JAPANESE DIRECT INVESTMENT TRENDS
IN THAILAND: 2006 TO 2016

BY

MR MICHAEL CRAVEN

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
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THESIS

BY

MR MICHAEL CRAVEN

ENTITLED

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was approved as partial fulfillment of the requirements for
the degree of Master of Arts in International Relations

August 20, 2017

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This study examines Foreign Direct Investment (FDI) from Japan to Thailand during the 10-year period from 2006 to 2016. The objective is understanding aspects of International Political Economy governing trade, investment strategies, and Thailand’s competitive advantage in the ASEAN context. Of particular interest is correlation of FDI and GDP as well as causality between them during four instances when Foreign Direct Investment to Thailand declined sharply in 2006, 2011, 2013, and 2016. The focus is on Japan, the single largest source of FDI to Thailand. Dunning’s Eclectic FDI theory is applied as the conceptual framework. A mixed-method of regression analysis and process tracing focuses on quantitative and qualitative approaches respectively. Regression of World Bank data determines correlation between change in both FDI and GDP in Thailand, FDI and GDP in ASEAN countries examined, and Japanese Investor satisfaction levels and Japanese Direct Investment. Causality is expressed with Colliers’s Test for Causal Inference categorizing Thailand’s relative score in Ease of Doing Business indicators (EODB) in Thailand. Specifically, samples were taken from the Satisfaction Index (SI) survey of members compiled by the Japanese Chamber of Commerce (JCC). The results assert a strong correlation between changes in both FDI and GDP in Thailand. Also asserted is weak causality between the SI and Japanese Direct Investment inflows to Thailand. Three case studies illustrate Institutional and Trade theories in the 2007 Japan-Thai Economic Partnership Agreement (JTEPA), examine economic protectionist measures on Thai productivity based on econometric models, and productivity in four specific areas, as based on FDI theory, that are key to building comparative advantage.

Keywords: Foreign Direct Investment (FDI) theory, Market attitudes, Gross Domestic Product (GDP), Thailand 4.0, Ease of Doing Business (EODB), Diffusion Index (DI), Correlation, Causality
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Any errors in the final product are the fault of the author alone.

Mr. Michael Craven
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<td>Effective Rate Protection</td>
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<td>FDI</td>
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<td>OEM</td>
<td>Original Equipment Manufacturer</td>
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<td>OLI</td>
<td>Ownership, Location, &amp; Internalization</td>
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CHAPTER 1
INTRODUCTION

This temporal study of Japanese Direct Investment in Thailand during the period from 2006 to 2016 uses a mixed-method of Regression Analysis and Process Tracing. Regression analysis is used in the quantitative examination of empirical data on investment trends, while process tracing describes the qualitative trajectory of change and causation at key points in these data sets by examining sequences of intervening variables in order to augment regression analysis of dependent and independent variables. Three empirical studies illustrate the significance of the findings through the frameworks of the regulatory environment, protectionism and productivity, and competitiveness.

This chapter begins with a Chapter Overview, which presents the information in this research in five chapters, i.e. 1. Introduction; 2. Literature Review; 3. Research Methodology; 4. Results and Discussion; and 5. Conclusions and Recommendations. The Background section of this Introduction provides a brief account of the historical role of the Thai military in the role of civil government.

1.1 Chapter Overview

Chapter One, Introduction, presents a Chapter Overview beginning with a brief historical Background of events shaping the political and investment climate in Thailand during the period examined. The topic is framed in the relationship between political factors affecting Thailand’s susceptibility to military intervention in the affairs of civil government as measured by the index gauging Coup Risk in Thailand compared to other countries around the world. Next, the relationship between political stability and FDI is expressed in Market attitudes toward military government in Thailand. The tradeoff between political stability and democratic freedom identifies the paradox that investors appear to be satisfied with a military regime prioritizing security over some form of representative government legitimized by electoral process, as the later had been subject to turmoil reflecting political fragmentation.
This perceived lack of concern by FDI host countries is inferred by identifying gains in Foreign Direct Investment flows to Thailand in a both a general and specific sense. World, regional, and Thai investment trends are compared specifically with the perceptions of Japanese investors as that nation has been the largest single investor in Thailand since the late 20th Century. Finally, the remainder of the chapter describes the key points of study, namely: Significance of the Issue, Objectives, Research questions, Hypothesis, Conceptual Framework of FDI Theory, and Mixed-Methods approach, i.e. Regression Analysis and Process Tracing.

Chapter Two, **Literature Review**, covers an overview of Thailand – in both the historical and contemporary sense – from the perspective of key factors relating to International Political Economy. In terms of a Conceptual Framework, this chapter examines the broad range of Institutional Theories in Social and Political Science before describing the specific application of the Eclectic FDI paradigm, its criticisms and finally the application of Institutional FDI theory to the investment climate in Thailand within the context of the movement of money, people, culture, and ideas across international borders as a transnational issue. Also, the processes for applying both elements of the Mixed-Methods approach – Regression Analysis and Process Tracing – are examined in detail.

Chapter Three, **Research Methodology**, includes sections on research design, data collection, the mixed analytical method applying Regression Analysis and Process Tracing, and the research outline comprising chapters one through five of the thesis. Three empirical studies illustrate the significance of the findings through the frameworks of the regulatory environment, protectionism and productivity, and competitiveness.

Chapter Four, **Results and Discussion**, is a profile of actors affecting, and affected by, FDI inflows to Thailand. In this chapter, the layers of investor analysis begins at the country level, then identifies and examines the key sectors hit by declining foreign investment. This chapter summarizes three empirical studies on the Japanese-Thai Economic Partnership Agreement followed by a brief discussion of the findings.

Chapter Five, **Conclusions and Recommendations**, elaborates key findings regarding FDI inflows to Thailand under military government. It seeks to
determine a causal relationship between FDI inflow and military government in Thailand by comparing temporal changes to inflows with periods of high military involvement in the affairs of civil government.

The Introduction of the topic comprises a Background, Market attitudes and FDI, Coup risk, and the Significance of the issue from the perspectives of Political History and International Political Economy within the context of factors contributing to the Middle Income Trap. The study Objectives, Research questions, Hypothesis, and Conceptual framework are also included in the Introduction.

A brief history – Background – of military intervention in civil government in Thailand is provided for the purpose understanding the military’s role during the emergence of the country as a democracy since its first Constitution was ratified in 1932. The Background also examines conventional attitudes over military intervention as framed by two basic views: either critical or relieved.

Coup risk discusses Thailand’s ranking in Ulfelder’s model of countries at risk of military takeover of civil government. This model identifies underlying factors in military intervention as fault lines formed by a country’s wealth, system of government, and recent history of military coups.

Market attitudes and FDI seeks meaning in changes of investment trends to Thailand from the period when the country first transitioned to the status of a developing economy until present. Of particular interest is a paradox found in comparing investment trends over the long term: Previously, FDI has not been affected by political turmoil to a degree as significant as seen in recent downturns.

The Significance of the issue is established by the question of Thailand’s economy being able to escape the Middle Income Trap in view of its history of political turmoil, while competing with other emerging economies in ASEAN for FDI. Factors identified by Gill and Kharas as key to this Trap include the quality of higher education systems and low enrollment rates, the lack of domestic patents, low levels of innovation and technological diffusion, an absent venture capital ecosystem, and assembly-type firms that are not moving rapidly up the value chain. The role of foreign investment, moreover, as a driver of GDP growth, is presumed to mitigate against these factors contributing to MIT vulnerability.
The Objectives of this study are, in specific regard to Japanese investment in Thailand, to identify change; analyze the causal factors of change; and understand its nature. The ten-year period of time examined in this study – i.e. 2006 to 2016 – was chosen as it represents a data set that is large enough to conduct an analysis of trends within a specific political context, i.e. the polarized background of color-coded ideological conflict that emerged during the administration of Thaksin Shinawatra.

In a general sense, this study aims to answer Research questions about the reasons for the change in direct investment from Japan during this period, and to identify push/pull factors affecting investment trends within a larger ASEAN context.

The Hypothesis for this study asserts that investor attitudes are not as comfortable with political stability taking precedence over freedom of civil society in Thailand as conventional thought indicates. In other words, this hypothesis seeks to test whether Japanese investment to Thailand has declined as a result of political turmoil or if other factors are driving investment trends.

The Conceptual framework for this study is the Eclectic Paradigm of FDI Theory. Developed by Dunning, this approach draws on both micro- and macroeconomic thought to explain causal factors in FDI. Here, four Objectives of FDI – 1. Resource seeking; 2. Market seeking; 3. Efficiency seeking; and 4. Strategic asset/capabilities seeking – provide the framework for both Data Set (quantitative) and Causal Process (qualitative) Analyses in identifying trajectories of key events in the sequence of independent, dependent, and intervening variables.

1.2 Background

In May 2014, when the Thai military took control of government following months of political turmoil, it was the country’s twelfth military coup since 1932. On that occasion, Army Chief and Head of the National Peace Keeping Committee, Gen Prayut Chan-o-cha, announced in public statements that the goal of the NPKC was to “restore peace and order, and true democracy” in the Kingdom as well as to enact political reforms. The country had seen this type of intervention before, and conventional wisdom recalled that military rule was relatively benign as it intruded on the day-to-day business in the capital and the provinces at a minimal
level. Past experience demonstrates that military governments hold power just long enough to allow the political turmoil to subside and to arrange for the election of a new civil government. This was the official narrative.

In terms of linguistic analysis, there seems to be some contention over calling military intervention in Thailand’s civil government a military coup, most likely due to connotations of violence, which run counter to historical perceptions that military interventions in Thailand have been relatively bloodless affairs characterized by a brief period of violence followed by capitulation of government and takeover by the military. As it applies here, however, the term “Military Coup” or “Coup D’etat” refers to the most rigid definition by Mirriam-Webster as:

**A sudden decisive exercise of force in politics; especially: the violent overthrow or alteration of an existing government by a small group.**

Regardless of terminology, the history of democratic government in Thailand is punctuated by a series of military interventions. Chambers notes the occurrence of almost thirty coup attempts since King Prajatiphok conceded to a constitutional monarchy in 1932 (*Washington Post*, 2014). Since that time, eleven successful coups have been staged:

1. 1932, “Four Musketeers”
2. 1933, Praya Prahon,
3. 1947, Khuang Apaiwong “Coup Group”
4. 1951, Field Marshal Phibunsongkhram “Coup Group/Four Musketeers”
5. 1957, Field Marshal Sarit Thanarat
6. 1958, Field Marshal Sarit Thanarat
7. 1971, Field Marshal Thanom Kittikachorn
8. 1976, Adm. Sangad Chaloryu
9. 1977, Adm. Sangad Chaloryu
11. 2006, Gen Sonthi Boonyaratglin “Council for Democratic Reform”
12. 2014, Gen Prayut Chan-ocha, “National Peace Keeping Committee”
Given this history, one pattern identifies a military intervention being staged, on average, once every seven years. As a result, military intervention has occurred frequently enough for the role of the military as an actor in state politics to be an integral part of the political landscape in public discourse. Moreover, the debate of perceptions over the relatively benign nature of military intervention in the affairs of civil government can be framed by the opposite poles of public opinion.

In a general sense, some commentators are displeased about the military’s meddling in domestic politics, while others accept the coup as a stop-gap mechanism for averting an escalation of political crisis. Those who disapprove see intervention as a shortsighted tactic ostensibly used to maintain peace and order at the expense of democratic reforms reflecting the interests of emerging categories of rural and urban middle class voters. Others passively accept military intervention with a sense of relief from escalating political tensions along several fault lines defined by class, region, and ideology. The sense of relief that political tensions had ended in a predictable outcome is based on patterns established during modern Thailand’s experiment with a democratic form of self-government. Historically, when factional tensions among the political classes increased to a point where an impasse might become violent, then military intervention was generally seen as necessary in order to reinstate peace and order in the Kingdom.

In terms of conventional attitudes, military intervention in Thai civil government has been accepted as an unpleasant, though necessary, measure to restoring peace and order as a form of pragmatic tolerance in civil society. Despite misgivings that military intervention in the affairs of civil government ultimately depresses inclusive growth under a representative form of government, this pragmatic tolerance has held sway in the public consciousness as relief over an averted crisis took precedence over the long-term commitment to resolution of political conflict under civil mechanisms of a freely-elected form of government. The message implied by public tolerance for military intervention in the affairs of civil government is that Thailand is relatively comfortable with an arrangement that elevates the role of the military above civil government. The coup d’etat had become a reliable mechanism for ending political infighting which had devolved to from the process of democratic
exchange and compromise to hostile brinksmanship between two sides in the civilian political structure.

Conversely, critics of military intervention in civil politics claim the tactic is counter-productive. Not only, they argue, is intervention a short-term solution to mitigating against political strife, but more disconcertingly, intervention retards the long-term development of political institutions, norms, and mechanisms by which a mature democratic government finds common ground through conflict resolution. A military intervention today does nothing to alleviate the structural factors that create the conditions of civil unrest and, thus, enforces a cycle of political turmoil and further military coups in the future. Once the practice of military intervention becomes an accepted norm in managing transitions in civil government, the process of military intervention becomes more predictable based on a number of structural risk factors that contribute to the degree in which a particular country is susceptible to military coup.

Moreover, while military regimes generally focus on short-term issues relating to peace and security, by nature their policy-making process may be less responsive to long-term civil affairs as reflected in some general perceptions over quality of life indicators. According to a December 2016 poll published by Suan Dusit, results show a diverse range of conventional attitudes interpreting policy outcomes after one year of military rule in Thailand. When asked to comment on the nature of change in Thailand over the past year, 1359 respondents answered whether the situation had become better, worse, or if nothing had changed. Their replies address concerns according to these three categories, and show that, while 81 percent of people agreed that Thailand had improved in terms of being more peaceful, cost-of-living and environmental concerns were perceived as getting worse by 70 percent of respondents. (See Table 1)

As for the effects of political turmoil and military intervention on the Thai economy, Market attitudes represent a unique perspective on the outcomes resulting from a sustained pattern of authoritarian governments intervening to re-establish peace and order. Traditionally, investors in Thailand have muddled through military intervention in Thai politics as business remained largely untouched by the policies of military governments. In the last ten years, however, erratic changes and the
declining trend in FDI inflows to Thailand raise questions about investor confidence in Thailand’s economy under military rule for the foreseeable future. For the purpose of this Background analysis, these concerns are framed by Coup risk, Market attitudes and FDI theory of ownership.

1.2.1 Coup risk

Political scientist, Jay Ulfelder, ranks Thailand in the top 30 of the world’s most coup-susceptible countries. He observes that coups take place in countries where political opinion is sharply polarized, as it is in Thailand. Ulfelder also notes that coup activity tends to cluster in periods spanning five years, so a country that can govern itself longer than that period is less likely to fall victim to military takeover. In summary, his analysis of coup risk identifies how several key fault lines converge on a point where self-government fails and military government becomes viable:

The most informative factors in thinking about coup risk are a country's wealth, its form of government, and the recent occurrence of coup activity. Coup attempts very rarely happen in countries that are rich, either fully dictatorial or fully democratic, and have no coup activity in the recent past. Almost all coup attempts, successful or failed, occur in countries that are relatively poor and have political regimes that mix features of autocracy and democracy.

In the case of Thailand, the single factor most relevant to this study on FDI flows into the Kingdom under military government is the level of wealth affected by changes in foreign direct investment. Although Ulfelder’s index is useful as it emphasizes that the causal factors in coup risk also include the type of government and recent history of military coups, the focus of this study is, rather, foreign direct investment in Thailand after a coup has become a fait accompli.

The significance of examining this relationship between investment, wealth, and propensity toward civil government is to determine how the market reacts to military rule in Thailand over time. The concern focuses on perpetuating the cycle of military rule in Thailand, and whether or not wealth as a key deterrent to coup risk will be allowed to grow at a relatively healthy rate in order to enable Thailand to transition to full democratic rule in the long term. Investor attitudes reflect these
concerns when seeking advantage in economies that are more secure and open to growth and innovation.

1.2.2 Institutions of Poverty and Prosperity

One guiding principle of this study is derived from Institutionalism, which characterizes the effects of institutions in a particular society according to the nature of their roles resulting in either poverty, or prosperity. Defining characteristics of this approach begins with generally categorizing institutions, discussing a comparative study of border communities, examining historical examples of applied theories, analyzing conditions of poverty and prosperity, understanding the diffusion of prosperity, contrasting virtuous and vicious cycles, and ends with discussing lessons learned as to why neighboring countries, who share so many common characteristics, developed along different trajectories.

In the broadest terms, institutions in this paradigm can be described as Inclusive, i.e. conducive to the equitable distribution of wealth at all levels of society; Exclusive, tending to facilitate the greater concentration of wealth into the hands of a particular group or groups centered around an elite class; or Extractive, which characterizes an extreme, almost rapacious model of governance based on the unsustainable practice of exploitation for profit of human, national, and natural resources by a particular ruling cabal, without reinvesting profits for the greater benefit of society.

History provides multiple examples of how appropriate institutions foster the means and conditions necessary to help countries make the transition out of conditions of economic poverty to prosperity. Most notably, Institutionalists demonstrate the effective roles of institutions by means of comparative studies of communities which are located on borders dividing two nations states. In these cases, the study takes the premise that all border communities share a range of nearly identical characteristics that define them as a single community. These shared characteristics include a common ancestry, culture, history, language, and geographic location. The only major difference between the two communities divided by national borders is their system of government, and, by extension, the social, political, and economic institutions by which the state interacts with the population.
The preeminent subject of a comparative study of economic differences in border communities is the city of Nogales, which is located on the border shared by the United States and Mexico. On the northern side of the border wall, the city is part of the US state of Arizona, Santa Cruise County. South of the wall, Nogales is under the jurisdiction of Sonora, Mexico. Acemoglu and Robinson (2012) note the different conditions in these two communities center on the divide between poverty and prosperity.

Key quality of life indicators illustrate the different conditions enjoyed by residents on either side of the border in Nogales. US residents enjoy an annual household income of $30,000. Most teens are enrolled in High School. Most adults have completed High School education. Life expectancy is comparable to the US national average. Many residents are above age 65. Government services provided include Medicare, electricity, telephones, sewage, public health, and road networks. Most importantly, the authors stress, is the presence of law, order, and property rights as provided by through the agency of officials held accountable by the standards and norms of a representative form of local, state, and federal government.

The profile of Nogales residents in Mexico is marked by the contrast in access to the same quality of life indicators in a city that is relatively prosperous in comparison to other communities in Mexico. Most notably, the average annual income is $10,000. Most adults have no High School degree. High School enrollment rates for teenagers is low. Life expectancy is low and there is access to few public amenities. Most significantly to this conceptual approach, law and order fails in protecting citizens and their property from corruption and crime despite political reforms in 2000 marking the end of the Institutional Revolutionary Party (PRI), which had controlled most of Mexico.

Finally, a comparative study of the two communities of Nogales is instructive in examining, from an institutional perspective, the conditions affecting either poverty or prosperity. The key indicators illustrating this difference are found in several areas, namely access to: national economic institutions, choice of occupations, schooling and skills, employer investment in technology and professional development skills, and participation in democratic institutions managed by politicians held accountable by popular, regular elections.
The foundation for this comparative approach by Acemoglu and Robinson applies observations based on the Historical and Political Institutionalism schools of thought in defining types of growth.

1.2.3 Market attitudes and FDI

Historically, markets and investors appear to be remarkably tolerant of political turmoil in Thailand. The country has enjoyed decades of relatively steady economic growth despite episodes of political unrest. In a nutshell, investors traditionally value political stability in whichever form of government it may come, even at the expense of a temporary loss of self-government. Recent changes in FDI flows to the Thai economy, however, point to a paradox inherent in tolerating military control for the purpose of maintaining peace and order. Not only has FDI experienced a pronounced decrease beginning in early 2016, but since 2006, FDI has been trending slightly downward as well.

This paradox itself runs counter to conventional wisdom. Superficially, investors are generally comforted by a stable political situation, even under a relatively benign military dictatorship. Indeed, throughout the recent decades of political turmoil, Thailand has experienced positive economic growth driven mainly by the sectors of Agriculture, Manufacturing, and Tourism, which all depend heavily on access to international markets. That production in these sectors had continued apace with demand, despite domestic political turmoil, was reassuring to the international business community as the degree to which politics interfered with a secure climate for business was perceived as unobtrusive. Recently, however, the sharp downward trend in FDI seems to run counter to the notion that investors value the security of military rule above a free civil society under a democratic government and the occasional shocks to the international political economy.

Incidentally, as the characterizing feature of FDI is central to this study, it should be noted that investment inflows as a percent of Gross Domestic Product – GDP = Consumption (C) + Investment (I) + Government Spending (G) + Net Exports (NX) – are identified by the World Bank as Foreign Direct Investment, which they define as:

*The net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other*
than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments.

Examining changes to FDI over time provides clues to investor perceptions. *Figure 1* below denotes a 10-year timeline of FDI in Thailand. At first glance, three points are noteworthy as indicators of the nature of change in FDI during this period: 1. Erratic spike ranges; 2. A slight downward trend; and 3. Specific dates of peaks and spikes.

In terms of the greatest degree of change in FDI, 2013 marks a period of the largest spike range in this table. Early in the year, FDI was at minus THB 100,000,000,000. Near the end of the year, FDI had risen to plus THB 125,000,000,000, only to fall sharply to minus THB 10,000,000,000 early in 2014. Since 2006, the downward trend in annual FDI shrank from approximately plus THB 30,000,000,000 to plus THB 20,000,000,000 in 2016. The largest spikes in FDI occur in 2006, 2012, 2013, and 2016.

More specifically, FDI inflows to Thailand during this period show decreases from Europe, the USA, and Japan. As the traditionally single largest investor in Thailand, however, inflows from Japan have seen a decline from THB 47,736,000,000 in 2013 to THB 657,000,000 in 2015, as seen in *Figure 2*.

Examining FDI flows worldwide identifies useful trends for comparison of FDI flows to Thailand within a global context. Analysis of raw data in *Figure 3* from the United Nations Conference on Trade and Development notes that, during the same 2006 – 2015 period, FDI flows to economies categorized under World and Developed markets have seen a steady increase since 2014. FDI flows to Emerging and Frontier markets, however, have remained relatively flat since experiencing a modest increase from the period ranging from 2009 to 2011, as FDI inflows to World and Developed markets enjoyed similar growth rates.

### 1.2.4 The Military, Stability and the Middle Income Trap

In 2006, Gill and Kharas introduced the term Middle Income Trap at the Annual Meetings of the World Bank and International Monetary Fund held in Singapore. Their objective was to discuss lessons learned from developing economies in Latin America, which had seen their economic growth stagnate despite previously
strong performance. The main observation was that middle-income ASEAN countries were not yet ready to transition to the knowledge economy, following the model of the Republic of South Korea after the 1997 financial crisis, as many ASEAN countries lacked the capacity for economic transition:

… given the mediocre quality of the higher education systems and low enrollment rates, the lack of domestic patents, low levels of innovation and technological diffusion, an absent venture capital eco-system, and assembly-type firms that were not moving rapidly up the value chain.

When Thailand, like other middle income countries, finds itself discussing the scale and scope of its future growth, questions arise about Thailand being caught in the Middle Income Trap. Generally, concerns over stagnant long-term growth prospects stem from continued political instability affecting the country’s competitive advantage, productivity and continued capacity building as investors shift their interests and innovations to other markets. In this context, the concern is that investors will leverage opportunities in alternative emerging and developed markets where stability fosters low political risk to civil government.

These concerns resonate within the context of an established pattern of military intervention in a chaotic political environment. Since adopting a representative form of government, when King Prajapit signed the country’s first Constitution of 10 December 1932, it appears that Thailand has become dependent on the military coup as a stop-gap mechanism for maintaining political stability at the expense of building democratic capacity for compromise in its governing processes.

If this pattern continues, a mature form of democratic civil government will be difficult to achieve as, according to Ulfelder, wealth is a key factor in determining the propensity of coup risk in the countries he has studied. In regard to a possible disconnect between investors and policy makers in Thailand toward fostering free market values under a democratic system of government, Foreign Direct Investment theory provides an analytical tool for understanding factors that promote a positive investment climate in Thailand.

1.2.5 The view from Japan

In understanding Japanese investors’ propensities to invest, both internal and external factors are examined. For the purpose of this study, these can be
considered as “push” and “pull” factors respectively as they describe the influences and conditions affecting the transnational movement of money for the purposes of private-sector investment.

Two internalities have affected the money supply in Japan: The burden of recovery from the 2011 Tsunami and that country’s monetary policy. The cost of rebuilding the areas devastated by the 2011 earthquake and subsequent tsunami were estimated at $300 billion, or approximately 6 percent of Japan’s total economic output in 2010, according to the Japanese government. While officials projected three to four quarters of negative economic growth after the disaster, reconstruction efforts were hindered by Japan’s slow emergence from the 2009 recession.

Moreover, Japan’s monetary policy, a low- and negative-interest rate program, failed to induce spending during part of the timeline in this study. Launched in April 2013, the Bank of Japan’s “Shock and Awe” strategy initially spurred a brief period of spending and inflation before spending and prices slumped. Since then, inflation as measured by the Consumer Price Index, has remained around zero, with slight upticks attributable more to externalities and exchange rates against the dollar than identifiable patterns of increased domestic spending.

As Japan finds itself experiencing a prolonged deflationary slump, reduced wages, profits, and private-sector investment have stagnated as well. This deflationary mindset reflects a Keynesian “Paradox of Thrift” as high savings rates reduce aggregate demand and dampen economic recovery. According to World Bank data, Japan’s Gross Savings Rate has risen to 27 percent of GDP since a low of 23 percent in 2012.

In terms of Japanese investment trends in Thailand, the ratio by category has been in transition since the year 2000. Prior to that year, Large Scale Enterprise (LSE) investment comprised 51 percent of Japanese shareholders representing 3,697 companies, with Small to Medium Enterprises (SMEs) and Individuals investing 36 and 11 percent respectively. During the period from 2010 to 2014, however, LSE and SME investment comprised 39 and 52 percent respectively, while Individual investment peaked at 19 percent from 2000 to 2004, before falling to 7 percent after 2010.
From a Japanese perspective, external pull factors conducive to investment in Thailand are focused on three points in this study. These are:

1. BOI Incentives;
2. Investor concerns over the quality of education in Thailand; and
3. Competitive pull factors from emerging markets within ASEAN.

Despite BOI Incentives, Thailand experienced a decline in Japanese investment as BOI policy shifted incentives away from the First Wave model of Japanese investment in Light to Heavy Industry and Advanced Machines to the promotion of cleaner, value-added products based on creativity and innovation as part of a larger drive toward developing the three main components of the Smart Thailand initiative comprising Smart Industry plus Smart City plus Smart People under the Thailand 4.0 Policy. Primarily, change in Japanese investment attitudes reflect a priority shift, which emphasizes a proportionally greater role played by SMEs seeking opportunities in resources, markets, efficiencies and strategic assets or capabilities. Smaller investors are focused on business services, high technology and creative industries, particularly in the areas of hospitality, medical, retail, digital content and other high tech services. Investor uncertainty in these sectors, however, stems from Thailand’s failure to clearly prioritize planning and investment policies relating to specific industries. Thus, there is still some confusion over which sectors should hold precedence for investment. Moreover, the laws and regulations under the Foreign Business Act need to be relaxed where they restrict the investor’s share of ownership in many service sectors.

Investor concerns over the quality of education in Thailand result from a constrained labor supply within a value-based economy according to the framework of the Thailand 4.0 Economy Policy. Productivity risk in the Smart services sectors stems from diminishing returns in demand for labor and the effect on wage equity. Simply put, as demand for labor in the 4.0 Economy grows in the Smart sectors, returns from labor cost as a variable factor will diminish as wages rise at rates higher than returns in individual output, or Marginal Physical Product (MPP), the price of which carries over into reduced Marginal Revenue Product (MRP).

Competitive pull factors from emerging markets within ASEAN demonstrate contemporary Japanese investment trends. Indeed, two countries
illustrate where Thailand stands by competitive advantage with other regional economies, namely Singapore and Vietnam. Though Japan is the single-largest source of direct investment to Thailand, Japan has invested more in Singapore. This so-called “Singapore Shift” in Japan’s Services industry investment began to increase noticeably in 2010 by varying degree in each service sector. This investment Shift is characterized by Japanese companies establishing a commercial presence in the ASEAN sphere, with centrally-located Singapore identified as the hub from which services – ranging from logistics and financial services – can be supplied to the entire region. As this strategy leverages trade liberalization policies in Singapore, 36 percent of 213 Japanese companies surveyed had already shifted some corporate functions to their regional headquarters there by 2012, while an additional 27 percent expressed a desire to follow suit.

Internal factors leading to Direct Investment can be traced back to the Japanese Tsunami of 2011, which forced Japanese companies to reduce risk by diversifying their business models toward accessing foreign markets. The effects of this disaster has compounded the effects of a demographic retraction, an aging population, and greater foreign competition at home. Finally, as demand from the Chinese economy began to slow, smaller investors were attracted to the sustained growth rates in Southeast Asian economies. In turn, Singapore not only provided close proximity to these markets, but also a freer business environment for SMEs in the service sector. Indeed, companies enjoy more rapid innovation by their close proximity to these markets as test marketing and new model development is increasingly conducted locally in order to shorten rollout of new products and services. This environment, along with a flexible immigration policy, offers Japanese firms the chance to hire staff from diverse cultural background, who understand regional markets at a micro-level. Language skills are also a competitive advantage as Singapore’s bilingual policy utilizes both English and Chinese. Apart from advantages in geographic location, access to internet, and logistics infrastructure, Singapore’s corporate tax rate, at 17 percent, is one of the lowest in the region.

Vietnam, on the other hand, began attracting Japanese investment since the 2009 Treaty of Economic Partnership. In the year 2015, for example, Japan invested $1.28 billion in Vietnam, according to the Vietnamese General Statistics
Office. Proximity between these two countries is an important pull factor. Investment in transportation, electronics, and electrical equipment provide access to resources, efficiencies, assets and capabilities, while local market access is also gained by players in the manufacturing as well as financial services sectors. As an institutional factor reflecting increased economic interaction, the Trans Pacific Partnership (TPP), of which both countries are signatories, represents both opportunities and threats in the promotion of mutual trade and investment as weighed against disruptions in key sectors across the local economy.

These internalities and externalities are the basis of Japan-Thai investment relations as, according to the conventional investment picture, the Japanese automotive and consumer electronics industrial cluster grew to represent a significant portion of Thailand’s industrial output. During the period of Large Enterprise investment by Japanese industry in Thailand, Thailand’s Board of Investment provided tax incentives for heavy industrial investment in several locations identified for economic infrastructural development. In terms of investment policy, these traditional incentives acting as pull factors have changed under Thailand’s Twenty Year National Strategy and Thailand 4.0 Policy as seen in Figure 5.

Driving this policy shift on parallel paths is the intention to diversify both the industrial and service sectors, as well as become more competitive in the higher reaches of the values added chain. According to its own mission statement, the Thai government identifies ten targeted industries for development in two stages.\(^1\) The first stage is to develop five existing industrial sectors with advanced technologies. Referred to as the “First S-Curve”, these are:

1. Next-generation automotive;
2. Smart electronics;
3. High-income tourism and medical tourism;
4. Efficient agriculture and biotechnology; and
5. Food innovation.

Next, five growth engines – the “New S-Curve” – will accelerate Thailand’s production capacity:

1. Automation and robotics;
2. Aerospace;
3. Bio-energy and bio-chemicals;
4. Digital; and
5. Medical and Healthcare.

1.3 Significance

Market behavior reflects investor attitudes to political instability combined with long-term growth of democratically inclusive institutions. While changes in investment trends may not reflect immediate reactions to socio-political disruption, investor concerns over ease of doing business (EODB) indicators are sensitive to implementation of protectionist policies. These concerns manifest themselves in changes to GDP.

1.4 Objectives

The general aim of this research is to understand the change of Foreign Direct Investment Inflows within the context of military rule in Thailand. Specifically, its objectives are to:

1. Identify correlation between FDI and GDP on a global, regional, and national level; and
2. Analyze causal factors affecting change in Japanese investment to Thailand.

1.5 Research questions

This study aims to answer two questions:

1. How does FDI affect GDP?
2. What factors have affected decreased Japanese Direct Investment to Thailand from 2006 to 2016?

1.6 Hypothesis

This study is based on the assertion that investor attitudes are not as comfortable with political stability taking precedence over freedom of civil society in Thailand as conventional thought assumes.

Inquiry begins with a general comparison of two distinct empirical data sets for the period of 2006 to 2016. The first data set in Figure 1 compares quarterly FDI inflow to Thailand with its trend line for that period. The next data set in Figure 2 compares trend lines between Thailand and other Emerging and Frontier markets. Observation of these two data sets reveals fluctuations in FDI whose extreme ranges mirror periods of political unrest in Thailand, thus corresponding to a downward-sloping trend line. Also, in regard to global FDI inflows, Thailand’s declining trend line roughly corresponds to the general trend in other Emerging and Frontier markets as FDI inflows are channeled instead to Developed markets.

In forming the hypothesis for this study, an inductive approach is applied based on these general comparative observations of Japanese FDI flows, both to Thailand and other ASEAN economies, and tested for specific outcomes based on FDI theory. As changes in FDI inflows become clear, they should imply a plausibly causal relationship between a decrease in FDI and the military government in Thailand. In terms of modelling a relationship, the dependent variable is FDI inflows to Thailand, while policy decisions of the Thai military government is the independent variable.

A specific causal mechanism in this hypothesis is the Thai military government and, by extension, its policies toward the free market economy, both in the private sector as well as the affairs of civil government. The causal mechanism in this hypothesis meets the criteria for being both testable and falsifiable. Alternatively, process analysis could indeed falsify this hypothesis by showing that factors other than the policies of the military government have contributed to decreased FDI flows from Japan. The alternative hypothesis could simply be that Thailand follows trends
on a larger regional scale of other emerging markets in ASEAN, irrespective of market attitudes toward political stability under military rule.

1.7 Conceptual Framework: FDI Theory

This research is guided in part by the Eclectic Paradigm of FDI Theory. Developed by Dunning, this approach draws on both micro- and macroeconomic thought to explain causal factors in FDI. Also known as the OLI Model or OLI Framework, the Eclectic Paradigm was derived in 1979 from Buckley and Casson’s 1976 Internalization Theory, which was itself based on Transaction Cost Theory as first proposed by Commons in 1931 and later Williamson in 1981.

By way of explanation, it should be noted that the foundation of enquiry for FDI theory takes the form of 6 basic questions. These are:

1. Who is the investor?
2. What kind of FDI?
3. Where is the FDI going?
4. Why are investors investing?
5. When do investors invest?
6. How – i.e. by what mode – do investors enter the market?

The term Internalization in microeconomics refers to the structure of an organization in the sense that decisions are made regarding the transaction cost of a good or service within the company compared to the free market. Simply put, the transactions are made within the institution if their internal cost is cheaper than the free market price. In the context of International Political Economy, companies became Multinational Corporations (MNCs) as internalization occurred across borders. The significance of this framework is that it defines the decision matrix used by multinational corporations in determining foreign investment strategies.

The letters “OLI” in this model represent advantages in Ownership, Location, and Internalization as factors influencing the strategy of MNCs toward new markets. As seen in Table 2, such strategies determine the level of interaction with foreign markets by degree ranging from Licensing, Export, and finally to Direct Investment in relation to competitive advantages in Ownership, Location, and
Internalization. Furthermore, Behrman identifies four types of FDI as an explanation of FDI objectives, namely:

1. Resource seeking;
2. Market seeking;
3. Efficiency seeking; and
4. Strategic asset/capabilities seeking.

Defining these FDI objectives highlights the key rationale for those firms seeking greater comparative advantage across a range of operations. Resource seeking investment, for example, refers to companies seeking either natural or human resources at a lower cost than available in their home countries. Market seeking aims to leverage advantages by having a physical presence in the local market to mitigate against trade and other barriers. Efficiency seeking aims to leverage advantages in regulatory environment governing a widely dispersed value-added supply chain. Strategic asset investment seeks specialized local knowledge and capabilities in order to strengthen a firm’s portfolio of global competencies.

Weighing these objectives against risk in the political environment provides a scale by which investors express their level of confidence in each type of investment model. Finally, process tracing provides the qualitative tool for this analysis. Through systematic examination of evidence pertaining to the issue of Japanese investment inflows to Thailand, this approach operates in three ways:

1. Causal-Process Observation (CPO), which contrast empirical data from both qualitative analyses and quantitative Data Set Observations (DSO);
2. Description of each step in change trajectories and causation as key “events” in FDI changes are described in their “static” state as a snapshot of unfolding events; and
3. Sequence of independent, dependent, and intervening variables.

Having outlined the structure of this analysis as an introduction in Chapter One, the following two chapters provide an overview of the literature relating to this topic, as seen through the conceptual framework, as well as description of the methodology of this study.
1.8 Mixed-Methods: Regression Analysis & Process Tracing

The mixed methodology applied in the data analysis of this study seeks to examine direct investment from Japan to Thailand, during the 2006 to 2016 period, from both the quantitative and qualitative perspectives. The quantitative approach utilizes regression analysis to determine any correlations between FDI as a function of Thai GDP. The quantitative approach applies process tracing techniques in order to determine the level of probability that these two factors – i.e. FDI and GDP – experience some sort of causal relationship as a result of institutional factors governing trade and investment. Toward this objective, data comprising a ten-year time span from such primary sources as the World Bank, Asia Development Bank, Bank of Thailand, Japanese Chamber of Commerce, and UNCTAD are analyzed.

1.8.1 Regression Analysis

The regression measured for quantitative correlation as a ratio plotting GDP Growth as a function of FDI inflow expressed in percent of Thai GDP. The sample data for all three plots – Global, ASEAN, and Thailand Context – was collected from the World Bank database. The hypothesis tested in regression is that FDI has an effect on GDP growth in all three contexts.

The sample for the Global plot (Figure 6) is comprised of 179 countries and 1431 data points. The sample for the ASEAN plot (Figure 7) is comprised and 6 countries and 60 data points. Data from these studies were plotted over the ten-year span of this study, i.e. 2006 to 2016.

1.8.2 Process Tracing

Causality is measured qualitatively as Japanese Direct Investment (DI) as a function of business sentiments – Satisfaction Index (SI) – among the Japanese business men as identified in the findings of a biannual survey conducted by JETRO. The sample group derived from this ten-year study includes approximately 508 firms who responded to the questionnaire distributed biannually to 1,724 member firms – a 29% response rate – at the Japanese Chamber of Commerce (JCC), with 12 governmental member organizations being excluded. The process being traced in this analysis is a temporal study of change over time in Japanese investment levels.
expressed as a function of sentiment in the business community regarding general conditions in the Thai business environment and perceptions as to whether they are improving or deteriorating.

This Satisfaction Index among the Japanese business community in Thailand is comprised of data from a 10-year compilation of biannual surveys, ranging from 2006 to 2016, of members of the Japanese Chamber of Commerce. The sample group represents 508 actual respondents out of 1,724 members polled, comprising a response rate of 29 percent. Government agencies were excluded from this survey. The results are based on the mean of both biannual surveys tracked over ten years. The findings of these surveys expressed general levels of change in business attitudes in relation to thirteen categories reflecting the ease of doing business – conditions are either improving or deteriorating – in Thailand as compared to the previous survey. These thirteen categories comprising the JCC Satisfaction Index are identified in the Results section of Chapter 4.

1.9 Empirical Studies

Three empirical studies illustrate the significance of the findings through the frameworks of the regulatory environment, protectionism and productivity, and competitiveness. The first of these three empirical studies focuses on the spirit of the 2007 Japan-Thai Economic Partnership Agreement (JTEPA), as codified in the terms of a mutually-beneficial trade agreement between these two countries. By contrast, the second empirical study examines the effect of economic protectionist measures on Thai productivity based on econometric models. Finally, as applied to the automotive sector, the third empirical study expands on the theme of productivity by examining four specific areas, as based on FDI theory, that are key to Thailand’s building greater comparative advantage both short- and long-term.
CHAPTER 2
REVIEW OF LITERATURE

2.1 Overview

The scope of the literature reviewed in this thesis defines the institutional parameters of the Thai context ranging from micro and macro perspectives to market interactions at the institutional level. While contemporary news reports and academic articles provide insight into both the political economy and Foreign Direct Investment, industry analysis describes push and pull factors by sector. Moreover, in a mixed-method approach, Regression Analysis and Process Tracing are examined for both suitability and limitations of Quantitative and Qualitative approaches toward the objectives of the study. Data for this study is sourced primarily through World Bank, UNCTAD, JETRO, and the International Monetary Fund. Finally, three empirical studies illustrate the significance of the findings through analysis of the frameworks of the regulatory environment, protectionism and productivity, and competitiveness.

In a general sense, the theoretical approach driving enquiry into this research is derived from Institutionalism. This approach examines the historical roles played by institutions in the socio-political and economic development of country affecting a range of issues and sectors. Overall, for the purpose of this study, the effects of institutional development can be measured by categorizing growth as either Inclusive, Exclusive, or Extractive. From a conceptual perspective, however, as the key topics in this literature review are derived from FDI theory as a conceptual framework, FDI theory provides a conceptual framework for the issue of FDI inflows to Thailand. The foundation for this approach comprises questions regarding the what, where, when, why, who, and how of Foreign Direct Investment.

Specifically, the FDI theories based on institutional analysis are useful tools because they value political stability as a key factor. At the center of this analysis is Dunning’s Eclectic FDI Theory. A second theoretical influence is Institutional FDI Theory. Before describing the scope of FDI theory in application to this study, however, a background and overview of Institutionalism is necessary in order to understand its strengths, weaknesses, and origins.
2.2 Institutionalism

Institutionalism comprises the foundation for many schools of thought in both the Social and Political Sciences. Amenta (2010) notes that “The basic similarity in all institutional theoretical claims is that something identified at a higher level is used to explain processes and outcomes at a lower level of analysis…” Furthermore, Amenta identifies three sub-categories of institutionalism – Sociological, Historical, and Political – as representing the predominant views in the Social Sciences while noting their traditional contrast with Comparative and Rational-Choice Theories popular in Political Science as based on epistemological differences. As the rationale for this study is to examine the role of institutions toward inclusive growth, its framework is confined to outcomes based on sociological, historical, and political observations in order to understand the conditions that contribute to wealth and poverty on a national scale.

The most common criticism of the Institutional approach is a perceived structural bias. This perceived bias results from the inability of institutionalism to scale down to the individual level. Nor can institutionalists explain social and political changes within institutions themselves beyond the means of external factors, sudden shocks, or the actions of particular agents affecting outcomes. Nonetheless, the utility of Institutionalism is found in the consistent focus on higher-order determinants, with slight variations in the three distinct subsets to which Amenta referred above – i.e. Sociological, Historical, and Political – according to how each discipline weights certain causal factors in their analyses. Although these three predominant forms of institutionalism vary in their origins and research strategies, each can identify their respective origins in responding to inadequacies of more traditional statist-based theories explaining the role of institutions in society. Their main differences can be summarized by focus of study, theoretical influence, origins, and advantages and disadvantages.

Sociological Institutionalism comprises two schools of thought. Where the sociology of organizations associated with Powell and DiMaggio differ, in comparison, from Meyer in examining the influence of the “world society”, both focus on causes stemming from culture and ideas that are otherwise overlooked in
organizational- or state-based theories. In their respective roles, the first examines causality in organizations for change at the societal level, while the second is concerned with influence of organizations at the supra-societal or supra-state level in states and their policies. This strategy is a study of legitimation in political organizations. The focus is on processes of policy imitation and diffusion with particular interest in convergences matching institutional and policy objectives, normally as a temporal study of events.

In terms of research applications of this approach, Sociological Institutionalism is most suitable when institutional guidance is necessary. Generally, it is employed by a political actor seeking either legitimacy, or a working scheme, where there is no cost associated with adopting those used by other states or organizations.

Historical Institutionalism is a study of determinants at the macropolitical or macroeconomic level. Here, causation is characterized as both “multifaceted and conjunctural” with an emphasis on time-order and path dependence (Pierson and Skocpol 2002). The focus of this approach is on political mechanisms and concerns itself with asking big questions, highlighting the role of institutions, and rejecting functionalist explanations for why institutions emerge without reliance on a particular type of institutional theory. Developed as a response to Rational Choice Theory and Behaviorism in Political Science, this approach adopts the premise that institutions are not established for functional reasons, and so examines the historical processes contributing to their creation and the persistence of their influence on policy-making. A typical strategy in this approach is the study of the causes of divergent historical trajectories in the development of a particular country as measured through the roles of its institutions.

Political Institutionalism, as a theoretical school of thought, focuses on the state or macropolitical level. Though this approach is not concerned with a rigid sense of self-definition, its framework is confined to the assertion that the process of formation of states, political systems, and political party systems strongly influences political processes and outcomes. As this approach predates Historical Institutionalism, they share similar themes of study, though the political approach originated in response to pluralism and Marxism, which, though widely-accepted at
the time, were considered inadequate for a multi-dimensional analysis of the state and its institutions. The main focus of the Historical approach is the comparison of established institutions in a select range of countries based on the premise that national institutions mitigate the influence of actors with interests ranging from those of domestic organizations or manifest in global processes.

For the purpose of this study, principles of Historical and Political Institutionalism have driven the research questions and shaped the analysis. The works of Anjelo et al have illustrated the disparity of wealth between two communities who share commonality across a range of socio-cultural-economic conditions, yet vary greatly in their access to wealth and other quality of life indicators due to one obvious factor, namely the system of government under which they live.

2.3 Eclectic FDI theory

The Eclectic Paradigm (EP) is defined by Dunning (1979) as a three-tiered financial model that companies use to determine the benefits of investing in a foreign market. The underlying assumption of this theory is that firms will avoid transactions in the open market when favoring internal transactions is cheaper, or more cost-effective. This paradigm comprises three “Advantages” that companies consider when investing – i.e. Ownership, Location, and Internalization (OLI) – weighed against modes of market entry ranging from Licensing to Export to FDI.

Dunning’s five stage theory applies to this background analysis. It provides historical reference points of priority changes following the growth cycle of economies beginning first with Low incoming FDI and ending with the fifth phase of Equilibrium in the outgoing and ingoing flows of FDI. In terms of the actual motives of MNEs for Internalization, their primary concerns are to safeguard supply, assure the quality of end products, guarantee markets and property rights, and avoid price discrimination, while sharing overhead costs with a local partner when applicable. Under this model, motives for internalization increases with the risk of structural market failure as contractual growth increases with external diseconomies.
Additionally, in his Eclectic Paradigm, Dunning adopts an integrated approach through a range economic thought drawn from macroeconomic theory and trade to microeconomic theory and firm behavior. Also known as the OLI Model or OLI Framework, Ownership, Location, and Internalization are the three factors determining the behavior of firms when deciding if they should license their property, export it, or invest in a host country to develop production capacity either for further export or to access domestic markets of the host country.

Building on OLI Theory, Behrman has identified four types of FDI:
1. Resource seeking;
2. Market seeking;
3. Efficiency seeking; and
4. Strategic asset/capabilities seeking.

These four types of FDI are affected by push/pull factors, which MNEs must take into account when developing their business models in relation to the particular strengths, or capacities, of the host country.

The history of Dunning’s Eclectic Paradigm of international production traces back to its introduction, in 1976, at the Nobel Symposium in Stockholm entitled The International Allocation of Economy Activity. The intended utility of this paradigm was to identify and evaluate factors from a range of economic thought regarding both initial investment and growth of foreign production by MNEs. Moreover, within the context of common factors affecting international economic activity, foreign direct investment co-exists with a number of other modes of involvement. Although the general – i.e. eclectic – nature of this paradigm makes applying it to specific types of production and enterprise difficult, its application in determining macro-trends can be useful in evaluating policy outcomes across a range of sectors and national economies.

2.4 Criticisms of Dunning’s Eclectic Paradigm

Ten years after its introduction, Dunning addressed specific criticisms that the Eclectic Paradigm had faced based on issues ranging from Competitive or Ownership Advantages, Location Advantages in Structural and Transactional Market
Failures, vagaries between specific or general theories of international production, failure to sufficiently address firm-specific behavioral differences, to the Aliber Theory of Direct Investment, and the Kojima Hypothesis of neo-classical economic thought.

Competitive or Ownership Advantages were called into question regarding their relevance in explaining international production. This issue is covered by the Paradigm comprising three types of competitive – or monopolistic – advantages and a typology of two additional – Asset (Oa) and Transactional (Ot) – advantages, which are necessary in order to compensate for the start-up and operating costs of a foreign-based facility. Three types of ownership-specific advantages include:

1. Exclusive access to income generating assets;
2. Those enjoyed by a branch factory, compared to a start-up firm; and
3. Those dependent on geographic location or nationality.

Asset and Transactional advantages, by comparison, reflect either exclusive control of an asset or the transactional control of an asset as determined by common transnational markets under mechanisms of international trade regimes. Thus, Assets and Transactions, though often interrelated, are distinguished in the advantages conferred in ownership by MNEs by the degree to which they vary in relation to the characteristics of the firm, their products, the markets in which they operate, and whether competition is viewed from a static or dynamic perspective by the market. While MNEs benefit from internalized production under the condition that their best interest is served by transferring owner-specific advantages internally, rather than selling them, market failures tend to result from risk and uncertainty, where firms only enjoy economies of scale due to imperfect market situations, and external costs and benefits of a transaction are not properly accounted for in the terms of agreement between the parties of a transaction.

Locational Advantages in Structural and Transactional Market Failures focuses on the question of “where” MNEs choose to invest in production. Various market imperfections and structural distortions affect internalization in relation to advantages derived in factoring production cost and revenue, though transaction gains represent a pull factor when investors enjoy the advantage of common governance of
activities across a range of markets. These advantages include arbitrage and leverage opportunities, reduced exchange risks and better coordination of financial decisions, hedged marketing or multiple sourcing strategy, and gains through transfer price manipulation as leads and lags in payments, etc. In particular, when MNEs are able to reduce risk of ownership by mitigating against transactional market failure in their host countries, leveraging ownership advantages over uninational companies becomes more sustainable.

Both Specific and General Theories of International Production are reflected in OLI parameters influencing MNCs to internalize production, which may vary according to their motives as applied to the conditions within a particular business sector. Furthermore, structural and conditional variables influencing the level of MNC internalization are derived more from activities specific to a particular country, industry/activity, or firm. As the advantages of asset ownership may vary according geographic location, technological factors, and industry sector, either in the MNC’s home country or in the country where they choose to operate, when goods and services may be traded as intermediary rather than final products, are affected by the role of government regulatory agencies it pursuit of that nation’s economic policy in relation to trade in the value of the resources derived from the MNCs within their borders.

Firm-specific behavioral differences under the Eclectic Paradigm can be considered as an important variable as firms consider their strategic approaches relative to certain economic variables. These may vary among firms sharing a market space with other firms in the same sector, the location of the firm in the value-added chain, the location of their end-user markets, current portfolio holdings and aversion to risk in uncertain markets. Dunning notes that these strategies may include the product cycle – where foreign ownership provides firms with advantage over their rivals; oligopolistic strategies – which may include the bunched timing of foreign investment in some sectors; and risk minimization – where firms diffuse their risk by building a diverse geographical portfolio.

The Aliber Theory of Direct Investment is critical of EP on two points. First, that measuring the activities of foreign enterprises is a false starting point for
studying direct investment. Second, financing capital expenditure is not related to a means of transfer and control of non-financial resources.

The Kojima Hypothesis of neo-classical economic thought addresses issues of cross-border trade of international products within the perspective of a normative approach. Also, according to this Hypothesis, EP does not work as a conceptual framework for policy-making. As the EP tends to focus on business interests as a transnational issue, not only is the mercantile, micro-approach too narrow, but the dichotomy of “Home v. Host Countries” based on competition for both asset and transactional advantages is incompatible with the tenants of neo-classical economic thought.

### 2.5 Institutional FDI theory

Established institutional frameworks between two countries and political stability in the host country are key aspects of the institutional FDI theory. Its significance to this thesis is the Thai context of political change viewed from two opposing positions, i.e. the business community versus the conservative movement within the military government. As the quality of institutions reflect the propensity to develop trade between two partner countries, the focus of this theory is the efficient protection of civil and property rights, extended economic and political freedom, and low levels of corruption.

DiMaggio (1983) rejected historical, or old, institutionalism when proposing the new institutional perspective. Here, the rational-actor models of classical economics are replaced by a focus on cognitive and cultural characteristics of organizations, which cannot be measured with aggregate data.

### 2.6 Mixed-Methods Research

In this study, the two approaches applied in mixed-method are: 1. Regression Analysis; and 2. Process Tracing. In terms of its background, mixed-methods research began in the late 1980s with methodologists examining the application of combined quantitative and qualitative methods. Prior to that period,
specialists in each camp viewed the other with suspicion until they began to perceive advantages of adopting an alternative approach wherein quantitative researchers began applying qualitative data, while qualitative researchers sought to present their findings in general terms that were accessible to a greater audience.

Though the process of defining mixed-method research has been somewhat elusive due to its generalized nature, Creswell and Clark (2011) suggest this can be accomplished by defining the approach according to the core characteristics of mixed-method research in their combination of methods, philosophies, and research design. As defined by this perspective, the six core characteristics of mixed-method research include:

1. Collecting and analyzing persuasively and rigorously both qualitative and quantitative data with an emphasis based on research questions.

2. Mixing – or integrating or linking – the two forms of data either concurrently by combining or merging them, sequentially by having one build on the other, or embedding one within the other.

3. Giving priority to one or both forms of data as based on the research questions and the emphasis of the research.

4. Using these procedures in a single research study or in multiple phases of a program of research.

5. Framing these procedures within philosophical worldviews and theoretical lenses.

6. Combining the procedures into specific research designs that direct the plan for conducting the study.

Some research situations are more appropriate for a mixed-method design as justified by researchers. As a combination of reasons for a mixed-method approach may be used by researchers to justify the suitability of a particular approach, Creswell and Clark (2011) describe six scenarios in which the mixed-method is most suitable:

1. One data source is insufficient. Here, the comparison lies between the depth of qualitative data and the broader, more general nature of quantitative data. Though deep, qualitative data may apply to only a handful of participants, where quantitative data views a broader sample scale, but with limited information. The research questions and goals may indicate when one type of data is insufficient to
provide a complete picture, or data may only prove to be in contradiction when both qualitative and quantitative methods are employed in order to provide both depth and breadth to a study.

2. Explaining initial results. When the findings of a study fail to provide a complete picture of the topic, a second data set may help explain the results of the initial set of data more clearly. Simply put, the meaning behind the results of a statistical test explaining the differences between groups (quantitative) are found by examining the relationship (qualitative) between those disparate groups.

3. Generalize exploratory findings. At the beginning of some projects – when research questions are unknown, variables unidentified, and research goals unspecified – the exploratory phase of a study begins with the qualitative collection of data. The purpose is to develop a general knowledge of the setting or participants, then follow up with a quantitative study in order to generalize and test initial findings.

4. Enhance a study with a second method. Early-phase findings can provide a clear picture when a second research method is employed. A qualitative component, for example, can enhance an experimental, correlational, or causal-comparative study. Quantitative data, on the other hand, can enhance the findings of such studies as ethnographic, narrative, or grounded theory research. In this case, it should be noted that the second method is “embedded” or “nested” within the primary method, as opposed to the scenario generalizing exploratory findings, where the second method is used as a follow-up to the initial method of data collection.

5. Best employ a theoretical stance. Some particular theoretical viewpoints simply require a mixed-method approach. In these cases, the choice lies between collecting data either simultaneously or sequentially with one form of data building on the other.

6. Understand research objectives through multiple phases. Individual, or separate, studies may require connection by researchers in order to achieve such research goals as defined in comprehensive or various types of longitudinal studies. As data is collected either simultaneously or sequentially, in confined temporal parameters, the study is multi-phase, mixed-method. If the temporal parameters
comprise a longer period of data collection, then the project is referred to as a multiproject mixed-method study.

In terms of evaluating the data to be examined, each of the steps in conducting mixed-method research provide a range of variation in the research process. In a general sense, the process consists of 10 steps:

1. Identification of the research problem to be studied. This begins with defining the research topic clearly, though balancing qualitative and quantitative methods need not be considered at this time.

2. Determination of whether a mixed-method study is feasible. Determining whether the use of both qualitative and quantitative data is suitable for a study entails data-gathering skills of the researcher, time constraints, analytical skills, and the level of technical understanding of the audience.

3. Development of a clear and sound rationale for doing a mixed-method study. Key questions in this regard are why mixed-method data should be collected, why both types of data are necessary, and how two data-sets enhance the study.

4. Identification of the appropriate mixed-method design to guide data collection. Factors affecting strategy are:
   a. Priority given to quantitative and qualitative data
   b. Sequence of the data collection
   c. Specific forms of quantitative and qualitative data to be collected

5. Development of research questions for both quantitative and qualitative methods. Typically, researchers define specific questions that pertain specifically to each data type. Alternatively, additional questions may address both types of data in combination. Here, the second set of research questions may emerge after one type of data is analyzed.

6. Review of the related literature and development of written review. The purpose of a literature review is to guide and contextualize the topic under study.

7. Collection of data. Collection procedures for both quantitative and qualitative data are the same in any type of study, provided they follow the mixed-methods research design as defined in the objectives of the study.
8. Analysis of data. Determining if data analysis depends on whether qualitative and quantitative data will be analyzed separately, or in an integrated fashion.

9. Development of conclusions and recommendations. Conclusion, inferences, and recommendations must be drawn directly from the results of data analysis, while ensuring that the data is interpreted correctly, by determining if the results of data interpretations will be drawn in a separate, sequential, integrated, or concurrent manner.

10. Preparations of a final research report. As the final step in a mixed-method study, a mixed-method report contains variations that do not apply reports of either a strictly quantitative or qualitative nature. The difference is that a mixed-method report should parallel the data analysis and interpretation of results. When separate data collection, analysis, and interpretation for quantitative data and qualitative data is used, for example, the report comprises two separate sections each for the collection, analysis, and interpretation of data. In reports where analysis and interpretation are integrated into one process across both types of data, on the other hand, only one section is needed for reporting the combination of quantitative and qualitative data. As both types of data are merged, in this approach, into a single set of results and interpretations, the data analysis section then relates directly back to the research problem and guiding questions.

2.6.1 Regression Analysis

Regression Analysis is a statistical technique for studying linear relationships. The regression model pre-supposes a general form for the relationship expressed as:

$$Y = \alpha + \beta_1 X_1 + \ldots + \beta_k X_k + \varepsilon.$$  \hfill (2.6.1.1)

There are five Assumptions underlying Regression Analysis representing the basis for determining the validity of the model. These are:

1. The relationship really is linear (or, for practical purposes, approximately linear over the range of the population being studied).

2. $E[\varepsilon] = 0$. This is purely a cosmetic assumption. The estimate of $\alpha$ will include any on-average residual effects which are different from zero.
3. Standard deviation varies normally across the population. While a substantive assumption, this is typically true, due to the Central Limit Theorem, since the residual term is the total of a myriad of other, unidentified explanatory variables. If this assumption is not correct, all statements regarding confidence intervals for individual predictions might be invalid.

4. The homoskedasticity assumption assumes that standard deviation does not vary with the values of the explanatory variables. If this assumption is incorrect, all statements regarding confidence intervals for individual predictions might be invalid.

5. Standard deviation is uncorrelated with the explanatory variables of the model. The regression analysis will “attribute” as much of the variation in the dependent variable as it can to the explanatory variables. If some unidentified factor covaries with one of the explanatory variables, the estimate of that explanatory variable’s coefficient (i.e., the estimate of its effect in the relationship) will suffer from “specification bias,” since the explanatory variable will have both its own effect, and some of the effect of the unidentified variable, attributed to it. This is why, when doing a regression for the purpose of estimating the effect of some explanatory variable on the dependent variable, researchers work with the most “complete” model possible.

As a quantitative research method, regression analysis is applicable when trying to model and analyze several variables. In this case, the dependent variable is FDI inflows to Thailand, while policy decisions of the Thai military government is the independent variable. Thus, the regression is modelled as:

\[ Y \approx f(X, \beta) \]  \hspace{1cm} (2.6.1.2)

Where ‘Y’ is the dependent variable, its relation to the function combination of independent variables ‘X’ and unknown parameters ‘\beta’ determine the value of ‘Y’ as expressed in the formulas for regression equation:

\[ y = m + kx \]  \hspace{1cm} (2.6.1.3)

And the Least Squares Method,

\[ b = \frac{n \Sigma xy - (\Sigma x)(\Sigma y)^2}{n (\Sigma x)^2 - (\Sigma x)^2} \]  \hspace{1cm} (2.6.1.4)

\[ a = \frac{\Sigma y - b \Sigma x}{n} \]  \hspace{1cm} (2.6.1.5)
Moreover, intervening variables will be used as a sequence link between dependent and independent variables in order to examine causal relationships as part of the qualitative approach of process tracing. The six “steps” to interpreting the result of a regression analysis are:

1. Look at the prediction equation to see an estimate of the relationship.
2. Refer to the standard error of the prediction (in the appropriate model) when making predictions for individuals, and the standard error of the estimated mean when estimating the average value of the dependent variable across a large pool of similar individuals.
3. Refer to the standard errors of the coefficients (in the most complete model) to see how much you can trust the estimates of the effects of the explanatory variables.
4. Look at the significance levels of the t-ratios to see how strong is the evidence in support of including each of the explanatory variables in the model.
5. Use the “adjectived” coefficient of determination to measure the potential explanatory power of the model.
6. Compare the beta-weights of the explanatory variables in order to rank them in order of explanatory importance.

2.6.2 Process tracing

Process Tracing can track its origins back to the 1970s, George and Bennet first wrote about this approach comprehensively in their 2004 book “Case Studies and Theory Development in the Social Sciences”. This approach uses causal mechanisms between observed variables to determine causation by examining the applicability of a particular theoretical framework to intervening causal steps. The main question posed by researchers using this method is to ask how “X” may, or may not, produce the conditions that lead to “Y”. Generally, researchers examine such sources as histories, archival documents, and interviews in order to determine the presence of a theoretical hypothesis in the sequence and structure of a case as indicators for a certain stimulator affected particular outcome. In this study, the SI is plotted over time against Direct Investment flows from Japan in order to examine for causality between the two variables.
The objective of this approach is to identify the causal process linking an independent variable to the outcomes of a dependent variable, particularly in small sample groups, i.e. small-n studies. The greatest utility derived from this approach applies to deviant cases in examining factors that result in findings that deviate from expected trends. The least utility derived from process tracing lies in its inability to exclude a range of theories framing a study, though it can both filter explanations while disproving claims that a single variable is capable of producing a significant outcome.

Case knowledge of this issue is developed through careful descriptive inference of data sets. The process tracing approach identified by Collier (2011) is useful in this respect as it allows for observation of qualitative empirical data, which is contrasted with quantitative data set observations. Moreover, describing the trajectory analysis of change and causation at key points in these data sets is enhanced by examining sequences of dependent, independent, and intervening variables. Nachimas et al defines these relationships as:

**Intervening Variable:** A control variable that follows an independent variable but precedes the dependent variable in a causal sequence.

**Intervening Relationship:** A relationship in which the control variable intervenes between the independent and dependent variable.
2.7 Empirical Studies

Three empirical studies illustrate the significance of the findings through the frameworks of the regulatory environment, protectionism and productivity, and competitiveness. The first of these three empirical studies focuses on the spirit of the 2007 Japan-Thai Economic Partnership Agreement (JTEPA), as codified in the terms of a mutually-beneficial trade agreement between these two countries. By contrast, the second empirical study examines the effect of economic protectionist measures on Thai productivity based on econometric models. Finally, as applied to the automotive sector, the third empirical study expands on the theme of productivity by examining four specific areas, as based on FDI theory, that are key to Thailand’s building greater comparative advantage both short- and long-term.
CHAPTER 3
RESEARCH METHODOLOGY

3.1 Overview

The methodology chapter includes sections on research design, data collection, the mixed analytical method applying Regression Analysis and Process Tracing, Empirical Studies, and the research outline comprising chapters one through five of the thesis. As the objectives are to identify significant change in FDI, analyze causal factors affecting change in FDI to Thailand, and understand the nature of change in FDI to Thailand, FDI flow decreases are be examined within a temporal-spatial context as identified by data trends regarding when inflow decreases began and why. The subject of focus in this study is primarily the behavior of private and, where applicable, non-state actors of Japanese origin by using a normative approach to understand the push and pull factors acting to divert FDI flows from Thailand to other ASEAN countries. Significance, Objectives, Research questions, Hypothesis, Conceptual framework, and Methodology were formulated toward this outcome.

3.2 Research design

This thesis is designed as a temporal study of Japanese investment inflows to Thailand under military government. As the objectives are to identify significant change in FDI, analyze causal factors affecting change in FDI to Thailand, and understand the nature of change in FDI to Thailand, FDI flow decreases will be examined within a temporal-spatial context as identified by data trends regarding when inflow decreases began and why. The subject of focus in this study is primarily the behavior of private and, where applicable, non-state actors of Japanese origin by using a normative approach to understand the push and pull factors acting to divert FDI flows from Thailand to other ASEAN countries.
3.3 Data collection

Statistical and documentary analysis are the primary method of research for this study. Descriptive statistics will be collected from primary and secondary sources including public and private institutions. These include sector statistical analyses and concerned country policy statements. Secondary sources utilized in this study include academic journals, interviews, media, and private sector industry reports. Empirical data from the World Bank, United Nations Conference on Trade and Development, Japan Export Trade Research Organization, the Japanese Chamber of Commerce, the Bank of Thailand and private institutions was examined to find correlation and causation between Japanese direct investment flows and the business environment in Thailand. Empirical studies examine implications for policy makers regarding trade and investment strategies.

3.4 Mixed-methods analysis: regression analysis, process tracing.

This topic is be analyzed using regression analysis for a quantitative perspective of the data and process tracing as a method of qualitative analysis. While the techniques in regression analysis are used in the Social Sciences to examine the relationship between variables, in the field of International Political Economy, process tracing and causal-process observations can enhance quantitative analysis as they seek a greater systemization of the qualitative approach by descriptive inference of change over time. Under process tracing, change in FDI inflows to Thailand is viewed as an “unfolding event” which offers an additional analytical element by providing “snapshots” of empirical data for descriptive inference at a series of specific intervals. Through the process of describing change by comparing several data points within their respective temporal contexts, the analysis itself provides a systematic model of change and sequence.
3.5 Empirical Studies

Three empirical studies illustrate the significance of the findings through the frameworks of the regulatory environment, protectionism and productivity, and competitiveness. The first study focuses on the 2007 Japan-Thai Economic Partnership Agreement (JTEPA), as codified in the terms of a mutually-beneficial trade agreement between these two countries. The intention of JTEPA was to increase trade between the two countries in by thirteen percent in the first year as the Agreement called for the elimination of tariffs on more than eighty percent of trade. Reflecting the impact of regulatory agreements on trade and investment, Athukorala and Kohpaiboon found a “component bias” in the volume of regional trade. This bias is characterized by growth in intra-regional trade of parts and components representing multiple border-crossing of parts in regional production networks, which scales to asymmetry between intra-regional shares of parts and components on a net scale. Their findings showed an increased dependence on integrated supply chains as marked by a decline in the intra-regional export share of final goods from 46 percent in 1995 to 37% in 2007 compared to intra-regional import share growth from 56% to 63% during the same period.

By contrast, the second empirical study examines the effect of economic protectionist measures on Thai productivity based on econometric models. The Thai automotive sector has remained robust despite the economic challenges of the last decade. Today, more fragmented supply and production chains create new challenges in remaining competitive in a global market characterized by an increasingly complex array of multilateral trade agreements between developed and emerging economies. These challenges can be addressed by developing capacities in flexibility, innovation, and productivity. One study on the Thai manufacturing sector compares trade policy and global participation as two variables in order to study the effects of protection on firm productivity. Jongwanich and Kohpaiboon (2017) found that foreign firms tend to be more productive than indigenous firms, yet both domestic and foreign firms show greater tendency to be more productive when active in global markets than those firms operating exclusively in domestic markets. The implication of their
findings is that input and output tariffs should be considered separately in examining their impact on productivity.

Finally, as applied to the automotive sector, the third empirical study expands on the theme of productivity by examining four specific areas, as based on FDI theory, that are key to Thailand’s building greater comparative advantage both short- and long-term. These key points are highlighted in an industry paper published by Harvard Business School’s Institute for Strategy and Competiveness entitled, “Thailand Automotive Cluster: Microeconomics of Competitiveness” focusing on National Competitiveness, Business Environment, and the Automotive Cluster in Thailand. In summary, Ghazali et al. note that – despite enjoying a ranking in the Global Competitive Index (GCI) of 49 out of 139 countries, with a macro competitiveness of 18 out of 139 countries – Thailand faces challenges in innovation and access to technology, a properly skilled and trained workforce, tariff and trade restrictions, and access to credit as a consumer and small business.
CHAPTER 4  
RESULTS AND DISCUSSION  

4.1 Overview 

As the conceptual framework of Dunning’s FDI Theory seeks to understand causal factors determining why foreign companies choose to invest overseas, the mixed methods applied in this analysis seek to examine the nature of FDI flows on three geographic levels, i.e. globally, regionally, and locally. The timeline of all plots represent ten years, ending in 2015 or 2016, depending on the availability of the data. In stage one, the data is analyzed using quantitative methods in order to determine correlation between the variables. In stage two, qualitative analysis is applied to determine the degree of causality according to Collier’s (2011) Causal Inference Test – see Figure 8 – as either necessary or sufficient to affirm causal inference between the variables. Finally, in the third stage, empirical studies examining the effects of the correlations and causality on regulatory regimes, protectionist measures and productivity, and competitiveness on discernable outcomes and trends in Japanese Direct Investment to Thailand.

The quantitative analysis follows three basic steps in a scaled-down progression from general to specific. Comparisons of data sets represent the economy on the global, regional, and national scale respectively. First, on a global scale Regression Analysis tested for correlation between percent of annual change in FDI and percent of annual change in GDP.

Second, on a regional scale, the same variables were submitted to a Regression Analysis, examining a six-nation sample from the Association of South East Asian Nations (ASEAN) economic block. The six ASEAN countries are Thailand, Malaysia, Indonesia, Vietnam, the Philippines, and Cambodia.

Third, on a national level, the percent of annual change in FDI from Japan to Thailand was examined for correlation with the percent of annual change in GDP in Thailand.

The qualitative method applied in order to determine causality between the two variables – Japanese investment and GDP in Thailand – is Process Tracing.
Here, the sentiments of the Japanese business community are plotted over time in relation to the political climate in Thailand, and the subsequent level of investment that follows key events. To this effect, investment data was purposefully skewed to lag six months behind the results in the SA as there was no discernable reason to infer that the former would be immediately affected by changes in the latter. Moreover, Collier’s Causal Inference Test plots the results on a probability matrix scaled in degrees ranging from sufficient to necessary to inferring causality in the hypothesis by categorizing them into four scenarios according to degree of probability:

1. Straw in the Wind
2. Hoop
3. Smoking Gun
4. Doubly Decisive

Straw in the Wind affirms, in its passing, the relevance of a hypothesis, without affirming it. Failing this test does not mean the hypothesis is eliminated, but it is slightly weakened. In passing this test, the implication for the rival hypothesis is that it is slightly weakened. Failing this test mean the rival hypothesis is slightly strengthened. Straw in the Wind is neither sufficient, nor necessary for affirming causal inference as passing only affirms the relevance of the hypothesis without out confirming it.

Passing the Hoop test affirms the relevance of the hypothesis, but does not confirm it. Failing it, however, does eliminate the hypothesis. The implications for the rival hypothesis is that it is somewhat weakened by the main hypothesis passing the Hoop test, and somewhat strengthened by failing it. The Hoop test is not sufficient, but indeed necessary, to affirm causal inference.

The Smoking Gun confirms the hypothesis in its passing. Failing, however, somewhat weakens, but does not eliminate it. Implications for the rival hypothesis is that they are substantially weakened by passing the Smoking Gun test, but only somewhat strengthened by its failure. The Smoking Gun is sufficient, but not necessary, for affirming causal inference, as the hypothesis is not eliminated by failing, only weakened.

Doubly Decisive, when passed, confirms the hypothesis and eliminates the rival hypothesis. Failing it eliminates the hypothesis. Implications for the rival
hypothesis is that passing eliminates it, while failing substantially strengthens it. Doubly decisive is both sufficient and necessary for affirming causal inference because passing both confirms the hypothesis and eliminates the rival hypothesis.

4.2 Results

The focus of both quantitative and qualitative analysis, respectively, is to identify both correlations and causal factors over a ten-year period. The regression measured for quantitative correlation as a ratio plotting GDP Growth as a function of FDI inflow expressed in percent of Thai GDP. The sample data for all three plots – Global, ASEAN, and Thailand – was collected from the World Bank database. The hypothesis tested in regression is that FDI has an effect on GDP growth in all three economies.

The criteria for passing the regression analysis is determined as the significance of the null hypothesis being less than five percent as expressed by the p-value; r-square is utilized to express how much of the variation in the data can be explained by the model; and k is a coefficient representing change in GDP growth with change in FDI by individual models.

The sample for the Global plot (Figure 6) is comprised of 179 countries and 1431 data points. The sample for the ASEAN plot (Figure 7) is comprised of 6 countries and 60 data points. The Thailand sample is plotted in Figure 8. Prior to plotting these groups, outliers according to intervals of minus 2.5% to plus 11% GDP (-2.5% ≤ GDP ≤ 11%) and minus 0% to plus 11% for FDI (0% ≤ FDI ≤ 11%), were eliminated. All data points of the ASEAN sample were confined within this range for this ten-year study.

Causality is measured qualitatively as Japanese Direct Investment (DI) as a function of business sentiments – Satisfaction Index (SI) – among the Japanese business men as identified in the findings of a biannual survey conducted by JETRO. The sample group derived from this ten-year study includes approximately 508 firms who responded to the questionnaire distributed biannually to 1,724 member firms – a twenty-nine-percent response rate – at the Japanese Chamber of Commerce (JCC), with 12 governmental member organizations being excluded.
The hypothesis tested in process tracing is that the Satisfaction Index shows causality as a function of Change in Japanese Direct Investment to Thailand. The alternate hypothesis is that SI has no significance as a causal factor of Change in Japanese Investment to Thailand. The Index is based on a Diffusion score averaging scores in two categories graded on a 100-point scale. This “Diffusion Index” is calculated as $\text{DI} = \text{Improving} - \text{Deteriorating}$ in comparison to previous surveys soliciting feedback on 13 categories:

1. Sales
2. Pre-tax Profit/Loss
3. Capital Investment
4. Export Trends
5. Prospective Future Markets
6. Exchange Rates Used in Business Plans
7. Procurement Source of Parts and Materials
8. Challenges for Corporate Management
9. Requests to the Thai Government
10. Customs Clearance Procedure
11. Taxation System
12. Personnel Shortage/Human Resource Development
13. Trans Pacific Partnership

4.3 Regression Analysis

Findings in quantitative analysis show variations in confirming the hypothesis according to scale using the Least Squares regression method. To model the Global, ASEAN and Thai markets, the following linear equation was used

$$y = kx + m \quad (4.3.1)$$

where $k$ is a coefficient representing change in GDP growth with change in FDI and $m$ represents the GDP growth at zero FDI inflow. For Thailand, a second model was evaluated with four different markets, specifically the EU, Japan, US, and the Rest of the World. These were independently measured with their own coefficients as

$$y = k_1x_{eu} + k_2x_{jp} + k_3x_{us} + k_4x_{rest} + m \quad (4.3.2)$$
where $x_{eu}$ is the FDI inflow from Europe, $x_{jp}$ is the FDI inflow from Japan, $x_{us}$ is the FDI inflow from the US, and $x_{rest}$ is the FDI inflow from the rest of the world. The regression coefficients in all plots are listed in Table 4. These three contexts of scale can be summarized as:

1. Globally, there was weak correlation between FDI and GDP, however the significance ($p$-value = 0.0005) of the null hypothesis is very low. Such a low $p$-value is a strong indicator of a relationship between the two data sets – i.e. FDI and GDP – although the influence of change in FDI on variations in GDP is low as further expressed in the slope – i.e. $k$-value – in Figure 6.

2. ASEAN countries, plotted as a group in this regression, showed a stronger correlation between FDI and GDP growth than the Global model. The significance ($p$-value = 0.0002) of the null hypothesis in the ASEAN model is very low as seen in Figure 7.

3. In the case of Thailand, the plots show a strong correlation between FDI and GDP growth. The significance ($p$-value = 0.01842) of the null hypothesis is higher than both the Global and ASEAN models – although less than criteria for passing, which was determined at 5 percent – as expressed in Section 4.2.

4.4 Process Tracing

The results of the plot matching Percent Change in Direct Investment as a function of Change in the Satisfaction Index among the Japanese business community in Thailand can only affirm the hypothesis of causality, not confirm it, to a certain degree. Nor can the alternate hypothesis be confirmed as either sufficient or necessary for affirming causal inference in Collier’s Tracing Tests for Causal Inference as identified in four categories in Table 3.

The conclusion is that SI cannot explain variations in Japanese investment inflows to Thailand. Determining Causality expressing Change in Direct Investment as a function of Change in the Satisfaction Index is done by testing $r$-square and $p$-values in this model. The reason is that explanatory power of this model was tested for reliability and significance – expressed in $r$-square in $p$-values respectively – the results show low $r$-square (0.09) and high $p$-values (0.4). Combined, these represent
the lowest scores in both reliability and significance. In other words, the relationship between SI and Investment inflows is statistically insignificant. Collier’s Tracing Tests for Causal Inference qualifies these findings in four distinct tests regarding the validity of the hypothesis. These are: Straw in the Wind, Hoop, Smoking Gun, and Doubly Decisive.

Straw in the Wind, neither necessary nor sufficient for inferring causality of the hypothesis, may affirm its relevance but does not confirm it. Failing this test does not eliminate the hypothesis, but weakens it slightly while the alternative hypothesis can only be slightly strengthened.

Hoop is necessary but not sufficient for inferring causality. This test affirms relevance but does not confirm it. Failing this test, however, eliminates the hypothesis, while the alternative hypothesis is somewhat strengthened.

Smoking Gun is sufficient, but not necessary, for inferring causality. Failing does not eliminate the hypothesis, but somewhat weakens it. The alternative hypothesis is somewhat strengthened.

Doubly Decisive, both necessary and sufficient for inferring causality, eliminates the hypothesis in failing. Failure, however, substantially strengthens the alternative hypothesis.

In summary, in failing to eliminate the null hypothesis, no significance for the alternative can be asserted, i.e. no relationship between SI and DI from Japan can be shown. Rather, the alternative hypothesis is neither strengthened nor confirmed as the p-value is high.

4.5 Empirical Studies

Trade theory provides insight into the effects of investment and trade policy on the business climate in Thailand. Empirical studies can illustrate the impact of policy decisions on investment and trade provided by a theoretical framework for the policy outputs resulting from the role of such drivers as regulatory institutions on a macro-scale, and private investors at the local level. Below, three empirical studies addressing this issue are framed according to RIAs, protectionism and productivity, and competitiveness.
4.5.1 Japan-Thailand Economic Partnership Agreement

Regional Integration Agreements (RIA) have been cited as the driver for the spread of production factors across the region though increased FDI flows. Since the 1990s, the rise of RIAs in both developed and developing economies has been at the center of the debate over their influence on the locational determination of FDI flows, or whether these agreements supplement or compliment FDI flows. Overall, as the goal of RIAs is to reduce trade barriers and investment restrictions, liberalizing trade and investment policies provide firm-specific advantages to member economies in the form of lower relative cost, economic growth rates and investor perceptions about political risk in member economies. The spillover effect of RIAs through firm-specific advantages is the geographical clustering of specific activities as firms seek to internalize production on the larger scale, while smaller firms seeks proximity to their traditional clients in supporting their supply chains overseas Salike (2010). For a better understanding of how RIAs have facilitated trade and investment between Thailand and Japan, the most recent economic partnership agreement offers some insight on the regulatory nature of regionally integrated supply chains

When the Japan-Thailand Economic Partnership Agreement (JTEPA) was signed in 2007, the event commemorated a history of trade cooperation dating back to the Treaty of Amity and Commerce cosigned by the two countries 120 years prior against a backdrop of the 2008 global recession that also marked a downturn in Japanese investment to Thailand. The intention of JTEPA was to increase trade between the two countries in by thirteen percent in the first year as the Agreement called for the elimination of tariffs on more than eighty percent of trade. In regulatory terms, Article 93 Section 1 “National Treatment” of JTEPA codifies the mutually beneficially spirit of this Agreement as:

... each Party shall accord to investors of the other Party and to their investments treatment no less favourable than that it accords, in like circumstances, to its own investors and to their investments with respect to the establishment, acquisition and expansion of investments in its Area.
Moreover, Section 2 of Article 93 asserts that:

*Each Party shall, subject to its laws and regulations existing on the date of entry into force of this Agreement, accord to investors of the other Party and to their investments treatment no less favourable than that it accords, in like circumstances, to its own investors and to their investments with respect to the management, conduct, operation, maintenance, use, enjoyment and sale or other disposition of investments in its Area.*

According to the original terms of this Agreement, Thailand has allowed Japanese parties to hold a fifty-percent equity split with Thai partners in the automotive production sector, which is not subject to special conditions to operate in Thailand. In 2006, Thailand had exported $16.43 billion in goods to Japan, an increase of nine percent from the previous year, while import volumes from Japan reached $25.48 billion. In its first year, the expected winners of JTEPA, according to the Thai Board of Investment (BOI) included the garment, manufacturing, automotive, electronics, agriculture, and infrastructure sectors.

In general, when regional trade figures of manufactured goods are disaggregated into parts, components, and final goods, one 2009 study by Athukorala and Kohpaiboon found a “component bias” in the volume of regional trade. This bias is characterized by growth in intra-regional trade of parts and components representing multiple border-crossing of parts in regional production networks, which scales to asymmetry between intra-regional shares of parts and components on a net scale. Their findings showed an increased dependence on integrated supply chains as marked by a decline in the intra-regional export share of final goods from 46 percent in 1995 to 37% in 2007 compared to intra-regional import share growth from 56% to 63% during the same period. Moreover, the authors urge caution against enthusiasm for rebalancing growth in an economic environment where public sentiment was toying with the idea of “decoupling” from global economic pressures during 2008 recession in order to better exploit market opportunities in the region. The danger, they warned, was a possible policy backlash against openness to foreign trade. In their findings, they support the case for a “long-term commitment to non-discriminatory multilateral and unilateral trade liberalization” as regional supply chains had become so integrated that protectionist measures would produce regressive results.
4.5.2 Protectionist Measures and Thai Productivity

An interesting paradox occurs when examining trade and investment in relation to comparative advantage. Driven by access to technology and/or resources, an economy can gain overall productivity by investing in a sector in which it holds a distinct comparative disadvantage. In such a case, productivity improves on the aggregate level despite the performance of particular firm remaining relatively unchanged. One case study on the Thai manufacturing sector compares trade policy and global participation as two variables in order to study the effects of protection on firm productivity. Jongwanich and Kohpaiboon (2017) found that foreign firms tend to be more productive than indigenous firms, yet both domestic and foreign firms show greater tendency to be more productive when active in global markets than those firms operating exclusively in domestic markets. The implication of their findings is that input and output tariffs should be considered separately in examining their impact on productivity.

In order to test the effects of trade policy on the productivity levels in the private sector, their study tested the self-selection hypothesis that firms entering the export market are already more productive. Based on this hypothesis, they were able to infer that the nature of trade policy and the market orientation of a firm must be analyzed as two separate variables as their influence on productivity reflects the policy environment and the firm’s decision making process respectively. In addition, the different effects of input and output tariff reductions on productivity were examined for degree of favorability. The objectives were to delineate the possible effects between trade and trade policy, determine if the effects of trade policy varies by firm with the interaction of firm specific and trade policy variables, and examining the effects of input and output tariffs separately, in comparison with the Effective Rate Protection (ERP) model combining both input and output tariffs. Thai trade policy was chosen as the subject because, as protection seems to vary across industries, reforms aimed at streamlining the tariff rates are incomplete. Industry specific variables used in this econometric model focus on the degree to which an industry engages in global production networks as an expression of the importance of global production sharing; producer concentration as an expression of high barriers to entry and/or capital and skill intensive operations, which negatively affects
productivity as firms are less responsive to technological improvement; and ERP and ownership interactions illustrate firm behavior in different trade policy environments.

Policy inferences from this study support global integration through the import of raw materials and export of products as a driver to enhanced productivity. In order to promote engagement with globalization, both input and output tariffs must be considered together for incentivizing sales in both domestic and foreign markets under a liberal trade regime. Equitable access to both markets creates greater incentives for increased productivity.

4.5.3 Competitiveness in the Thai Automobile Sector

Specifically for the purpose of studying the effects of a trade and investment regimes between Thailand and Japan, the automobile sector represents a rich data source for empirical evidence regarding the state of the sector’s competitiveness. As of 2011, the structure of the Thai automotive industry was comprised from the top down as Large Scale Enterprises (LSEs) 16 car makers, 7 motorcycle makers; 690 Tier 1 Small Medium Enterprise (SME) auto parts suppliers; and 1,700 Tier 2 and 3 suppliers. Furthermore, 709 of the automotive suppliers were Original Equipment Manufacturers (OEM). That year, Thai automotive exports to Japan totaled $458,259,000 accounting for 4.3% of Thai exports worldwide, according to figures compiled by the BOI. Although the Thai automotive sector has remained robust despite the economic challenges of the last decade, today more fragmented supply and production chains create new challenges in remaining competitive in a global market characterized by an increasingly complex array of multilateral trade agreements between developed and emerging economies. These challenges can be addressed by developing capacities in flexibility, innovation, and productivity.

These key points are highlighted in an industry paper published by Harvard Business School’s Institute for Strategy and Competitiveness entitled, “Thailand Automotive Cluster: Microeconomics of Competitiveness” focusing on National Competitiveness, Business Environment, and the Automotive Cluster in Thailand. In summary, Ghazali et al. note that – despite enjoying a ranking in the Global Competitive Index (GCI) of 49 out of 139 countries, with a macro competitiveness of 18 out of 139 countries – Thailand faces challenges in innovation
and access to technology, a properly skilled and trained workforce, tariff and trade
restrictions, and access to credit as a consumer and small business. Thailand’s
Business Environment Analysis grades the National Advantage, on a plus/minus scale
in four key areas each comprised of several sub-categories. Compiled as an inter-
relational Diamond Analysis, complete with Global Competitive Index scores, these
categories are defined and summarized as:

1. Firm strategy, structure, and rivalry, GCI Score: 50
   (+) Good investor protection,
   (-) High tariff rate & prevalence of trade barriers,
   (-) Weak intellectual property protection.

2. Demand conditions, GCI Score: 58
   (+) Buying power is increasing,
   (+/-) Consumers are becoming more sophisticated at a rate similar to
the rest of the region.

3. Related & supporting industries, GCI Score: 34
   (+) High collaboration in clusters & prevalence of cluster policy,
   (-) Low availability of specialized research & training services.

4. Factor input conditions, GCI Score: 42
   (-) Low completion & quality of secondary education,
   (-) No internationally well ranked universities and limited R&D,
   (-) Financial constraints for domestic investment.

The authors of this study provide a deeper interpretation of the data in
these four areas of the GCI examining the factors that underline the rankings in each
sub category as below:

Firm strategy, structure, and rivalry: The time required to start a business
in Thailand is a relatively short 32 days, while obtaining construction permits requires
156 days. Points of concern in this Area include high tariff rates (27%, 99 out of 139
countries), IP protection, low scores in Investor Protection through distortive taxes
and subsidies (83 out of 139 countries) high market dominance by business groups
(83 out of 139 countries) acting as trade barriers.

Demand conditions: A growing per capita GDP reflects increased internal
spending capacity in Thailand as consumer needs become more sophisticated. While
urban populations and household expenditures have increased, employment in agriculture has been steadily decreasing since 48.5% employment rates in 2008.

Related & supporting industries: Thailand ranked 34 of 139 countries in this category of the CGI, though this score is limited by lags in adopting new technology and specialized research and training. Moreover, lags in innovation is evidenced by minimal increases in patent applications.

Factor input conditions: While Thailand’s competitive advantage stems from basic inputs, the country lacks higher quality and specialized inputs. Logistical infrastructure ranks 35 out of 139 countries, while the rail infrastructure is lower at 61. Human resource concerns center on education and labor factors. Although education spending is higher than its neighbors at 28% of yearly expenditures, Thailand lacks key skill sets due to shortages of quality teachers, curriculum and pedagogy, weak secondary education, with the effect that Thailand ranks 50th and 48th of 65 countries in mathematics and sciences and reading respectively. Labor scores well in ease of doing business (48 of 178 countries) as there is some difficulty in hiring workers (Hiring Index: 33), but no difficulty in firing them (Firing Index: 0), though there is a high cost in firing a worker (54 weeks of wages). While access to credit is available through several agencies, Non-Performing Loans (NPL) are high and bank officers are poorly trained. Legal Rights to Getting Credit scores 86 out of 139 countries.

Ghazali et al. conclude their study with strategies aimed at short and long term remedies to improving Thai competitive advantage. In the short term, education can be enhanced through incentivizing greater emphasis on in-house training, university-industry collaboration, and freer access to credit for consumers and SMEs. In the long term, these university-industry collaboration must continue to foster the dissemination of new technologies, innovation, and research coupled with reform of the government’s role in the regulatory environment.
4.6 Discussion

The progression of the analysis in this section begins with using Dunning’s FDI theory to identify those strategic investment factors, which influence decision-makers in determining the level of internalization that is appropriate for their particular circumstances in consideration of geographic, industry-specific, and business environment in their sector. Next, the results of the mixed-methods analysis discuss the positive correlation between FDI as a function of GDP growth in Thailand to a degree that Thailand’s GDP growth is relatively more sensitive to changes in FDI than its fellow members in ASEAN. While the change in levels of satisfaction among the Japanese business community regarding the business environment in Thailand shows no causality in relation to levels of Japanese investment in Thailand over the ten-year span of this study, three other empirical studies were employed to further augment this analysis based on Institutional and Trade theories.

The first of these three empirical studies focuses on the spirit of the 2007 Japan-Thailand Economic Partnership Agreement (JTEPA), as codified in the terms of a mutually-beneficial trade agreement between these two countries. By contrast, the second empirical study examines the effect of economic protectionist measures on Thai productivity based on econometric models. Finally, as applied to the automotive sector, the third empirical study expands on the theme of productivity by examining four specific areas, as based on FDI theory, that are key to Thailand’s building greater comparative advantage both short- and long-term by increasing its GCI rankings.

The data in this section reveal a paradox about the liberalization of trade and investment. Namely, that the less protectionist trade policies are enforced, the greater the overall benefits to developing economies in general. Most notably, even investment in a sector or activity where a particular economy has no competitive advantage can have spillover results into other sectors that realize greater returns for the national GDP. In summary, if Thailand is to grow its semi-fragmented industry-logistics cluster to develop the capacity for delivering new value-added products to an expanding ASEAN automotive and other markets, a range of policy reforms covering education, infrastructure, regulations, taxation, and access to capital are prerequisite to opening the domestic automotive market to both enhance the capabilities of current manufacturers as well as to include new players at the Tiers 2 and 3 of the supply chain.
CHAPTER 5
CONCLUSIONS AND RECOMMENDATIONS

5.1 Overview

Although Thailand derives the largest share of its Foreign Direct Investment from Japan, two other ASEAN economies have emerged in the last decade to compete with Thailand for Japanese investment. During this period, a growing share of Japanese investment in both capital and human resources has gone to Singapore and Vietnam, with particular concentration in the services and manufacturing sectors respectively. Indeed, as these countries have leveraged their competitive advantage through less-burdensome corporate tax rates, other pull factors attracting Japanese investment stem from liberalized labor, immigration, and education policies that increase the ease of doing business for both MNCs and SMEs.

It is noteworthy that while MNCs are attracted to the region in search of new markets, resources, and capacities, foreign investment from Japanese SMEs began to increase as they followed the Japanese MNCs, who were the traditional clients of the SMEs, in diversifying their operations by seeking new markets abroad.

As for the four temporal points of interest where Japanese Direct Investment to Thailand experienced a significant decrease – namely 2007, 2009, 2011, and 2013 – contributing factors vary by each period in relation to their internal and external characteristics. While declines in general levels of Global FDI can be attributed to contractionary money supply policies and the carryover from the global recession in 2007 and 2009 respectively, the declines in 2011 and 2013 display no signs of causality between political turmoil in Thailand and the attitudes of Japanese investors to Thailand as represented by changes in the Satisfaction Index of members of the Japanese business community in Thailand. Rather, the decline in 2011 appears to be the result of a perverse paradox of thrift among Japanese consumers in their lackluster response the Bank of Japan’s expansionary monetary policy. Although there is some speculation that Japanese investment in 2013 and later has been slow to respond to the Thailand 4.0 Policy, particularly in the automotive sector as their traditional investment model is suitable for emerging economies in the region, it
should be noted that Japanese SMEs in both the industrial and service sectors represent a growing share of investment to Thailand in recent years.

The impact of the correlation inferring Thailand’s sensitivity to changes in Direct investment as a function of GDP growth can be examined in real terms. Linkages between policy and outcomes affecting trade and investment are illustrated in the findings of empirical studies viewed from three different perspectives. These correlations and causality on regulatory regimes, protectionist measures and productivity, and competitiveness on discernable outcomes and trends in Japanese Direct Investment to Thailand represent specific areas of attention in which policy makers can focus in order to develop a more diverse and integrated economy.

5.2 Conclusions

There is a strong correlation between FDI as a function of GDP growth in Thailand, to a degree that Thai GDP is more sensitive to FDI than the selected ASEAN economies as whole, and individually to varying degrees. Process tracing failed to find any significant causality between the JCC members’ Satisfaction Index and Japanese Direct Investment inflows to Thailand.

Other possible factors at play in the level of influence on FDI inflows to Thailand may vary according to the trade policies of specific countries of origin. Overall, the level of their effects can be seen in FDI acting as a function of Thai GDP growth as expressed in terms of 13 percent from Japan, 13 percent from the EU, 22 percent from the US, and 25 percent from the rest of the world.

That trade has become increasingly integrated on a vertical level within production clusters is accepted wisdom. However, the ‘component bias’ in the volume of intra-regional trade means that parts and components are crossing borders multiple times before their sale as finished products. The implication of this pattern of trade flow is that vertically integrated supply chains are being fragmented by a decline in intra-regional exports of final goods. Moreover, protectionist regulatory measures aimed at correcting trade imbalances, without understanding these emerging trade patterns trending toward multi- and unilateral trade liberalization creating value from
regionally integrated supply chains, run counter to the interests of policies promoting GDP growth and market efficiencies when supply is scaled to asymmetric levels.

Major concerns over protectionist trade and investment policy are centered on issues that limit production capacity in both scale and scope, particularly for smaller investors who can fill niche roles in the supply chain. In the long term, that protectionist trade policies have an adverse effect on innovations that increase production capacity and overall growth of the Thai economy is a common theme among proponents of liberal trade policies. Overall production capacity, however, and GDP, can also be increased by a spillover effect from investment in areas of production where an economy holds no clear competitive advantages.

Competitive advantage concerns for Thailand stem from current policy frameworks failing to address core competency issues in education, innovation, logistics, infrastructure, taxation, trade barriers, and access to domestic investment capital. In short, while Thailand enjoys a relatively high overall ranking in the Global Competitive Index, systematic reform in these areas would improve Thailand’s overall GCI ranking by a not-insignificant degree. In real terms, healthy levels of competitiveness in the investment climate may be affected by disparities in fiscal policy. According to the World Bank, for example, in 2016 Thailand’s Getting Credit Ranking was 82 out of 189 countries while scoring high (7/8) on the Depth of Credit Information Index – although this coverage is provided exclusively through public institutions – and scoring low (3/12) on the Strength of Legal Rights Index.

5.3 Recommendations

Recommendations for further study would be to weight the JCC Satisfaction Index lightly when examining causality in Japanese Direct Investment to Thailand.

Collier’s matrix – Tracing Test for Causal Inference – is a useful framework for conceptualizing degrees of Causality in relation to both hypothesis and alternative hypothesis.

Researchers interested in trade, investment, and GDP might consider regulatory, structural, and operational factors influencing outcomes in the areas of
productivity and competitiveness under a more liberalized trade regime. Also, note that standardized data on many key indicators of Thai productivity and efficiency at the micro and macro levels, and across all sectors, is collected and compiled in a poorly-integrated fashion.

Recommendations to policy makers begin with the managing domestic production capacity as supply chains have transformed, or fragmented, in nature from vertically-integrated to regionally-integrated networks of production with a heavy component bias. The implication of component bias is that regional supply chains will continue to grow. Moreover, if trade and investment policies commit to non-discriminatory trade liberalization on multilateral and unilateral levels, the country should experience a diffuse increase in productivity over time across those sectors which could play a supporting role in the country’s larger transition to the Thailand 4.0 economy. A two-pronged approach would focus on greater access to capital – particularly for SMEs, with special attention to the fact that Japanese SMEs have represented a growing share of direct investment to Thailand for the last five years – and a more systematic building of production capacity.

Perhaps the most immediate remedy available to policy makers who want to improve Thailand’s competitive ranking is financial reform. With due consideration to inflationary pressure on the national level, fragmented industry clusters may benefit from appropriate levels of Keynesian fiscal policy multipliers from state financial institutions balanced with a liberalization of domestic access to investment capital from commercial banks. While determining the acceptable level of risk derived from Non-Performing Loans (NPLs) within an economic environment that is expected to deliver moderate growth as part of the ASEAN Economic Community (AEC), some creative destruction may provide unexpected windfalls provided that the conditions exist for creation to follow destruction. This approach requires that, at managed levels, insolvent, not illiquid firms, must be allowed to fail; creditors must have access to assets to be liquidated according to their previously determined models of assessed risk; and innovation must be fostered through retraining programs for management and labor as well as access to investment capital for entrepreneurs.
In the final analysis, for Thailand there are Strengths, Weaknesses, Opportunities, and Threats to be considered in the pursuit of trade and investment as part of the regionally integrated ASEAN Economic Community, while managing trade relations with the other partners globally, namely Japan, the United States, the European Union, and the rest of the world either unilaterally or multilaterally. Such an approach entails Strength in building a smarter, more flexible and diversified economy with a greater range of value added products and the increased productivity, innovation, and competitiveness to supply them on a global scale. The Weakness involves the opportunity cost, both capital and human, in transitioning from the traditional revenue streams of the First S-Curve to the New S-Curve. Opportunities of engaging this new economy embrace the challenge of escaping the indeterminate possibility of the Middle Income Trap and continued socioeconomic and political instability based, in part, on perceived disparities in income distribution. Finally, Threats are not simply limited to foreign players competing for shares in the same markets worldwide.

Even if properly managed, the scope and scale of change required in order to transition to Thailand 4.0 virtually guarantees disruptions at many levels in the traditional socio-cultural-economic paradigm. Despite the challenges that result from such change, policy makers will have to decide if the greatest Threat to Thailand is forgetting the lessons in its long history of remarkable transitions.
REFERENCES

Books and Book Articles


Articles


Electronic Media


**Other Materials**


## APPENDIX A

### TABLES

**Table 1: Perceptions of change after one year of military government**

<table>
<thead>
<tr>
<th>Response Category</th>
<th>Specific Issue</th>
<th>Agreement (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Better</td>
<td>Country is now at peace, no violence or political rallies</td>
<td>81.60</td>
</tr>
<tr>
<td></td>
<td>People have become more united</td>
<td>73.88</td>
</tr>
<tr>
<td></td>
<td>Country's communications &amp; transport systems</td>
<td>72.85</td>
</tr>
<tr>
<td></td>
<td>Order restored with restaurants, entertainment venues, footpaths, parking and other areas</td>
<td>62.12</td>
</tr>
<tr>
<td></td>
<td>Modernization of technology</td>
<td>63.21</td>
</tr>
<tr>
<td>Worse</td>
<td>Cost of living &amp; people's livelihoods</td>
<td>78.85</td>
</tr>
<tr>
<td></td>
<td>Traffic congestion &amp; insufficient public transportation</td>
<td>75.28</td>
</tr>
<tr>
<td></td>
<td>Environment</td>
<td>66.52</td>
</tr>
<tr>
<td></td>
<td>Farm prices &amp; farmers' lives</td>
<td>65.05</td>
</tr>
<tr>
<td></td>
<td>Crimes have become more violent</td>
<td>61.37</td>
</tr>
<tr>
<td>No Change</td>
<td>Economic conditions</td>
<td>74.61</td>
</tr>
<tr>
<td></td>
<td>Social inequality</td>
<td>69.76</td>
</tr>
<tr>
<td></td>
<td>Drug problems</td>
<td>64.61</td>
</tr>
<tr>
<td></td>
<td>State of lawlessness in society</td>
<td>61.59</td>
</tr>
<tr>
<td></td>
<td>High cost of living, low incomes &amp; unemployment</td>
<td>52.10</td>
</tr>
</tbody>
</table>

Source: *Bangkok Post*
Table 2: Dunning’s Model of Ownership, Location, and Internalization

<table>
<thead>
<tr>
<th>Dunning’s OLI Model</th>
<th>Ownership</th>
<th>Location</th>
<th>Internalization</th>
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<tbody>
<tr>
<td>Licensing</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Export</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>FDI</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Source: Derived from Dunning
### Table 3: Causal Inference Tests

<table>
<thead>
<tr>
<th>Tracing Tests for Causal Inference</th>
<th>SUFFICIENT FOR AFFIRMING CAUSAL INFERENCE</th>
<th>NECESSARY FOR AFFIRMING CAUSAL INFERENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Straw in the Wind</td>
<td>Smoking Gun</td>
<td></td>
</tr>
<tr>
<td><strong>No</strong></td>
<td><strong>Yes</strong></td>
<td><strong>No</strong></td>
</tr>
<tr>
<td>Passing: Affirms relevance of hypothesis, but does not confirm it.</td>
<td>Passing: Confirms hypothesis.</td>
<td></td>
</tr>
<tr>
<td>Failing: Hypothesis is not eliminated, but is slightly weakened.</td>
<td>Failing: Hypothesis is not eliminated, but is somewhat weakened.</td>
<td></td>
</tr>
<tr>
<td>Implications for Rival Hypotheses:</td>
<td></td>
<td>Implications for Rival Hypotheses:</td>
</tr>
<tr>
<td>Passing <em>slightly</em> weakens them.</td>
<td>Passing <em>substantially</em> weakens them.</td>
<td>Failing <em>somewhat</em> strengthens them.</td>
</tr>
<tr>
<td>Failing <em>slightly</em> strengthens them.</td>
<td></td>
<td>Failing <em>somewhat</em> strengthens them.</td>
</tr>
<tr>
<td>Hoop</td>
<td>Doubly Decisive</td>
<td></td>
</tr>
<tr>
<td><strong>Yes</strong></td>
<td><strong>No</strong></td>
<td><strong>Yes</strong></td>
</tr>
<tr>
<td>Passing: Affirms relevance of hypothesis, but does not confirm it.</td>
<td>Passing: Confirms hypothesis and eliminates others.</td>
<td></td>
</tr>
<tr>
<td>Failing: Eliminates hypothesis.</td>
<td>Failing: Eliminates hypothesis.</td>
<td></td>
</tr>
<tr>
<td>Implications for Rival Hypotheses:</td>
<td></td>
<td>Implications for Rival Hypotheses:</td>
</tr>
<tr>
<td>Passing <em>somewhat</em> weakens them.</td>
<td>Passing <em>eliminates</em> them.</td>
<td>Failing <em>substantially</em> strengthens them.</td>
</tr>
<tr>
<td>Failing <em>somewhat</em> strengthens them.</td>
<td></td>
<td>Failing <em>substantially</em> strengthens them.</td>
</tr>
</tbody>
</table>

*Source: Collier (2011) “Understanding Process Tracing” p. 825. Adapted from Bennett (2010).*
Table 4: Regression Coefficients of 4 GDP Models from 2006 to 2016

<table>
<thead>
<tr>
<th>Regression coefficients</th>
<th>Global GDP</th>
<th>ASEAN GDP</th>
<th>Thai GDP Model 'A'</th>
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<tr>
<td>$p$-value</td>
<td>0.05</td>
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<td>$r$-square</td>
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<td>$GDP$ growth $w/out$ FDI</td>
<td>3.6428</td>
<td>3.7271</td>
<td>1.4731</td>
<td>0.154</td>
</tr>
<tr>
<td>(Sig.)</td>
<td>(0.032)</td>
<td>(0.043)</td>
<td>(0.028)</td>
<td>(0.012)</td>
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<tr>
<td>$k_{1_{EU}}$</td>
<td>0.098</td>
<td>0.4153</td>
<td>1.7118</td>
<td>3.6669</td>
</tr>
<tr>
<td>(Sig.)</td>
<td>(0.024)</td>
<td>(0.037)</td>
<td>(0.031)</td>
<td>(0.010)</td>
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<tr>
<td>$k_{2_{JP}}$</td>
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<td>1.1459</td>
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<tr>
<td>(Sig.)</td>
<td></td>
<td></td>
<td></td>
<td>(0.018)</td>
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<tr>
<td>$k_{3_{US}}$</td>
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<td></td>
<td>5.9364</td>
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<td>(Sig.)</td>
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<td></td>
<td>(0.029)</td>
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<td>$k_{4 Rest of the world}$</td>
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<td>(Sig.)</td>
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<td>(0.048)</td>
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Sig. less than 0.05
Figure 1: FDI Thailand 2006 – 2016

Figure 2. FDI Thailand 2006 – 2016 by Region

Source. Hartley, APPS Policy Forum
Figure 3. Global FDI inflows by market, 2006 – 2015e

Figure 4. Nogales Border
Figure 5. Thailand 4.0

Source Thailand Business News
Figure 6. Global GDP and FDI

Figure 7. ASEAN GDP and FDI
Figure 8. Thailand GDP and FDI

Figure 9. Thailand. Actual v. Modeled GDP Growth
Figure 10. Models v. Actual GDP. Thailand v. ASEAN

Figure 11. Japanese Investment inflows to Thailand
Figure 12. Indonesia
Figure 13. Malaysia
Figure 14. Philippines
Figure 15. Vietnam
# BIOGRAPHY

<table>
<thead>
<tr>
<th>Name</th>
<th>Mr. Michael Craven</th>
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<tbody>
<tr>
<td>Date of Birth</td>
<td>July 21, 1967</td>
</tr>
<tr>
<td>Educational Attainment</td>
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