KOÇ UNIVERSITY *Team Ayesha Tariq, Huseyin Ertay, Kadircan Ozdem*ir

"The key to investing is not assessing how much an industry is going to affect society, or how much it will grow, but rather determining the competitive advantage of any given company and, above all, the durability of that advantage." - *Warrant Buffet*

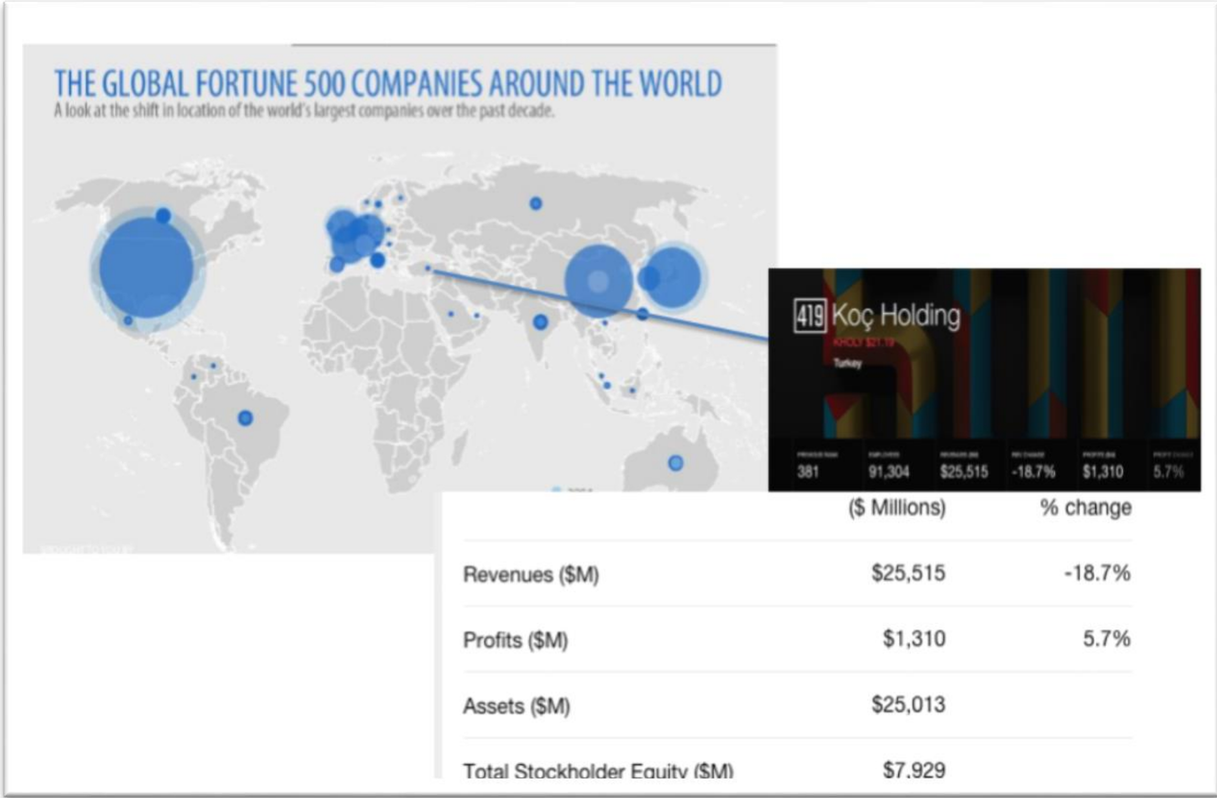
Investment Idea

Arcelik's story this time is less about its current valuation or short-term margins but more about its promising and sustainable economic future. The key driver of Arcelik's strong performance, in our opinion, are mainly R&D and innovation, and growing rate of international diversification. Any company that is as highly invested in long term sustainable growth, despite odds, and committed to innovation (confirmed by the number of patent applications each year) will be eventually able to sustain competitiveness. Given Turkey's uncertain economic and political climate, anticipation of a FED hike, and growing security concerns, we are strongly opined that Turkish companies that grow internationally are more likely to succeed as compared to domestic peers, if not in the short-term, but in the long-term.

This report and presentation are geared to reflect this reality; the internal strength of Arcelik in the climax of declining domestic environment, and how its policy of international expansion, strong sustainability practices, and commitment to research and innovation, will eventually make it into a lasting success. Our analysis is more oriented in the direction of long-term favourability rather than short-term focus based on volatile economic factors. This is also aligned to the famous Warrant Buffet's logic mentioned at the beginning.

What makes Arcelik a success story?

Arcelik is a part of **Koc Holding**, Turkey's largest group of companies in terms of exports, taxes paid, share in Borsa's Istanbul market, and employment generation. It has a diversified sectoral and territorial reach, ranging from energy, automotive, to consumer durables, finance and others. Koc Group holds **57.2%** shares of Arcelik.



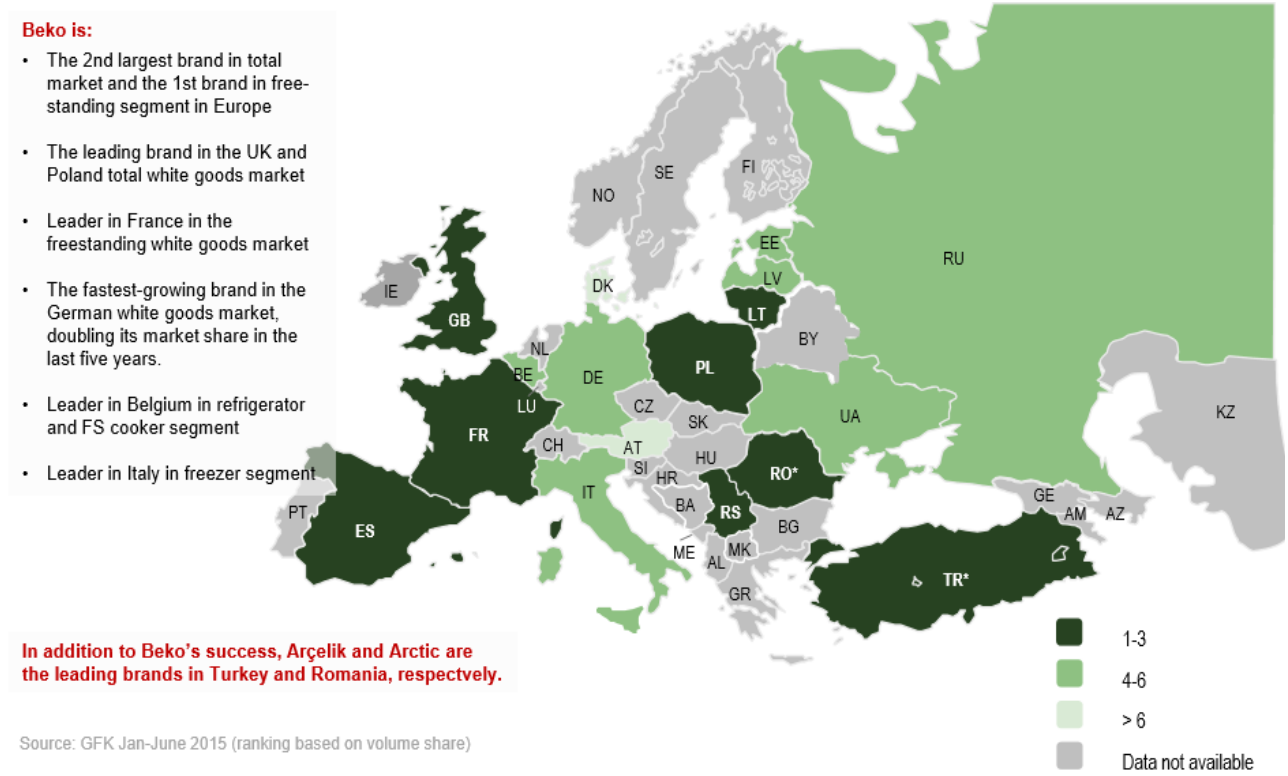
Arçelik Group's vision of *"Respects The Globe, Respected Globally"* aims '*to achieve profitable and sustainable growth; to increase market share in its target market; the globe; to reach more consumers in a fast-changing world with innovative products and services; to safeguard the future with corporate responsibility; and to integrate and optimize the components of the global organization while becoming a global group'* (Official vison statement).

Indeed, in perfect alignment with its vision, it continues to venture forward into global markets, driving revenues and profitability in an innovative, resource efficient manner.

Global Player & Market Leadership

As Turkey's leading household appliances manufacturer, it is engaged in the production and marketing of consumer durable goods, consumer electronics, small home appliances and kitchen accessories as well as in the provision of after-sales service. It is present in more than **130 countries**, with **27,000 employees** worldwide, **10 brands** and **15 production sites** located in Turkey, China, South Africa, Romania, Russia and Thailand. Arçelik has held its leading position in Turkey and maintained its third place in Europe's white goods sector.

While it enjoys leading position in core markets including Turkey, it has recently been enjoying the accelerated growth of Beko, which is now the No.1 appliances brand in the free-standing market in Europe



1 Source: Company Data

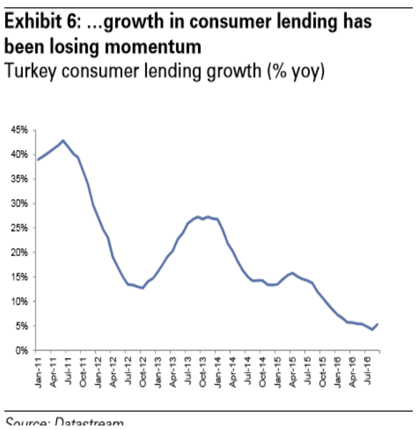
R&D and Global Sustainability

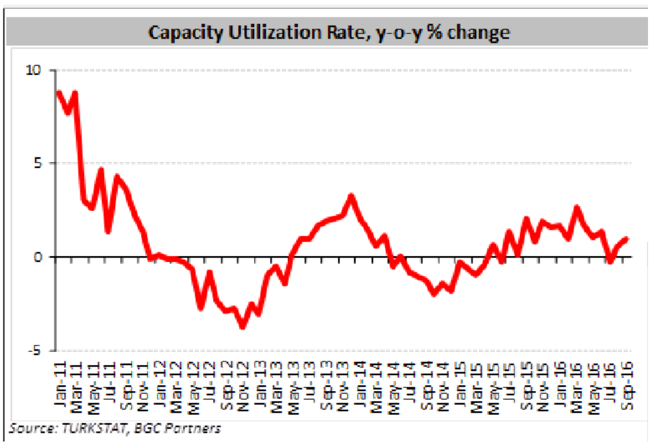
Arcelik has set world records in energy efficient production, manufacturing with its own technology. It is a pioneer in innovation, a crucial component of any company's long term, sustainable growth. For example, it developed a solar powered refrigerator for African provinces, and an AirDry Washer and Dryer *that dries without the use of water*. In times of shrinking global power resources, companies like Arcelik promise an environment friendly, sustainable future. Therefore, Arçelik A.Ş. is the only Turkish company that has been listed for the second time on the Climate A List by CDP (Carbon Disclosure Project). CDP comprises of companies with the world's highest performance levels in terms of activities that aim to minimise carbon emission. In 2015, it also achieved a corporate governance rating of 9.48/10, according to its annual sustainability report.

World Records in Energy Efficiency   Source: Company Data

Turkey's Macro Outlook, White Goods Industry, and Implications for Arcelik

Slowdown in economic growth: Goldman Sach's research predict below 4% y-o-y growth by end 2017 whereas HSBC Research estimates 2.3% for 2017 and 2.5% for 2018. This is in sharp contrast to government estimates of 5% growth in 2018. The slowdown in growth is contributed to decelerating production and domestic political uncertainty mainly, but also because of deeper supply-side constraints. These include low rates of domestic savings, non-competitive educational expertise, and rigidities in labour, and product markets.

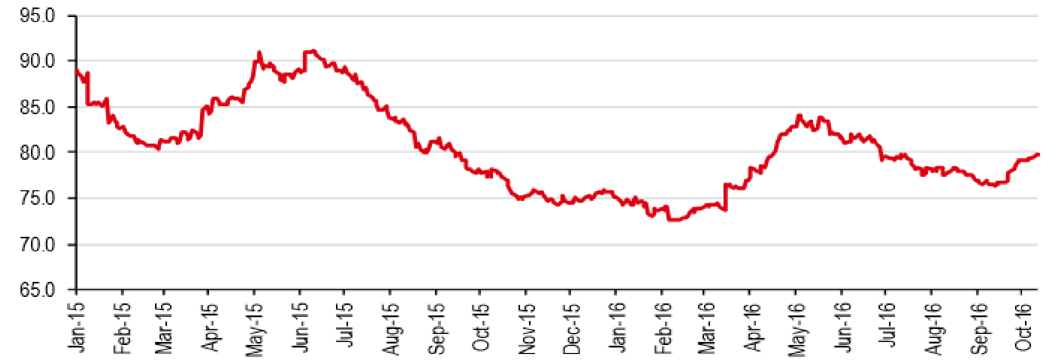




However, in its ambition to drive economic growth and consumer spending, government has introduced ***initiatives to ease borrowing***, thus simultaneously positively impacting consumption of domestic appliances (Turkish white goods market depends heavily on credit availability). Thus, maximum maturity on credit card instalments has been increased to 12 months from 9 months while the maximum maturity on consumer loans is now 48 months in contrast to the previous 36 months. The maximum loan to value of mortgage loans for home purchases is now 80%. Therefore, 6% growth in domestic demand of white goods is anticipated in view of these changes.

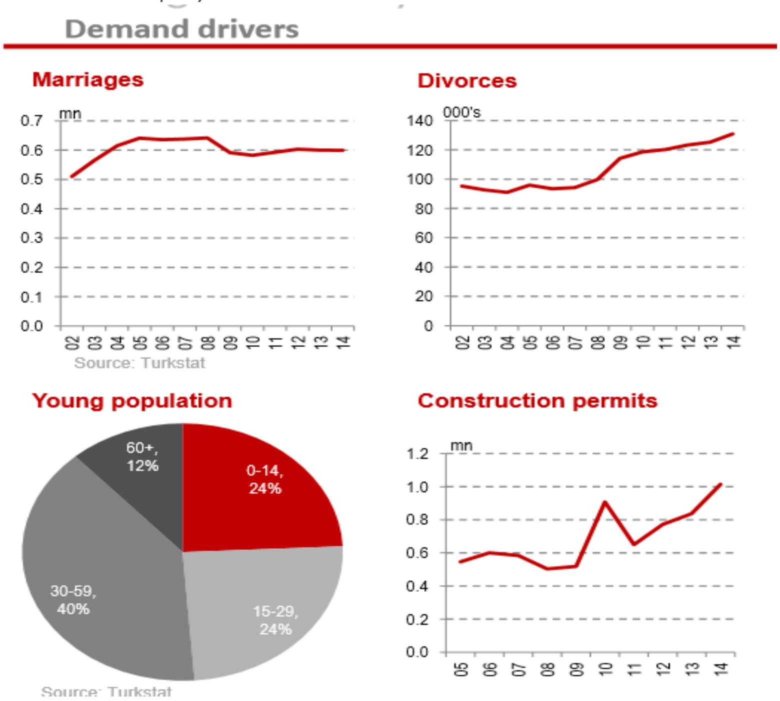
Increase in steel prices: Arcelik's margins in 3Q were negatively affected by the increase in steel prices, that forms a major raw material component in the production of white goods. However, this increase is forecasted to impact short-run margins of all white goods producers globally, thus not impacting competitiveness to peers in real terms.

Raw material price index (USD) shows an uptrend lately



Source: Thomson Reuters DataStream

2 *Source: Company Data*



Favourable demographics demand drivers for Arcelik:

Turkey has a population of approximately 78 million out of which an estimated of 48% comprises of the age group under 30. The rate of new household formation is 2-3% arising mainly from the approximate 600,000 annual marriages. Furthermore, it has low penetration levels in categories such as dishwashers and dryers. Given that in the near future, domestic spending will be the main driver of economic growth in Turkey, these are favourable demographics for

Arcelik's future performance in the domestic market.

White Good Sales driver in Turkey; Export Market: Year-to-date (Jan-Aug period) Turkish white goods data reveals growth of c10% in exports and a c8% y-o-y growth in total production. Keeping in view the European market recovery, 10% growth in exports are anticipated for the white goods sector.

Therefore, keeping in view the general conditions, companies like Arcelik, who have growing international diversification, are less likely to be impacted by swings in the domestic and political climate.

The Case for Arcelik

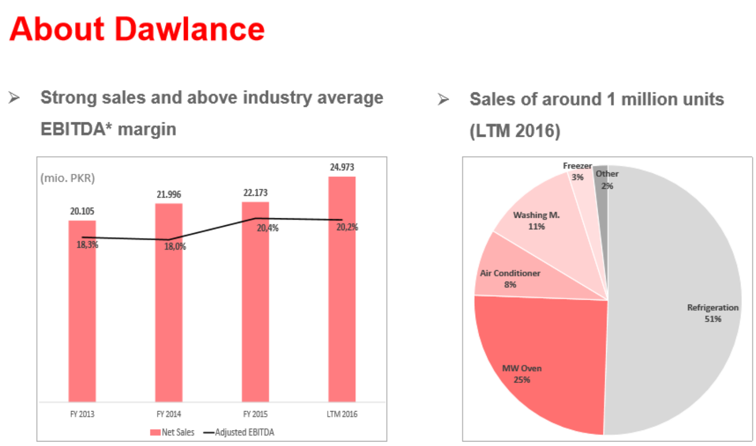
Cost Competitiveness: Not only are Arcelik's labour intensive functions strategically placed in low labour cost countries, but it also has other measures in place to manage cost competitiveness. These include closely monitoring raw material procurement opportunities for cost advantages, contracting efficiency projects with suppliers, 37 of which provided labour cost savings in 2015, and thorough implementation of 'Energy Efficiency Law'.

Strong Dealer and After-Sales Network: Arcelik has 3000 exclusive dealers in Turkey, and widest after-sale network in Turkey. All these initiatives promise sustained profitability in the near future.

International Diversification/Expansion and Virtuous Growth

Acquisition of Dawlance Pakistan for USD 258 million:

Pakistan is a potentially promising market for Arcelik in terms of low factor costs, a burgeoning population size of 800 million people and anticipated CAGR of 5% in the next 5 years. Its white goods market is largely under-penetrated with a market size of approximately 1.9 million units of laundry and refrigeration, and 0.9 million units of air conditioners and microwave ovens.

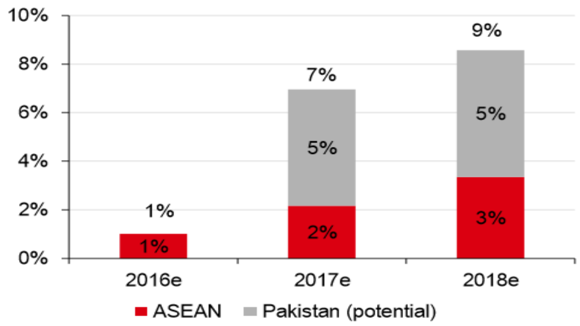


3 Source: Company Data

Dawlance presently enjoys 45% market share in cooling and microwave ovens, and leads appliances market in Pakistan. Most forecasts exclude revenue streams projection from Pakistan since the deal is expected be finalized by year end 2016. Arcelik's international revenues are expected to grow from 57% to 70% in the upcoming three years if Pakistan is included.

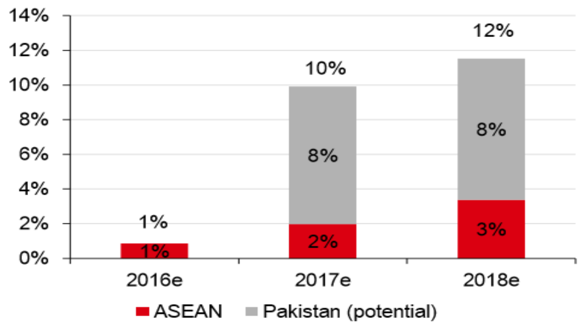
Greenfield Investment in Thailand: Arcelik has invested in a production facility in Thailand to produce refrigerators under the brand of Beko. It believes that Thailand will serve as the regional manufacturing hub in the ASEAN region to respond swiftly to regional needs. Based on the latest reports, Arcelik anticipates a USD$50 million contribution from Thailand by year end 2016, and USD$500 million in the upcoming three years.

Revenue – additional growth from ASEAN region and Pakistan (potential) (TRYm)



Source: HSBC estimates

EBITDA – additional growth from ASEAN region and Pakistan (potential) (TRYm)



Source: HSBC estimates

New JV Agreement with LG electronics: Arcelik recently signed a JV agreement with LG Electronics that provides Arcelik the exclusive rights to sell LG brands in Turkey effective from April 2017. Given the recency of this news (October 28^{th}), its financial impact is not yet featured in the forecasted analysis.

Arcelik's legacy of historical surprises: While Arcelik has promising financial forecasts for 2017 and strong operating results in 3Q16, it has a legacy of delivering unexpectedly strong results that often beat consensus estimates, as the figure below points out.

HISTORICAL SURPRISES

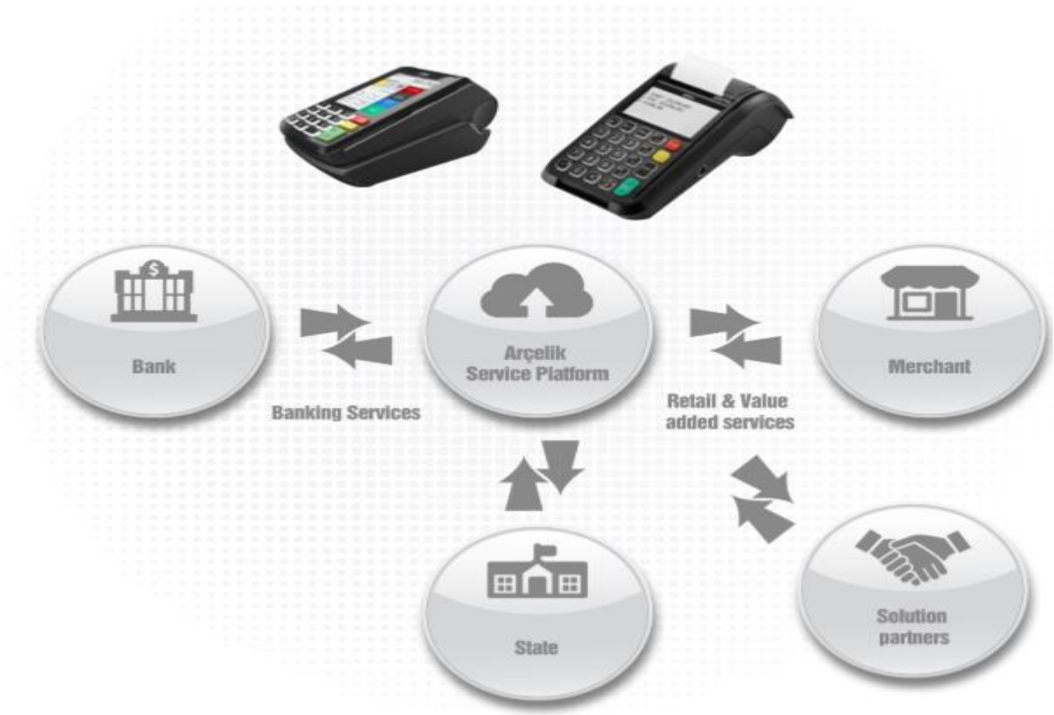
Sales and Profit Figures in Turkey New Lira (TRY)
Earnings and Dividend Figures in Turkey New Lira (TRY)

Estimates vs Actual	Estimate	Actual	Difference	Surprise %
SALES (in millions)				
Quarter Ending Sep-16	4,374.42	4,083.24	291.18	6.66
Quarter Ending Jun-16	3,684.20	3,959.56	275.36	7.47
Quarter Ending Mar-16	3,415.74	3,527.45	111.71	3.27
Quarter Ending Dec-15	3,836.69	4,066.96	230.27	6.00
Quarter Ending Sep-15	3,741.33	3,877.29	135.95	3.63
Earnings (per share)				
Quarter Ending Sep-16	0.17	0.39	0.21	122.29
Quarter Ending Jun-16	0.26	0.96	0.70	271.15
Quarter Ending Mar-16	0.28	0.23	0.05	17.86
Quarter Ending Dec-15	0.18	0.31	0.13	73.33
Quarter Ending Sep-15	0.38	0.31	0.07	17.37

4Source: Reuters

USD's FX position: In the present scenario of upcoming presidential elections, any indication or actual victory of Democrats is likely to weaken the USD, thus improving margins for Arcelik. For now, the presidential polls point in Arcelik's favour. This is one of the upsides for Arcelik under consideration.

Cash Register Sales: Arcelik has introduced new POS cash register sales whose implementation deadline has now been pushed to 2017. This new mechanism does not only result in first time machine sales but also creates value accretive opportunities for Arcelik in banking and retail services



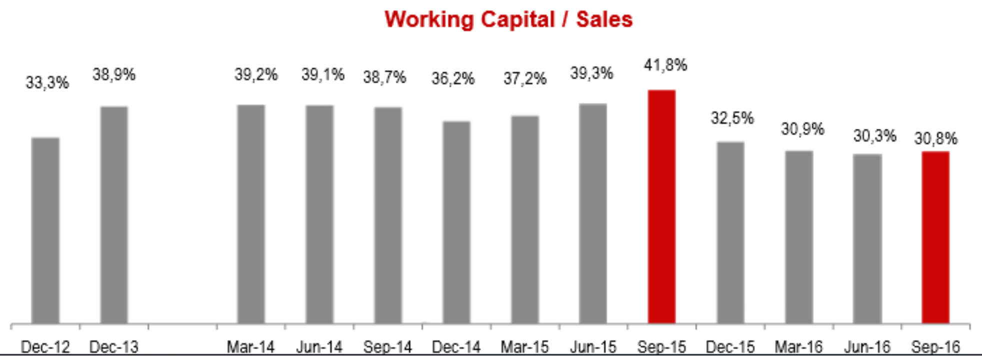
5 Model of Cash Register Sales - Source: Company Data

Financials and Valuation

Improved WC/Sales Ratio: Arcelik has taken structural measures to lower its WC/Sales Ratio to 30.3% (now stabilized) from a peak high of 41.8% in Sep-15. These measures include improving receivable terms for dealers and achieving a faster turnaround in inventory. This improvement in WC/Sales ratio is likely to sustain due to international expansion given that installment based sales in Turkey are a major cause of high WC/Sales ratio. The forecasted WC/Sales ratio is further lowered to 30% (HSBC Research) from 2016e onwards based on sensitivity analysis to assess the impact of different working capital (WC)/sales ratios on FCF generation and target price.

TL mn	FX Basis	TL Basis	30.09.2016		FX Basis	TL Basis	Total
ST Trade Rec.	2.021	3.254	5.275	ST Trade Payables	1.074	1.421	2.495
Other Receivables	44	76	120	Other Payables	217	263	480
Inventory	1.225	1.177	2.402	**Working Capital**	**1.999**	**2.823**	**4.822**

TL mn	FX Basis	TL Basis	30.06.2016		FX Basis	TL Basis	Total
ST Trade Rec.	1.744	3.283	5.027	ST Trade Payables	954	1.452	2.406
Other Receivables	40	58	98	Other Payables	163	195	358
Inventory	1.055	1.256	2.311	**Working Capital**	**1.722**	**2.950**	**4.672**



6Source: Company Data

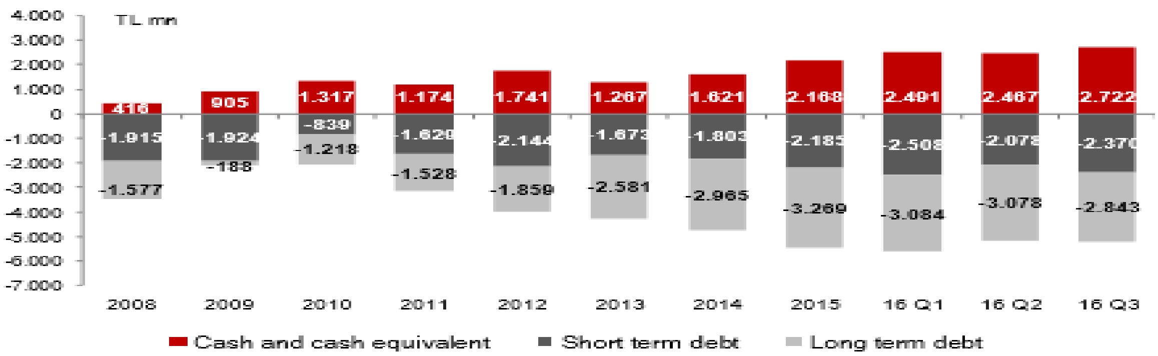
Valuation: The 12-month target price of Arcelik of **TRY 23.0**, pointing to **8% upside**; and an implied P/E of 16.2x.is based on a DCF model that assumes a 6% terminal growth rate, 9.5% risk free rate, 5.5% equity risk premium, 0.87 company beta; yielding a WACC of 10.8%; all unchanged. This yields an unchanged TP of TRY23.0/share. While Arcelik is being traded at a premium as compared to its peers, it is because of its strong growth profile and anticipation of hyped international expansion.

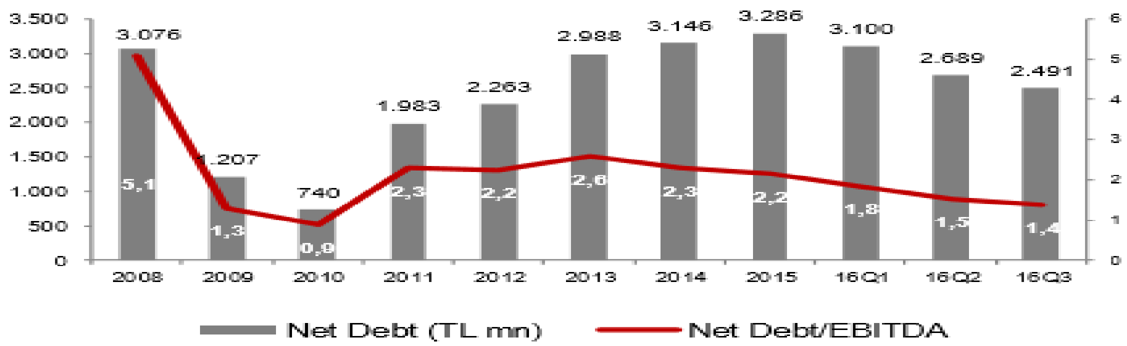
3rd Quarter 2016 Financial Results: Arcelik posted net income of TRY 264 million, and experienced contracting financial expenses by 33% y-0y. Net Financial Debt/Equity was 0.47, a significant improvement from 0.70 on 31st Dec 2015. This is linked to improvement is debt profiling as long-term debt contracted to 2843 TRY mn from 3269 TRY mn at year end 2015. For 9 months 2016, it also has a strong cash position of 2721 TRY mn. The details are in the appendix below.

Disclaimer: This report has solely been prepared for the GNAM Investment Competition and authors (Koc Team) will not accept responsibility for any investment decision taken by referencing the document.

TL mn	2016 Q3	2015 Q3	2016 Q2	Δ% YoY	Δ% QoQ	2016 9M	2015 9M	Δ% YoY	2015	2014	Δ% YoY
Revenue	4.083	3.877	3.960	5	3	11.570	10.099	15	14.166	12.514	13
Gross Profit	1.361	1.260	1.353	8	1	3.908	3.214	22	4.536	3.979	14
margin	*33,3*	*32,5*	*34,2*			*33,8*	*31,8*		*32,0*	*31,8*	
EBIT *	375	330	331	14	13	1.029	787	31	1.157	1.024	13
margin	*9,2*	*8,5*	*8,4*			*8,9*	*7,8*		*8,2*	*8,2*	
Profit Before Tax	283	241	656	18	-57	1.093	543	102	785	732	7
margin	*6,9*	*6,2*	*16,6*			*9,4*	*5,4*		*5,5*	*5,8*	
Net Income**	264	214	653	24	-60	1.074	681	58	893	638	40
margin	*6,5*	*5,5*	*16,5*			*9,3*	*6,7*		*6,3*	*5,1*	
EBITDA*	484	423	441	14	10	1.346	1.063	27	1.527	1.370	11
margin	*11,9*	*10,9*	*11,1*			*11,6*	*10,5*		*10,8*	*11,0*	

7Source: Company Data





8Debt Profiling as per Company Data

Summary Stocks

Tofas – TOASO

Tofas is a Joint Venture car production company between Koc Holding and Fiat Auto, embodying passenger cars and light commercial vehicles production facilities under licences of Fiat Auto. Having annual production capacity of 400K leads the company to have vital market share not only in Turkey but also in Europe. Company's ability to develop new models is a result of having the second largest R&D capability of Fiat in Europe.

Being an export-oriented company, %73 of their total sales volume, was adventegous for Tofas while TRY devaluated over 1 year and continues to do so based on Turkey's economic and political dynamics. Tofas exports %85 of export-oriented products to European countries where %7 growth in 2016 will be followed by %1 growth in the European auto market in 2017. Apart from export-oriented products, projected domestic sales will be backed by regulation amendments by removing the Special Consumption Tax (SCT) on commercial vehicles. Tofas took solid steps to further expand their production facilities after considering the global market growth rate and sales expectaions up to 450K units.

After peer group valuations, Tofas turned out to has one of the highest Dividend Yield (6.4) and profitability (ROE : 35.3%) when compared with global competitors. EUR-based DCF analysis results show 5.0% risk-free rate and 5.0% equity risk premium for Tofas. Earning estimates such as Gross Margin as 12.2 % and Net Income as 6.9%, leading to a target price from TRY23.50/share to TRY27.6/share with 22% upside potential.

ENKA Insaat – ENKAI

ENKA Insaat is named as a leading regional Turkish company in Construction sector which also generates revenue from power generation (44% of 2016 EBITDA), real estate rentals (30% of 2016 EBITDA) and trade (3% of 2016 EBITDA).

Construction reaching a sustainable plateau after an estimatimation of FCF ticked up in Q2-2016 and expecting it to beUSD 50-60m annually. Forseening the new opportunities in the countries with a combined GDP in excess of USD 2.1trn after government's attempts to normalise political relationships with Egypt, Israel and Iranian market open up.

Being rental rates stablized in Russia after a long time due to a stronger Rouble and estimated GDP growth in 4Q2016 in Russia posses positive impact on ENKA Insaat's investment returns. Considering the circumstances explained above, analysts expect ENKA Insaat to generate USD 140m/year in FCF based on company's 640,000sqm property in Moscow.

Company strategically gave the decision to increase the efficiency of this asset to generate more FCF by decreasing the fuel consumption by 15%+ and increasing total installed capacity to 4.2 GW from 3.8 GW.

43% of company's Net Asset Value is one of the main reasons we choose this company to decrease the total risk of our portfolio. Also, company signed MoU with Saudi Aramco to bid their upcoming projects to strengthen its regional market share.

Enka Insaat's valuation was utilised by using a sum-of-the-parts (SOTP) after running USD DCF valution for each entity under ENKA Insaat. The target price turned out to be TRY5,40/share with a potential upside of 22% as a result of stated evaluation.

Garanti Bank -GARAN

Garanti Bank is the third largest bank in Turkey with total assets of USD 86 billion. The major shareholder is BBVA where Dogus Holding is the strategic partner. Main activities are consumer, credit cards, corporate and commercial with subsidiaries in insurance, leasing and factoring. Cost control, well-managed margins and strong capital ratios provide continuous growth and profitability even against potential TL depreciation. Strong funding capability and opportunistic swap funding utilization are other competitive advantages of the bank. On the other hand main risks are increase in cost of funding and compression in margins.

Garanti Bank delivered 2.3% ROA and 19% ROE in 2Q16 which is highest in among its peers. This is followed by 15.8% ROAE in 3Q16. Similarly the ROE is expected not to be lower than 15% in 2017. It is also one of the best-positioned Turkish bank with 16.4% CAR and 15.3% Tier 1 capital ratios, this is important as the market volatility is rising. TRY loans were increased by 2.3%, which is average in the sector but FX loans are decreased by 1.3%, below the average. Increasing TRY loan yield by 23bps and declining TRY deposit cost by 50bp lead to increase in NIM by 15bp in 3Q16.

Considering the improved NIM and the lower opex, the target share price is 9.30 with an 11% upside.

ULKER BISKUVI – ULKER

Ulker is a leading food manufacturer company, which was established in 1944. Main products are biscuits, crackers, cakes and chocolates, which are exported to 110 countries especially in Middle East, North Africa and Central Asia. The parent company of Ulker, Yıldız Holding, which is the world's 3rd largest biscuit manufacturer, holds the 57% of the company and 43% is on free float.

Despite the weakness of Turkish Lira and the competition in the consumer market, the international business is the main support for the growth in the upcoming year. The completed acquisitions in Egypt (High Food,1Q16) and Saudi Arabia (FMC,2Q16) and potential new acquisitions in Kazakhstan (Hamle) and Saudi Arabia (IBC) combined with the parent's assets in Middle East and Central Asia positions Ulker as a regional player rather than a local leader. The international division has increased from %15 in 2015 to 29% in 2016 of the sales and it is expected to be c35% by FY20.

The relative performance of Ulker to BIST 100 is -0.2 for 1 month, 3.4 for 3 months and 13.0 for 12 months. DCF driven analysis shows 9.5% risk free rate and 5.5% equity risk premium. Additionally, the geographical variety, cost and product advantages with the new global brand Pladis and inorganic growth potential yields to the target price of 27.00 TL for 2017 with a 25.7% upside potential from the current price of 21.48 TL.