CFC Project

The Jordan Phosphate Mines Company (JPMC)

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Table of Contents

List of Acronyms

JPMC	Jordan Phosphate Mines Company
JIFCO	Jordan India Fertilizer Co.
IFA	International Fertilizer Industry Association
DAP	Di-ammonium Phosphate
SWOT	Strengths, Weaknesses, Opportunities, and Threats
STEEPLE	Social, Technology, Economy, Environment, Political, Legal, and Ethics
OECD	Organization for Economic Co-operation and Development
IASB	International Accounting Standards Board's
CAPM	Capital Asset Pricing Model
WACC	Weighted Average Cost of Capital
ASE	Amman Stock Exchange
BOT	Build Operate and Transfer property

1. Investment Summary

- The dry phosphate production for the year 2014 from the company mines of all grades reached (7,143,713) tons with 32.3% increase from the year 2013. The production quantities in mines have been affected by the labor strikes and weather conditions. On the other hand the production of DAP increased by 19% from 2013. In 2014, JPMC was able to produce 590K tons of DAP as compared to 494k tons in 2013. In spite that the international prices are still low. Moreover, the company continued securing the needs of the local and affiliated companies from rock phosphate and other raw materials. Company over the years has been producing relatively stable amount of DAP over 500k tons which has been able to continue the revenue flow.

- The second half of the year 2014 witnessed higher sale prices of Rock phosphate and fertilizers (DAP) compared to the first half of the year 2014 and the last quarter of the year 2013. However, the prices averages remained lower than those of the previous years. The Indian market is considered the main importer of the company products of Rock Phosphate and fertilizers (DAP), the sales of the company from Rock Phosphate and (DAP) to Indian market during the year 2014 were (69% and 38%) respectively. The company followed the changes in the international market where the focus was greatly on maintaining the traditional markets and the company succeeded in 2014 to return back to markets which it used to deal in the previous years such as New Zealand and Korea.

- In 2014, sales revenue rose by 29% to reach JD738.4 million as compared to JD574.4 million in 2013. DAP and phosphate rock contribution to the top-line was 97% as compared to 96% in 2013 Revenue from phosphate rock rose from JD 7.3 million to JD 5.1 million in 2014 while that of DAP rose to JD 0.6 million from JD 0.5 million in 2013. During 2015-17 we expect revenue to grow at 5.0% and will reach JD 854.8 million by 2017. We expect JPMC to grow, but as soon as

growth start picking up it will have a highly competition especially from morocco and other competitors at the same time. Furthermore, JPMC will have to sacrifice its profit margin. Therefore, JPMC might be still able to sell the same quantities, but it will not going to be able to sell at same prices. In sum, JPMC might be still growing but it's not expected to achieve high growth, and that's why we expect JPMC revenue to grow at 5.0%.

- JPMC reported net income of JD 20.9 million in 2014 as compared to JD 2.6 million in 2013. On the back of exceptionally high prices and better volumes JPMC created history which will remotely be touched in next 2-3 years.

- The Jordan Phosphate Mines Company (JPMC) announced plans to set up a fertilizer plant in Indonesia as part of its expansion and marketing strategy. Planning and strategic thinking are the key factors of the continuous success of the Jordan Phosphate Mines Co. Future planning objectives are:
    1. Decreasing costs;
    2. Increasing production capacity;
    3. Diversifying exports;
    4. Enhancing the core values;
    5. Developing the human resources;

- New phosphate exporting port project was inaugurated. The new phosphate exporting port is located in the industrial zone on the southern coast of Aqaba, where the handling capacity is 6 million tons of phosphate annually. It has been designed to receive and handle various ships of shipments between 5 to 100 thousand tons.

- The Jordan Industrial Ports Co., represented by the Jordan Phosphate Mines Co. and the Arab Potash Co. has signed a BOT (Build Operate and Transfer property) agreement to develop, operate and manage the industrial port for 30 years. That agreement was in accordance with the accepted comprehensive plan for Aqaba

ports, the related international best practices, and the up to date technology. It is anticipated that the completion of the construction work and starting the operation will be at the end of 2016. Then, the Jordan Industrial Ports Co. will be able to exporting DAP fertilizers, potash (MOP), compound fertilizers (NPKs), concentrated phosphoric acid, and importing the raw materials and various products needed for the fertilizers' industry, such as ammonia and sulfur, and fulfilling the needs of other affiliated companies.

- The Company is going along with the ready plan to implement the Jordan India Fertilizer Co. (JIFCO) to produce 475 thousand tons of phosphoric acid. The trial production has started in June 2014. This project would be a guaranteed market of 1.8 million tons of non-commercially marketable phosphate ore.

- The value of JPMC's shares derived from the valuation is JD 15.9 per share. The stock closed at JD 6.5 on the Amman Stock Exchange at the end of trading at December 31, 2014. We therefore reiterate our '**BUY**' recommendation on JPMC's stock at its prevailing price levels.

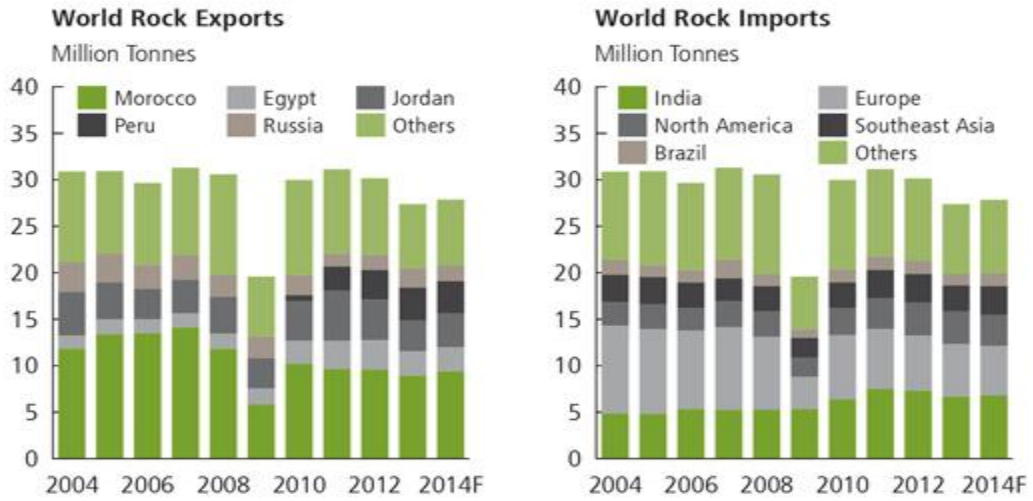
2. Industry Overview

➢ Phosphate Rock Trade Trends

Morocco is the world's leading phosphate rock exporter, accounting for roughly one-third of world trade. The largest concentration of rock exporters is in the Middle East and North Africa; combined these regions represent almost %75 of total world trade.

India is the top importer of phosphate rock, accounting for roughly %24 of world imports. As a large consumer of phosphates, and with limited phosphate rock production of its own, India must import phosphate rock and phosphoric acid to produce DAP and NPK products. The remainder of imports is fairly evenly spread among countries in Asia, Europe and North America.

Chart (1): World Rock Exports and Imports (2004-2014)



Source: CRU, IFA, PotashCorp

➢ The Primary Import Market and Largest Exporter of Phosphate

Morocco is the world's largest exporter of phosphoric acid, accounting for approximately %47 of world trade. The largest concentration of phosphoric acid exporters is in Africa; accounting for around 68 percent of total world trade. India is the world's top importer of phosphoric acid, accounting for close to half of world

imports. Europe is also a major importing region due to its own limited phosphate rock capacity.

➢ Concentration of Phosphate Reserves

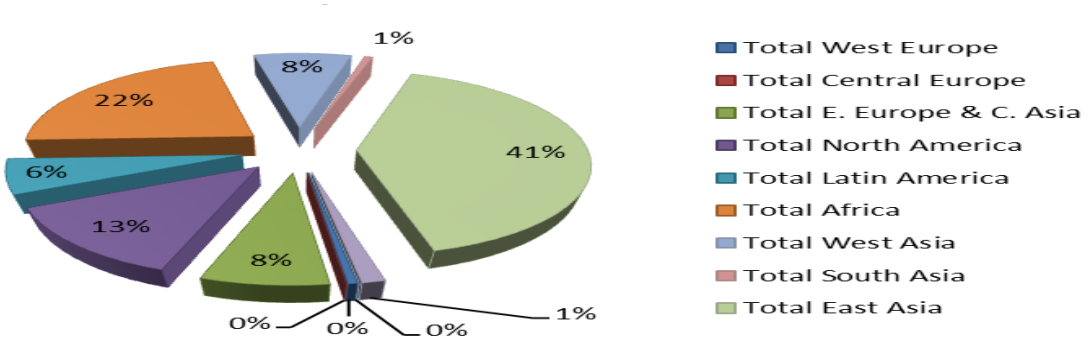
Phosphate rock is found in significant quantity and quality in only a handful of geographic locations. Morocco/Western Sahara has approximately %75 of known global reserves, as reported by the US Geological Survey, and %15 of world capacity. US deposits, primarily located in Florida, North Carolina and Idaho, account for approximately %2 of global reserves.

There are a number of factors that can affect the viability of developing a rock deposit for mining. These include the quality of the deposit, government stability, access to financing, environmental requirements and proximity to target markets. Given the concentration of deposits in North Africa and the Middle East, government stability is a major factor to consider when evaluating potential phosphate project developments.

➢ Phosphate Demand

Phosphate is mainly used in the production of fertilizers (85% of world phosphate utilization). Animal feeds, human food complements (8%), industrial uses (5%) and specialty chemicals (2%) account for the remainder. Global fertilizer demand for phosphate is therefore the main driver for the growth of phosphate rock production as there are no known significant substitutes or alternatives to the application of phosphates in that field.

Chart (2): World Phosphate Rock Production 2014

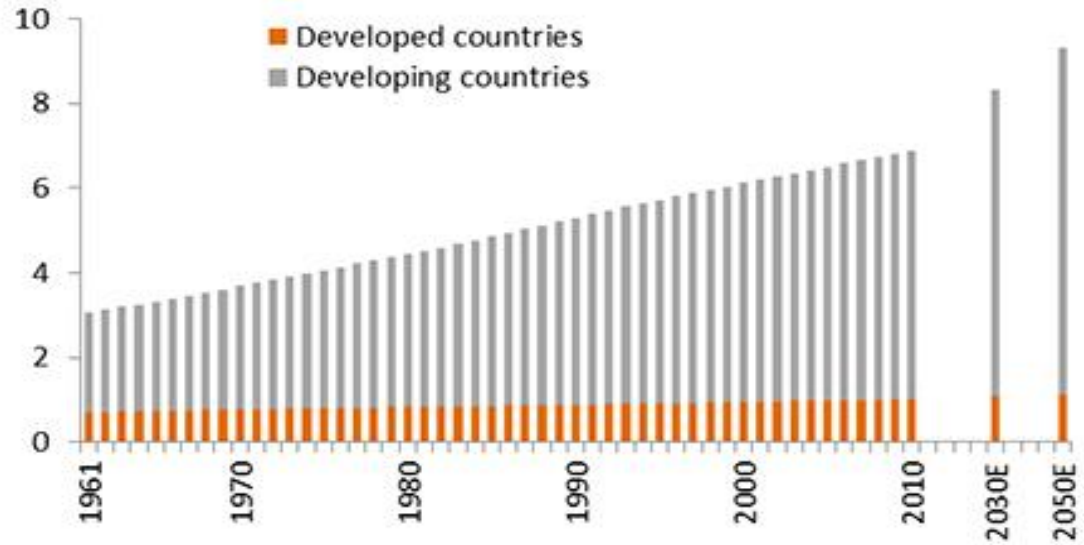


Source: IFA

➢ **World Population Growth and Fertilizer consumption**

Fertilizer consumption is closely correlated to world population growth. World population has steadily increased in the past 60 years and is expected to reach 9.2bn in 2050 (source: United Nations) up from 7.2bn currently.

Chart (3): World Population Growth, billion people (1961-2050)



Source: FCA

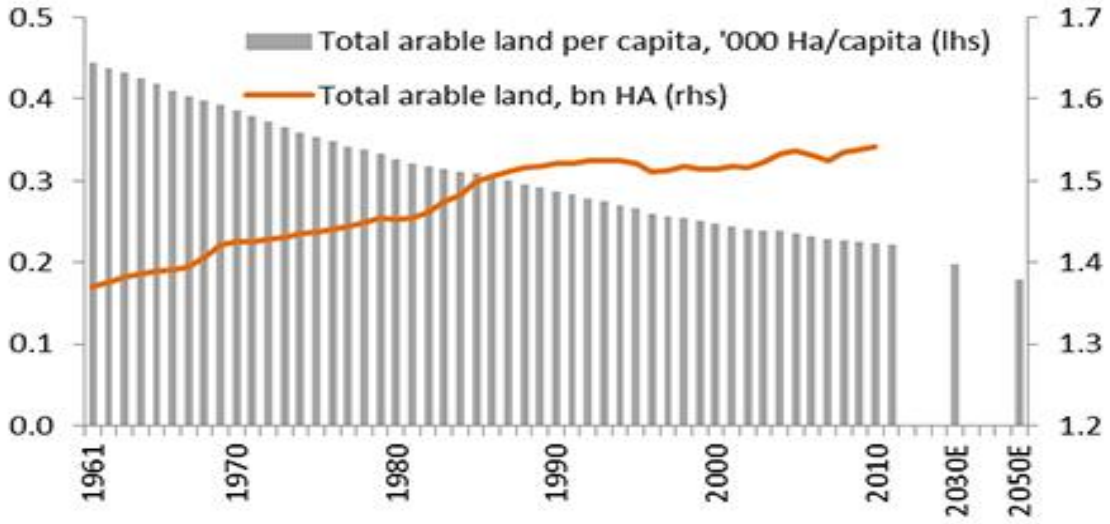
➢ **Caloric Consumption**

An additional factor to fertilizer consumption growth is the worldwide increasing calorie intake per capita. This phenomenon is particularly strong in the developing world with China and India leading the change. High calorie intake diets are becoming widespread with increasing prevalence of meat, dairy, and oilseeds which are all increasing the demand for grain, stock feeds and agricultural production in general.

➢ **Arable Land**

As arable land expansion is being superseded by population growth, the only possibility left is an increase in agricultural production yields. This is turn is the main driver for the increase in fertilizer usage worldwide.

Chart (4): Total Arable Land and Total Arable Land per Capita (1961-2050)



Source: FCA

- **Phosphate Supply**

A large supply of phosphate rock emerging in Africa, East Asia and West Asia, the Global phosphate rock supply in 2016 is projected to expand by 6% over 2014, to 232 Mt in 2019 (source: IFA). Large expansions are projected in only three countries: Morocco, Jordan and China. Together, it is estimated that Morocco, Saudi Arabia, Jordan and China will account for 80% of this 35 Mt increment (source: IFA). These increases are partially offset by reductions in the United States and by the situation in Syria. The bulk of the incremental supply would be mostly dedicated to captive downstream processing.

3. Company Overview

Jordan Phosphate Mines Co. is a public shareholding limited company established in 1949 and four years later in 1953 incorporated as a public company. Its current capital is JOD 75 million. The company's objectives are the exploration of phosphates and fertilizers also aims to promote mining and processing phosphate ore in Jordan. During the last six decades, the Company has assumed its pioneering position among the international companies in the fields of mining and producing fertilizers. It has become a major component of the Jordanian economic structure and exports.

The activities of the Jordan Phosphate Mines Company can be classified under two complementary sectors: mining sector and phosphate fertilizer manufacturing sector. Through the integration of both sectors, the company has firmly proven its capabilities in the international markets. The company operates its production activities in the Hashemite Kingdom of Jordan, which has the fifth largest reserve of phosphate in the world, equaling 3.7 billion tons, 1.25 billion tons of which are the reserves of the company's mines. That made Jordan Phosphate Mines Company to be the second largest exporter, and sixth largest producer of phosphate in the world, with production capacity exceeding 7 million tons of phosphate annually. By the year 2006, the company was privatized in order to enhance the national economy as part of the country's economic reform program strategy.

The Company's Headquarter is located in Amman, the capital. The Company owns as well, four mines located in the center and south of the Kingdom, namely: Russaifa, Al-Hassa, Wadi Al-Abiad, and Eshidiya mines, in addition to the Department of Research and Quality in the city of Russaifa, and the Industrial Complex in the city of Aqaba, which aims at transforming the phosphate raw material into other products with added values. The Industrial Complex is considered one of the largest phosphate fertilizers complexes in the Middle East. Furthermore, the Company has constructed the Phosphate Port, located in Aqaba, which is especially used for exporting phosphate. The phosphate port facility is enhancing the operations of

phosphate exporting to the various international markets. The Company is currently working on expanding and developing the Industrial Port, and adding certain modifications to adhering to environmental issues.

➢ Main Products of JPMC

JPMC is producing five different types of products as the following:

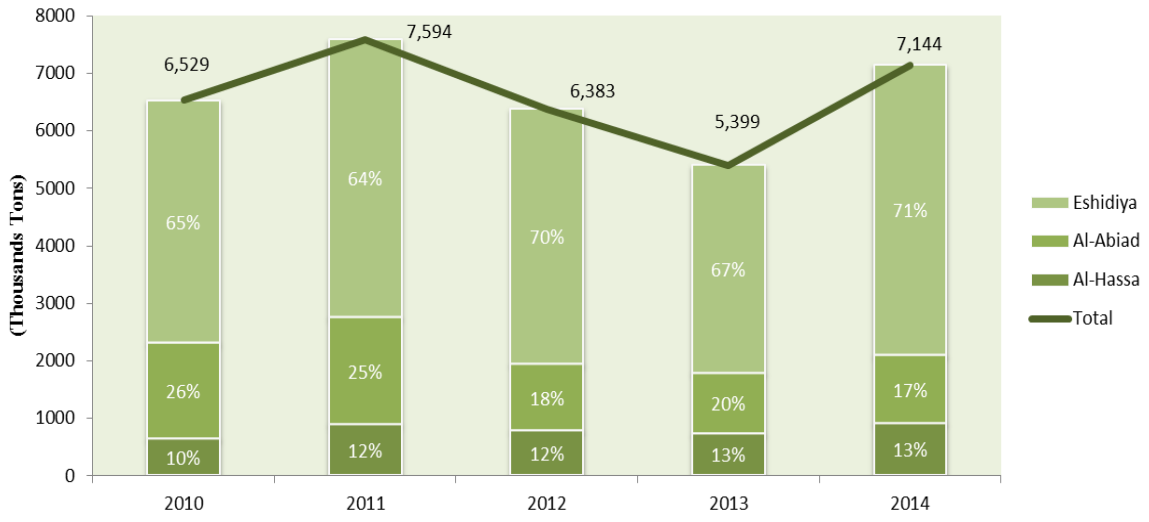
1- Phosphate

The phosphate of the Jordan Phosphate Mines Co. is considered of the highest quality phosphate in the world. Heavy metals ratio in the phosphate, which is harmful to the environment, is less than the acceptable international standards. Therefore, Jordanian phosphate is considered environment friendly.

The Company is having huge reserves of phosphate rocks, estimated at 1250 million tons, which helps it to build long term partnership with the fertilizers producer in the world. Thus, the Company can guarantee fulfilling the requirements of its customers in terms of quality, quantity, and delivery time.

Phosphate is produced from three mines in the middle and south of the Kingdome; they are Al-Hassa, Wadi Al-Abiad and Eshidiya. Produced phosphate is transported from the mines to Company's factories and for exporting by trains and truck.

Chart (5): The Dry Phosphate Production Quantities from the Company Mines during (2010 -2014).



Source: JPMC annual report of 2014

2- Di-ammonium Phosphate (DAP)

DAP is produced at a capacity of 1,500 tons/day for each unit. Concentrated phosphoric acid, produced in the Industrial Complex, and the added imported ammonia to produce the fertilizer. DAP is stored in a special storing facility with a capacity reaching to 60,000 tons. It is sold to the local market and the international markets, such as India, Ethiopia, Turkey, Iraq, and other countries.

This fertilizer contains 18% nitrogen and 46% phosphor pentoxide, which is soluble granular, and leads to easy absorption by the plants. It can be used by the farming machinery, for all crops and trees, and at either rain-fed or irrigated land. The fertilizer is used either directly or as an input to produce other fertilizers such as liquid and suspended compound fertilizers.

3- Phosphate Acid

Nine hundreds to 1310 tons of diluted phosphoric acid of (28% P2O4) concentration are produced daily, depending on the type, by having phosphate chemically reacts with sulfuric acid, which produced in the Industrial Complex, using (Prayon Wet Process).

Phosphate is delivered from the different mines by trucks, where trucks unload in the Phosphate Unloading Station, with its daily capacity of 6,500 tons. Phosphate is, then conveyed by conveyor belts to the two silos, each with the capacity of 18,000 tons. An open storage yard is of the capacity of 100,000 tons is also available. Phosphoric acid is an intermediate product for multiple industries such as fertilizers, animal feed (dical), detergents, and some food industries.

4- Sulfuric Acid

Sulfuric acid is produced in two units with 98.5% concentration, and a designed daily capacity of 2,500 tons for each unit. Sulfur used in producing sulfuric acid is imported from Arab neighboring countries, Iraq and Saudi Arabia, and from some foreign countries as Russia and Iran.

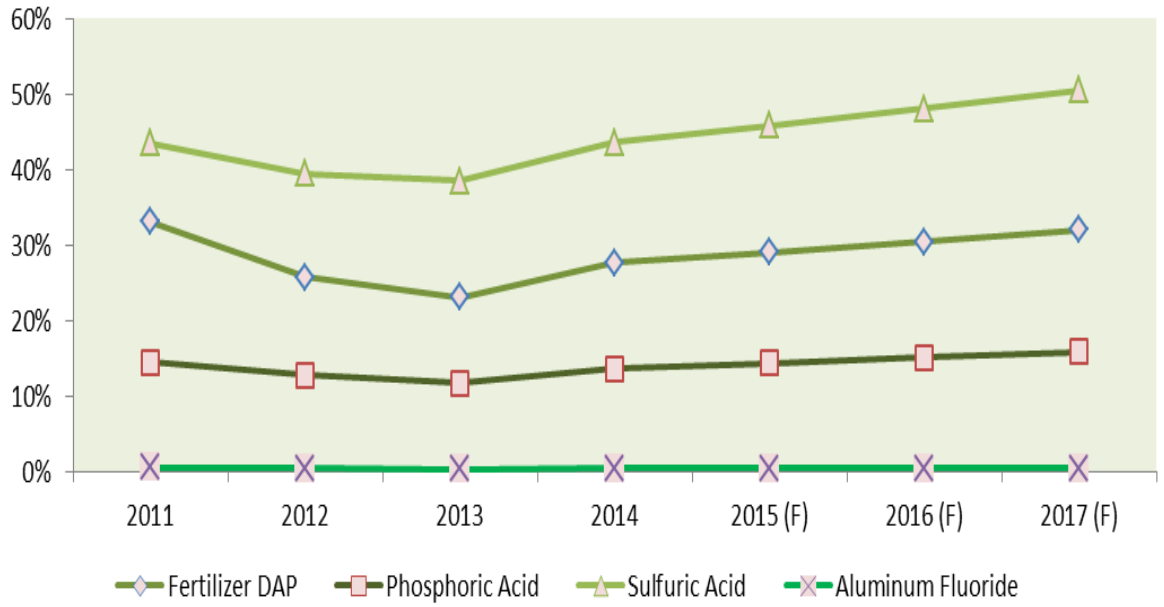
Sulfur is stored in a storage facility of a capacity of 35,000 tons, in addition to an indoor storage yard that can take 18,000, and another storage yard outside the

Complex, which can take about 150,000 tons. Sulfuric acid is used in various industries such as water treatment, batteries, and as a solvent in various industries. It is also used in producing phosphoric acid.

5- Aluminum Fluoride

Aluminum fluoride is used in extracting Aluminum from its ores by lowering the melting point in the electrical cells during the manufacturing process.

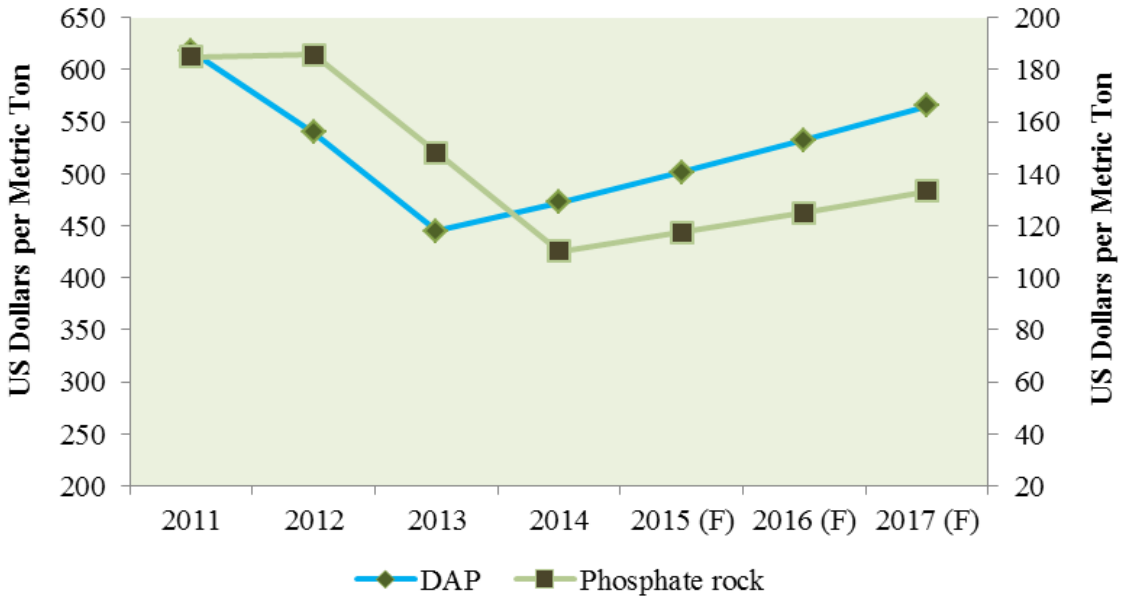
Chart (6): The JPMC product capacity utilization rate during (2011-2017).



Source: JPMC annual reports

The Operating performance of JPMC remained well balanced. JPMC capacity operated at utilization rate of the DAP and Sulfuric Acid at 71% in 2014 as compared to 62% in 2013. All products depicted a decline in their utilization rates in 2013 as result of global recession period but we expect to increase the productions quantities after 2014 as result of the growth expectations in world populations which may lead to increase food consumption which need more fertilization and arable lands, in addition to that the expectations to increase the productions in quantities of these products in the JPMC future plans as we mentioned before, furthermore the increase in the quantity produced was because of expectation in higher demand for phosphate as global demand trend after 2014.

Chart (7): Average Selling Prices (2011-2017).



Source: World Bank

Worldwide commodity price took a beating starting 2013. Ever since then the prices have continued their upward trend. International spot prices of DAP and phosphate rock increased by 6% and dropped by 26% respectively during 2014 as compared to average prices of 2013.

The average international benchmark price in 2014, as per the World Bank, is US$110/metric ton and US$473/metric ton for phosphate rock and DAP respectively, down from 2013 levels of US$148/ metric ton and up from US$445/ metric ton.

Going forward we expect the 2015 price to be up on an average by 6% and 6.5% for phosphate rock and DAP to US$118/ metric ton and US$502/ metric ton respectively. Later on we expect the prices to prop up with the expectation of economic recovery and drive towards increasing yield rising the demand and in turn increasing the prices.

4. SWOT Analysis of JPMC

This dynamic and strategic SWOT analysis of Jordan Phosphate Mines Co provides a strategic SWOT analysis of the company's businesses and operations. This SWOT analysis shows a comprehensive view of the company's key strengths and weaknesses and the potential opportunities and threats, in addition to provide a competitive advantage to the company which expected to faces a growth potential and new products and services can be seen.

5. STEEPLE Analysis of JPMC

STEEPLE (Social, Technology, Economy, Environment, Political, Legal, Ethics,) analysis requires considering the following broader external factors that could influence the business prospects and the nature of the business activity. The organization interacts with the environment and draws certain inputs from environment, which are the transferred to the outputs. The main subsystems included in the organizations include the following (Wheelen, et al., 2000):

- The Social system;
- The Technological system;
- The Economical system;
- The Environmental system;
- The Politico-legal system.
- The Ethical system

The following is the STEEPLE analysis for the Jordan Phosphate Mines Company (JPMC);

- **Social**

The company produces a wide range of products. However, marketing these products depends on three main factors:

(1) The geographic location of both the products and consumers.

(2) The population growth rate. This factor is considered as an indicator of phosphate consumption rate. Countries of high population growing rate are considered to consume bigger amounts of phosphate.

(3) The living standards of people. This factor plays an important part in the success of phosphate sales in the world. That is because enhancing the capacity of the soil to produce foods requires special effective fertilizers.

Factors 2 and 3 are interacting and overlapping at some degrees. It means when the rate of the population growth becomes high, the demand on food increases in

general, and this also increases when there living standards get higher. This has led the demand on the Jordan phosphate and fertilizers to be higher. JPMC has initiated several strategies to face these new challenges.

Firstly, The Company tries to enhance its production rate of all phosphate components.

Secondly, it enriched the transportation fleet by adding a good number of special trucks. On the other hand, the Government of Jordan sated a project to improve the highway (the desert road) which includes the road from the production locations and the exporting port (AQABA).

Thirdly, The Company through its management public and international relations are working hard to use innovative ways of advertisement, which could appeal to the consumers and could help them enhance their market shares.

Finally, JPMC has clear and positive impacts on people in Jordan. That is because the company employs big number of technical people who satisfy a high quality of performance.

- **Technological**

JPMC mainly faces two challenges concerning this part of the whole analysis:

(1) Transporting the company's products to the exporting port.

(2) The telecommunication capacity.

JPMC does not rely on high tech production techniques to treat and transport its products. It has several locations distributed on wide area in the country. In addition, it has a relatively big number of employees. However the use of technology in phosphate extraction, transporting, treating, and advertising as well could help the company gain a competitive advantages in business. Lately, the company has made two steps:

(1) It developed its capacity in transporting its products efficiently by having new big trucks. This has helped strengthening the exporting capacity and save more efforts, time, and income money.

(2) It renewed the communicating technology by having an interactive web and offering the internet services to all people at all locations free of charges. This new modern technology is expected to develop the capacity of the human resources management and reduce the number of employees which reduces the whole cost accordingly.

- **Economical**

There are five main historical events that affect the economical profile of JPMC:

(1) The declining the value of the Jordanian Dinar to the half of its real value on 1989 has enlarged the unreal profit, when calculated in local currency.

(2) The economic depression on 1989 has affected the sales for JPMC's main products. This has led to the competitive suppliers ceasing to operate owing to the market pressures.

(3) The 1990 Gulf war (the Iraqi Invasion of Kuwait).

(4) The impact of the global spike in inflation that accompanied the financial crisis of 2008.

(5) The Global Food Crisis in 2008

That made the economic situation worsened and led to the decline in JPMC's contracts with its main buyers and increased the insurance fees to high rates. To counter these obstacles effectively, the company made strategic moves, as it cooperated with other companies at the targeted markets. It signed four strategic agreements with India, Japan, Qatar, and Pakistan. These agreements participated in facilitating the main marketing issues and enhanced the financial status of the company.

- **Environmental**

There are two situations associated with the environmental system of the JPMC, and they have been presented as follows:

(1) Generally speaking, there has been a significant increase in awareness in recent years of the potentially adverse environmental impact of heavy metals in

fertilizers which, following application, can lead to high levels of contamination in the soil and rivers, coupled with the possibility of uptake by agricultural products. Accordingly consuming countries, particularly European and OECD countries including Australia, New Zealand and Japan, have introduced limits in relation to the heavy metal content of fertilizers.

(2) There is dust associated with the mining and production process at Al-Hassa, Al-Abiad and Eshidiya and gaseous emissions and liquid effluents from the Aqaba complex. In relation to the control of dust at its mines, JPMC has been dealing with these two issues positively through the following approaches:

(a) Technically speaking, JPMC believes that in the future permitted cadmium levels are likely to continue to be reduced as concern as to the environmental effects, particularly of cadmium contamination, increases.

(b) JPMC has introduced the use of telescopic tubes for the dumping of materials and the building up of stockpiles and has introduced closed systems, including dust collection systems in the production processes.

(c) At the Aqaba fertilizer complex, plant and equipment has been selected with environmental issues as a major consideration and the design specifications of the production facilities at Aqaba are based on standards issued by the Environmental Protection Agency of the United States. Keeping in mind, that one of the significant environmental and competitive aspects of Jordanian phosphate rocks is its relatively low concentration of heavy metals such as cadmium, lead, mercury, arsenic and zinc. All of which are considered to be environmentally hazardous, particularly cadmium.

- **Political and Legal**

Studying the political and legal system of the JPMC is so important since there is a number of a positive achievement the company has accomplished as follows:

(1) The joint business agreements that made between JPMC and India, Japan, Qatar, and Pakistan.

(2) The company conducts its quality assurance assessments of phosphate rocks and fertilizer and chemical products through units at Al-Ruseifa, at each of its mining locations and at the AQABA fertilizer complex.

(3) JPMC's Aqaba fertilizer complex and export department have obtained ISO9002 certificates as a result of efficient quality control procedures.

(4) The company established a by-law which requires the JPMC to allocate 1% of its profits each year (before income tax) to invest in research and development.

(5) JPMC initiated the early retirement program. That offered a chance to the some people having an encouraging package of benefits and quit. This program let the company recruit more qualified and modernized technical people and expected to increase its profit.

As a result of signing of the agreements mentioned above, a new wide and active market in Asia and Middle East has been created. That increased the company income more than expected. It also enabled the company to develop the skills of its employees in competitive planning and international communication in an efficient way. Concerning the quality assurance assessment, routine inspections are made of the phosphate rock extracted and processed at the various mines, with the contents being tested and analyzed for BPL quality and for heavy metal content. At the point of export for both phosphate rock and fertilizer products, a quality assurance process is undertaken. This includes the verification and review of the production location, grade of product, destination and the requirements of the customer.

In case of any discrepancies arise between the nature and quality of the product to be exported and that which is expected, the source of such product is contacted in order to review the potential discrepancy. The tests that are made are based on recognized international testing procedures derived from those followed by the Florida phosphate producers, a common industry standard. Responding to the by-law of research and development, the company expended between JD 0.75 million and JD 1.5 million per year on research and development. JPMC is also involved in the research and development activities of the joint venture companies in which it has an interest. JPMC employs approximately 60 people in research and development activities. JPMC's research and development unit also provides advice

and services to local industrial companies and co-operates with universities and scientific centers in Jordan. In particular, the unit uses local universities for assistance in research projects.

- **Ethical**

The main action the company has made concerning the ethical system is the safety procedures. These procedures affecting JPMC's operations that associated with its chemical and fertilizer production facilities in Aqaba. The various production processes involve the storage and usage of substantial quantities of highly toxic and corrosive substances, such as ammonia and sulphuric acid. JPMC has comprehensive safety and emergency procedures for its mining sites and the Aqaba fertilizer complex which are based on relevant United Kingdom standards and procedures and which have been reviewed by the International Bank for Reconstruction and Development. JPMC provides monthly safety awareness programs for its employees, has not experienced any material safety problems and considers its safety record to be satisfactory.

Based on the above kinds of presentations and analyses, it could be said that JPMC is one of the leading companies in Jordan; it is really considered as a national strategic project. That is because of the size of market locally or internationally. In addition, the company employs thousands of people at different levels. JPMC as any other business company interacts with the surrounding atmosphere concerning the markets, legislations, joint agreements, resources management, technology and others.

6. Financial Overview

The reason for selecting the time period between 2011 and 2014 is that the company was charged for deals corruptions by the Jordanian Anti-Corruption Commission which believed to have an impact on its accounts in addition to effects of the global recession period in financial and food markets. Financial statement analysis is concerned with a comparison of a company's performance with that of other companies in the same industry or business. The International Accounting Standards Board's (IASB 2010) framework declares that; "The objective of financial statements is to provide information about the financial position, performance and changes in financial position of an entity that is useful to a wide range of users in making economic decisions". Financial analysis recognizes a company's specific strengths and weaknesses and proposes a course of action the company may perform to take advantage of its strengths and rectify its weaknesses in the future. Financial statement analysis is not only significant for the management; it also is significant for the firm's creditors and investors. Information presented by financial analysis used internally and externally; for internal use, financial managers use information to assist make financing and investment decisions to maximize the value of the firm. For the external use, creditors and stockholders use financial statement analysis to assess how attractive is the firm's investment by investigating its ability to meet its current and predicted financial obligations.

Financial statement analysis engages examining the relationships between income statement items and balance sheet accounts in the sense of how these relationships vary over time that refers to a trend analysis, and how a specific firm compares with other firms in the same industry that refers to benchmarking or comparative ratio analysis. However, there are limitations with financial statement analysis; but when used with great caution, it can offer valuable information about the firm's operations. Annual report of a company presents two significant types of information to shareholders; the first is a verbal statement of recent operations of the company and its expectations for the future year, the second includes a set of quantitative financial statements that report the financial position of a company including

dividends and earnings, for the last few years. The information included in annual reports will assist shareholders to form a clear picture about the future dividends and earnings of a company. Annual report of a company includes the income statement that summarizes the revenues and expenses of a company during the accounting period and the balance sheet, which lists assets and liability, and shareholders' equity of a company during the accounting period. Financial statements used to assist forecasting future financial position of a firm and to ascertain predicted earnings and dividends. For investors, financial statement analysis is important for future predictions. For management, financial statement analysis is helpful in planning and forecasting future circumstances of a firm. The primary phase of a firm's financial statement analysis is ratio analysis. Ratio analysis refers to the analysis of financial statements and the interpretation of financial data for a specific period of operation.

7. Financial Ratio Analysis

Prices fluctuations is one major reason behind JPMC's profit and income volatility. Prices fluctuate as a respond to the market demand and supply. The main engine of Phosphate demand is the agricultural sector demand. From the results in "JPMC ratio analysis results for (2011-2017)" table, the current ratio revealed that the company enjoys the availability of liquidity and going the right direction as liquidity is growing year after year. Consequently, it can be said say that the company has adequate liquidity level to cover its current liabilities when compared to the industry average of 2:1 which reached 2.41 times in 2010 and decreased to reach 1.30 in 2014.

The results of the quick ratio reported that the company is enjoying an adequate level of liquidity. This makes it able to pay its current liabilities without having to liquidate any of its inventory compared to the industry average ratio of 1:1, this indicates that the company is close to the industry average and well positioned except for 2011 where the ratio is gradually decreased.

The results of the inventory turnover ratio revealed that the company is performing well in its inventory management in the first two years, and remains within the acceptable level and according to the company's policy. The ratio of days sales outstanding results showed that the average collection period was 34 days over the four years period, which is not so bad since it is not so far from the industry average of 30 days. Nevertheless, in 2014, the collection period dramatically increased to reach almost 55 days. This demonstrates the efficiency and effectiveness of the company's performance in its funds managing to invest in order to achieve profits from credit sales.

The results of total assets turnover revealed that the ratio did not exceed 2 times throughout the whole period when compared to the industry average of 2 times, these are due to inefficient management performance and effectiveness in the use of assets. The company ought to pursue policies that lead to increasing sales or reducing investments volume by disposing surplus assets. The accounts receivables turnover ratio results confirmed that the company is enjoying a good collection period of 10 days when compared to the industry average at a rate of 20 days during

the seven years of analysis. This demonstrates the efficiency of the management in achieving future profits.

The results of the gross profit margin revealed that the management is maintaining a good and acceptable gross profit margin rate ranged between 18.0% and 39.3% and shows the operations management efficiency. For the return on total assets, the results confirm that profitability and company investment are good and efficient investment and operational management policies also good. The ratio ranging on average 12% in first four years of analysis and this is good ratio when compared to the industry average rate of 10%. For the return on common equity, during 2013-2014 the management with its investment capabilities did not achieve a high rate of return. However, this ratio expected to increase from 2014 onwards to reach 7.2% in 2017. This is may be attributed to the lack of the company's reliance on debt financing and financial risk.

The results of the debt to total assets ratio revealed that the company follows an appropriate borrowing policy in most of the seven years period, with the exception of 2015 where it was 36% a little higher than the industry average of 30%. Consequently, the company's management has a good policy to avoid financial risk and balance between internal and external borrowing. The results of the long-term debt to equity that the management throughout the analysis period were largely depending on owners' equity to pay for long-term obligations, with the exception of slightly increase in the future. This signifies that the management is enjoying an efficient equity rights management policy.

In conclusion, the intention of this analysis is to analyze the financial statements of the Jordanian Phosphate Mines Company through ratio analysis technique. Such analysis is important to appraise the company's overall performance. This would assist the company's decision makers to make informed decisions, improve the value of the company, and consequently increase the shareholders wealth. The raw data was extracted from the company's' annual report the period between 2011 and 2014. The findings of this analysis showed that the company should work better on the standard rates for all the ratios on which to measure and compare the actual and

normative; this is because those indicators would achieve the goal of the performance evaluation and measurement of the performance efficiency more effectively. Furthermore, budgets planning used as a tool to monitor the implementation of the budget plans and objectives.

In addition, an attention ought to be given to internal sources of financing represented the shareholder equity (capital, reserves, and retained earnings), as it represents a safety margin that gives investors more confidence in the company's ability to cover its obligations. To avoid losing on investments opportunities, the company should maintain an acceptable level of liquidity to manage its operating fixed assets and short-term liabilities requirements.

On the other hand, the company should invest more on its operating fixed assets in order to increase its production capacity because these are industrial projects and considered as revenue-producing assets. This eventually increases profits and improves shareholders wealth. Finally, although the company went through corruption, legal issues and global recessionary period during the period of the analysis, the company was operating rather successfully.

The results of the price earnings ratio which affected by the decrees of market value revealed that the investors believe the company will run into hard times, but this ratio still remains within the acceptable level and according to the company’s policy. We expect this ratio will start to increase slowly by 2015, because the income statement of JPMC show’s that returned earnings is relatively large and the amount of capital expenditures is very low and dividends may be distributed in the future to be large.

➢ Chart Gallery - Jordan Phosphate Mines Company

Chart (8): ROA (%)

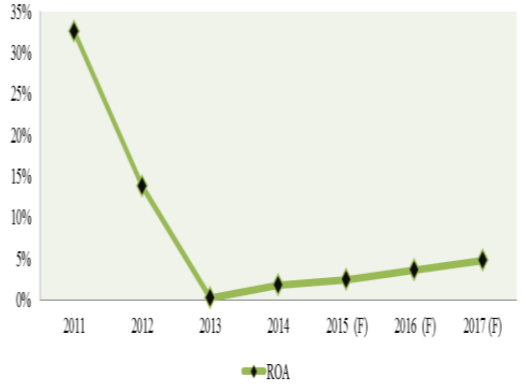


Chart (9): ROE (%)

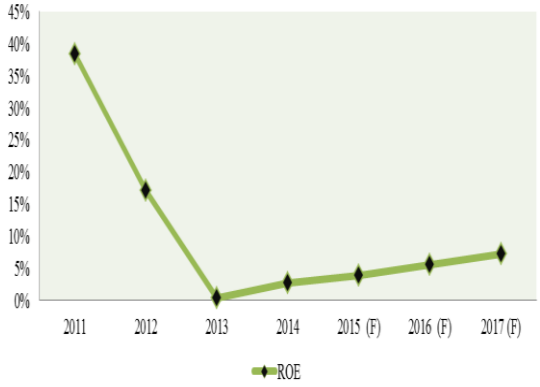


Chart (10): Gross Profit Margin (%)

Chart (11): Debt to Total Assets (%)

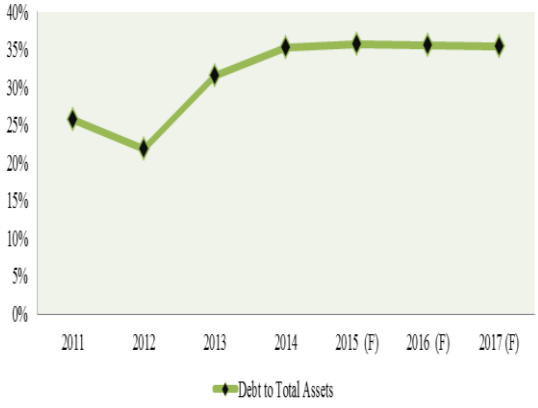
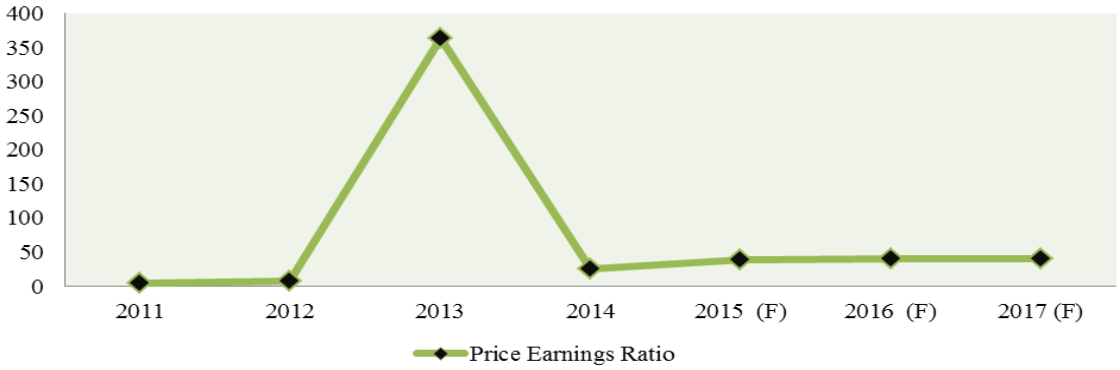


Chart (12): Price Earnings Ratio (Times)



Source: JPMC annual reports

8. Outlook & Valuation

In order to compute the cost of equity for JPMC, we have used the Capital Asset Pricing Model (CAPM).

The following assumptions have been made in order to arrive at the intrinsic value of Jordan Phosphate Mines Company.

- A risk-free rate of 3.5%.
- A return on the market index of .05%.
- Beta -5.6% has been calculated.
- The cost of equity derived from the above assumptions using the Capital Asset Pricing Model (CAPM) is 3.7%.
- The cost of debt 12.7%.
- Based on the above assumptions, the Weighted Average Cost of Capital (WACC) works out to be 4.5%.
- Tax rate of 20.0%.
- Cash Flow constant growth rate of 0.0% has been assumed.

➢ FCF Valuation

(JD' 000)	2011	2012	2013	2014	2015 (F)	2016 (F)	2017 (F)
EBIT	278,455	155,303	11,276	29,883	46,960	67,359	91,629
Tax rate	0.07	0.14	0.60	(0.02)	0.20	0.20	0.20
NOPAT	**259,089**	**134,246**	**4,456**	**30,334**	**37,568**	**53,887**	**73,303**
Net Operating Working Capital	242,828	261,146	228,976	234,194	237,579	240,041	241,384
Net Fixed Assets	175,739	162,564	170,994	160,758	168,796	177,236	186,097
Total Operating Capital	**418,567**	**423,710**	**399,970**	**394,952**	**406,375**	**417,276**	**427,481**
NOPAT		134,246	4,456	30,334	37,568	53,887	73,303
Net Operating Capital		5,143	(23,740)	(5,018)	11,423	10,901	10,205
Free Cash Flows (FCF)		**129,103**	**28,196**	**35,352**	**26,144**	**42,986**	**63,098**

➢ Valuation of JPMC

Based on our future earnings projections and the above assumptions, the value of Jordan Phosphate Mines Company comes out to be JD 15.9 per share.

(JD' 000)

Value of operations at the end of 2014	1,392,574
Add: Value of Non-Operating Assets	4,823
Total Corporate Value	1,397,397
Less: Value of Interest-Bearing Debt	131,130
Intrinsic Value of the Firm's Equity	**1,266,267**
Number of shares outstanding	79,399
Intrinsic Value per share	**15.9**

The stock closed at JD 6.5 on the Amman Stock Exchange at the end of trading at December 31, 2014. We therefore reiterate our '**BUY**' recommendation on JPMC's stock at its prevailing price levels because .

9. References

1. Wheelen, T., et al., (2000). Concepts: Strategic Management and Business policy, Addison Wesley

➢ Websites

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3. www.crugroup.com
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➢ BALANCE SHEET

Jordan Phosphate Mines Company							
(JD' 000)	2011	2012	2013	2014	2015 (F)	2016 (F)	2017 (F)
Assets							
Cash on Hand & at Banks	112,169	34,675	27,675	27,861	29,254	30,717	32,253
Short Term Investments	227	196	1,283	4,823	5,064	5,317	5,583
Cash & equivalents	**112,396**	**34,871**	**28,958**	**32,684**	**34,318**	**36,034**	**37,836**
Account Receivables, Net	56,797	60,459	41,205	110,203	115,713	121,499	127,574
Inventory	130,429	232,106	272,824	249,896	254,595	258,360	260,968
Other current assets	38,148	37,153	44,221	18,428	19,349	20,317	21,333
Loans receivable	1,500	0	10,250	29,312	30,778	32,316	33,932
Total Current Assets	**376,884**	**379,368**	**397,458**	**440,523**	**420,435**	**432,492**	**443,806**
Long Term Investments	114,500	164,030	222,189	235,105	246,860	259,203	272,163
Fixed Assets, Net	175,739	162,564	170,994	160,758	168,796	177,236	186,097
Projects in Progress	182,169	253,316	261,631	137,347	144,214	151,425	158,996
Total Fixed Assets	**357,908**	**415,880**	**432,625**	**298,105**	**313,010**	**328,661**	**345,094**
Other Assets	62,429	35,519	60,222	237,733	249,620	262,101	275,206
Total Assets	**911,721**	**994,797**	**1,112,494**	**1,211,466**	**1,272,039**	**1,335,641**	**1,402,423**
Liabilities							
Accounts and Notes Payable	25,314	39,683	71,616	91,259	92,975	94,350	95,302
Credit Banks	16,384	12,535	87,288	97,722	102,608	107,739	113,125
Accrued Part of Long Term Loans	15,138	12,236	18,096	32,354	44,141	44,141	44,141
Total Current Liabilities	**156,228**	**131,911**	**254,572**	**338,727**	**355,663**	**373,447**	**392,119**
Long Term Loans & Notes Payable	33,426	46,690	58,065	39,871	47,354	47,354	47,354
Other Liabilities	45,079	38,140	37,576	48,916	51,362	53,930	56,626
Total Liabilities	**234,733**	**216,741**	**350,213**	**427,514**	**454,379**	**474,730**	**496,099**
Shareholders' Equity							
Authorized Capital	75,000	75,000	75,000	75,000	75,000	75,000	75,000
Subscribed Capital	75,000	75,000	75,000	75,000	75,000	75,000	75,000
Paid-in Capital	75,000	75,000	75,000	75,000	75,000	75,000	75,000
Compulsory Reserves	75,000	75,000	75,000	75,000	75,000	75,000	75,000
Voluntary Reserve	75,000	75,000	75,000	75,000	75,000	75,000	75,000
Other Reserves	75,000	75,000	75,000	75,000	75,000	75,000	75,000
Proposed Cash Dividends	33,750	18,750	0	0	0	0	0
Accumulated Change in Fair Value	(25)	(128)	(29)	(136)	(136)	(136)	(136)
Retained Earnings	334,764	451,392	453,147	473,765	503,710	549,976	615,656
Total Shareholders' Equity	**668,489**	**770,014**	**753,118**	**773,629**	**803,574**	**849,840**	**915,520**
Minority Interest	8,499	8,042	9,163	10,323	11,046	11,819	12,646
Total Liabilities & Shareholders' Equity	**911,721**	**994,797**	**1,112,494**	**1,211,466**	**1,268,999**	**1,336,389**	**1,424,265**

➢ INCOME STATEMENT

Jordan Phosphate Mines Company							
(JD' 000)	**2011**	**2012**	**2013**	**2014**	**2015 (F)**	**2016 (F)**	**2017 (F)**
Operating Revenues	812,415	759,426	574,412	738,429	775,350	814,118	854,824
Operating Expenses	493,398	478,304	471,140	562,843	573,427	581,905	587,780
Gross Profit	**319,017**	**281,122**	**103,272**	**175,586**	**201,924**	**232,212**	**267,044**
General and Administrative Expenses	15,220	20,153	20,313	24,135	24,924	25,738	26,580
Selling and Distribution Expenses	15,712	56,739	48,599	61,660	66,809	72,387	78,432
Depreciation (period)	20,339	20,025	20,319	21,990	23,612	25,354	27,224
Other Operating Expenses	25,786	36,314	21,204	40,503	42,725	45,068	47,540
Net Operating Income	**262,299**	**167,916**	**13,156**	**49,288**	**67,467**	**89,019**	**114,493**
Other Revenues	24,756	7,658	13,803	11,265	11,437	11,611	11,788
Other Expenses	8,600	20,271	15,683	30,670	31,944	33,271	34,652
Income Before Interest & Tax	**278,455**	**155,303**	**11,276**	**29,883**	**46,960**	**67,359**	**91,629**
Interest Expenses	3,416	2,855	4,449	9,190	9,440	9,440	9,440
Net Income before Tax	**275,039**	**152,448**	**6,827**	**20,693**	**37,519**	**57,919**	**82,188**
Income Tax (Period)	19,129	20,670	4,129	(312)	7,504	11,584	16,438
Board of Directors Remuneration	76	45	103	70	70	70	70
Net Income	**255,834**	**131,733**	**2,595**	**20,935**	**29,945**	**46,265**	**65,681**

➢ JPMC Ratio Analysis Results for (2011-2017)

Type of measure	*2011*	*2012*	*2013*	*2014*	*2015 (F)*	*2016 (F)*	*2017 (F)*
Liquidity Ratios							
Current ratio	2.41	2.88	1.56	1.30	1.18	1.16	1.13
Quick ratio	1.58	1.12	0.49	0.56	0.47	0.47	0.47
Asset Management Ratio (Activity Ratios)							
Assets Turnover	1.03	0.80	0.55	0.64	0.62	0.62	0.62
Accounts Receivable Turnover	13.29	12.95	11.30	9.75	6.86	6.86	6.86
Accounts Payable Turnover	20.21	14.72	8.47	6.91	6.22	6.21	6.20
Inventory Turnover	4.76	2.64	1.87	2.15	2.27	2.27	2.26
Fixed Assets Turnover	4.62	4.67	3.36	4.59	4.59	4.59	4.59
Days Sales Outstanding	27.46	28.18	32.30	37.42	53.18	53.18	53.18
Profitability Ratios							
Gross Profit Margin	39.3%	37.0%	18.0%	23.8%	26.0%	28.5%	31.2%
Net Profit Margin	17.9%	17.3%	0.5%	2.8%	3.9%	5.7%	7.7%
Return on Assets (ROA)	32.6%	13.8%	0.2%	1.8%	2.4%	3.5%	4.8%
Return on Equity(ROE)	38.3%	17.1%	0.3%	2.7%	3.7%	5.4%	7.2%
Financial Leverage Ratios							
Long-term Debt to Equity	5.0%	6.1%	7.7%	5.2%	5.9%	5.6%	5.2%
Debt to Total Assets	25.7%	21.8%	31.5%	35.3%	35.7%	35.5%	35.4%
Market Ratios							
Price Earnings Ratio (Times)	3.73	7.38	363.81	24.73	38.12	40.33	39.81

➢ Global Equity Ratings Definitions

Global Rating	Definition
Buy	Fair value of the stock is >10% from the current market price
Hold	Fair value of the stock is between +10% and -10% from the current market price
Reduce	Fair value of the stock is between -10% and -20% from the current market price
Sell	Fair value of the stock is < -20% from the current market price

➢ JPMC Profile

Code:	**141018**
Reuter Code:	JOPH
Address:	Al-Shmaisani-Amman
Telephone:	5607141
P.O. Box:	(30) Amman 11118
Email:	administrator@jpmc.com
Fax:	5682290
No. of Branches:	Local 5 - Abroad 0
Main Objectives:	Researching phosphate and investing in the Kingdom, and establishing a factory / factories to produce fertilizers in different forms.
General Manager:	Emad Madadha
No. of Employees	

	Male	Female	Total
Jordanian	3592	180	3772
Non Jordanian	0	0	0
Total	3592	180	3772

Source: Amman Stock Exchange (ASE)