

IMPACT OF OIL PRICES ON REVENUE GROWTH AND PROFITABILITY OF SAUDI LISTED COMPANIES IN NON-FINANCIAL SECTORS

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ABSTRACT

This study examines the impact of declining global crude oil prices on the profitability of Saudi listed companies in non-financial sectors. It was a longitudinal study conducted over the period 2010 to 2015, which was divided into two groups: from 2010 to 2013 when the global oil prices were rising, and from 2013 to 2015 when there was a drastic decline in the prices. Annual financial data of the companies was collected from Saudi stock exchange portal. The financial performance of industrial sectors was examined in terms of three indicators, namely, Revenue Growth rate, Net Margin and Return on Equity. The results indicated a strong correlation between global oil prices with Revenue Growth, Net Margin and Return on Equity. It was also observed that there was an overall reduction of 141.5% in Revenue Growth rate, 15.1% in Net Margin and 25.2% in Return on Equity in Saudi non-financial sectors after the year 2013, i.e. after the decline of oil prices started, which indicates a significant impact of oil prices on the revenue growth and profitability of Saudi non-financial sectors. This study assumes significance due to its focus on Saudi Arabian industries in a comprehensive way, which is not addressed by the available literature.

KEYWORDS: Oil Prices, Revenue Growth, Profitability, Saudi Listed Companies, Non-Financial Sectors

INTRODUCTION

The substantial drop in crude oil prices that began in summer of 2014 has affected most economies in the world in either positive or negative ways. Some of these effects were immediate and clearly visible. In 2014, oil prices showed their largest annual decline since the global financial crisis, losing more than 45% due to weaker demand and strong global crude output. This collapse in prices severely affected the energy shares which finished 2014, nearly 13% lower and weighing heavily on financial markets in oil-exporting countries like Saudi Arabia. The price of oil halved between June 2014 and April 2015 (Saketa, 2009).

SAUDI ARABIAN ECONOMY

In 1932, the famous leader Abdul-Aziz ibn Abdul Rahman Al-Saud (Ibn Saud) united all the major tribes and their territories in Arabian Peninsula to create the present state of the Kingdom of Saudi Arabia (KSA). In 1938, vast reserves of oil were discovered in the Al-Ahsa region and full-scale development of the oil fields began in 1941 under the US-controlled Aramco (Arabian American Oil Company). Oil provided economic prosperity and substantial political leverage internationally to Saudi Arabia. The current population of Saudi Arabia is approximately 30.8 million and the per capita GDP is \$53624 (USD). The petroleum sector accounts for roughly 92.5% of Saudi budget revenues, 97% of export earnings, and 55% of GDP. There are 173 companies belonging to different sectors listed on Saudi Stock Exchange

(Website: www.tadawul.com.sa). Out of these companies, 126 companies belong to non-financial sectors and contribute to 32% of GDP. Non-financial sectors include banking and insurance companies. The current study was focused on studying the impact of falling oil prices on these 126 listed companies from different sectors like Petrochemicals, Retail, Construction, Real Estate, Energy etc. (Saudi Arabian Monetary Agency, Fifth Annual Report, 2015). The remaining contribution to the Saudi Economy is made by large private companies like ARAMCO and other small and medium firms that are not listed on the Saudi Stock Exchange.

IMPACT OF OIL PRICES ON FINANCIAL PERFORMANCE OF FIRMS

Impact of oil prices on financial performance of industries has been an area of interest of many researchers in the world. Basha (2014) studied the impact of oil prices of financial performance of Al-Hikma Pharmaceutical Company in Jordan during the period 2002 to 2011. He observed that there was a statistically significant impact of changes in oil prices on Net Margin, Return on Assets and Return on Equity of the company. Dayanandan and Donker (2011) studied the relationship between crude oil prices, capital structure, firm size and accounting measures of firms performance oil and gas companies in North America during the period 1990 to 2008. They observed that the financial crisis in 2007-2008 negatively affected the oil prices and financial performance of oil and gas firms. However, Asian financial crisis and 9/11 did not have a significant impact on the return on equity of oil and gas companies. Sadrosky (2008) examined whether the impact of oil price fluctuation on the stock prices is different for medium sized firms from that of large firms. A panel of firms was followed over a 17-year period to investigate the relationship between oil price movements, firm size, and stock prices. Evidence showed the relationship between oil price movements and stock prices does vary with firm size and it is strongest for medium-sized firms.

A study made by El-Sharif et al (2005) on the nature and extent of relationship between oil prices and equity values of oil and gas sector in UK indicated that the relationship is always positive, often highly significant and reflects the direct impact of volatility in the price of crude oil on share values within the sector. Nanda and Faaf (2008) also addressed the question “Does oil move equity prices?” on a global level. Their findings indicated that oil price rises have a negative impact on equity returns for all sectors except mining, and oil and gas industries. The authors claimed that this finding is consistent with the economic theory and evidence provided by previous empirical studies. Kilian (2008) examined the impact of exogenous oil supply shocks on US economy. He observed that the supply shocks create a spike in CPI inflation three quarters after the shock rather than a sustained increase in inflation. The results also showed that exogenous oil supply shocks made remarkably little difference overall for the evolution of U.S. real GDP growth and CPI inflation since the 1970s, although they did matter for some historical episodes.

Malik et al (2009) used bivariate GARCH models to study the volatility transmission between oil prices and equity sector returns in five different sectors in USA. Their study covered a period of 1992 to 2008 and their findings showed significant transmission of shocks and volatility between oil prices and some of the examined market sectors. Ewing et al (2007) examined the empirical relationship between oil prices and several key macroeconomic variables such as production output, consumer prices, unemployment, and stock prices. The results of their study suggested that crude oil prices are pro-cyclical and lag industrial production. Additionally, they found that oil prices lead consumer prices. A study made by Maghyereh and Al-Kandari (2007) made use of nonlinear co integration analysis to examine the relationship between oil prices and stock markets in GCC countries. Their empirical analysis supports that oil price impact the stock price indices in GCC countries in a nonlinear fashion. Berument et al (2010) studied the impact of oil price

shocks on the economic growth of selected MENA countries that are considered neither net exporters nor net importers of crude oil, but are too small to influence oil prices. Their findings suggest that oil price increases have significant positive impact on the output of some of the countries, while it is insignificant for few others. It was also observed that oil supply shocks were associated with lower output growth but the effect of oil demand shocks on output remain positive. Arouri and Nguyen (2010) also examined the short term linkages between oil prices and European stock markets both at aggregate and sector levels. Their main findings suggest that the reactions of stock returns to oil price changes differ greatly depending on the activity sector.

Saketa (2016) has examined the impact of falling oil prices pose 2014 on the Airline industry. He observed a mixed effect of reducing oil prices on the financial performance of airlines. While the lower fuel prices boosted short-term profit margins, they also weakened the capacity discipline, which means resisting the temptation to flood the market with seats at a time when costs are low and demand is strong. Hong et al (2015) examined the shocks of falling oil prices on global Chemical industry. They have concluded that Chemical companies need not necessarily fear oil-price volatility; in fact, the best ones will take advantage of the opportunities it presents. With disciplined investment in organizational capabilities and agility, producers can effectively plan for, respond to, and benefit from oil-price shocks.

Much of the existing literature in the American or European context, or it is focused on specific industrial sectors. None of the existing studies focus particularly on Saudi Arabia, which is one of the largest exporters of crude oil. Hence the current study was intended to examine the impact of oil price fluctuations on the domestic businesses in Saudi Arabia.

OBJECTIVES OF THE STUDY

The objective of this study is to examine study the influence of changes in crude oil prices on the revenue growth (or decline), net margin and return on equity of Saudi non-financial sectors, which cover companies listed in Saudi Stock Exchange (www.tadawul.com.sa). Thus, it is a comprehensive study of a large number of sectors contributing to around 32% of GDP. The reason for selecting the non-financial sectors was that these sectors are expected to be directly and immediately affected by fluctuations in oil prices as compared to banking and insurance service sectors.

METHODOLOGY

This study covered a period of 2010 to 2015. It was divided into two segments: the period from 2010 to 2013 when the oil prices were rising and the slump period from 2014 to 2015 when the global oil prices were falling steeply. The financial data of the 126 listed companies belonging to non-financial sectors for the period 2010 to 2015 was collected from the Saudi Stock Exchange website. The parameters of interest were Revenue Growth, Net Margin and Return on Equity. These 126 companies belonged to 13 different industrial sectors as classified by the Saudi Government. Sector wise weighted averages for Revenue Growth, Net Margin and Return on Equity was calculated for each sector for each year. So also, the overall weighted averages for the three parameters were calculated for each year. The correlation coefficient of these overall weighted averages with the annual oil prices was computed. In the second part, change in the sector wise averages for Revenue Growth, Net Margin and Return on Equity before and after the slump in oil prices was calculated in order to examine the impact on each of these parameters.

RESULTS AND DISCUSSIONS

The annual average crude oil prices for the period 2010 to 2015 are presented in Figure 1 below.

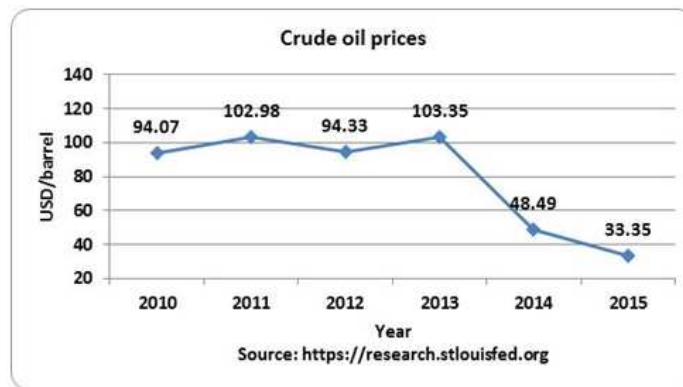


Figure 1: Average Crude Oil Prices (USD per Barrel)

It may be observed after during the period 2010 to 2013 the crude oil prices were fairly stable, but after 2013 there was a sharp decline in the prices.

The correlation of oil prices with overall revenue growth, net margin and return on equity for the listed firms in non-financial sectors are presented below:

Table 1: Correlation between Oil Prices and Overall Revenue Growth (%)*

	2011	2012	2013	2014	2015	Correlation Coefficient 'R'	P Value
Oil prices (USD/barrel)	102.98	94.33	103.35	48.49	33.35	0.6587	0.3413
Revenue Growth (%)	20.4%	4.7%	0.6%	4.6%	-10.7%		

*Base value for Revenue Growth calculation of 2011 is the total Revenue for all sectors, for the year 2010

Table 2: Correlation between Oil prices and Overall Net Margin (%)

	2010	2011	2012	2013	2014	2015	Correlation Coefficient 'R'	P Value
Oil prices (USD/barrel)	94.07	102.98	94.33	103.35	48.49	33.35	0.8823	0.020
Overall Net Margin (%)	16.1%	16.5%	14.8%	16.3%	14.8%	12.4%		

Table 3: Correlation between Oil Prices and Overall Return on Equity (%)

	2010	2011	2012	2013	2014	2015	Correlation Coefficient 'R'	P Value
Oil prices (USD/barrel)	94.07	102.98	94.33	103.35	48.49	33.35	0.9113	0.011
Overall ROE (%)	13.8%	15.3%	13.3%	13.4%	11.9%	9.0%		

From Table 1 it may be observed that there is a moderate correlation between Revenue Growth (and decline) and

oil prices. Also, the correlation is not statistically significant. Table 2 indicates that there is a strong and statistically significant relationship between overall net margin and oil prices. Table 3 also indicates that there is a strong and statistically significant relationship between overall return on equity and oil prices. All the parameters have shown significant decline in values as the oil prices declined during the period 2013 to 2015. These results corroborate with the earlier findings of Basha (2014), Sadrosky (2008), El-Sharif et al (2005), and Malik et al (2009).

The comparison of Revenue Growth and Profitability of each sector before and after the slump in oil price is presented in the tables below.

Table 4: Comparison of Overall Revenue Growth before and After Slump in Oil Prices

Industrial Sector	Revenue Growth (%)			
	2010-2013 'A'	2014-2015 'B'	Difference 'B - A'	% difference
Petrochemical Industries	9.1%	-12.6%	-21.7%	-238.8%
Cement	9.8%	4.4%	-5.4%	-54.8%
Retail	20.8%	13.6%	-7.2%	-34.6%
Energy and Utilities	8.3%	7.7%	-0.6%	-7.3%
Agriculture & Food industries	9.5%	5.8%	-3.8%	-39.4%
Telecommunication & Information Technology	-1.0%	0.3%	1.3%	-134.1%
Multi-investment	-2.1%	4.7%	6.8%	-319.6%
Industrial Investment	20.7%	15.2%	-5.5%	-26.6%
Building & Construction	8.2%	-4.9%	-13.1%	-160.2%
Real Estate Development	0.5%	3.6%	3.2%	707.5%
Transport	9.5%	36.3%	26.8%	282.0%
Media & Publishing	24.3%	-4.3%	-28.6%	-117.7%
Hotel & Tourism	16.8%	16.6%	-0.1%	-0.9%
Overall	8.2%	-3.4%	-11.6%	-140.9%

The results indicate that there is a substantial decline in the overall revenue growth (141%) after the oil prices started falling in 2014. Quite understandably, the Petrochemical industries are the worst-hit lot with a drop in revenue growth of 238.8%. Almost all sectors except Real Estate and Transport show a decline in revenue growth post the oil slump. Further analysis may be required to understand the reasons for the deviation of these two sectors from other sectors. Thus the drop in oil prices appears to have a huge impact on the revenue growth in the domestic industries in Saudi Arabia.

Table 5: Comparison of Overall Net Margin before and After Slump in Oil Prices

Industrial Sector	Net Margin (%)			
	2010-2013 'A'	2014-2015 'B'	Difference 'B - A'	% Difference
Petrochemical Industries	17.7%	14.7%	-3.0%	-16.9%
Cement	45.4%	43.7%	-1.6%	-3.6%
Retail	9.8%	10.4%	0.6%	6.3%
Energy and Utilities	7.8%	6.6%	-1.2%	-15.0%
Agriculture & Food industries	9.7%	10.5%	0.8%	8.3%
Telecommunication & Information Technology	15.8%	11.6%	-4.3%	-26.9%
Multi-investment	15.9%	18.6%	2.7%	16.7%
Industrial Investment	16.1%	9.9%	-6.3%	-38.8%
Building & Construction	3.1%	4.2%	1.1%	35.2%
Real Estate Development	36.9%	44.7%	7.8%	21.2%
Transport	21.7%	21.5%	-0.1%	-0.7%

Media & Publishing	8.1%	-3.7%	-11.8%	-144.8%
Hotel & Tourism	16.9%	15.1%	-1.8%	-10.6%
Overall	15.9%	13.6%	-2.4%	-14.8%

The results show that there is 14.8% reduction in the overall net margin after the year ending 2013. The Media & Publishing sector appeared to be the worst-hit sector, with a drop of 144.8% in net margin. However, there are 5 sectors namely Retail, Agricultural & Food Industries, Multi-investment, Building & Construction, and Real Estate Development which show an increase in net margin after the oil slump. Though the overall results are comparable with the findings of the earlier literature, sector-wise comparison of results is not possible due to lack of similar studies elsewhere. The current findings are somewhat comparable with the findings of Saketa (2016) and Hong et al (2015).

Table 6: Comparison of Overall Return on Equity before and After Slump in Oil Prices

Industrial Sector	Return on Equity (ROE %)			
	2010-2013 'A'	2014-2015 'B'	Difference 'B - A'	% Difference
Petrochemical Industries	17.5%	11.5%	-6.0%	-34.1%
Cement	20.2%	19.8%	-0.4%	-1.8%
Retail	23.8%	24.4%	0.6%	2.7%
Energy and Utilities	4.9%	4.6%	-0.3%	-7.0%
Agriculture & Food industries	17.2%	17.7%	0.5%	2.8%
Telecommunication & Information Technology	16.0%	9.2%	-6.8%	-42.4%
Multi-investment	2.7%	2.9%	0.2%	7.6%
Industrial Investment	7.9%	7.6%	-0.2%	-3.0%
Building & Construction	5.4%	3.7%	-1.7%	-30.7%
Real Estate Development	5.0%	5.2%	0.2%	4.7%
Transport	12.7%	16.9%	4.1%	32.3%
Media & Publishing	6.3%	-4.9%	-11.2%	-177.8%
Hotel & Tourism	26.3%	26.3%	0.0%	-0.1%
Overall	13.9%	10.4%	-3.5%	-25.4%

Similar to net margin, the overall return on equity also showed a drop of 25.4% post 2013. The Media & Publishing sector recorded the highest drop in ROE (177.8%). However, out of 13 sectors there were 5 sectors that showed increase in the ROE after the oil slump. The Transport sector recorded an increase of 32.3% which is a huge level of increases. Here again, though the overall results are comparable with the findings of the earlier literature, sector-wise comparison of results is not possible due to lack of similar studies elsewhere.

CONCLUSIONS

The results of this study show that there is a strong and statistically significant correlation between the oil prices and profitability of Saudi listed companies in non-financial sectors. However, the revenue growth shows a moderate correlation with the global crude oil prices. All the financial parameters namely, overall revenue growth, net margin and return on equity showed a considerable decline in values after the oil prices started dropping in 2014. This study indicates that global crude oil prices have a significant impact on revenue growth and profitability of domestic businesses of Saudi Arabia, which contribute to 32.25% of GDP, and hence the results are quite significant from the point of view of their impact on Saudi economy.

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