

ANALYSIS ON ELASTICITIES AND CASUALTIES OF FINANCIAL PERFORMANCE

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ABSTRACT

This study aims to identify elasticities and losses in Jordan's stock markets for 2005-2018 in financial performance and determinants of mining and extractive enterprises. The conceptual framework builds on resource-based perspective theory in a description of the interaction between external environments and company financial success. The return on assets ratio is used as the proxy for the measurement of financial performance. Meanwhile, independent factors include the characteristics of the company, its macroeconomic variables and its non-economic factors. The results show that the bidirectional causalities between FDI and SMI, M2 and SM, between EC and EC have been confirmed. and GDP and between EC and GF C. Unidirectional causalities existed between FDI and GDP, between FDI and FDO, between EO and GDP, between EO and EC and between L and M2. Generally, Jordanian policymakers focus on attracting more FDI by increasing financial market liberalisation and economic indicators. This is because further FDIs are expected to reduce economic hurdles in the Jordanian economy (e.g. lower unemployment, higher technology and management skills, higher capital size).

1. INTRODUCTION

The mining and mining sector is one of the oldest industrial enterprises in the world. For major countries like Canada, the US and Australia, mining was vital. Meanwhile, a broad range of mining deposits are available throughout the western hemisphere. Russia is Europe's leading mining country, and Africa is mineral-rich. Many key mining companies have therefore been developing mining operations for decades (Maverick, 2020).

In general, mining and extractive industries in 81 countries, which include 3,5 billion people, play a critical political and social economic role in the lives of this sector. Fifty-one are complemented by the transparency initiatives of the extractive

industry, while many countries still face numerous challenges, including weak governance and the dependence on resources (World Bank, 2020). The industry is therefore one of the most important contributors to the economy and plays a key role in local and international economic development of any country (Matar & Eneizan, 2018).

In most countries of the global economy, FDIs are an important source of capital project funding. FDIs have become a crucial funding source. FDI has a key role in economic growth, particularly in undercapitalized developing countries with limited resources affecting their economies. FDI supports economic growth and growth

and provides additional money, technology and skills needed to achieve higher levels of productivity (Singhania and Gupta, 2011; Caves, 1996; Dunning, 1993). In addition, economic theory suggests that aggregation provision (GDP) is tied directly and indirectly to FDI, energy (EC), economic openness (EO), gross fixed capital formation (GFCF), jobs (L) and measures of financial development (Uddin et al., 2013; Odhiambo, 2010). These variables have made an important contribution to the economic development of the developing and the advanced countries, through technology, information transmission, people resources and others (Bekhet and Al-Smadi, 2015; Uddin et al., 2013; Batten and Vo, 2006; Tang et al., 2008; Li and Liu, 2005).

2. LITERATURE REVIEW

Many academics suggest the relationship between domestic investment and FDI inflows is unfavorable, as FDI inflows into the hosts economy could impact domestic investment overwhelmingly (Bekhet and Al-Smadi, 2015; Nourbakhshian et al., 2012; Krstevska and Petrovska, 2012; Lipsey, 2004). A further impression of financial growth is that the efficient financial systems (for example, banks, equity markets and bond markets) that are the channels of capital and the advantages of economic growth are influenced by the economic growth (Khan et al., 2014; Otchere et al., 2011).

However, numerous studies studied how the FDI and the FD indicators are related. The relationships between, for example, GDP, EO (Stock Market Index), CPI and FD were explored in Jordan, Bekhet and Al-Smadi (2015) as well as financial supplies (SMI)

and SMI (M2). Results indicated the long-term and short-term relationship between FDI, SMI and M2. Indeed, a healthy financial sector fosters foreign investment, eventually leading to economic growth, investing and supporting productive enterprises (Bekhet and Al-Smadi, 2015; Uddin et al., 2013; Raza et al., 2012). Kumar (2011) has also investigated, with the monthly time serial data for 2006–2010, long term and short term causal relationships between SMI and FDI inflows in India. FDI is co-integrated with the SMI, the results showed.

In addition, asset return is one of the most essential measures for financial performance measurement (ROA). This indicator is a key measure of the general sense of health and financial stability of companies (Robin et al., 2018). Cumulative ROA performance has fluctuated from 2005 to 2018 for mining and extractive companies. The ROA ratio went down from 9.4% in 2005 to 28.1% in 2008, followed by a fall to 12.8% in 2009. In the mining and extractive companies, cumulative ROA decreased from 20.1% in 2011 to 0.5% in 2017.

Companies also aim to achieve the highest ROA possible, as this reflects the ability of companies to make profits from their assets. The more profitable, effective and productive a company is the higher the ROA (Gallo, 2016). Nevertheless, the characteristics of companies (size, leverage, liquidity, etc.) are related positively to Jordan's overall income level (Samhan & Al-khatib, 2015).

However, GDP growth plays a crucial part in shaping Jordanian enterprises' financial performance (Kharawish et al., 2011). The

combination of macro- and micro-variables therefore impacts company financial performance (Egbunike&Okerekeoti, 2018). Based on this, the objective of this study is to revise the association of financial performance (ROA) with mining and extractive companies listed in ASE, identifying the most critical elements affecting the financial stability of the Jordanian economy.

3. DATA, VARIABLES, AND METHODOLOGY

This section discusses data description and sources, definition of variables, methodology and stationary tests.

3.1. Data Sources and Variables Definition

This document uses balanced panel data from 2005-2018 from mining and mining companies listed in ASE. The data sources included annual reports on mining and extractive mining in ASE for the years 2005-2018 such as the Comprehensive Revenue Statement and the Financial Position Statement in ASE. Meanwhile, on the World Bank web site, macroeconomic variable data were collected. Furthermore, all the variables of the study have been turned into natural logarithmic to reduce heterozedasticity and achieve the corresponding growth rate through their different logarithms (Li et al., 2020; Matar, 2014). The data used in this study is shown at Table 2.

3.2. Model Specification and Methodology

A linear equation is used to perform the regression analysis based on the theoretical background, past studies, and subsequent to Al-Qudah (2020), Al-Harbi(2019), Robin et al. (2018) and Bayoud et al. (2018).

Equation (1) for research on the elasticities between financial performance and the determinants is the model used for this analysis.

$$LROA_{it} = \mu + \alpha_1 LSZ_{it} + \alpha_2 LSG_{it} + \alpha_3 LLV_{it} + \alpha_4 LLQ_{it} + \alpha_5 LGDP_{it} + \varepsilon_{it} \quad (1)$$

Where, Table 2 defines all variables. $I = 1, 2, \dots, 10$ company names; $t = 2005, 2006, \dots, 2018$ timeframe indicates; It is a phrase of error. Many steps are taken in order to estimate the elasticity of the financial performance in ASE. These initial tests would help identify the right model to evaluate ROA and its determinants' magnitude and direction of the elasticity. (a) measures of data quality, beginning procedures, descriptive statistics, links shall be applied. (b) Stationary and co-integration panel tests have been used. The tests include Maddala and Wu (1999), Hadri (1999), Breitung (2000), Levin, Lin, and Chu (2002). The co-integration test for Kao and Pedroni Panel was then applied to establish that the variables are dynamic. (c) After long-term panel-serial relations based on co-integrating tests, the sign and size of the links between financial and their determinants are necessary. Researchers did not establish a consensus in assessing lower partial and robust coefficients, according to Kumaran et al. (2020). In this work, the statistical program E-view version 9.5 is utilized in order to implement the dynamic panel dynamic ordinary less squares (DOLS), the completely modified panel dynamics of ordinary less squares (FMOLS) and the Pooled Mean Group (PMG).

The basic idea behind the FMOLS technique is to consider serial correlation and the endogenous check for the explicative

variables derived from a co-integration relationship (Tuna & Yildiz, 2016). The FMOLS technique delivers accurate sample size estimations and tests the robustness of the results (Bashier & Siam, 2014). FMOLS is non-parametric and by default takes into account the problem of autocorrelation. Thus, OLS regression endogeneity and serial correlation issues in the FLOMS technique are corrected (Pasha & Ramzan, 2019). In other words, because of endogenous difficulties, the OLS estimator is biased. The DOLS co-integration estimator takes this bias into consideration (in the first difference) by adjusting the fixed return with contemporary values, guidelines and lags (Muye & Muye, 2017; Monsura & Villaruz, 2021). The DOLS estimator examines the endogeneity and autocorrelation issues in panel data regression (Pasha and Ramzan, 2019). The DOLS approach can therefore be used, especially in small samples, as a more robust method, regardless of the integration of factors (Demirgunes, 2016).

Conclusion

The paper examines the elasticity and the losses between the financial performance of the ASE mining and extractive enterprises and their causes. It also looks at the association of the Jordanian mining and extractive performance (2005-2018) between company characteristics (size, sales growth, leverage and liquidity), and GDP. Techniques are used for panels of data (FMOLS, DOLS, and PMG). Over the long run, the data showed that the mining and financial performance of extractive businesses had a major impact on firm size, sales growth, leverage, liquidity and GDP growth. In the short term, business size and

leverage have a large financial influence, while the other variables are minor. In addition, GDP and financial leverage and return on assets are twofold causal elasticity.

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