:6502)	Household Appliances	461.98	80.10%
Oct-31-2016	CLIVET S.p.A.	Bellbru S.R.L.	Industrial Machinery	-	80.00%
Dec-31-2016	Electrolux Home Care Products, Inc.	AB Electrolux (publ) (OM:ELUX B)	Household Appliances	60.00	100.00%
Jan-09-2017	KUKA Aktiengesellschaft (DB:KU2)	-	Industrial Machinery	3707.37	94.55%
Feb-09-2017	Kollmorgen Servotronics Ltd.	-	Industrial Machinery	170.00	

M&A Highlights

- **Little Swan** is a well-known brand engaged in the manufacture of home appliances, particularly washing machines. It is among the 20 most valuable brands in China. The company was established in 1958, when it stood alone as the first washing machine manufacturer in China. Little Swan was acquired by Midea in 2010.
- **Toshiba Lifestyle Products & Services Corporation (TLSC)**
Toshiba's major markets are Japan, Southeast Asia and the Middle East, and it has long dominated the Japan's market. The Business will continue to develop, manufacture and market white goods, such as refrigerators, washing machines, vacuum cleaners and other small domestic appliances under the Toshiba brand name and the current company name. Together with the acquisition, Midea Group will receive the Toshiba brand global authorization for 40 years and more than 5,000 patents related to white household electrical appliance.
Midea and Toshiba will generate incredible synergies. Since Toshiba enjoy premium and prestigious brand image in international market, together with the trend of consumption upgrade, this acquisition enables Midea to elevate brand image and to further explore the rapidly growing Chinese premium market. In addition, the Toshiba's advanced technologies and strong R&D capabilities can be combined with Midea's ability of cost reduction and resources of distribution channels.
- **Clivet S.P.A and Clivet España S.A.U.**
Through this strategic alliance, Midea will reinforce its presence on the European markets, and by leveraging each other's complementary capabilities and resources, the two well-respected enterprises will jointly explore growth opportunities.
- **Electrolux Home Care Products, Inc. (Eureka)**
Electrolux Home Care Products, Inc. was formerly known as The Eureka Company and changed its name to Electrolux

Home Care Products, Inc. in 2004. As of December 31, 2016, Electrolux Home Care Products, Inc. operates as a subsidiary of Midea Group Co., Ltd. It manufactures and distributes vacuum and floor cleaners, and other home and commercial cleaning products in North America. The company also manufactures original and replacement parts and accessories.

Electrolux is a high-end brand while Eureka is a mass-market brand, but it enjoys strong brand equity and distinctive technological advantages provided by Electrolux Group. The brand is well recognized in global market especially in North America and Europe, therefore, this acquisition will accelerate Midea's global expansion.

- **KUKA Aktiengesellschaft (KUKA AG)**

KUKA is a leading global supplier of intelligent automation solutions. This strategic partnership will capitalize on growth opportunities all around the world to unlock the full potential of robotics and automation.

Moreover, Midea and KUKA will generate the following synergies. First, KUKA's advanced technology will help Midea to improve current product performance and to develop Midea's M-smart ecosystem. Second, KUKA can automate Midea's production process and thus increase effectiveness. Third, the Swisslog, a subsidiary of KUKA, can enhance Midea's smart logistics, thus can strengthen its market responsiveness.

- **Kollmorgen Servotronics Ltd.**

Servotronics develops and manufactures comprehensive and high-performance motion control solutions. The company's technological leadership and innovation in motion control will generate significant synergies with Midea in terms of value chain integration and new market development.

Joint Ventures

- **Yaskawa Electric (China) Co.**

In 2015, Midea announced that it intends to set up two joint ventures with Yaskawa Electric (China) Co., a wholly-owned subsidiary of the Japanese robot maker Yaskawa Electric Corporation, one which will build service robots, and another which will build industrial robots. Midea will hold a majority stake of 60.1% in the company making service robots and 49% in the company making industrial robots. Midea plans to focus the service robot operation on manufacturing and selling rehabilitation robots and auxiliary operations robots. The industrial robot firm will center on the integration of robot systems as well as the development, manufacturing and sale of robot products for general industries, including the home appliance industry. This investment in robotics is an extension of the Group's "smart home + smart manufacturing" strategy, by which Midea Group seeks to transform itself from a traditional home appliance manufacturer to a smart hardware company with web-integrated products.

- **Cuchen**

In 2016, Midea and South Korea's Lihom Cuchen Co., Ltd. signed an agreement to establish a joint venture. With \$24m in capital, the joint venture will be 60% owned by Midea and 40% by Lihom Cuchen, and will become operational in April 2016. The joint venture will produce electric cookers bearing the Cuchen brand and will target urban consumers. Lihom Cuchen is a leading South Korean household appliances maker which supplies 40% of South Korea's IH electric cookers.

According to Midea's Consumer Electronics Division Head Li Guolin, Midea will seek to use Cuchen's technical know-how and expertise in high-end IH electric cookers to expand overseas. According to Lihom Cuchen's CEO Lee Dae Hee, the joint venture will combine Cuchen's technical strength and Midea's high production capacity to offer better quality products at a lower price.

- **AEG with Electrolux**

In 2017, Midea signed an agreement with Electrolux to establish a long-term strategic joint venture in China to promote and distribute the premium German brand AEG appliances for Chinese customers.

This partnership, majority owned by Midea, will build on the strengths of both Midea and Electrolux to explore the rapidly growing Chinese premium markets for both B2C and B2B segments. AEG brand will benefit from Electrolux's brand expertise while Midea will provide unparalleled market access and consumer insights. AEG will enhance Midea's advantages in kitchen appliances and also helps Midea's product portfolio to extend upward.

(Source: Company Website, Company Annual Report, Capital IQ)

Appendix B8: Midea's Persistent Effort and Unyielding Advantage in Technology

In accordance with the "Made in China 2025" national plan, Midea as a modern technologies group puts great emphasis on research, development and innovation. Midea started developing its own research institute in 2014. The group is currently developing a customer-orientated, globally competitive, and multi-level R&D system based on its both its own business departments and the centralized research institute. By the end of 2016, 17 research centers has been established in 8 countries around the world.

The group has increased its R&D expenditure by years and accumulatively invested more than 50 million RMB during the past five years, setting up 17 research centers in 8 different countries. In 2016, the company claimed 13,546 patents, including 5,562 for invention, ranking first in the field.

Midea also focuses on recruitment and cultivation of technological talents. The group currently has more than 10,000 R&D staff and more than 300 experts overseas, with a proportion of 10% focusing on frontier developments. Midea also keeps a close coordination with more than 30 top research institutions around the world, including Tsinghua University, Chinese Academy of Science, Massachusetts Institute of Technology, and UC Berkeley. The recently launched global professional recruitment program "Midea Star" aims to attract talents through not only high salary, but also tutoring, training and promotion system.

Midea Group was listed as the most innovative institution both in the household appliance sector and kitchen appliance sub-sector by Thomson Reuters in 2016 for its superior technological performance.

Top 10 Innovative Appliance Institutions Around the World (2015)

Company Name	Nation	Number of Patents
Midea Group	China	5427
Zhuhai Gree Electric Appliances	China	1995
Haier Group	China	1315
Panasonic	Japan	949
Mitsubishi Electric	Japan	948
Samsung	Korea	736
BSH Hausgerate	Germany	697
LG	Korea	690
Hitachi Kucho System	Japan	460
Daikin Kogyo	Japan	446

Appendix B9: Midea's Smart Home

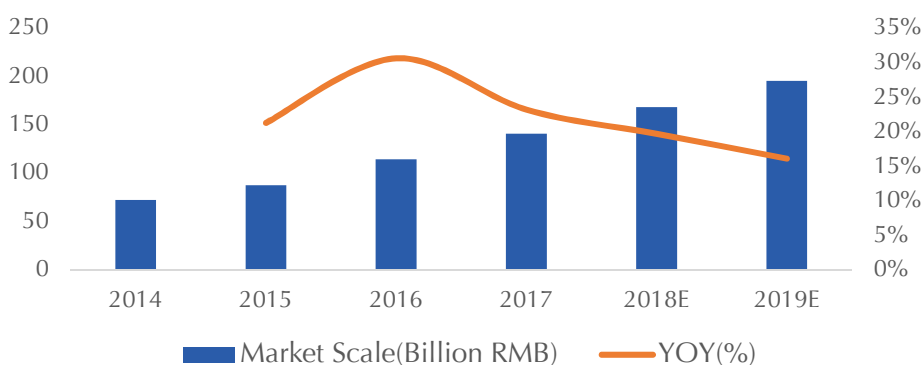
The idea of Smart Home has become increasingly important with the improvement of the technology, productivity, and customers' purchasing power. The 2017 Television Industry Report showed that 90% of the customers have at least one smart-TV at home, while the intelligent goods have already reached 20% of the total electronic products. As one of the leaders among the global household appliance makers and a dominator in the major appliance sectors,

Midea Group provides high-quality, one-stop home solutions through its wide product range, complete with full specifications. Since smart home is gaining popularity, Midea announced the M-smart Intelligent Appliance Strategy in 2014 with 15 billion RMB investment. With a full product line, Midea has had a head start in providing a combined and compatible e-home platform with integrated home solutions for customers.

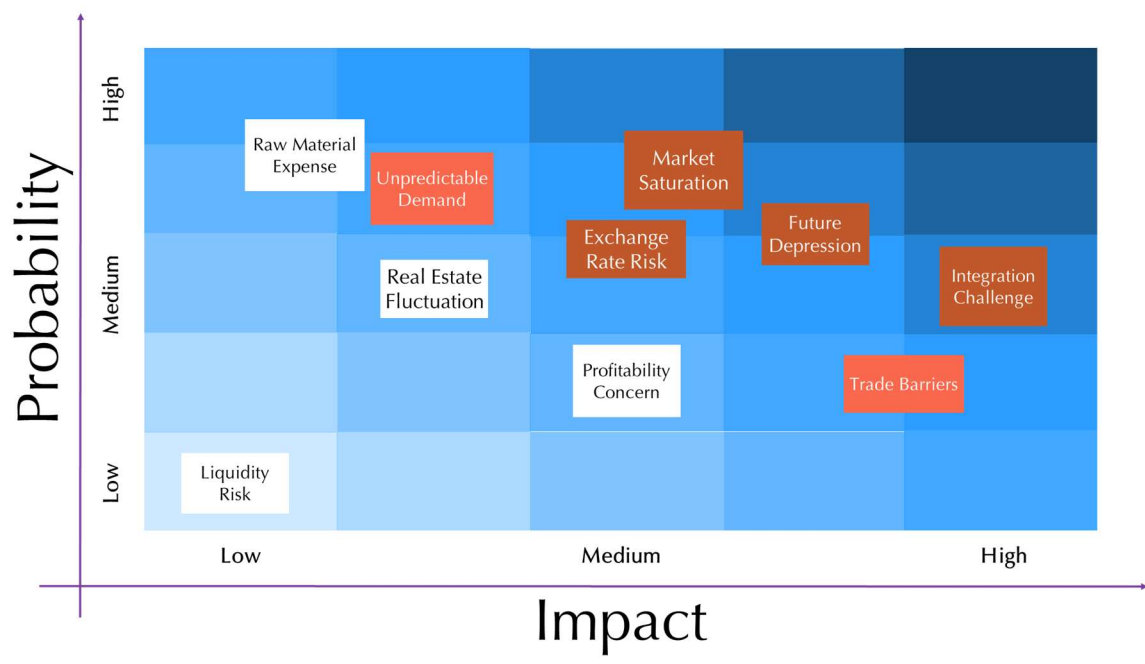
Smart appliances are connected to each other as a whole ecology, which is one primary difference between smart appliances and traditional ones. The company that owns more brands and products would have the competitive advantage of e-appliance's penetration. Presently every household in China has 2.5 Midea's products on the average, which is the highest number among all appliance companies, giving Midea a natural advantage over its rivals in the smart household appliance market.

Intellectualization is an inevitable trend for the traditional household appliances industry. With enormous potential, the market scale of the smart furniture is estimated to reach 195 billion RMB in 2019. As the leading household appliance company with many recent movements toward intellectualization, Midea is predicted to have a bright market future.

Future Marekt of Smart Household Appliance



Appendix B10: Investment Risk Assessment



Market Risk

MR1: Market Saturation of Large Appliances: Impact: Medium Possibility: Medium-high

The saturation of large appliance market has been reflected from different sectors of Midea’s business. As the main demand would come from the third and fourth tier cities, it’s quite certain that the market is nearly mature and would not soar significantly. Thus, product innovation and cost reduction are what Midea needs to differentiate its products from competitors’ and make growth in this oligopoly market. Therefore, the MR1’s possibility is Medium-high. The revenue generated from large appliances accounts for over 50% of its total turnover. Any slight fluctuation could largely influence the performance of the company. But since Midea is the leading company which possesses a renowned reputation and customer loyalty, and operated steadily in the past few years despite bad market conditions, the impact is estimated to be Medium.

MR2: Unpredictable Demand Trend for Small Appliances: Impact: Medium-low Possibility: Medium-high

The changing customer’s demand for the small appliances is inevitable because of its technological characteristics. All the companies in this market should maintain a high innovation level and catch up with customer’s need. Thus, MR2 is given Medium-high possibility. Being the leading company in the household appliance, Midea has proved its accuracy in forecasting the need for small kitchen appliances by taking the 1st place of several products in the market share. Even though the demand trend is difficult to predict, the historical market share ranking proves that the company could always find a solution to maintain its leading position. Thus, the Impact is estimated to be Medium-low.

MR3: International Trade Barriers: Impact: High Possibility: Medium-low

Over 50% of the total revenue is expected to be generated from the exported product in Midea’s future operation. The factors like raw material expense, labor cost, tariff and regulations of local market would largely influence the performance of Midea in the foreign market. Thus, the Impact is estimated to be high. Every country would set trade barriers to protect its domestic industry, but under the trend of globalization, the developing countries, which are Midea’s primary foreign market, would probably not announce to have strict trade barriers. Given America’s policy of bringing back manufacture to the U.S., the overall probability is estimated to be Medium-low.

MR4: Fluctuated Need of Appliance Caused by Real Estate Industry: Impact: Medium-low Possibility: Medium

Previous data has shown the positive correlation between the sales of real estate industry and the performance of the large appliance business. Considerable decreases in real estate sales have been already shown in the first half of 2017. The impact would also depend on the Midea’s innovation ability to generate customer’s need for the appliance replacement to hedge the fluctuation by real estate industry. Since the innovation of Midea is proved from different aspects, the impact of MR4 is estimated to be Medium-low. Although the formal announcement of controlling policy has not published, the real estate market is still relatively unstable in China. Thus, the probability is estimated to be Medium for MR4.

Operational Risks

OR1: Future Depression Risk: Impact: Medium-high Probability: Medium

For now, Midea is expanding globally by acquisition, which gives it an advantage on increasing production capacity and cost reduction. However, these branches could also become the potential burden in the future. This impact is reflected by several leading companies like Sony, Toshiba, and GE, that came across the stagnant growth because of too many unprofitable branches. Figure shows, none of the sales or profit growth could indicate the trend of future increase for Sony and Toshiba — the leading mature appliance companies which have operated for decades but started to perform poorly in the recent years. The effect is significant since it would affect the future growth rate in every business when investors value the company. Therefore, the impact is Medium-high to Midea. The world present leading appliance companies happened to face the same concern, so it is likely that Midea would step into the similar dilemma in the future. Even for now there is still a strong growth potential for the company, the possibility of coming depression should be taken into consideration as well. Thus, the probability of OR1 is estimated to be Medium.

OR2: Integration Challenge: Impact: High Probability: Medium

As KUKA's industrial robot's technology is more advanced than original ones of Midea, due to the insufficient average educational level of Midea's staff, employees might take time to learn and understand KUKA's manufacture technique before being massively used for the product line of the large appliances, which indicates that the expected growth and efficiency improvement might not be fully reached. Based on the difference between average educational level to other developed countries, the possibility is estimated to be Medium. This risk would significantly affect our valuation results by lowering our expected profit margin and growth rate. In the highly mature major appliance market, future competition would squeeze the space of Midea's profit margin further, therefore the speed and effectiveness of integration becomes one of the most important factors in Midea's future performance. Thus, the Impact is estimated to be High.

OR3: Ambiguity Risk of KUKA's Future Bargaining Power and Low Profitability Concern

Impact: Medium Probability: Medium-low

The most inferior margin among the big four robots company also reflects its disadvantage in profitability. The KUKA's core business (47.3% of total revenue), system integration, is already highly mature, automatic and of low profit margin, which means it is difficult to increase the profitability level in the future if KUKA is not to expand its business to other areas. Moreover, its industrial robotics business' major clients are car manufacturers, who have significantly high ability to bargain on price. This drawback also creates investors' concern for the profitability ability of Midea. Thus, the impact would be medium to Midea. As KUKA doesn't possess the bargaining power over the upper stream firms which produce the core units of robots, whether Midea could help it increase the profitability after the acquisition remains to be seen. But as the leading company in appliance with a strong network resource, the possibility of this risk is estimated to be medium-low.

OR4: The Fluctuation of Raw Material Expense: Impact: Medium-low Probability: Medium-high

Being a manufacturing company, Midea would be inevitably influenced by the fluctuation of the cost of material. Thus, the probability is estimated to be Medium-high. Essential raw materials for the large appliance include compressors, motors, steel plate, copper, plastics and so on, among which steel and copper account for about 50% of the total cost. However, as the leading company in the supply chain, Midea possesses bargaining power over its suppliers. Top five of which only account for 4.82% of its total procurement amount, indicating that the company would not be profoundly affected by the fluctuation of raw material expense. Therefore, the impact is Medium-low.

Financial Risks

FR1: Exchange Rate Fluctuation: Impact: Medium Probability: Medium-high

The acquisition of Toshiba, KUKA, and other foreign companies proves that Midea has the scheme for engaging in the global market. In 2016, Company's total export income accounts for more than 40% of the total revenue. Therefore, the exchange rate fluctuation would largely influence the performance and profit level of the company. Even though the exchange rate relative to RMB was unstable in the past year, Midea used the financial derivatives to offset the impact this risk. With the global expansion, Midea pays more attention to mitigate the exchange rate risks, which was better than its competitors (Gree and Haier) regarding financial losses in 2016. Thus the impact is estimated to be Medium and the probability is Medium-high.

FR2: Interest Rate Risk.: Impact: Low Probability: Low

The amount of long-term liability with interest Midea held in 2016 was 71 million RMB, smaller than the number in 2015 (83.8 million RMB). Since the company keeps close monitoring in bond interest rate and the amount of bond was not significant, 300,000 losses would come to the company if the rate went up by 50%, which was only a slight impact to the corporation. Thus, both the impact and probability are estimated to be low.

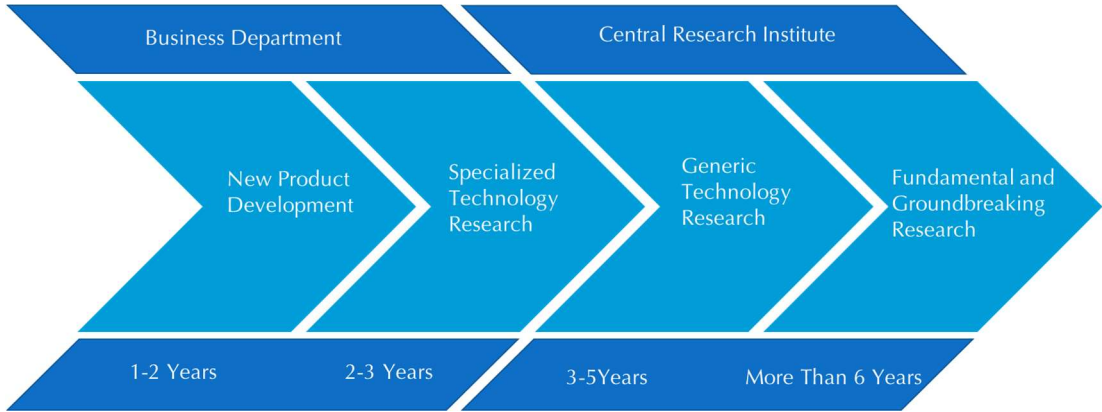
Appendix B11: Midea's Industrial Chain

Midea is equipped with an industrial chain with the most comprehensive coverage across the industry. The industrial chain can be decomposed into: **Upstream** -- Research and Development, Components Production; **Midstream** -- Manufacturing; **Downstream** -- Logistics and Retailing.

1. Upstream Highlights:

■ Research and Development:

Midea has developed a multi-level R&D system. The central research institute focuses on mid-term (3-5 years) generic technology research and long term fundamental or groundbreaking research, while its business department take charge of 1-to-2 years new product development and 2-to-3 years specialized technology research.



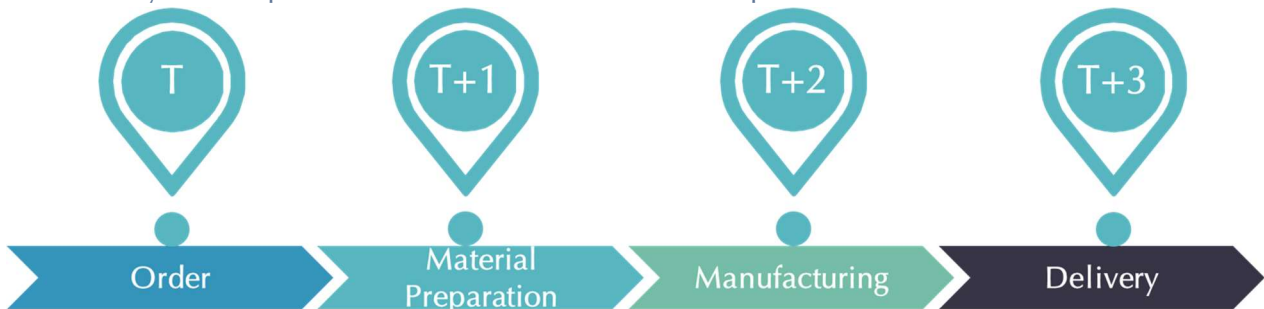
■ Component Manufacturing:

Midea's component business department consists of motor and compressor manufacturing. Welling Holding Limited, the main body of Midea's motor business, is specialized in the research, development, manufacturing, and retailing of motors and its driving system. Welling focuses on AC/DC motors of household and business air conditioning, refrigerator compressor motors, pump motors, household washing motors, and the motors for other household appliances or general machinery. Welling's air conditioning compressor has an annual production capacity of 220 million and possess a global market share of 30%. The company was listed in HKEX with code 00382, and is currently undergoing suspension, very likely due to acquisition negotiation. GMCC, a developer and precision manufacturer of refrigeration and air conditioning compressors, takes up Midea's compressor manufacturing. It has 5.1 million annual capacity for air conditioning compressors and 1.2 million for refrigeration compressors. GMCC managed to maintain its production and sales volume at 4.7 million during the industry downturn in 2015.

2. Downstream Highlights

■ Logistics:

Annto Technology Co. takes charge of Midea's logistics business. Annto has a warehouse coverage of 5 million m2, 86 thousand vehicles available for shifting, more than 3000 last-one-kilometer delivery branches, and full coverage in 2869 cities. The company also provides logistics services to other companies including household appliances, fast moving consumer goods, construction materials, and others. With the help from KUKA, Annto is currently moving towards a smart logistics provider through its smart warehouse integration solution, unmanned warehouse system, and bid data analysis. Its self-developed Kun Peng logistics system has realized connectivity, paper-free, and mobility in the supply chain, and therefore support its clients in warehouse location, product allocation, and inventory supervision. Also, Midea has recently adopted "T+3" order-orientated business model, where the manufacturing starts after rather than before customer's order. This manufacturing model compels the increase in production capacity, saves unnecessary inter-department communication, and also improves Midea's turnover.



Appendix B12: Midea's Stock Option Incentive Plans

Up to 2017, Midea has launched four stock option incentive plans, one restricted stock incentive plan, and three senior management “partner” stock ownership plans for key managerial and technical personnel.

1. Summary of First Stock Option Incentive Plan

Date	Event	Result
3/29/2017	The 20 th Board Meeting	Adjusted the incentive receivers and their exercisable stock options for the First Stock Option Incentive Plan due to the departure, positional changes, low performance appraisals or other factors of some incentive receivers. The number of incentive receivers decreased from 562 to 518, and the number of locked-up stock options granted to them was also reduced from 40,957,500 to 37,518,750.
5/3/2017	The Announcement on the 2016 Annual Profit Distribution	Distributed a cash dividend of RMB10.00 per 10 shares to all the shareholders based on the total of 6,465,677,368 shares of the Company.
5/12/2017	The 22 nd Board Meeting	The exercise price for the First Stock Option Incentive Plan was revised from RMB11.01 to RMB10.01 per share.
5/24/2017	The 3 rd exercise period of the 1 st Stock Option Incentive Plan	Exercised 23,706,509 stock options.

2. Summary of Second Stock Option Incentive Plan

5/12/2017	The 22 nd Board Meeting	Revised the exercise price from RMB19.56 to RMB18.56 per share.
6/1/2017	The 23 rd Board Meeting	Adjusted the incentive receivers and their exercisable stock options for the Second Stock Option Incentive Plan due to the departure, positional changes, low performance appraisals or other factors of some incentive receivers. The number of incentive receivers decreased from 639 to 583, and the number of locked-up stock options granted to them was also reduced from 72,810,000 to 66,195,000.
6/9/2017	The 2 nd exercise period of the 2 nd Stock Option Incentive Plan	Exercised 22,027,187 stock options.

3. Summary of Third Stock Option Incentive Plan

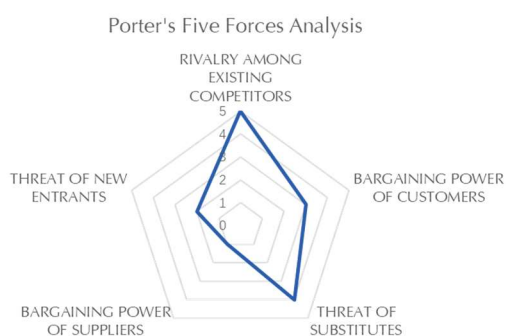
5/12/2017	The 22 nd Board Meeting	Revised the exercise price from RMB 21.35 to RMB 20.35 per share.
6/29/2017	The 24 th Board Meeting	Adjusted the incentive receivers and their exercisable stock options for the Third Stock Option Incentive Plan due to the departure, positional changes, low performance appraisals or other factors of some incentive receivers. The number of incentive receivers decreased from 929 to 891, and the number of locked-up stock options granted to them was also reduced from 127,290,000 to 121,485,000. A total of 887 incentive receivers who have ascertained and verified the Third Stock Option Incentive Plan have been allowed to exercise 40,395,000 stock options in the first exercise period.
7/6/2017	The 1 st exercise period of the 3 rd Stock Option Incentive Plan	Exercised 14,419,891 stock options.

4. Summary of Fourth Stock Option Incentive Plan

3/29/2017	The 14 th Supervisory Board Meeting	The incentive receiver list for the 4 th Stock Option Incentive Plan was examined.
4/21/2017	The 2016 Annual Meeting of Shareholders	Intended to grant 98,982,000 stock options to 1,476 receivers with the exercise price being RMB33.72 per share.
5/12/2017	The 22 nd Board Meeting	Agreed to grant 98,274,000 stock options to 1,463 receivers on 12 May 2017 with the exercise price being RMB32.72 per share. The incentive receiver list and the number of stock options to be granted were revised by the Company's Board of Directors because 13 incentive receivers were no longer eligible due to their departure or positional changes.

Appendix C: Industry Analysis

Appendix C1: Porter's Five Forces Analysis



- 0 No Threat
- 1 Very Low
- 2 Low
- 3 Moderate
- 4 High
- 5 Very High

THREAT OF NEW ENTRANTS – LOW TO MEDIUM

The threat of new entrants in the major appliance sector is low due to the large amount of capital needed for operation. The industry also leverages the efficiencies and the synergies from the economies of scale and hence the entry barriers are high. Also, the purchase decision of large appliance is largely affected by the history of brands, limiting the availability of spaces for new players. The threat of new entrants may be higher in small

appliance sector due to the corresponding lower capital requirement. Small appliance manufacturing involves less production cost. Also, since small appliances do not heavily rely on offline channels but online retail, they can save rental expense. In addition, Chinese regulations for small appliance is looser compared to major appliances. Therefore, the entry barrier of small appliance sector is medium. Product lifetime of electric appliances is relatively longer than other consumer goods and thus, the replacement frequency tend to be low, making it difficult for new entrant to persuade consumers to replace their old appliances. Moreover, customer loyalty toward appliance is high because price of appliances is relatively high, consumers tend to be more risk-averse when choosing expensive products and usually choose products that they have used in past. Thus, it's costly for new entrants to advertise to dispel consumers' loyalty toward existing brands.

BARGAINING POWER OF CUSTOMERS – MODERATE

In household appliance industry, bargaining power of customers are mainly from large middlemen. However, their bargaining power can be weakened if the appliance company has integrated value chain or unshakable channel partnership and thus, has low dependency on middlemen. Bargaining power of end-consumers has not yet been very high but is expected to rise due to the increasing popularity of online retail. On e-commerce platforms, price of household appliances become more transparent, making it easier for consumers to compare prices among various brands. This gives them more incentives to bargain. In particular, they tend to have higher bargaining power for less differentiated household appliances, such as TVs, washing machines, etc. As previously mentioned, switching costs for end-users are relatively high because of expensive price and long product lifetime, which gives buyers a weak power over the industry.

THREAT OF SUBSTITUTES – MEDIUM TO HIGH

Every different appliance has its unique functions and few direct substitutes. Threat of substitutes mainly comes from disruptive innovation and technological breakthrough. Since many giant appliance companies have strong R&D capabilities, they will probably launch a new technology that refines the current product functionality and overturn the whole industry. Moreover, because of the relatively high switch costs for consumer, despite emergence of new technology, consumers might be conscious in product replacement.

BARGAINING POWER OF SUPPLIERS – LOW

The main suppliers for the industry are the component manufacturers. For small-to-medium enterprises without their own components manufacturing capabilities especially, technologies of some core components have been monopolized by major suppliers. Thus, SME largely rely on upstream suppliers and thus have little bargaining power over suppliers. But for most large appliance companies like Midea, they possess their own component factories, especially for their core components that are technology-intensive. Suppliers of core components have higher bargaining power than those of minor components. Minor components are standardized, have low technological and capital requirements. Correspondingly, suppliers of minor components tend to be small in scale, thus, they have low bargaining power.

RIVALRY AMONG EXISTING COMPETITORS – HIGH

The current Chinese white goods market is a staggered industry and has entered mature stage. It has been dominated by several oligopolies including Midea, Gree, Haier, among whom competition is intense. They all have strong competitive advantages and abundant resources to compete with one another. Also, pricing strategies and wars are very common in the industry. Exit barrier is high due to large sunk costs; under this scenario, companies tend to maintain production as long as prices are higher than average costs; some are not willing to exit the industry even with great loss. The high exit barrier is likely to trigger fierce price competition.

Appendix C2: Midea's Price and Offering Analysis

To better provide an overview of Midea's pricing positioning in Chinese market, we compare Midea's price and offering of a certain household appliance bundle with its peers in China.

Data Collection Process:

1. We pick Midea's major domestic competitors Gree and Haier in this peer comparison.
2. We choose the household appliances that are common and highly available in appliance industry to form this representative consumption bundle.
3. We extract the prices all from the companies' own online retailing platform, excluding sales or special offers. Average price of a certain product is derived from taking average of the top 10 best sellers' prices. If the price of a product is not available, it is presented as a dash ("-") in the table.
4. We calculate industry average price in different categories. If the price of one product is not available, the category average is calculated from the average of other available products under this category.

Normalization:

We derive a normalized price to mitigate the influence of certain expensive products (e.g. water heaters) on the bundle. Normalized prices are realized through dividing the prices by the calculated industry average. The normalized bundle price is the sum of all normalized prices under different categories of the firm.

Midea's Product and Offering Analysis

(in CNY)								
Item	Midea		Haier		Gree		Category Average	
	Highest	Average	Highest	Average	Highest	Average	Highest	Average
Wall Air-conditioning	3,699	2,790	8,699	3,239	10,199	3,499	7,532	3,176
Doule-door Refrigerator	14,999	3,009	3,899	1,992	3,499	2,459	7,466	2,487
Washing Machine	5,499	1,882	17,999	1,551	5,099	4,624	9,532	2,686
Electric Cooker	6,999	603	1,299	291	1,899	972	3,399	622
Induction Cooker	1,799	489	759	517	568	533	1,042	513
Electric Pressure Cooker	1,599	532	699	456	759	729	1,019	572
Electric kettle	699	188	119	119	168	168	329	158
Microwave Oven	2,299	805	2,399	965	-	-	2,349	885
Kitchen Ventilator	3,780	2,248	9,599	1,689	3,499	3,499	5,626	2,479
Water Heater	10,480	2,254	42,999	1,645	16,999	6,538	23,493	3,479
Bundle Price	51,852	14,800	88,470	12,464	45,038	23,906	61,787	17,057
Normalized Bundle Price	13	9	10	8	6	12		

Appendix C3: Competitor Assessment

To further identify Midea's current positioning in both Chinese and global consumer appliance market, we summarize Midea's major domestic and global competitors and compare them with Midea Group using a range of criteria including Consumer Satisfaction, Technology & Innovation, Brand Image, Product Pricing, Cost Control, Management Efficiency, Environmental Initiatives, and Environmental Initiatives.

Key Success Factor		Consumer Satisfaction	Technology & Innovation	Brand Image	Product Pricing	Cost Control	Management Efficiency	Environmental Initiatives	Company Overall Score
	Weight	20%	15%	15%	15%	15%	15%	5%	100%
Midea	Score	8.00	9.00	8.00	8.20	7.80	8.10	7.80	
	Weighted Score	1.60	1.35	1.20	1.23	1.17	1.22	0.39	8.16
Gree	Score	8.00	8.70	7.80	7.80	8.00	8.20	7.50	
	Weighted Score	1.60	1.31	1.17	1.17	1.20	1.23	0.38	8.05
Haier	Score	7.50	8.50	7.60	8.00	8.00	7.70	7.60	
	Weighted Score	1.50	1.28	1.14	1.20	1.20	1.16	0.38	7.85
Panasonic	Score	8.00	8.30	8.20	7.50	8.00	6.90	7.00	
	Weighted Score	1.60	1.25	1.23	1.13	1.20	1.04	0.35	7.79
LG	Score	8.50	8.00	7.80	8.00	7.50	8.50	7.40	
	Weighted Score	1.70	1.20	1.17	1.20	1.13	1.28	0.37	8.04
Samsung	Score	7.80	8.10	7.60	7.40	7.70	8.50	7.60	
	Weighted Score	1.56	1.22	1.14	1.11	1.16	1.28	0.38	7.84
Whirlpool	Score	8.00	7.70	7.40	8.10	7.20	7.00	7.60	
	Weighted Score	1.60	1.16	1.11	1.22	1.08	1.05	0.38	7.59
Genaral Electric	Score	7.80	7.70	8.00	8.20	7.80	6.70	7.30	
	Weighted Score	1.56	1.16	1.20	1.23	1.17	1.01	0.37	7.69
SEB	Score	8.20	7.90	7.80	7.90	8.20	7.30	7.90	
	Weighted Score	1.64	1.19	1.17	1.19	1.23	1.10	0.40	7.90