Analysis Of Thailand Foreign Direct Investment After Revolution In 2014

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ABSTRACT

Foreign direct investment (FDI) is defined as a company from one country making a physical investment into building a factory in another country, and it plays an important role in global business while promoting economic growth. Despite its decrease after a revolution in 2014, Thailand's foreign direct investment (FDI) has increased slightly and remained at the same level until 2015. This case's forecasting process involves some complications. The current paper employs documentary research and Time Series Analysis to determine the effect of revolution on net FDI. We employ net FDI monthly data from 2005 to 2015, provided by the Bank of Thailand (BOT). The forecasting results show that, from 2014 to 2015, we can see that the average of actual net FDI is higher than the expectation by Time Series Forecasting by about 3.13%. This indicates that the Thai government's policies provide a positive effect on FDI. Thailand's government and policy makers should be attentive to this situation in trying to find the best explanation in order to improve results of forecasting. The findings of this paper can be of benefit for economic development planning.

Keywords: Foreign Direct Investment (FDI), Revolution, Coup d'état, Thailand

INTRODUCTION

Foreign direct investment (FDI) is defined as a company from one country making a physical investment into building a factory in another country, and involves the injection of foreign funds into enterprises that operate in a different country of origin from the investors. Chen and De Lombaerde (2009) indicate that FDI is a major key for economic growth in Thailand during the 1990s. In addition, Cheewatrakoolpong and Sabhasri (2015) believe that a significant increase in employment, total factor productivity (TFP), and economic growth in this country are the result of inward FDI. In this connection, it is useful to analysis FDI of Thailand because it plays an importnt role in global business while promoting economic growth.

Our empirical analysis looks at net FDI.[1] Data on FDI flows are presented on a net basis, which is capital transactions' credits less debits between direct investors and their foreign affiliates. Net decreases in assets or net increases in liabilities are shown as credits, while net increases in assets or net decreases in liabilities are shown as debits (The World Bank, 2016). Positive sign indicates that the volume of transactions associated with the increase in investment during the period (either in the form of equity capital, reinvested earnings, or borrowing from affiliates) is higher than that associated with the decreases in investment (either in the form of divestment, or affiliates' repayment on their inter-company borrowings). On the other hand, negative sign reflects that the increases in investment during the period are lower than the decreases. This item also includes transactions in debt securities, and trade credits between affiliated enterprises, respectively (The Bank of Thailand: BOT, 2016).

Since taking power in a May 2014 coup d'état, the country's military rulers have struggled to kick-start Southeast Asia's second-largest economy which grew only 1% in the third quarter of the year, up from 0.6% in the same period the previous year (Fernquest, 2016). In 2015, the World Bank forecasted that Thailand's GDP growth rate would slip and it needed to improve economic strategies, including the policies for FDI which should help propel Thailand to the next stage of development.

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1   FDIs can be classified as; Inward FDI or Outward FDI, depending on the direction of flow of money. Inward FDI exits when foreign capital is invested in local resources. The factors propelling the growth of inward FDI include tax breaks, low interest rates and grants. Outward FDI is also called "direct investment abroad". FDI in Thailand is reported by the Bank of Thailand (BOT).

The aim of this paper is to forecast two-year ahead net FDI in Thailand, relying on data from 2005 to 2013, before Thailand's revolution. The forecasting results from 2014-2015, which represent FDI without revolution, in comparison with the actual FDI show the effect of political issues on Thailand's economic situation. Thailand's government and policy makers should be attentive to this in trying to find the best explanation in order to improve results of forecasting. The findings of this paper can be of benefit for economic development planning.

Literature Review

FDI is defined as "an investment involving a long-term relationship and reflecting a lasting interest and control by a resident entity in one economy (foreign direct investor or parent enterprise) in an enterprise resident in an economy other than that of the foreign direct investor (FDI enterprise or affiliate enterprise or foreign affiliate)" (World Investment Report, 2012).

FDI has been one of the important driving forces for Thailand's economic growth during the last decades. Like other Association of Southeast Asian Nations (ASEAN) countries, Thailand attracts tremendous investment by way of multinational enterprises from developed countries including Japan, the European Union, and the United States. FDI from these developed countries leads to technology transfers and knowledge spillovers as well as promoting employment, productivity and international trade in Thailand (Cheewatrakoolpong and Boonprakaikawe, 2015).

Banco Santander, S.A. (2016) implements SWOT Analysis for investments in Thailand. The country exhibits many main strong points, including a skilled work force in a number of sectors, a strategic location at the heart of Asia (the country is an entryway to Southeast Asia and the Upper Mekong Basin region where the emerging markets have great economic potential), and a government policy which promotes investments and free trade. In addition, the existence of a number of government agencies helps investors. An investment regime in total harmony with the WTO's regulations has no restrictions in the manufacturing sector, no local requirements, and no export conditions. However, there are some weak points as well. Factors impeding foreign investment include the lack of infrastructure, a shortage of skilled workers, political uncertainty, piracy and counterfeiting.

Table 1 shows Thailand net FDI classified by business sector of Thai enterprises (US$). From 2010 until 2015, net FDI in Thailand averaged approximately 803.66 million US$, reaching an all time high of 3,889.48 million US$ in December of 2013 and a record low of -3,095.57 million US$ in June of 2013. This case's forecasing process involves some complications.

Because of liberal economic policies, a skilled workforce and a strategic location as the gateway to the greater Mekong region, Thailand has historically been a top choice for investors in South-east Asia (The Straitstimes, 2016). However, currently Thailand faces strong competition from increasingly attractive neighbors in the ASEAN2 region like Vietnam, Cambodia and Myanmar[3]. As a result, particularly worrying for Prime Minister Prayut Chan-o-cha is a significant drop off in investment from Japan which slumped a whopping 81%. EU investment also plunged from 86.7 billion baht in 2014 to just [2] billion in 2015. Investment from the United States was also down heavily. China tumbled 21% to 13.3 billion baht in 2015 (Fernquest, 2016). Morever, This FDI figure correlates with the loss of confidence by Thailand's largest investor – Japan. "Japan's foreign direct investment in Thailand dropped from a peak of 47,736 million baht in the first two months of 2013 to just 17,379 million baht for the same period in 2014, before collapsing to a low of 657 million baht in 2015 – a meagre 1.37 per cent of the total two years prior" (Hartley, 2016).

To deal with this difficult situation, on December 2014, the Thailand Board of Investment (BOI) approved the 'Seven-Year Investment Promotion Strategy' (2015-2021).[4] The new investment strategy of Thailand focuses on "giving priority

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2   According to the World Bank (2012), Thailand faces the most severe problem of shortage in operational workers and skilled labor when compared with other ASEAN countries.

3   Myanmar is not only becoming important because of its drift into the catchment area of the Thailand Plus One (T+1) production system and various Mekong-wide politico-economic frameworks. "It is also important because there is a hugely significant, and historical, interest in Myanmar from political and business elites in Japan. Known as the so-called 'Burma Lobby', this disparate group of actors, comprising members of Japan's iron triangle, have long desired greater engagement with Myanmar irrespective of the long-time US embargo. This interest, allowed to be openly expressed since 2011, is tessellating with Myanmar's political changes. There are a wide array of benefits that Japanese elites see in Myanmar" norecasting 5walk on the right wayconomyrevolution on net FDIo 2015 idment. new market opportunities, the Thai economy (Hartley, 2016).

4   "The Thai Board of Investment (BOI) offers a series of incentives in six industrial sectors, namely eight years of tax exemptions for companies and 50% tax reduction for companies for five years, double transport, electricity and re-supply deductions as well as 25% deduction on net profits for establishment and construction costs. The six sectors are: agriculture and food, renewable and alternative energies, automobile, electronics, information and communication technologies (ICT), fashion, high added value services (including leisure, health and tourism). The BOI also implemented measures aimed at contributing to the increase of company liquidity. Additionally, it offers import tax exemption on raw materials required for production aimed at export" (Banco Santander, S.A., 2016).

Table 1: Thailand net foreign direct investment (FDI) classified by business sector of Thai Enterprises (US$)						
	2010	**2011**	**2012**	**2013**	**2014**	**2015**
A. Agriculture, forestry and fishing	6.78	−2.19	5.85	2.09	5.95	5.32
B. Mining and quarrying	219.81	217.71	-94.96	−81.11	183.93	490.38
C. Manufacturing	5,516.57	3,918.74	1,599.03	5,260.21	4,739.50	3,180.47
of which :						
10. Manufacture of food products	258.59	384.40	−126.46	20.16	69.36	188.28
11. Manufacture of beverages	158.37	−9.48	−39.58	−13.21	74.29	−89.39
17. Manufacture of paper and paper products	−0.34	268.77	48.69	−28.00	173.62	47.37
19. Manufacture of coke and refined petroleum products	−215.65	202.20	250.19	130.25	519.52	−321.35
20. Manufacture of chemicals and chemical products	1,093.81	398.02	995.23	371.04	455.80	1,108.20
21. Manufacture of basic pharmaceutical products and pharmaceutical preparations	0.00	35.26	483.99	127.70	73.95	4.47
22. Manufacture of rubber and plastics products	363.19	438.54	517.63	557.87	271.29	815.40
26. Manufacture of computer, electronic and optical products	1,345.33	677.26	42.09	667.19	135.07	1,333.96
27. Manufacture of electrical equipment	−162.69	73.01	146.37	47.48	2,404.76	323.07
28. Manufacture of machinery and equipment n.e.c	165.78	431.50	511.34	518.20	35.65	752.69
29. Manufacture of motor vehicles, trailers and semi-trailers	1,631.17	466.22	−454.42	1,666.46	160.22	−780.59
31. Manufacture of furniture	20.13	29.81	−0.34	24.40	−16.00	−42.06
D. Electricity, gas, steam and air conditioning supply	70.47	445.88	−54.69	68.17	−317.44	95.98
F. Construction	47.15	−18.04	−171.49	71.17	117.82	−336.23
G. Wholesale and retail trade; repair of motor vehicles and motorcycles	492.08	267.65	−189.70	1,353.34	494.22	1,524.75
H. Transportation and storage	−218.19	185.47	−68.73	125.15	−81.42	64.66
I. Accommodation and food service activities	122.45	58.36	−47.18	−140.68	60.88	127.62
K. Financial and insurance activities	6,475.93	−372.18	1,855.90	3,038.43	1,778.37	2,986.50
L. Real estate activities	1,045.97	1,154.46	1,039.12	1,595.39	1,286.14	1,289.83
Others	967.66	−3,382.18	9,025.89	4,643.80	−3,292.49	−425.76
Total	14,746.67	2,473.69	12,899.04	15,935.96	4,975.46	9,003.52

Source: The Bank of Thailand (2016)

to investments that will contribute to, and have a positive effect on, society and the environment. The investment strategy gives priority to high-tech and creative industries, service industries that support the development of the digital economy and activities that develop and utilise local resources" (Banco Santander, S.A, 2016).

Research Method

This paper uses mixed methods research that includes documentary research and Time Series Analysis on yearly data from 2005-2013. For Time Series Analysis, there are four components: trend, cyclical variation, seasonal variation, and irregular variation (Pillai, R. S. N. and Bagavathi, V., 2008). Secular trend (t) is the long-term trend of FDI. Cyclical variation (C_t) is a typical business or economic cycle consisting of a period of prosperity followed by periods of recession, depression, and then recovery with no fixed duration of the cycle. There are fluctuations unfolding over more than one year in time above and below the secular trend. Seasonal variation (S_t) is series fluctuation with the seasons. Because it is unpredictable and cannot be projected into the future, irregular variation (I_t) is not calculated. The equation of FDI can be written as:

$$FDI = T_t * C_t * S_t * I_t$$

The long-term trend of many series often approximates a straight line. If so, the equation to describe this FDI growth is:

$$FDI' = a + bt$$

Where:

FDI' is the projected value of net FDI for a selected value of t.

a   is the Y-intercept. It is the estimated value of net FDI' when t = 0.

b   is the slope of the line, or the average change in FDI' for each change of one unit in t.

t   is any value of time that is selected. The unit of time reported in this paper is monthly.

For Time Series Analysis, past patterns are usually assumed to continue into the future. However, in many real-world applications, including Thailand's revolution, we are confronted with Irregular Time Series. As a result, observations are not sampled at equally-spaced time stamps, and this can cause errors in forecasting.

We employ net FDI monthly data from 2005 to 2015, which is provided by BOT. Many researchers suggest that we should not project an economic series more than $n/2$ time periods into the future where n is the number of data points. Others suggest the forecast may be for no longer than 2 years, especially in rapidly changing economic times. In this time series analysis, there are 108 months of Thailand net FDI data from 2005 to 2013. Therefore, we estimate net FDI data from 2014 to 2015.

Empirical Results

From 2005 to 2009, the long-run trend stays the same over time. It seems like there is cyclical variation after 2009. The value of Thailand net FDI increases in 2009, then the flows decrease in 2010-2011, and finally the cycle bottoms out with depression in 2011. Thailand net FDI recovers in 2012-2013. After the revolution, Thailand net FDI decreases dramatically in the beginning of 2014, but then increases slightly and remains at the same level until 2015 (see Figure 1).

However, our FDI forecasting employs monthly data from 2005 until 2013. Overall, FDI in Thailand averaged approximately 803.66 million US$, reaching an all time high of 3,889.48 million US$ in December of 2013 and a record low of -3,095.57 million US$ in June of 2013. This case's forecasing process involves some complication.

The least squares equation can be used to find points on the line through monthly data from 2005 to 2013. The net FDI data from Table 2 shows the outputs. The equation determined earlier is

$FDI' = a + bt$

To get the coordinates of the point on the line for 2014 to 2015, for example, insert the t value in the equation. Then

$FDI' = 687.07 + 1.31(t)$

The results of our forecasting are shown in Table 2.

In Table 2, from 2014 to 2015, we can see that the average of actual net FDI (FDI) is higher than the expectation by time series forecasting FDI (FDI') by about 3.13%. This result indicates that the Thai government policies provide a positive effect on Foreign Direct Investment (FDI).
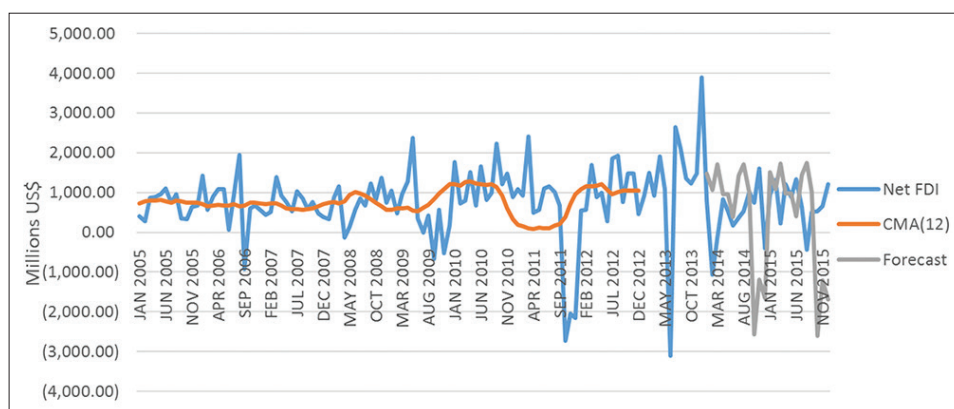

Figure 1: Net Foreign Direct Investment of Thailand from January 2005 to December 2015
Note: CMA(12) denotes centered moving average, with the averaging period of 12 months, to extract the seasonal component of a time series.

t	Table 2: Calculations for net foreign direct investment of Thailand from January 2014 to December 2015					
	Month	FDI$_t$ (Net FDI)	S$_t$	FDI T$_t$	S$_t$ * T$_t$ Forecast	FDI'$_t$=S$_t$ * T$_t$ Difference
109	JAN 2014	795.95	1.78	830.20	1,476.21	−680.26
110	FEB 2014	−1,061.08	1.27	831.51	1,058.09	−2,119.17
111	MAR 2014	−132.38	2.04	832.82	1,700.05	−1,832.43
112	APR 2014	833.57	1.16	834.13	963.89	−130.32
113	MAY 2014	519.59	1.14	835.45	953.25	−433.66
114	JUN 2014	163.07	0.47	836.76	392.88	−229.81
115	JUL 2014	366.59	1.69	838.07	1,414.21	−1,047.62
116	AUG 2014	533.03	2.04	839.39	1,715.80	−1,182.77
117	SEP 2014	1,012.47	1.18	840.70	993.96	18.51
118	OCT 2014	743.62	−3.04	842.01	−2,559.95	3,303.57
119	NOV 2014	1,597.11	−1.40	843.33	−1,180.41	2,777.52
120	DEC 2014	−396.09	−1.96	844.64	−1,656.29	1,260.20
121	JAN 2015	948.36	1.78	845.95	1,504.23	−555.87
122	FEB 2015	1,306.99	1.27	847.27	1,078.14	228.85
123	MAR 2015	224.74	2.04	848.58	1,732.21	−1,507.47
124	APR 2015	1,205.51	1.16	849.89	982.09	223.42
125	MAY 2015	882.66	1.14	851.20	971.23	−88.57
126	JUN 2015	1,328.96	0.47	852.52	400.28	928.68
127	JUL 2015	633.72	1.69	853.83	1,440.80	−807.08
128	AUG 2015	−428.29	2.04	855.14	1,748.01	−2,176.30
129	SEP 2015	512.32	1.18	856.46	1,012.59	−500.27
130	OCT 2015	523.80	−3.04	857.77	−2,607.86	3,131.66
131	NOV 2015	656.57	−1.40	859.08	−1,202.47	1,859.04
132	DEC 2015	1,208.17	−1.96	860.40	−1,687.19	2,895.36
					Total	3,335.19

DISCUSSION

Following the Thai revolution in 2014, FDI decreased dramatically. However, after that, net FDI increased slightly due to government policies, especially the Thailand BOI approved 'Seven-Year Investment Promotion Strategy' (2015-2021). The effects of FDI on the Balance of Payments (BOP) of countries have been examined for the first half of the 1990s by the UN (1997). The impacts were found to be negative in Thailand. This suggests that outward FDI should be futher promoted so as to increase new market opportunities, diversifying the Thai economy and so become less reliant on inward FDI (Martins, 2013). To create a suitable economy, the Thai government should strive to find the right balance in their policies to attract inward FDI and ecourage new buyers for their goods and services from outward FDI.

CONCLUSION

FDI is a category of cross-border investment associated with a resident in the Thai economy having control of, or a significant degree of influence on, the management of an enterprise that is resident another country. The Time Series Analysis shows that the average of actual net FDI (FDI) is higher than the expectation by time series forecasting FDI (FDI') by about 3.13%. This result indicates that the Thai government policies provide a positive effect on Foreign Direct Investment (FDI). Currently, Thailand's government and policy makers should be attentive to this situation in trying to find the best explanation in order to improve the economy.The findings of this paper can be instrumental in showing the way forward.

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