



Senior Research

Political Instability and Thailand's Economic Growth

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Abstract

This paper examines the relationship between political instability and economic growth in Thailand from 1976 to 2010. Generally, there exists a negative endogenous relationship between political instability and economic growth: political instability deters economic growth, and a lack of economic growth could spark political instability.

I measured political instability by constructing a socio-political instability (SPI) index using the principal components method. Estimating a system of simultaneous equations, I found that the relationship between political instability and economic growth in Thailand over the specified time period was insignificant. The main driver of the Thai economy (in the past and in the present) is trade, or more specifically exports, and as long as political instability does not disrupt the flow of exports, it will not have a significant effect on economic growth. In the future, however, if Thailand were to move away from an export-driven economy, the government will have to ensure that political instability has a minimal effect on whichever factor the Thai economy becomes dependent on.

Table of Contents

<i>Introduction</i>	5
<i>The Relationship between Instability and Growth</i>	5
<i>Thailand: Political Turmoil and Economic Growth</i>	5
<i>Research Objectives</i>	7
<i>Hypotheses</i>	7
<i>Scope</i>	7
<i>The Literature Review</i>	8
<i>Introduction</i>	8
<i>Review Strategy</i>	8
<i>The Effect of Political Instability on Economic Growth: A Review of the Literature</i>	8
<i>Conclusion and Contribution</i>	12
<i>Conceptual Framework</i>	13
<i>Methods and Procedures</i>	14
<i>Data</i>	14
<i>The Socio-Political Instability Index</i>	14
<i>A System of Simultaneous Equations</i>	15
<i>Results</i>	17
<i>Discussion of Results</i>	18
<i>Thailand: An Export Driven Country</i>	18
<i>Instability and Exports</i>	18
<i>Instability and Growth</i>	19
<i>The 2008 Suvarnabhumi Shutdown – An Event Study</i>	21
<i>Conclusion</i>	23
<i>Policy Implications</i>	23
<i>Limitations and Extensions</i>	23
<i>Reference List</i>	24
<i>Appendix</i>	26
<i>Appendix A – Socio-Political Instability (SPI) Index</i>	26
<i>Appendix B – Regional Growth (RGROWTH)</i>	27

Table of Figures

Figure 1: Thailand's Economic Growth (1960-2012)	5
Figure 2: Conceptual Framework	13
Figure 3: Representation of Socio-Political Instability Index.....	14
Figure 4: An Index of Socio-Political Instability (1976-2010).....	15
Figure 5: Representation of System of Simultaneous Equations	15
Figure 6: Estimation Results of Growth Equation	17
Figure 7: Estimation Results of Instability Equation	17
Figure 8: Thailand's Exports and Growth	18
Figure 9: Thailand's Exports and Political Instability	19
Figure 10: Monthly Value of Thailand's Exports (2006-2010).....	21
Figure 11: Regression Based on Reference Index	22
Figure 12: Event Study of Suvarnabhumi Shutdown (Nov-Dec 2008)	22

Introduction

The Relationship between Instability and Growth

The relationship between political instability and economic growth has been well documented in the field of the political economy. There are several valid explanations to explain the negative relationship between instability and growth. Political instability results in uncertainty regarding a country's future. Oftentimes, property rights are threatened and laws are overthrown. This hinders productive activities such as investment and consumption as economic agents are generally risk averse, and ultimately lowers economic growth. The majority of academic papers in the field utilize panel data of a large number of countries over a certain time period to examine whether or not political instability deters growth. Many note the possibility of reverse causation between the two variables and account from problems of endogeneity in their studies, since it is very likely that instability deters growth, but low growth could instill instability as well.

Thailand: Political Turmoil and Economic Growth

To date, the Kingdom of Thailand has had a total of seventeen charters and constitutions. From the very first official constitution established on December 10th, 1932 – the date that is celebrated annually as Thailand's Constitution Day for moving the country from an absolute to a constitutional monarchy – to the current 2007 Constitution of Thailand, Thailand claims the title of being one of the countries with the most constitutional changes in the world. Furthermore, the country boasts a total of eighteen military coups d'état since 1932, a statistic that once again ranks it among the countries which have had the most coups in the world.

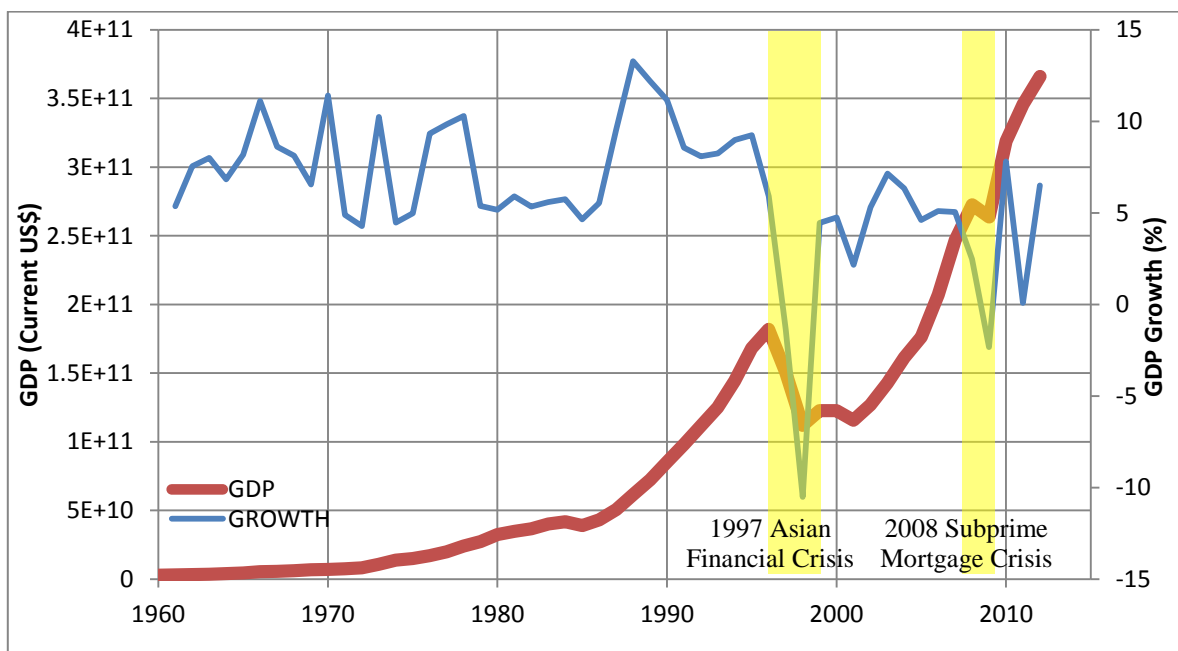


Figure 1: Thailand's Economic Growth (1960-2012)

Historically, Thailand has enjoyed healthy rates of annual economic growth that typically range from 5 to 10 percent, as shown in Figure 1 above. Gross domestic product in both absolute and growth terms has grown continuously over the past half century, except for

two incidences where the Thai economy experienced negative growth: the 1997 Asian Financial Crisis and the 2008 Subprime Mortgage Crisis. These two events have been highlighted in yellow in Figure 1. Otherwise, however, it would be fair to say that Thailand's economy has continued to grow over the past years despite an above-average frequency of government changes and military coups.

It is hard to deny that Thailand is a politically unstable country, but yet its economy has continued to grow and thrive. Is the Thai economy not growing at its full potential? What are the causes of these constant governmental changes and military coups, and what effects do they entail? Does political instability deter economic growth, or do poor economic performances encourage political instability? Or does the relationship exist both ways? In this paper, I aim to examine the relationship between Thailand's political instability, quantified by an index of socio-political instability (SPI), and economic growth, as measured in growth in gross domestic product.

Research Objectives

The main objective of this paper is to study the relationship between Thailand's political instability and economic growth. More specifically, what effect does political instability – defined by an SPI index – have on economic growth as measured in growth of gross domestic product, and vice versa. In the particular case of Thailand, are these two variables jointly interactive and endogenous? Or does the effect only exist in one direction? Furthermore, is political stability an important driver of Thai economic growth? If not, what are the main drivers of Thailand's economy? I hope to answer these questions in my study.

Hypotheses

As has been proven in previous studies, I expect a negative relationship between political instability and economic growth. I hypothesize that a high level of political instability, as indicated by a high value in the SPI index, will hinder economic growth. However, for the case of Thailand, I do not think that poor economic performances significantly increase political instability. This is because I see that government changes and military coups have been frequent occurrences despite the general upward trend of the country's economic growth. In other words, I expect a significant negative relationship between the two variables, but only in the direction from instability to growth, and not vice versa.

Scope

Given the constraints on time and resources, I have chosen to narrow down this study to focus solely on the Kingdom of Thailand. I have chosen Thailand not only because it is my country of birth and residence, but also for its infamous history of military coups and government changes. I do not study all possible forms of political instability, but rather just political instability as quantified in an index of socio-political instability consisting of three variables: the number of government changes, the number of military coup d'états, and major episodes of political violence in a given year. As for the time period, my study covers the years 1976-2010, which is the largest continuous range possible for which there is available data for all the variables in the study.

The Literature Review

Introduction

In this literature review, I explore the vast literature concerning the relationship between political instability and economic growth. The structure of this literature review is as follows. To start off, I explain the review strategy I used to narrow down my choice of academic papers. The review itself is topic-based. First, I briefly discuss the various models that have attempted to explain economic growth and some determinants that have been found to stimulate growth. Second, I discuss the results and methods used by numerous papers to study the relationship between instability and growth. The last section is a conclusion where I also put forth my proposed contribution.

Review Strategy

In the process of selecting which papers to include in this literature review, I used keywords such as “political instability and economic growth”, “determinants of economic growth”, and “political instability in Thailand” in the Google Scholar search engine, which ultimately led me to formal online sources like Scopus, ScienceDirect, and JSTOR. From the wide array of available papers, I narrowed my choice down to a number of academic papers using several methods. I chose papers with high citation counts because they were an indication of classic works in the field. By reading the provided abstract of each paper, I decided whether or not they were relevant to my research question. Sometimes, reading the whole introduction of a paper rather than just its abstract was necessary for me to be able to judge its relevance. I was particularly selective in terms of the publication date for papers regarding political instability in Thailand; I preferred recently published papers in order to account for the most recent political instability in the past years. Starting from a small selection of papers, I referred to the core citations of each paper and broadened my choice of literature accordingly. Furthermore, in online journal databases such as Scopus, related documents and references are often listed alongside papers. Another very useful tool that helped me in my review strategy was the JEL (Journal of Economic Literature) classification code system for academic papers in the field of economics. The majority of the papers I reviewed were coded ‘O’ for ‘Economic Development, Technological Change, and Growth’, specifically ‘O1’ for ‘Economic Development’ and ‘O4’ for ‘Economic Growth and Aggregate Productivity’. ‘D7’ for ‘Analysis of Collective Decision-Making’ under ‘D’ for ‘Microeconomics’ and ‘P16’ for ‘Political Economy’ were also recurring tags in the literature. Lastly, given the limitation of resource availability, I could not access all the papers I wanted to because Chulalongkorn was not subscribed to all journals. The papers I reviewed were the ones accessible via Chulalongkorn’s current subscriptions.

The Effect of Political Instability on Economic Growth: A Review of the Literature

There is a vast amount of literature concerning economic growth. From the neoclassical model of growth to the endogenous models of growth, different economists have put forth different arguments in attempts to identify and explain the factors that push an economy to grow. For example, in Barro’s (1996) cross-country empirical study of around 100 countries from 1960 to 1990, he finds several determinants of economic growth. He finds that economic growth is positively affected by higher life expectancy, higher initial schooling, better maintenance of the rule of law, improvements in the terms of trade, lower fertility,

lower inflation, and lower government consumption. An increase in political freedom has only a weak effect on growth and is probably nonlinear; an initial increase in political rights increases growth, but once a certain level of democracy has been reached, further increases in political freedom might actually decrease growth. Also, for given values of these variables, there is an inverse relationship between growth and the initial level of GDP per capita. This supports the notion of conditional convergence put forth by the neoclassical model of growth: the lower the initial level of real GDP per capita, the higher the expected growth rate and vice versa due to diminishing returns to capital.

However, economic variables are not the sole determinants of a country's growth. Political-economy literature suggests that differences in growth and economic outcomes across countries are better explained through both economics and politics. Shleifer and Vishny (1993) and Mauro (1995) find that corruption is detrimental to economic growth. Murphy, Shleifer, and Vishny (1991) find that rent-seeking activities, especially in weak governments vulnerable to lobbying and pressure groups due to the threat of losing office, lower economic growth. Acemoglu et al. (2003) argue that distortionary and unsustainable macroeconomic policies are not the main causes of economic volatility and crises but rather symptoms of deeper institutional problems.

More specifically, a broad range of studies have examined the relationship between political instability and economic growth. Most find that political instability has a negative effect on economic growth for many plausible reasons. Political instability is often associated with violence and illegal acts such as riots, political assassination, and military coups. This poses a direct threat to property rights. It also results in an economic environment of uncertainty which might induce economic agents to lower savings and investment which in turn lower growth. Furthermore, the possibility of soon being replaced in office for policymakers might result in short-sighted macroeconomic policies. More direct effects of political instability on economic growth include the emigration of valuable human capital and the destruction of infrastructure.

Different studies adopt different approaches of measuring political instability. Mainly, there are two commonly used methods. The first method focuses on executive instability, or the frequency of government changes and collapses. Alesina et al. (1996) define political instability as the propensity of change in the executive power. The variable GCHANGE is 1 in years with both regular and irregular transfers of the executive power and 0 in years with no government change. The variable MJCHANGE captures all irregular and regular government changes that imply substantial changes in the political ideology of the government. The variable COUP captures the occurrence of only irregular transfers of power, such as coups d'état. Chen and Feng (1996) defined political instability as the probability of regime change, a continuous variable found using the limited dependent variable estimation method. Feng (1997) stressed the need to differentiate between regime stability and government stability, pointing out that not doing so could lead to ambiguous and contradicting results as have been found by certain past studies. He differentiated between irregular political changes, major regular political changes, and minor regular political changes. Cukierman et al. (1992) and Edwards and Tabellini (1991) also use this definition of political instability as the propensity to observe government changes in their studies of the effects of political instability on inflation.

The second method commonly used to define political instability is the use of socio-political indices. Starting with a list of variables related to political violence and social unrest, an aggregate index is constructed. One statistical technique that can be used to reduce a

multidimensional set of variables to just one variable in one dimension is the method of principle components. Alesina and Perotti (1996) employ a socio-political instability index which aims to capture the occurrence of violent incidents of political unrest. The index is constructed using the method of principle components on variables such as the number of politically motivated assassinations, the number of people killed in phenomena of domestic mass violence, the number of successful, and the number of attempted but unsuccessful coups. Barro (1991) uses the number of revolutions and coups per year to build an index of political instability. Ades and Chua (1997) builds a regional instability index using the average number of revolutions and coups per year of a country's neighboring countries. Hibbs (1973), Gupta (1990), Barro (1991), Ozler and Tabellini (1991), and Benhabib and Spiegel (1992) use similar indices in their studies on the effect of political instability on growth, savings, or investment.

Alesina and Perotti (1996) point out the advantages and disadvantages of both approaches. For any given level of expected government turnover, social unrest does not have any direct effect on political uncertainty. This implies that the socio-political instability indexes used in many studies are inaccurate ways of measuring political instability. On the contrary, advocates of socio-political instability indexes reason that social unrest affects economic growth for reasons other than just the high expectation of a change in the executive power. Disorder and unrest have direct effects on productivity and investment: physical safety is threatened and politicians might increase taxes on capital due to their shortened horizon. Yet, these are not the only two methods in defining political instability. Jong-A-Pin (2009) uses exploratory factor analysis rather than principle components analysis and identifies four distinguishable dimensions of political instability: politically motivated violence, mass political violence, instability within the political regime, and instability of the political regime.

Numerous studies find evidence to support to negative relationship between political instability and economic growth. Alesina et al. (1996) find that political instability significantly lowers growth. Unconstitutional executive changes such as coups d'état have the strongest adverse effect on economic growth, whereas regular turnovers of the government have less strong effects. This applies to both democratic and non-democratic countries. Alesina and Perotti's (1996) study reveals that income inequality increases socio-political instability which then reduces investment and economic growth. When income inequality is high, the large group of worse off individuals has a higher possibility of feeling frustrated at the small group of better off individuals and the current socio-economic situation, and is thus more likely to demand radical changes that might result in mass violence and illegal seizures of power. A rise in political instability decreases investment through three channels. First, the expected level of taxation of factors that can be accumulated increases. Second, productive activities are disrupted, causing the productivity of labor and capital to fall. Third, uncertainty increases, inducing economic agents to postpone investment, invest abroad, or consume more instead. The fall in investment lowers growth. Chen and Feng (1996) find that political assassinations and the possibility of regime change have a negative effect on economic growth. Feng (1997) concludes that the possibility of regime change, political assassinations, and lack of economic freedom all lead to a decrease in economic growth. Jong-A-Pin (2009) finds that the instability of a political regime reduces growth because investors feel insecure and uncertain about property rights. Instability within a political regime, however, implies a relatively high level of political competition and increases economic growth because incompetent politicians are likely to be replaced by more competent ones. Ades and Chua (1997) put forth the idea that political instability spills over across geographical areas. Regional instability measured by political instability in neighboring countries affects growth

negatively, and interestingly has as much of an effect as domestic political instability. Barro (1991) finds that political instability is negatively correlated to growth as well.

However, not all studies find that political instability and economic growth have a negative relationship. Olson (1982) finds that governments that remain in office for longer periods of time are more likely to engage in suboptimal policies because they have the tendency to please certain interest groups. Huntington (1968) suggests a nonlinear relationship between instability and growth, depending on the country's level of development. Instability and growth have a negative relationship in richer countries that have institutions ready to deal with the social and economic changes brought about by growth. However, the relationship might be positive in poorer countries; when poor economies experience rapid growth, new demands are generated and social unrest may actually increase. Londregan and Poole (1990) find that neither the current propensity for a coup or a past record of coups significantly affects a country's growth rate, suggesting that political instability does not reduce growth.

One important issue to keep in mind is the possibility that economic growth and political instability are jointly endogenous. An increase in political instability might cause a fall in economic growth, but a fall in economic growth might induce increased political instability as well. Alesina et al. (1996) tackle this problem of endogeneity by estimating a system of two equations. The first equation is a probit regression that estimates the propensity of a change in the government, and the second equation is a regression for economic growth. They find that interaction between the two variables could potentially lead to a vicious circle where a country is socio-politically unstable because it isn't growing, and isn't growing because it is socio-politically unstable. Unsatisfactory rates of economic growth instill a sense of dissatisfaction in the population which might lead to political unrest. However, they find that the low economic growth only significantly affects government collapses in the form of coups d'état but not otherwise. Jong-A-Pin (2009) similarly finds that the two variables exhibit reverse causality and feedback effects: the instability of a political regime reduces economic growth, but a lack of economic growth creates instability within the political regime as well. Additionally, many studies have proven that growth has an effect on political instability. Londregan and Poole (1990) suggest that satisfactory rates of growth significantly reduce the chances of a coup and low rates of growth increase political instability. Feng (1997) finds that economic growth reduces the occurrence of coups and major irregular changes of the government and increases the occurrence of minor regular changes. Intuitively, low growth increases the chances of an upset population overthrowing the government, whereas high growth results in small reshufflings in a government rather than major changes because past results have been satisfactory, meaning the new regime is similar and very much aligned to the old regime with very minor changes.

There are many possible channels linking political instability and economic growth. Alesina and Perotti (1996) show that investment is the channel linking instability and growth. Ades and Chua (1997) find that there are two main channels through which regional instability lowers growth. First, a disruption of trade flows might result from a blockage of trading routes and the destruction of transportation networks. Second, domestic military outlays might have to be increased in order to maintain border security and prevent the instability from spreading, thus crowding out investment and more productive activities that enhance economic growth. Aisen and Viega (2010) find that instability affects growth mainly via a decrease in total factor productivity growth, and also via falls in physical and human accumulation to a smaller effect.

Many studies regarding the relationship between political instability and economic growth take into consideration the effect of expectations. For example, Londregan and Poole (1990), Alesina et al. (1996), Chen and Feng (1996), and Feng (1997) all use the propensity for or possibility of political instability as variables in their models rather than just actual occurrences. The effects of political instability on growth are ex-ante rather than ex-post; even if there is ultimately no actual change in the political regime, mere expectations of regime instability are enough to influence growth.

Finally, the results of various studies indicate that political instability is fairly persistent. Alesina et al. (1996) find that the past occurrence of government changes increases the chances of government changes in the future. Along the same lines, Londregan and Poole (1990) find that coups d'état have substantial political aftereffects. A successful coup increases the likelihood of another coup for up to six years. When a government is overthrown, it becomes much more likely for a coup to occur during the subsequent government's term.

Conclusion and Contribution

In conclusion, there is substantial evidence that there exists a negative relationship between political instability and a country's economic growth. It is very likely that these two variables exhibit reverse causality, and so the problem of endogeneity has to be carefully considered when constructing a model. It has also been found that the mere expectation of political instability affects growth rates, and that political instability is relatively persistent.

Despite the inexhaustible list of works concerning the relationship political instability and economic growth, I hope to contribute by specifically studying this relationship in the context of Thailand's sociopolitical environment. Most studies employ panel data of a huge number of countries over a certain time period, but I solely focus on Thailand in an attempt to shed some light on the country's intriguing problem of continuous political instability.

Conceptual Framework

The determinants of economic growth are numerous: free trade, capital accumulation, saving, technology, and productivity just to name a few. However, this paper focuses on the relationship between political instability and economic growth. In this study, political instability is gauged by an socio-political instability index.

Political instability negatively affects growth by increasing uncertainty in the economic environment. A high probability of a change in the government leaves the future of property rights, laws, and policies unclear. This could have an adverse impact on productive economic decisions: people will most likely save and invest less, or might even prefer to invest abroad instead. As news of political instability spread worldwide, foreign investors will most likely avoid putting their money in countries they deem politically unstable.

Conversely, a lack of economic growth could potentially lead to an increase in political instability. There are two relevant explanations. Firstly, in countries where growth increases income inequality, growth could instill a sense of anger and dissatisfaction among the large group of people with relatively low income, making a coup d'état more likely. Secondly, extremely poor growth rates could result in the general public being unsatisfied with the current government, increasing incentives for antigovernment activities, and making political instability more likely.

Since there are valid arguments for both directions of the relationship, the interaction between the two variables could ultimately lead to a vicious cycle. Instability lowers growth, but low growth increases instability as well.

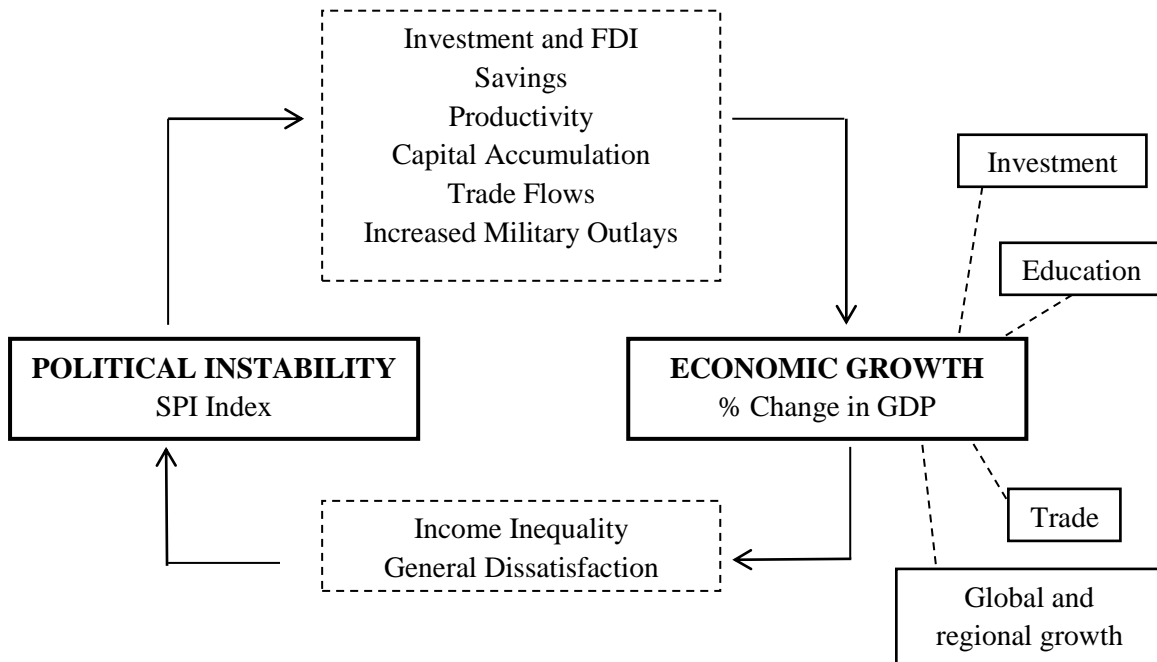


Figure 2: Conceptual Framework

Methods and Procedures

Data

All the data for the variables used to estimate the system of simultaneous equations was obtained from the World Bank Open Database (World Bank, 2013). Data used to construct the socio-political instability (SPI) index was obtained from both the website of the Thai Secretariat of the Cabinet and the data page of the website for the Integrated Network for Societal Conflict Research (Marshall, 2013).

The Socio-Political Instability Index

The socio-political instability index used in this study was constructed using the method of principle components, or principal component analysis. Given a set of variables that are possibly correlated, this computational procedure yields sets of values that represent different dimensions of the combined variables. I chose to include three variables in my index: the number of changes in Prime Minister per year (GCHANGE), the number of coups d'état per year (COUP), and a measure of major episodes of political violence (ACTTOTAL). It is useful to note that the last variable, ACTTOTAL, is already an index in itself, constructed by the Center for Systemic Peace and Integrated Network for Societal Conflict Research to reflect political violence across different countries. For more information regarding the variables used in my index, please refer to Appendix A.

I chose to include these three variables in my index for a number of reasons. First, the number of government changes (GCHANGE) – in this case, specifically the change of prime ministers – and the number of coups per year (COUP) are common measure of political instability. A frequent change of prime ministers instills uncertainty in the economy as economic agents are not sure whether or not policies will change. Coups are perceived as threats to legal and property rights, thus discouraging productive economic activities. Second, ACTTOTAL is an index in itself that covers various incidences of political violence, such as civil violence, civil violence, and ethnic violence.

After inputting the data for the three variables into Gretl (econometrics software) and using the principal component analysis function, I was able to obtain the following index for socio-political instability.

$$\text{SPI} = 0.700(\text{GCHANGE}) + 0.701(\text{COUP}) - 0.133(\text{ACTTOTAL})$$

Figure 3: Representation of Socio-Political Instability Index

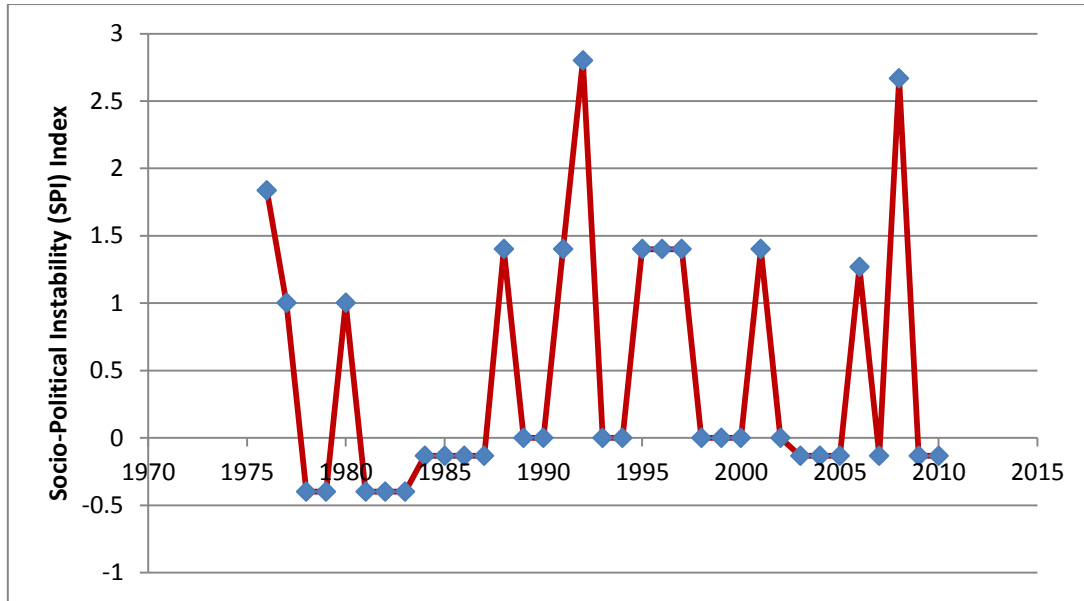


Figure 4: An Index of Socio-Political Instability (1976-2010)

Figure 3 is a graphical representation of the obtained SPI index from 1976 to 2010, the time period of this study. Particularly high values for the SPI index (2.8 for the year 1992 and 2.7 for the year 2008) can be justified by the fact that three different prime ministers holding office in each of these two years. Years in which there were coups, such as 1991 and 2006, also have relatively high SPI values.

A System of Simultaneous Equations

I decided to use a system of two simultaneous equations to account for the possible endogeneity and feedback effects between political instability and economic growth. The two equations are inputted into Gretl and the coefficients are estimated based on the Full Information Maximum Likelihood (FIML) method. The basic form of my proposed econometric model is shown below.

$$\begin{aligned}
 \mathbf{GROWTH} &= \alpha + \beta_1 (\mathbf{SPI}) \\
 &\quad + \beta_2 (\mathbf{GROWTH}_{-1}) + \beta_3 (\mathbf{RGROWTH}) + \beta_4 (\mathbf{TRADE}) + \beta_5 (\mathbf{INVEST}) \\
 &\quad + \beta_6 (\mathbf{EDUC}) \\
 \\
 \mathbf{SPI} &= \alpha + \beta_1 (\mathbf{GROWTH}) \\
 &\quad + \beta_2 (\mathbf{GROWTH}_{-1}) + \beta_3 (\mathbf{RGROWTH}) + \beta_4 (\mathbf{TRADE}) + \beta_5 (\mathbf{INVEST}) \\
 &\quad + \beta_6 (\mathbf{GCHANGE}_{-1})
 \end{aligned}$$

Figure 5: Representation of System of Simultaneous Equations

In the growth equation, the main relationship of interest is between growth (GROWTH), the dependent variable, and political instability (SPI), an independent variable. Other explanatory variables in the equation are lagged growth (GROWTH₋₁), regional growth (RGROWTH, a weighted average of the GDP growths of ASEAN countries – refer to Appendix B for a detailed explanation), the percentage change in the total value of imports

and exports in current US dollars (TRADE), and the percentage change in the net value of inflows of foreign direct investment in current US dollars (INVEST). Because the model is a system of simultaneous equations, an instrumental variable is needed in each equation to fulfill the conditions necessary for the estimation of the coefficients to be possible. An instrumental variable has to affect one dependent variable, but not the other. For example, for the growth equation, the instrumental variable has to directly affect economic growth (GROWTH) but not political instability (SPI). In this case, I chose the enrollment rates in primary schools (EDUC) as the instrumental variable for the growth equation because education is known to directly affect economic growth (higher enrollment rates correspond to higher rates of growth), but does not directly affect political instability.

The instability equation is constructed similarly. The main relationship of interest is between the dependent variable of political instability (SPI) and the independent variable of economic growth (GROWTH). Other explanatory variables are the same as those of the growth equation, with the only exception being the instrumental variable. For the instability equation, I used a lagged variable of government change (GCHANGE₋₁) as the instrumental variable because a change in the prime minister in the previous year has an effect on this year's measure of political instability but does not have a direct effect on this year's growth.

Results

The estimation results of the regressions are shown below.

	coefficient	std. error	z	p-value
const	-4.1486	17.9645	-0.2309	0.8174
SPI	-0.8974	6.2358	-0.1439	0.8856
GROWTH-1	0.1061	0.2316	0.4582	0.6468
RGROWTH	0.8596	0.1723	4.988	0.0000006
TRADE	8.4482	3.6943	2.287	0.0222
INVEST	-0.4883	1.4420	-0.3387	0.7349
EDUC	0.0409	0.1791	0.2285	0.8193

*** Dependent Variable: GROWTH
Adjusted R-Squared: 0.7756
**

Figure 6: Estimation Results of Growth Equation

	coefficient	std. error	z	p-value
const	-0.0069	0.4372	-0.0158	0.9874
GROWTH	-0.3472	0.7170	-0.4842	0.6283
GROWTH-1	0.0592	0.0763	0.7749	0.4384
RGROWTH	0.3002	0.6233	0.4817	0.6300
TRADE	2.9770	6.0881	0.4890	0.6249
INVEST	-0.0233	0.5396	-0.0432	0.9656
GCHANGE-1	0.0907	0.4892	0.1854	0.8529

Dependent Variable: SPI
Adjusted R-Squared: -0.17349

Figure 7: Estimation Results of Instability Equation

Surprisingly, the only two variables that were statistically significant were regional growth (RGROWTH, at a 99% confidence interval) and trade (TRADE, at a 95% confidence interval), both from the growth equation. As expected, an increase in regional growth and/or the value of trade would cause an increase in domestic economic growth. More specifically, the results imply that a 1% increase in regional growth would correspond with a 0.86% growth in the Thai economy, assuming all else constant. Interpreting the coefficient of TRADE in the growth equation, a 100% growth in exports would result in an 8.45% growth in the Thai economy. In the political instability equation, none of the explanatory variables were significant, resulting in a very low adjusted r-squared value.

Discussion of Results

Thailand: An Export Driven Country

The main driver of Thailand's economic growth has always been exports. Historically, exports have amounted to over two-thirds of Thailand's GDP for several decades. For example, in 2012, exports totaled 75% of Thailand's GDP. As shown in the figure below, fluctuations in exports (the red line) strongly correspond to fluctuations in economic growth (the blue line).

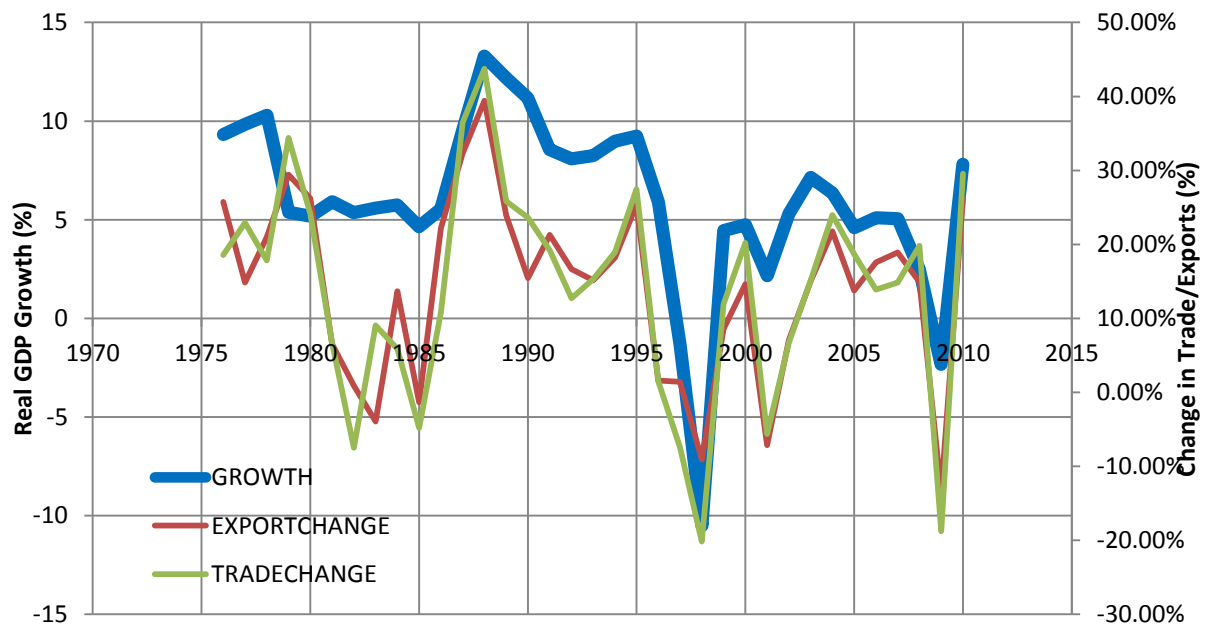


Figure 8: Thailand's Exports and Growth

We have now established that there is a strong relationship between exports and economic growth in Thailand. Intuitively, political instability would have a significant effect on economic growth if it had a significant effect on Thailand's exports. Thus, this is the relationship we will examine next.

Instability and Exports

In the figure below, the values for exports and instability have been plotted over the time period 1976 to 2010, which is the time scope of this study. Graphically, we can see that there seems to be no obvious or clear relationship between the two variables. From 1976 to around 1990, it seems as if both lines are moving in the same direction. However, it does not make intuitive sense because this would imply that an increase in political instability corresponds with higher exports. In the second half of the graph, the blue and red lines appear to be extremely unrelated and almost random. Thus, it would be fair to say that political instability and exports, in the case of Thailand from 1976 to 2010, are unrelated.

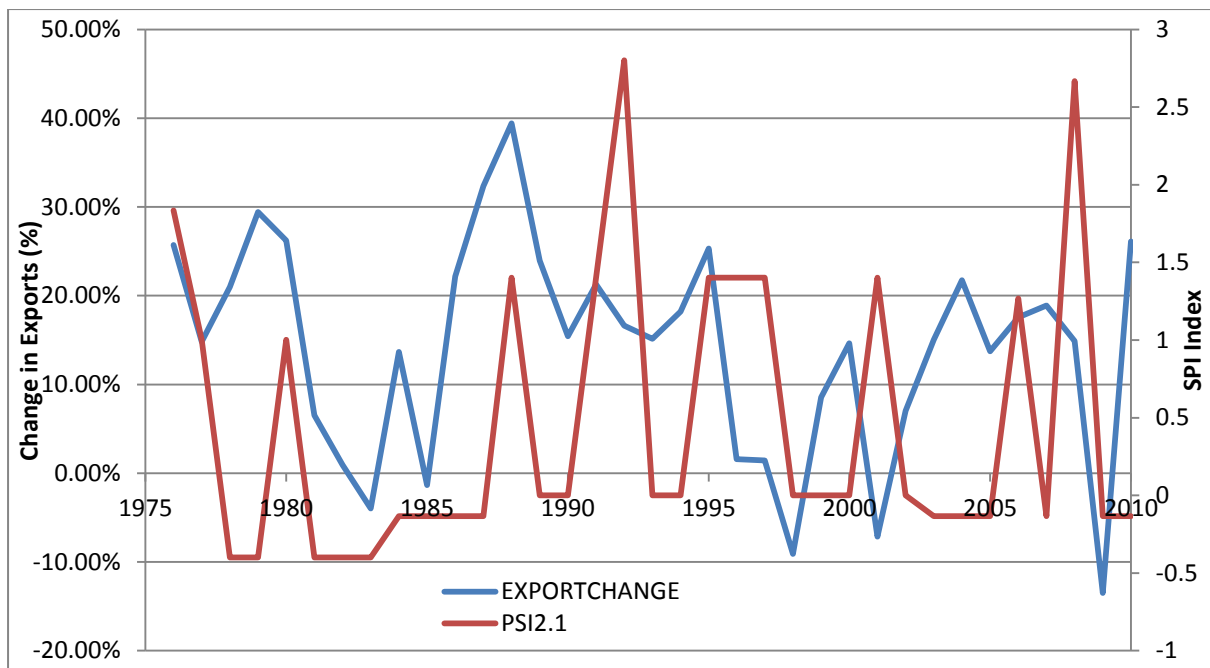


Figure 9: Thailand's Exports and Political Instability

Instability and Growth

In order for Thailand's political instability to affect its economic growth, it has to affect Thailand's single main driver of economic growth: the exports of goods and services. The regression results have indicated that trade (TRADE) is the major variable that determines economic growth. The other statistically significant variable, regional growth (RGROWTH), can be interpreted as other factors that affect growth but are not covered by the other variables. For example, RGROWTH would capture factors such as the Asian Financial Crisis of 1997 or the Subprime Mortgage Crisis of 2008. These events, without a doubt, had a huge effect on Thailand's economic growth, but cannot be captured by the other explanatory variables.

A different explanation is needed for why a lack of economic growth does not spur political instability. This sort of relationship has been documented in several studies as referred to in the literature review, but does not seem to exist in Thailand. Looking at the 18 coups d'état, 4 of which are covered in the scope of this study, none of them had an obvious economic justification. The coups weren't results of disappointing economic growth, but rather of political reasons and power struggles.

Furthermore, I hypothesize that the frequency and nature of military coups in the past have altered expectations regarding the effects and consequences. Coups occur extremely often, compared to other countries with developing economies similar to that of Thailand, and do not have significant effects on the economy. The limited effects of coups in the past have caused most economic agents to realize that a coup is not a warning of lowered growth in the near future and do not alter their economic activities very much. There may be short

term volatility in certain variables, such as investment and the Baht currency, due to a certain degree of uncertainty, but they soon regain stability and return to their previous situations.

The important thing is that exports are what drive Thailand's economy, and as long as they are not affected substantially, political instability will not have a significant effect on economic growth. This has been the case for Thailand in the past and the present, or at the very least from 1976 to 2010, the time scope of this study. However, if certain conditions change, political instability might have a negative effect on economic growth. I have picked out two possible conditions where this might be the case: 1) if political instability were to have a significant effect on exports and 2) if Thailand shifted away from being an export-driven economy.

The first condition is if political instability were to have a significant effect on exports, then it would definitely have a significant effect on the economy. For example, if political demonstrations were to disrupt manufacturing, which accounts for up to 90% of exports, exports would fall, ultimately causing economic growth to fall. This could be the case if protesters closed down important manufacturing hubs, rather than major streets near governmental offices in Bangkok or important business districts that are home to several multinational corporations and offices but not factories. Another possible scenario would be if political instability were to disrupt major transportation hubs such as airports or sea ports responsible for the shipping of cargo to foreign countries. This would disturb the flow of exports not only in the short term, but possibly the long term as well if trading partners suffer from Thailand's sudden inability to deliver its promised goods and lose trust or confidence. An example of how political instability might affect an airport, and ultimately exports and economic growth, is given in the next section.

The second condition is the case if Thailand shifted away from being an export-driven economy. If the main driver of Thailand's economy changed from exports to another factor such as services, domestic consumption, or investment, it is possible that political instability would deter economic growth. For example, if services became the main driver of the economy and political demonstrations were to interfere with major commercial districts such as Siam, Silom, or Sukhumvit, economic growth would be compromised. In other words, although it might seem obvious, political instability will deter economic growth if it has an effect on whatever factor the Thai economy is most dependent on.

The 2008 Suvarnabhumi Shutdown – An Event Study

Let us consider the shutdown of the Suvarnabhumi International Airport by the People’s Alliance for Democracy (PAD), commonly known as the “Yellow Shirts”, from November 25, 2008 to December 2, 2008. The Survarnabhumi airport was seized, closed down, and no flights were allowed to arrive or depart. This is a clear example of condition 1 – how political instability could significantly affect the economy by disrupting the flow of exports.

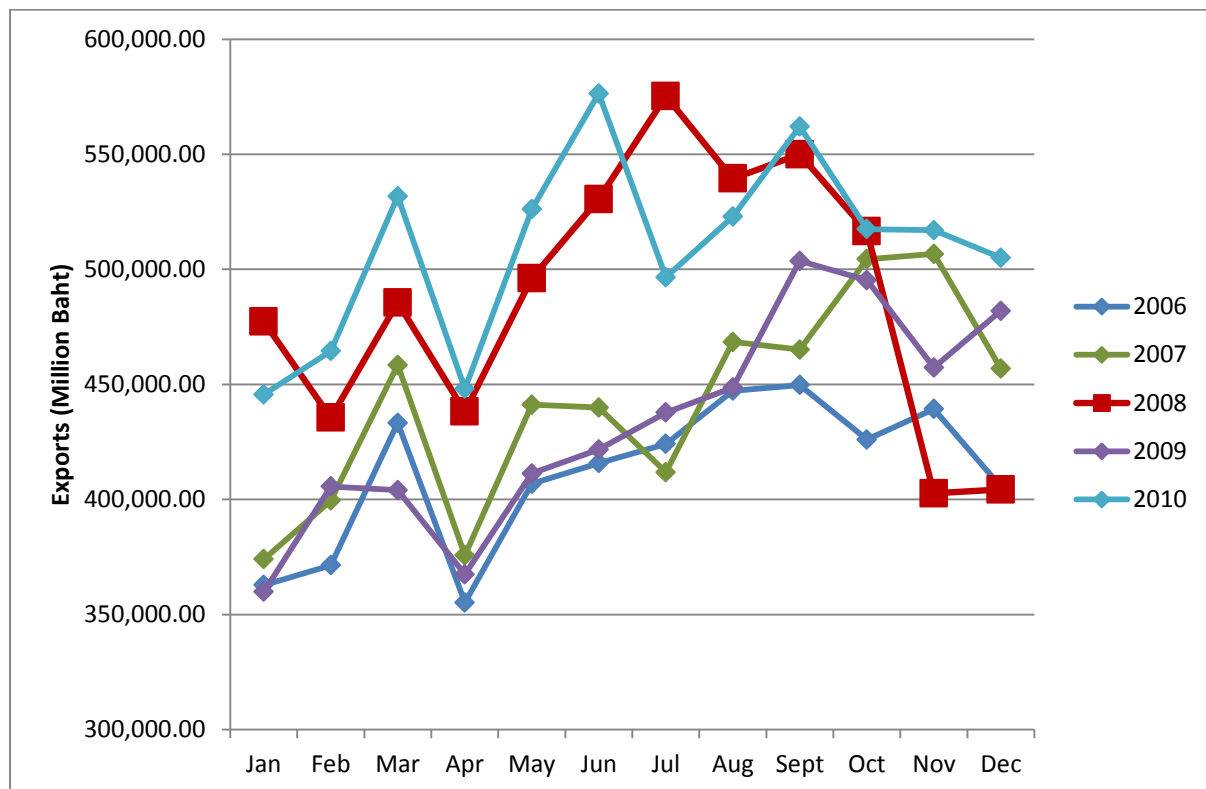


Figure 10: Monthly Value of Thailand's Exports (2006-2010)

Judging by the graph above, it seems like exports suffered a huge blow in the months of November and December in 2008 (last two data points of the red line) when compared to the export values of the same months in other years. However, more analysis is needed to see whether or not this drop is statistically significant. Daily data on exports would be ideal, considering the 8-day time span of the airport shutdown. However, due to data unavailability, I conducted this event study based on monthly data available from the website of the Bank of Thailand.

I decided to use the data from the four years preceding 2008 (2005, 2006, 2007, and 2008) and the four years after 2008 (2009, 2010, 2011, and 2012) as a reference for the expected rates of monthly export growth. I calculated the monthly export growth rates for all the reference years and averaged them to construct the reference index. Lining up the growth rates from January to October of the reference index to the actual growth rates in 2008, I estimated a simple regression to capture the relationship between the reference index and the actual growth rates in 2008. The resulting regression is as follows:

$$\text{EXPORT}_{2008} = -0.005390 + 0.6183(\text{EXPORT}_{\text{ref}})$$

	Reference	Actual (2008)
Jan	-	-
Feb	7.85%	-8.75%
Mar	11.60%	11.48%
Apr	-14.47%	-9.76%
May	14.76%	13.23%
Jun	3.47%	6.93%
Jul	-1.35%	8.44%
Aug	5.09%	-6.22%
Sept	3.55%	1.95%
Oct	-4.53%	-6.09%

Figure 11: Regression Based on Reference Index

Using this regression, I calculated the expected monthly growth rates in exports for the remaining two months of the year – November and December – for 2008, the two months of interest because this is when the airport was seized. Then, I calculated the error which is the difference between the expected value and the actual value that prevailed in 2008. Export growth in November 2008 was 20.54% below the expected growth rate. To test for this value's statistical significance, I calculated the t-values by dividing the error term by the standard error of the regression (calculated to be around 0.078). Results show that the fall in export growth in November 2008 is statistically significant at a 97% confidence interval.

	Reference	Expected (2008)	Actual (2008)	Error	t-test
Nov	-1.56%	-1.50%	-22.04%	-20.54%	-2.6324
Dec	-3.24%	-2.54%	0.41%	2.95%	0.3780

Figure 12: Event Study of Suvarnabhumi Shutdown (Nov-Dec 2008)

This event study proves that political instability has a significant effect on economic growth in the case where the flow of exports is disrupted. The People's Alliance for Democracy's (PAD) seizure of the Suvarnabhumi Airport prohibited incoming and outgoing flights to and from Thailand for both passengers and freight. As a result, export growth in November 2008 was 20.54% below its expected level, and as long as Thailand's economy is heavily dependent on exports, a sizeable fall in exports will definitely compromise economic growth.

Conclusion

In conclusion, there exists no significant relationship between political instability (as defined by my socio-political instability index) and economic growth in Thailand in the past and present, or at the very least from 1976 to 2010. Trade and regional growth have the most significant effects on domestic economic growth; the Thai economy is most affected by the volume of exports in a given year and external factors such as regional or global economic crises. As long as political instability does not affect exports, the main driver of the Thai economy, it will not affect growth. Intuitively, political instability will have an effect on economic growth if 1) instability disrupts exports under the current export-driven economy (as demonstrated in the event study of the 2008 Suvarnabhumi shutdown) or if 2) Thailand shifts away from an export-driven economy and instability affects whichever factor the economy becomes dependent on.

Policy Implications

These results have several policy implications for the present and the future. For the present, the government should ensure that political instability does not disrupt trade and the flow of exports by making sure that manufacturers and transportation hubs can operate as normally as possible during times of political turbulence. As for the future, the government will have to tailor its policies depending on how the Thai economy evolves; whatever the economy becomes dependent on (i.e. services, investment, tourism, etc.), the government has to make sure that political instability will have a minimal effect on those factors.

Limitations and Extensions

In this study, I employed annual data for all variables. I think it would be interesting to do the same analysis using daily or monthly data instead to see whether or not the relationship between political instability and economic growth might have a more short-term or temporary significance. However, the availability of short-term macroeconomic variables is a potential concern; these variables are usually reported on a yearly or quarterly basis.

Furthermore, it would be useful to explore alternative definitions to “political instability”. I defined it in a very specific manner in this paper, constructing a socio-political instability index, and defining it in different ways might provide additional insights.

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Appendix

Appendix A – Socio-Political Instability (SPI) Index

YEAR	GCHANGE	COUP	ACTOTAL*	PSI
1976	1	1	2	1.835
1977	1	1	3	1.002
1978	0	0	3	-0.399
1979	0	0	3	-0.399
1980	1	0	3	1.002
1981	0	0	3	-0.399
1982	0	0	3	-0.399
1983	0	0	3	-0.399
1984	0	0	1	-0.133
1985	0	0	1	-0.133
1986	0	0	1	-0.133
1987	0	0	1	-0.133
1988	1	0	0	1.401
1989	0	0	0	0
1990	0	0	0	0
1991	1	1	0	1.401
1992	1	0	0	2.801
1993	0	0	0	0
1994	0	0	0	0
1995	1	0	0	1.401
1996	1	0	0	1.401
1997	1	0	0	1.401
1998	0	0	0	0
1999	0	0	0	0
2000	0	0	0	0
2001	1	0	0	1.401
2002	0	0	0	0
2003	0	0	1	-0.133
2004	0	0	1	-0.133
2005	0	0	1	-0.133
2006	1	1	1	1.268
2007	0	0	1	-0.133
2008	1	0	1	2.668
2009	0	0	1	-0.133
2010	0	0	1	-0.133

*ACTOTAL = sum of magnitude scores of episodes of international violence, international warfare, civil violence, civil warfare, ethnic violence, and ethnic warfare

For further information, refer to the Codebook for Major Episodes of Political Violence 2012 (Marshall, Center for Systemic Peace, 2013)

Appendix B – Regional Growth (RGROWTH)

The variable RGROWTH was constructed by taking the weighted average of the GDP growths of ASEAN countries. The weights were based on each country's GDP (in current USD) as a proportion of the total.

Of the 10 ASEAN countries, only 5 were used in the calculation of regional growth. Myanmar was excluded due to the unavailability of data on GDP and GDP growth. Cambodia and Laos were excluded due to missing variables over the time period and their relatively small GDPs, 0.61% and 0.39% respectively based on 2010 GDP values. Vietnam was excluded due to missing variables, and Brunei was excluded due to its relatively small GDP (0.68% of the total).

	2010 GDP (Current USD)	Weight
Indonesia	709,266,023,255	0.4192
Malaysia	246,822,585,372	0.1459
Philippines	199,589,448,016	0.1180
Singapore	217,200,123,752	0.1284
Thailand	318,907,930,076	0.1885
Total	1,691,786,110,471	1