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The Impacts of Changes in Macro-Economic Data on Net Working Capital: The Case of Turkey's Industrial Sector

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Abstract

Ability to pay of a company's short term liabilities is closely related to its strong liquidity structure. One of the most important factors affecting the liquidity of a company is operating cycle. The main factors that determine the operating cycle of the company is its stock supply term, production stage time and debt payment due. These factors determine the amount of net working capital. Net working capital is calculated by subtracting current liabilities from short term liabilities and the management of net working capital is extremely important for the liquidity of a company. Many businesses may have financial difficulty even go bankrupt tragically due to miscalculation net working capital need or incorrect financial resources to finance to the net working capital need. In this study, it is intended to analyse the effects of changes in macroeconomic data over net working capitals of enterprises. For this purpose it has been calculated net working capital of the industrial market by using its sectoral balance sheet which was issued by Central Bank of the Turkish Republic for period of 1996-2014. The later it has been determined positive and negative trends of sector's net working capital by years and modelled for inflation, exchange rates and interest rates to determine if these macro-economic variables effect on net working capital of the industrial market.

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Keywords: Net Working Capital, Macro-economic Variables, Time Series Analysis

1. Introduction

In General, the concept of working capital (WC) means those investments in current assets which mean cash, securities, trade receivables and inventories. On the other hand WC can be used as net working capital (NWC) which

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is calculated by subtracting short-term liabilities from current assets as more descriptive concept for the purposes of working capital management. The investments in NWC may be interpreted as the capital which is obtained with operating cycle of the enterprise at shorter than one year. Therefore NWC represents the potential of liquidity of the enterprise to supply cash needs that will arise in relation to operating activities (Ramazan Akbulut, 2011, p. 196). According to Michalski (2008), the basic financial purpose of the firm is maximization of its value. An inventory management should also contribute to the realization of this basic aim.

Lending banks or lender commercial companies pay attention to relationship between short-term liabilities and current assets in the balance sheet of the company which they lend. Does the company have enough current assets to pay its short term debts? By calculating the NWC of the company can be answered this question.

NWC = Current Assets (CA) – Short-Term Liabilities (STL)

NWC will be positive when the company has more assets than debts otherwise negative. Positive NWC means that the company can continue its operating activities and growth increasingly. In the other word the company will able to continue making additional production with remaining CA after paying the STL. Negative NWC means the company cannot pay its short-term liabilities on maturity (Uğur Hakan Kılıç, 2014, p. 90) Net working capital increased in the negative trend can be an evidence that the company operates with low productivity so high amounts of negative net working capital may lead to the bankruptcy of the company.

The ability to short-term liabilities of the company closely associated with its healthy liquidity structure. One of the most important factors effected liquidity structure of a company is operating cycle. The basic factors that determine the operating cycle are relationships between supply conditions in the company's stock, the time during the production process, trade payables repayment duration and after sales receivables collection duration. These relationships determine the need for NWC of the company. In determining the company's working capital requirements mainly operating cycle is decisive. The figure 1 shows the production cycle of business.

The first stage of the operating cycle points out the time elapsed for the sale of the product; the second stage signifies the time elapsed for collection of sales. For example, in a production company, production process starts with cash. First component of working capital is cash assets. Company purchases various raw materials and raw materials are used in production and obtained products covert component of WC as inventories. In the final stage Inventories sale to costumers and occurs trade receivables. The trade receivables and the collection of receivables constitute the final stage of the WC. Longness or shortness of this stage is decisive on the working capital requirement. A successful working capital management depends on the sector in which the company, the company's commercial policy and the economic conditions (Büyükşalvarcı, Ahmet; Abdioğlu, Hasan;, 2010, p. 51)