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Review Article

Channels of Contagion Effect on Stock Market Development in Asean – 5 Countries

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Abstract: This paper explains the theoretical channels of contagion effects on stock market development. Four channels are concerned in this paper. Portfolio adjustment by investors and monetary policies review made by the government and central bank to adapt the contagion effects, trade and financial linkages among the firms across countries and speculative activities through information asymmetry are the main channels concerned in this paper. Given by these channels, market players especially policymakers should play an important role to keep sustain the development of the stock market in ASEAN – 5 countries.

Keywords: on stock market development, stock market in ASEAN – 5 countries.

INTRODUCTION

As the saying goes, "when US sneezes, the world catches a cold", knowing that during US subprime crisis, the ASEAN stock market index dropped by 17 percent, where the largest stock market declines over the crisis period. Specifically, according to Chunxiu and Masih (2014), stock index of Singapore was declined by 27 percent while Thailand and the Philippines were declined by 21 percent. Given these, there are mixed views on whether the volatility transmitted during the crisis constitutes contagion.

In the other words: transmission of a large shock during a crisis is the contagion effect or it is just a continuation of the same cross-market linkages known as interdependence that exists during more tranquil periods. Also, these evidences show that any shock in US could retain its role as the key source of disturbance for the international market movement in ASEAN – 5 which comprise of Malaysia, Indonesia, Thailand, the Philippines and Singapore. Also, this critical role played by the US also acts as a source of international financial market changes through reflection on investment choice.

The relationship between the US and the ASEAN, particularly the first five members, began in 1977. After the Treaty of Amity and Cooperation (TAC) had been signed in 2009, the US was the first non – ASEAN country which has the resident ambassador and permanent mission to collaborate with the ASEAN members. Then, stronger relation was formed after the US had joined the East Asia Summit (EAS) in 2011 and the ASEAN – US Summits in 2012. In addition, in terms of trading partners, ASEAN – 5 was ranked as the fourth biggest export market for the US; after Canada, Mexico and China. Conversely, though the value of export amounted USD75 billion in goods and USD27 billion in services into the ASEAN countries, the US was the fourth largest trading partner for ASEAN since 2004. In terms of investment, according to the US – ASEAN Business Council Report (2017), the value of investment from the ASEAN into the US has increased from USD2.3 billion to more than USD26 billion in 2015. Meanwhile, the ASEAN has received USD274 billion cumulative investment from the US, starting from 2004. Supported by the ASEAN Business Outlook Survey in 2017, the level of trade and

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investment from the US to the ASEAN countries is expected to increase by 87 percent over the next five years. This is particularly due to AEC initiative, which convinces most of the US companies in establishing their future investment plan in the ASEAN.

These evidences show a significant increase in the economic ties between the US and the ASEAN markets. Given this connectivity, any shock in the US could affect the economies of the ASEAN – 5. This situation is also known as *contagion effects*. Forbes and Rigobon (2002) and Claessens and Forbes (2004) defined contagion as a significant increase in cross – market linkages, after a shock to one country or group of countries. Contagion effects are also related to the shocks; any exogenous shocks or adverse economic shocks occur in one country or region will affect other countries or regions. Some exogenous shocks are characterized by sharp price decline, increased stock return volatility and reduced trading liquidity.

In explaining the contagion effects on stock market development (*SMD)*, the contagion theory proposed by Henry Thornton (1802) which have been cited by Garcia, (1989), Moser (2003) and Werner (2014) are also applied in this paper. This theory explained on the transmission of crisis particularly in a banking sector which then termed as contagion. In later definition, Forbes and Rigobon (2002) explained that the contagion is constituted if there is a significant increase in the cross – market interaction after the crisis period. Otherwise, if there is no significant different in the correlation during pre – and post crisis period, it may not constitute contagion but only termed as interdependence.

Through utilizing the definition of contagion and interdependence proposed by Forbes and Rigobon, the effects of contagion on *SMD* in this paper are further explained through several channels. Such channels include portfolio adjustment, monetary policies, trade and financial linkages information asymmetry.

PORTFOLIO ADJUSTMENT

First channel of contagion effects on *SMD* is portfolio adjustment by investors. Based on the studies such as adjustment Billio, Lo Duca, & Pelizzon, 2005; Claessens & Forbes, 2004; , if there is a contagion effect, it might constitute a risky market for the investors which could affects their future cash flow and the expectation towards the market. Also, Beirne & Gieck (2012) states that, as the traders understand their roles, the available information regarding the contagion effects could be utilized in setting up their investment strategy to secure their position. Thus, traders will initiate an order to sell their stocks after the possibility of stock price depreciation (Moser,2003). Contrary, if there only interdependence disclosed, investors will maintain their position in a stock market and disregard of any shocks occurs particularly from the US stock market. Also, it indicates that there is a possibility of diversification opportunities in those market as they are interdependence as long as there is an inverse relationship in term of the stock movement and low correlation between the markets (Rezayat & Yavas, 2006). In this regard, the portfolio diversification could be implemented to reduce the total risk without sacrificing the expected returns.

MONETARY POLICY REVIEW

Secondly, contagion effects also trigger to a monetary policy review by government and central bank (Danielsson, Shin, & Zigrand, 2011;; Werner, 2014. It is associated to the control of monetary supply to the economy (Brunnermeier & Pedersen, 2009). Due to any vulnerability of a country towards global shocks, if there is a contagion effects were constituted, contractionary monetary policy will be implemented by government and central bank (Cheung, Tam, & Szeto, 2009). Thus, additional reserve by the financial intermediaries to central bank will be required which then reduced the amount of financial facility to the economy. As a result, investors' investment funds will be reduced which then plunge the *SMD*. Contrary, if there is interdependence is constituted, there is a possibility of expansionary or maintaining current monetary policy which increase the investment fund by the investors and boost the *SMD* of a country due to investment fund availability (Dungey & Vehbi, 2015). Thus, contractionary or expansionary monetary policy implemented by government will then affect the attractiveness of investment into ASEAN – 5 countries which then affect the *SMD*.

TRADE AND FINANCIAL LINKAGES

In addition, the third channel of contagion effects on *SMD* is trade and financial linkages among countries. Given by the interdependencies among countries, any individual firm, sector or market of a country can be affected by any adverse shock happen in another country (Claessens & Forbes, 2004). A firm which heavily rely on the import and export from the US would be affected by any adverse shock happen in the US (Marshall, 1998). For instance, any shock in the US might affect the performance of the firm in the US due to policy adjustment made by government. Thus, the affected firm which mainly involve in international trading would reduce the quantity of import. This action will affect the revenues, cash flows and overall performance of the exported firms (Moser, 2003). It will also negatively affect their trading partner and subsidiaries due to a contagion effects (Ndebbio, 2004). Given by a bad performance of the firm, investors will take an action to restructure their portfolio to other stable firms, sectors or markets. Consequently, it will finally affect the *SMD* of a country. Instead, if there is only interdependence found, any adverse shock happen in the US might not tremendously give a significant impact on the firms' performance (Poldauf, 2011).

Thus, investors might not alter their portfolio as the firm can still manage their risk of loss. Consequently, it might attract or maintain the existing investors in the market which maintain the *SMD* of a country.

INFORMATION ASYMMETRIC

Lastly, the contagion or interdependence can affect the SMD through information asymmetry (El-Wassal, 2013; Poldauf, 2011). It explains the information gained by the investors or fund managers prior to the action of the big player in the market (Barro,2012). Due to the high cost of gaining information, there will be a possibility of speculation made by the investors in adjusting their portfolios prior to the information obtained. If there is an information pertaining to contagion effects, investors would sell their share to avoid price depreciation. Meanwhile, in the case of interdependence information are obtained, they will maintain their investment in a stock market and try to diversify their portfolio within a safe market (Diamond & Verrecchia, 1981). Given by those action, it would affect the *SMD* in a country due to the herd behaviour of investors or fund managers.

Based on those circumstances, this study suggests that the contagion effects would reflects the behaviour of the investors to invest into a market through the stability of the market. If a shock could affect the performance of the stock in a market, it would indicate that those stock market are relatively less resilience toward external shocks. Thus, it would reduce the investors' confidence to invest into that stock market. Otherwise, relatively resilient stock market would attract more investors and boost the *SMD* in a country.

CONCLUSION

This paper describes the contagion effects on SMD theoretically. Based on the explanation, contagion can affect the *SMD* through shifting the behaviour of investors. There are two possibility of crisis transmission into the stock market either it is contagion or interdependence. If there is a contagion effect, then the SMD can be affected through abovementioned channels. Otherwise, if there is only interdependence is constituted, investors will rather hold their investment in the ASEAN – 5 stock market as it still safe. Given by this condition, policy makers should aware on these channels of contagion effects on the *SMD* in sustaining a healthier prospect stock market and attract more investors to invest into a stock market which then help the *SMD.*

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