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The impact of the economic crisis on the financial performance of multinational corporations☆

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ABSTRACT

We investigate the impact of the recent economic crisis on the financial performance of multinational corporations. The results show that multinational corporations in our study sample have increased more than 1.9 times (from $529.63 million to $1544.82 million) in their sales in Asia, and have increased 13.7 times (from $16.88 million to $247.74 million) in their sales in China from 1999 to 2012. Moreover, we find that the increase in Asian/Chinese percentage sales results in higher accounting performance after the crisis, in contrast to domestic firms. This result is robust and controls for firm and industry characteristics, and possible endogeneity issues. Finally, new entrant firms to Asia and China experienced an increase in ROA, while their matched firms and domestic firms did not. All these results indicate that firms which have taken aggressive actions (e.g., by strategically relocating their sales to other parts of the world such as Asia/China) experienced less adverse effects from the crisis compared with their domestic counterparts.

1. Introduction

The financial crisis of 2007–2008 is considered by many economists the worst economic crisis since the Great Depression of the 1930s. It resulted in the threat of total collapse of large financial institutions, the bust of housing market, prolonged unemployment, and a period of stock market downturns around the world. Also, the crisis is believed to contribute to the European sovereign-debt crisis as well.

The financial crisis has profound impact on US economy. In particular, the US gross domestic product (GDP) decreased by about 2% to $14.42 trillion in 2009[1] compared with the previous year. The US unemployment rate increased to 10.1% by October 2009, the highest rate since 1983 and roughly twice the pre-crisis rate. Share prices plunged both in United States and throughout the world. Dow Jones Industrial Average in the US lost 33.8% of its value in 2008.

The Euro crisis follows the financial crisis and has been affecting the countries of the Eurozone since early 2009, when a group of 10 central and eastern European banks asked for a bailout. The crisis not only introduced adverse economic effects for the worst hit countries, but also became a social crisis for the most affected countries. For example, in mid-2013, Greece and Spain reached the highest unemployment rates in the euro zone (both about 27%).

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[1] Source: http://data.worldbank.org/indicator/NY.GDP.MKTP.CD.

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There are numerous studies on the spillover effects of the Euro crisis on the US economy, but most of them focused on *macro*-level impacts through the channels of income, price, and exchange rates (see, for example, Furth and Ligon (2012), Anaraka (2012), Mann (2012), Philips (2012), and Hale, Marks, and Nechio (2012). Among others, Anaraka (2012) estimates the effect of the Euro crisis on US exports to Europe through the channel of income and foreign exchange rate. Furth and Ligon (2012) and Philips (2012) point out the possible direct and indirect impact of the European crisis on US exports. Hale et al. (2012) find that the European debt crisis has affected the global corporate debt market, leading to increased borrowing costs for US corporations.

Our study is different from previous studies in that we look at the *micro*-level impact of the crisis on the multinational corporations (MNCs). In the present study, we attempt to test the micro-level effects of the US financial crisis and the Euro crisis on US-listed MNCs. Much anecdotal evidence exists on the adverse effects of the Euro crisis on specific US multinational corporations (MNCs) from a micro-level perspective. For example, GM lost $361 million in Europe in the second quarter of 2012, in contrast to a reported profit of $102 million in the same quarter of 2011. Ford announced that its total profit fell 57% in the second quarter of 2012, losing $404 million in Europe compared with a profit of $176 million in the same quarter of 2011. Moreover, Ford has doubled its expected losses in Europe in the near term because its auto industry sales are at an almost 20-year low. Whirlpool reported that its sales declined by 7% in Europe, the Middle East, and Africa compared to 2011.

In the present study, we argue that multinational corporations can utilize the strategic flexibility provided by the firms' international investment and adapt more rapidly to the downward market compared with their domestic competitors. We find that multinational corporations have strategically moved their sales out of North American and European markets and into Asian market (Chinese market in particular) during and after the crisis. More importantly, we find that the multinational corporations have experienced an increase in the accounting performance (as measured by the return on assets) after the crisis which is not observed from their domestic counterparts.

Our study differs from previous work and contributes to the existing literature in several ways. First, unlike most previous studies which focus on macro-level impact of the crisis, we document the percentage sale changes in different regions of the world for a large sample of MNCs. Using a sample of 729 multinational corporations (both US-based and foreign-based), we provide empirical evidence that multinational corporations' sales in Asia have increased more than 1.9 times (from $529.63 million to $1544.82 million), and their sales in China have increased 13.7 times (from $16.88 million to $247.74 million) from 1999 to 2012. Second, we show that these increases of sales (both in % and $) in Asia/China result in higher accounting performance (proxied by return on assets). The results remain robust after controlling for firm characteristics (such as firm size, headquarter location, ROA of pre-crisis period), industry effect and possible endogeneity issues. Third, we compare the financial performance of MNCs with a sample of matched domestic counterparts. The results show that the matched domestic counterparts do not have a similar increase in accounting performance after crisis, suggesting the results are not driven by business cycles. Fourth, using an event study approach, we test the financial performance of the new entrant companies into Asian (Chinese) market and find that these companies experienced an average increase of 1.07% (1.88%) in ROA after their first entrance into the new market.

The rest of the paper is organized as follows. Section 2 develops hypotheses. Section 3 discusses data, and sample selection. Section 4 presents test methods and main results. Conclusions and discussions are in Section 5.

2. Hypotheses development

One of the most influential theories on the determinants of the location choices of MNCs is the eclectic paradigm of international production by Dunning (1988, 1995, 2009). It is well documented that the desire by MNCs to locate abroad is closely related to three types of advantages: ownership (such as technology and brand names), internationalization (i.e., the ability to take care of market imperfections and various transaction costs by using different strategies and contracts across countries) and localization (such as low corporate tax rates and good infrastructure from the host countries).

There are also numerous studies that focus on the determinants of foreign direct investment (FDI) and most examine the institutional environments of the host countries in which foreign affiliates operate. For example, Brainard (1997) empirically examines the trade-off between multinational sales and trade. She finds that overseas production by multinational corporations increases relative to exports the higher the transport costs and trade barriers and the lower the investment barriers and scale economies at the plant level.

Sanjo (2015) develops a two-country policy competition model for foreign direct investment between asymmetric countries. He finds that both the inflow of foreign capital and policy competition between the host countries change the investment location choice of the foreign firm.

Gastanaga, Nugent, and Pashamova (1998) focus on policy reforms in developing counties as determinants of FDI inflows. They find that the expected rates of growth, the corporate tax rates, the degree of corruption and the degree of openness are all important determinants of FDI flows into these countries. Helpman, Melitz, and Yeaple (2004) focus on the firm's choice between exports and foreign direct investment. They argue that only the most productive firms engage in foreign activities. Of those firms that serve foreign markets, only the most productive ones engage in FDI.

Fung, Iizaka, and Parker (2002) examine the determinants of US and Japanese direct investment in China using the regional data from 1991 to 1997. They find that the level of local GDP, policy variables and labor quality affect significantly the inflow of investment.

Several studies examine whether the differences in the country-specific factors could explain the financial performance of the multinational corporations. For example, Lee and Hong (2012) use FDI data and find a negative correlation between the corruption level of host counties and profitability of the MNC subsidiaries. Specifically, they show that MNC subsidiaries located in countries with a lower level of corruption are more profitable.