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Review on Determinants of Capital Flight

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1. Introduction

Basically, capital flight is the shift of one investment to another in search of greater prospect or increased returns. Capital flight is sometimes stimulated by a nation's unfavorable conditions where the country may be undergoing high inflation or political turmoil. However, it is most commonly seen at times of currency instability. Most of the time, the outflows are large enough to affect a country's entire financial system. Simply to say, such phenomenon is bad for the home country as it deters the economy. This is especially true for developing countries whereby the nation's financial status is often not strong enough to sustain huge amount of capital flight. This will further increase foreign debts, distort the base for taxation and trigger real capital outflow (Khan & Haque, 1985). Epstein (2005, p.3) defined capital flight as "the transfer of assets abroad in order to reduce loss of principal, loss of return or loss of control over one's financial wealth due to government-sanctioned activities". Some researchers agreed that capital flight is mainly caused by cross-border investment activities, but some argued that capital flight is associated with illegality. This can be seen in previous studies by Erbe (1985), World Bank (1985) and Morgan Guaranty Trust Company (1986) whereby they linked capital flight with unrecorded capital outflows. On the other hand, Cumby and Levich (1987) contended that illegal capital outflows can also be considered as capital flight.

Less attention are placed on capital flight issues after the 1980 debt crisis in Latin America and the capital started to flow back to their origin countries (Ndikumana & Boyce, 2001; Collier et al., 2001). However, new issues began to come into view when there were huge amount of capital flowing into fast growing economies in the 1990s (Beja, 2006). In the aftermath of the Asian financial crisis, the international community started to recognize the importance of financial stability. As such, the new trouble nowadays no doubt has affected the global financial system, leaving the government and financial analysts uncertain of the ways to react towards such problems.

1.1 Measurements of Capital Flight

In general, the capital flight can be measured using the direct and indirect methods. As such, the literature on the subject matter is abounded with several capital measures. Cuddington (1986) measurement is also known as “hot money” measure of capital flight is a direct method in measuring capital flight. Cuddington (1986, 1987) and Schneider (2001) presumed that capital flight comes from “errors and omissions” and “short-term capital outflows from non-bank private sector” in the balance of payments statistic. This measurement proposes that capital flight goes unrecorded due to the illegal nature of the capital movements across the country. As compared to the other two measurements, it is the narrowest measure of capital flight.

The World Bank (1985) method compares the sources of finance (the change in external debt and net foreign direct investment), with the uses of finance (a current account deficit

and the change in official reserves) in defining the capital flight. In this method, capital flight is defined as the difference between capital inflows and foreign exchange outflow because it is assumed any inflow that does not finance the current account deficit or adds to reserves flees the country in form of capital flight (see Ndikumana & Boyce, 1998; Ndikumana & Boyce, 2001; Ndikumana & Boyce, 2003). This definition is also termed as “residual method” or “indirect method”, and it is a broader definition of measurement of capital flight.

In addition, Morgan Guaranty Trust Company (1986) measure was included in this study. This measurement is similar to the World Bank’s with one modification in which it excludes the acquisition of foreign assets by banks. Following this method, the acquisition of foreign assets by commercial banks does not consider as capital flight, however, the foreign asset holdings by other economic and financial units are classified as part of capital flight (Kirton, 1987).

2. Literature Review

There are numerous aspects that determine the inflows of capital into a country ranging from domestic to international settings. Capital flight depends on the rate-of-return appeal of foreign as compared to domestic assets when adjusted for the exchange rate. Kant (1996) conducted a research to study the relationship between Foreign Direct Investment (FDI) and the capital flight in developing countries. In this study, time series data from 1974 to 1992 in which the estimates was calculated by the World Bank (1985) measure.

Kant's study brought up three questions: 1) whether the FDI will lead to capital flight; 2) whether the specific measures of capital flight used would affect the relationship between FDI and capital flight; 3) whether capital flight was the consequences of investment climate perspective or preferential treatment. Based on the study that used contemporaneous-correlation as well as principal-component analysis, he found out that there is a negative relationship between foreign direct investment and capital flight in developing countries. In addition, mismanagement of the government caused capital flight to take place instead of privilege to the foreign investors.

A study conducted by Antzoulatos and Sampaniotis (2002) examined capital flight in 17 countries in Eastern Europe from 1993 to 1999 using quarterly data. From the study, they found that there is either positive or negative relationship between FDI and capital flight. The results of their empirical analysis suggested that an increase in FDI may basically encourage capital flight as the market will provide better foreign exchange rates. This shows a positive relationship between FDI and capital flight. On the other hand, when the foreign investors' confidence in the prospects of the country increases and this confidence is shared among domestic residents, it may lead to smaller capital flight. This depicts a negative relationship between FDI and capital flight. This finding is similar to Pua et al. (2016) who examined empirically the determinants of capital flight in Malaysia by using World Bank (1985) approach. Pua et al. (2016) discovered that the results of Autoregressive Distributed Lag (ARDL) tests showed that FDI is negatively related to capital flight.

Moreover, Kueh et al. (2010) investigated the selected factors that influence the outflow of FDI from Singapore. Therefore, a sample period ranging from 1975 to 2007 is applied in the study. Through the empirical examination, Kueh et al. (2010) concluded that income has a significance influence on the outflow of FDI in Singapore. This is because higher income will lead to the expansion of investment abroad and eventually caused capital flight from Singapore due to their ability to invest. Additionally, Puah et al. (2007) evaluated the influence of FDI on economic performance of China towards the ASEAN-5 countries namely Indonesia, Malaysia, the Philippines, Singapore and Thailand. The cointegration test results showed that FDI of China is found to be positively related to the economic performance of ASEAN-5. Correspondingly, this is similar to the findings of Chantasawat et al. (2004) who found that FDI flows to China are proven to have implication on the FDI of Asian countries. They indicated that the linkage between the relationships is the production-networking activities among the Asian countries apart from increasing in demand of raw materials as to accommodate the expanding market of China. Due to that, FDI inflow into China may lead to increasing FDI inflow into Asian countries. This in turn contributed to the economic performance in terms of growth and restrain capital flight.

Kueh et al. (2008) examined the determinants of outward FDI of Malaysia, specifically income, exchange rate and openness. The Johansen and Juselius cointegration tests and the vector error correction model were applied to analyze the quarterly data from 1991:1 to 2004:4. Further investigation was performed by Kueh et al. (2009) by adding in another variable, namely interest rate and the study period has been extended from

1991:1 to 2005:4. As pointed out in the analysis of Kueh et al. (2008) and Kueh et al. (2009), expansion in FDI and trade liberalization enables the Malaysian to benefit from better economic growth, standard of livings, technologies, knowledge as well as skills and ultimately reduce capital flight.

By employing ARDL bounds testing approach, Kueh et al. (2007) investigated the relationship between FDI and trade of ASEAN-5 countries by utilizing annual data from 1971 to 2005. The empirical evidence initiated that there is a significance relationship between FDI and trade either from the perspective of long-run or short-run in ASEAN-5 countries. The study also found that most of the major sources of FDI inflow into ASEAN-5 countries are from developed countries such as United States, Japan and European Union. Consequently, this can reduce capital outflow from home country as ASEAN-5 countries are regarded as providing advantage such as low labor cost that lead to lower production cost to the developed countries.

Puah et al. (2008) analyzed the impact of exchange rates changes towards trade balances for ASEAN-5 countries, namely Indonesia, Malaysia, the Philippines, Singapore and Thailand. Using a sample period from 1970 to 2004, they found that exchange rates can influence trade balances in these countries in the short-run except for Indonesia. Hence, Puah et al. (2008) stated that it is important for the government to embrace an appropriate exchange rate regime in order to boost the economy and improving the trade deficit for the countries. As a result, this eventually helps to attract investors to invest in the country.

By employing ADF unit root test, Johansen and Juselius cointegration test and Granger causality test based on error correction model, Kueh et al. (2014) investigated the link between direct investment abroad of Singapore and few determinants for the period of 1975 to 2007. The empirical results showed that exchange rate has a significant impact on the abroad investment of Singapore. This is due to the stability and flexibility of the economy towards external economics turbulences that strengthen the currency of Singapore. Hence, it encourages foreign investment by domestic firms in the long-run and consequently lead to capital flight.

Another study conducted by Kueh et al. (2009) using ARDL bounds testing approach in examining the relationship between trade openness and government expenditure of ASEAN-4 countries. They applied a sample period of 1974 to 2006 in estimating the results. From the empirical results, they discovered that trade openness is positively related with government expenditure of all the ASEAN-4 countries in the long-run. Furthermore, they indicated that the government expenditure will be an important source to reduce the risks and to shield the infant domestic industry as the trade becomes more liberalized. Therefore, this in turn will minimize the amount of capital flight from a country as government intervention plays a role as stabilizer in the economies.

Apart from that, Puah et al. (2012) studied factors affecting capital flight in Malaysia, namely FDI, stock market, real GDP, budget deficit and interest rate. The study engaged in time series data from 1991:1 to 2008:4 and the data was tested using ADF unit root test, Johansen and Juselius cointegration test and vector error-correction modelling. The

findings revealed that there is an existence of long-run relationship between the variables under study. Both FDI and stock market were found to have positive impact on capital flight. On the other hand, real GDP, budget deficit and interest rate were negatively linked to capital flight. In addition, real GDP, interest rate, and budget deficit can Granger caused capital flight in the short-run.

Moreover, Pua et al. (2016) empirically inspected the macroeconomic determinants of capital flight such as FDI, stock market, external debt and political risk in Malaysia. The empirical analysis employed ADF and PP unit root tests, KPSS stationary test, bounds test for cointegration and the ARDL approach in their study. World Bank (1985) measurement were utilized to determine the factors influencing capital flight in Malaysia. The findings of Pua et al. (2016) revealed that FDI, stock market, external debt are negatively related with capital flight, whereas political risk is found to have positive association with capital flight.

The study of Ljungwall and Wang (2008) used quarterly balance of payment data over the years 1993:1 to 2003:4 to find out the determinants of capital flight in China. Based on the results obtained, when external debt is measured as change in external debt divided by GDP in developing countries, an increase in external debt usually brings about inflationary financing. This is equivalent to imposing an “inflation tax” on domestic residents. As such, people will invest abroad to avoid this situation. This shows a positive linkage between external debt and capital flight.

Besides, Chunchinda and Sirodom, (2007) inspected the capital flight from five Asian countries which included Thailand, the Philippines, Indonesia, Malaysia and South Korea. The empirical period of their study range from 1991 to 2000. The evidence of their findings stated that capital flight can be shunned when the borrowed money is used efficiently. This can be done by allocating the money to suitable economic sectors to develop the economy. However, Reinhart and Rogoff (2004) argued that failure in paying back debt or when there is a high potential of default, it will cause capital outflows from developing countries. Moreover, past history has showed that when the default compounds involved risks with external debts and debt accumulation, it will incur capital flight.

Further investigation was carried out by Choong et al. (2010) on the effect of debts and economic growth in Malaysia for the period of 1970 to 2006. Choong et al. (2010) also applied different types of debts other than external debt in their empirical study, namely long-term debt, short-term debt, total debt service and multilateral debt. The empirical results illustrated that an increase in the level of external debt have impact on the economic performance as countries with better financial systems have had greater success in absorbing private capital inflows instead of capital outflows.

Lau et al. (2010) conducted a study on twin deficits in Asian crisis affected countries for the period of 1976:1 to 1997:2 and the post-crisis period from 1997:3 to 2008:1. Lau et al. (2010) utilized the ADF unit root test, Johansen Multivariate tests and Granger causality tests to conduct the empirical analysis. The study indicated that huge debt imbalance

might lead to a hard landing for countries that appear insolvent. Therefore, managing these debt is vital in reducing the debt burden as it may affect the competitiveness of a country to decline and caused outflow of capital to other country.

Further investigation was carried out by Tang et al. (2007) on the stock market and economic performance. They used a sample of twelve Asian countries from 1980 to 2004. The empirical results of cointegration test revealed that stock markets is imperative in promoting economic growth in short-run and long-run. Therefore, the country authorities should take capital market measures to improve revelation and more stringent regulations should also be implemented to shield investors. As such, this can avoid capital to outflow from a country as investors regard the country as safe and stable. On the other hand, the Granger causality test results showed a mixture of findings between stock market and economic growth.

By employing Johansen and Juselius cointegration test, Abdullah et al. (2010) investigated the determinants of international capital flows in Malaysia using quarterly data span from 1985:1 to 2006:4. The empirical results showed that political issues such as confronting with corruption and favorable policy towards FDI need to be addressed as these are vital in attracting inflows of capital into a country. Le and Zak (2006) carried out a study on capital flight and political risk in 45 developing countries over the year 1976 to 1991 using pooled cross-sectional time series analysis. They found that political instability is the most important factor associated with capital flight. This is because violent events such as guerilla warfare and assassinations or even political turmoil like

irregular government change managed to increase the World Bank (1985) capital flight measure. This happened as the investors' confidence level was severely affected and many preferred to transfer their funds overseas. Besides, Pua et al. (2016) used World Bank (1985) method to estimate the capital flight in Malaysia. The data used was yearly data from 1975 to 2013. The results showed that political risk has a positive and significant relationship with capital flight. In other words, this means that capital flight will upsurge as political risk increase.

Furthermore, Lan et al. (2010) studied on China using yearly data from 1992 to 2007. The authors applied ARDL bounds testing procedure in their study. The empirical evidence indicated that changes in the domestic economy and political environment will stimulate capital flight. These included political instability such as social disorder and adjustment in economic policies. Cheung and Qian (2010) studied the empirical determinants of China's capital flight using quarterly data from 1999Q1 to 2008Q2. They pointed out that capital flight could be seen as a consequence of distortions caused by political structure. Thus, time and again, it proved that when the country is politically safer, it will help in reducing capital flight.

In addition, Brada et al. (2011) estimated capital flight from seven countries of the Commonwealth of Independent States, namely Armenia, Azerbaijan, Belarus, Kazakhstan, Moldova, the Russian Federation, and Ukraine between the period 1995-2005. They applied the OLS panel regression in their studies and found that political factors affecting the expected return to domestic investments can be captured by the

country's polity score variable. A more democratic regime provides investors with protection through the rule of law and limits on predation. To sum up, as political risk is low, it helps to lessen the outflow of capital, and therefore, a positive association exists between political risk and capital flight.

REFERENCES

- Abdullah, M.A., Abu Mansor, S. and Puah, C.H. (2010). Determinants of International Capital Flows: The Case of Malaysia. *Global Economy and Finance Journal*, 3(1), 31-43.
- Antzoulatos, A. A. and Sampaniotis, T. (2002). *Capital Flight in the 1990s-Lessons from Eastern Europe*. Working Paper presented at the 51st International Atlantic Economic Conference in Athens, Greece.
- Brada, J.C., Kutan, A.M. and Vukšić, G. (2011). The Costs of Moving Money across Borders and the Volume of Capital Flight: The Case of Russia and Other CIS Countries. *Review of World Economics*, 147(4), 717-744.
- Chantasawat, B., Fung, K.C., Hitomi, I. and Siu, A. (2004). *Foreign Direct Investment in China and East Asia*. Unpublished Manuscript. National University of Singapore, UC Santa Cruz and University of Hong Kong.
- Cheung, Y.W. and Qian, X.W. (2010). Capital Flight: China's Experience. *Review of Development Economics*, 14(2), 227-247.
- Choong, C.K., Lau, E., Liew, V.K.S. and Puah, C.H. (2010). Does Debts Foster Economic Growth? The Experience of Malaysia. *African Journal of Business Management*, 4(8), 1564-1575.
- Chunhachinda, P. and Sirodom, K. (2007). Determinants of Asian Capital Flight and the Impact of 1997 Economic Crisis. In Y. Shimizu (Ed.), *Economic Dynamism of Asia in the New Millenium: From the Asian Crisis to a New Stage of Growth* (pp.1-29). Hackensack, N.J: World Scientific.

- Collier, P., Hoeffler, A. and Pattillo, C. (2001). Flight Capital as A Portfolio Choice. *World Bank Economic Review*, 15(1), 55-80.
- Cuddington, J.T. (1986). *Capital Flight: Estimates, Issues, and Explanations*, Princeton Studies in International Finance No. 58, Princeton, N.J., Princeton University, International Finance Section.
- Cuddington, J.T. (1987). Macroeconomic Determinants of Capital Flight: An Economic Investigation in D.R. Lessard and J. Williamson (Eds.). *Capital flight and third world debt* (pp. 85-100). Washington, D.C.: Institute for International Finance Section.
- Cumby, R. and Levich, R. (1987). On the Definition and Magnitude of Recent Capital Flight. In D. Lessard and J. Williamson (Eds.), *Capital Flight and the Third World Debt*. Washington D.C.: Institute for International Economics.
- Epstein, G. (2005). An introduction. In G. Epstein (Ed.), *Capital Flight and Capital Controls in Developing Countries* (pp. 3-14). Northampton: Edward Elgar Publishing.
- Erbe, S. (1985). The Flight of Capital from Developing Countries. *Intereconomics*, 20(6), 268-275.
- Kant, C. (1996). *Foreign Direct Investment and Capital Flight*. New Jersey: International Finance Section Department of Economics of Princeton University.
- Khan, M.S. and Haque, N.U. (1985). *Foreign Borrowing and Capital Flight*. International Monetary Fund (IMF), Staff Papers 32, 606-628.
- Kirton, C.D. (1987). *Capital Flight and Foreign Debt: Notes on the Jamaican Experience*. Paper presented at the 19th Regional Monetary Studies Conference in Belize, Jamaica.
- Kueh, J.S.H., Pua, C.H. and Abu Mansor, S. (2009). Empirical analysis on emerging issues of Malaysia outward FDI from macroeconomic perspectives. *International Review of Business Research Paper*, 5(1), 124-134.
- Kueh, J.S.H., Pua, C.H. and Apoi, A. (2008). Outward FDI of Malaysia: An empirical examination from macroeconomic perspective. *Economics Bulletin*, 6(28), 1-11.
- Kueh, J.S.H., Pua, C.H. and Liew, K.S. (2010). *Selected Macroeconomic Determinants of Foreign Direct Investment Outflow of Singapore*. MPRA Paper No.25940.

- Kueh, J.S.H., Puah, C.H. and Wong, C.M. (2009). Bounds Estimation for Trade Openness and Government Expenditure Nexus of ASEAN-4 Countries. *Economics, Management, and Financial Markets*, 4(1), 103-112.
- Kueh, J.S.H., Puah, C.H., Lau, E. and Abu Mansor, S. (2007). FDI-Trade Nexus: Empirical Analysis on ASEAN-5. *Global Review of Business and Economic Research*, 3(2), 143-15.
- Kueh, J.S.H., Puah, C.H. and Liew, V.K.S. (2014). Macroeconomic Determinants of Direct Investment Abroad of Singapore. *Engineering Economics*, 25(1), 72-81.
- Lan, Y., Wu, Y. and Zhang, C. (2010). Capital Flight from China: Further Evidence. *Journal of International Finance and Economics*, 10(2), 13-31.
- Lau, E., Abu Mansor, S. and Puah, C.H. (2010). Revival of the Twin Deficits in Asian Crisis-Affected Countries. *Economic Issues*, 15(1), 29-53.
- Le, Q.V. & Zak, P.J. (2006). Political Risk and Capital Flight. *Journal of International Money and Finance* 25(2), 308-329.
- Ljungwall, C. and Wang, S. (2008). Why is capital flowing out of China? *China Economic Review*, 19(3), 359-372.
- Morgan Guaranty Trust Company of New York (1986). LDC Capital Flight. *World Financial Markets*, February.
- Ndikumana, L. and Boyce, J.K. (1998). Congo's Odious Debt: External Borrowing and Capital Flight in Zaire, *Development and Change* 29(2), 195-217.
- Ndikumana, L. and Boyce, J.K. (2001). Is Africa a Net Creditor? New Estimates of Capital Flight from Severely Indebted Sub-Saharan African Countries, 1970-1996, *Journal of Development Studies*, 38(2), 27-56.
- Ndikumana, L. and Boyce, J.K. (2001). Is Africa a Net Creditor? New Estimates of Capital Flight from Severely Indebted Sub-Saharan African Countries, 1970-1996, *Journal of Development Studies*, 38(2), 27-56.
- Ndikumana, L. and Boyce, J.K. (2003). Public Debts and Private Assets: Explaining Capital Flight from Sub-Saharan African countries, *World Development*, 31(1), 107-130.

- Puah, C.H., Kueh, J.S.H and Lau, E. (2007). *The Implications of Emergence of China towards ASEAN-5: FDI-GDP Perspective. The Asian Economic Review*, 49(2), 179-192.
- Puah, C.H., Liew, S.L. and Abu Mansor, S. (2016). Macroeconomic Determinants of Capital Flight: An Empirical Study in Malaysia. *International Business Management (forthcoming)*.
- Puah, C.H., Liew, S.L. and Arip, M.A. (2012). Determinants of Capital Flight in Malaysia. *Journal of International Finance and Economics*, 12(3), 5-10.
- Puah, C.H., Yong, S.W., Abu Mansor, S. and Lau, E. (2008). Exchange Rate and Trade Balance Nexus in ASEAN-5. *Labuan Bulletin of International Business and Finance*, 6, 19-37.
- Reinhart, C. and Rogoff, K. (2004). *Serial Default and the "Paradox" of Rich to Poor Capital Flows*. NBER Working Paper N° 10296. National Bureau of Economic Research, Cambridge, MA.
- Schneider, B. (2001) *Measuring Capital Flight: Estimates and Interpretations*. London: Overseas Development Institute.
- Tang, H.P., Habibullah, M.S. and Puah, C.H. (2007). Stock Market and Economic Growth in Selected Asian Countries. *European Journal of Economics, Finance and Administrative Sciences*, 7, 43-52.
- World Bank (1985). *World Development Report*, Washington D.C.: World Bank.